



## Staff Report to the Zoning Administrator

Application Number: **181576**

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**Applicant:** Leanna Swenson /  
Boos Development West LLC

**Owner:** Plymouth-Grant LLC

**APN:** 025-071-20, 025-071-05

**Site Address:** 1505 & 1515 Commercial Way

**Agenda Date:** August 14, 2020

**Agenda Item #:** 4

**Time:** After 9:00 a.m.

**Project Description:** Proposal to combine two parcels, demolish the existing improvements, and construct a new 13,111 square foot retail pharmacy with a mezzanine for storage, a drive-through pharmacy window, an over-height fence/retaining wall, and related improvements, including frontage improvements and business signs.

**Location:** Property located between Soquel Drive and Commercial Way, across Soquel Drive from Dominican Hospital (1505 & 1515 Commercial Way)

**Permits Required:** Commercial Development Permit, including an exception to reduce required landscape strips from five to two feet, and two sign exceptions to allow four signs and about 140 square feet of sign area where two signs and 50 square feet is allowed; and a Preliminary Grading Approval

**Supervisory District:** First District (District Supervisor: John Leopold)

### Staff Recommendation:

- Adoption of the Mitigated Negative Declaration (Exhibit A) pursuant to the California Environmental Quality Act;
- Approval of Application 181576, based on the attached findings and conditions.

### Project Description & Setting

The project site is in Live Oak within the area identified in the Sustainable Santa Cruz County plan as the Medical District/Flea Market focus area. The site is bound by Soquel Drive to the north, Commercial Way to the south, a 76-gas station to the west, and an auto repair shop to the east. To the north, across Soquel Drive, is Dominican Hospital and other medical offices. Across Commercial Way to the south is Highway 1 which is designated as a scenic road in the County's General Plan (Policy 5.10.10).

The project site is comprised of two parcels. To develop the project, the two existing structures on the subject parcels would be demolished. Those structures are an approximately 2,500 square foot storage building located in the southeast portion of APN 024-071-05 and a consignment

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furniture store with a second-story residential unit on APN 024-071-20. Both structures are in a state of disrepair and in direct view of Highway One. The site slopes from east to west, with a large depression located in the southwest corner of the parcel. Grading is required to establish the site's final elevations and to ensure that storm runoff would be controlled. Although a large volume is proposed to be graded (3,421 cubic yards of excavation and 3,400 cubic yards of fill), mostly the proposed grading would move soil around on site, with a net excavation of 21 cubic yards. Because of contamination resulting from a previous auto-wrecking business, a Soils Management Plan would be implemented to ensure the safe handling of contaminated soils.

The proposed retail pharmacy—a CVS store—would be 13,111 square feet in size with a 1,712 square foot mezzanine to be used for storage. The building would be located towards the eastern side of the property with a pharmacy drive-through located at the building's southeast corner. A parking lot with 49 parking spaces would be located along the Soquel Drive frontage and to the west of the new building, with a loading area at the back of the building. The trash and recycling enclosure would be in the southwest corner of the site.

The applicant provided a program statement (Exhibit G). The store would operate as a typical retail pharmacy that sells prescriptions, medical supplies and other sundry items. At a later date, 200 square feet of retail space may be replaced with a Minute Clinic. Minute Clinics provide routine health care such as vaccines and flu shots. The applicant requests approval of 24-hour, seven day a week operations, but indicates that it is likely that the hours of operation would be 7 AM to midnight seven days a week with the pharmacy open 8 AM to 10 PM, Monday through Friday, and 9 AM to 7 PM on Saturday and Sunday. Deliveries are expected to occur once a week from the CVS distribution center.

The proposed development requires a Commercial Development Permit, including two sign exceptions, a landscape exception to reduce the width of required landscape strips to two feet along the side property lines, and authorization for an over-height fence/retaining wall to be located within the front yard setback; and a preliminary grading approval.

### **Project Background**

As noted, the project includes a drive-through. Santa Cruz County Code (SCCC) 13.10.652 prohibits drive-through uses which are defined as "...any use which provides foods, goods, or service to occupants of automobiles passing continuously past a pick-up station..." (SCCC 13.10.700-D). On December 10, 2014, the Planning Commission interpreted the code to allow the pharmacy drive-through use, determining that it does not meet the County Code definition of "continuous" use because the CVS drive-through use only accounts for 3-4% of total store sales. The applicant has relied upon this interpretation for the current application.

### **Zoning & General Plan Consistency**

The two subject parcels, which are proposed to be merged as a part of the project, total about 1.2 acres. The site is in the C-2 (Community Commercial) zone district. The proposed retail pharmacy is an allowed use within the zone district and the zoning is consistent with the site's C-C (Community Commercial) General Plan designation. The project complies with the zone district site standards which require 10-foot front yard setbacks and no setback along the side property lines.

## **Design Review and Landscape Exception**

*Site Plan* The project location currently slopes from east to west. To create the proposed finish grades excavation will occur on the site's eastern side with soil moved to the western side. The grading will require a new retaining wall along the parcel's eastern property line. Once the site work is complete, the building and proposed improvements would be constructed. The proposed site plan would have driveways on both the Soquel Drive and Commercial Way frontages with the building's entrance facing Soquel Drive. A monument sign, new curb and sidewalk, landscaping and street trees, as well as patterned paving would demarcate the main entrance and refresh this site. The drive-through pharmacy driveway, located along the eastern property boundary, will be screened by the building itself. Parking and circulation areas, interspersed with landscape islands, are located on the northern and western sides of the building with the trash/recycling enclosure located in the southwest corner of the site.

*Architectural Plan* The proposed design is contemporary in style which fits within the broad range of architectural styles found in the area. The initial design submitted with the application was one that was not created specifically for the project site and, as a result, the rear of the building was not detailed sufficiently for a double frontage lot, especially one facing a scenic road. The project architect worked with staff to continue the finish materials to the back of the building resulting in an improved design. Additional changes include a revision to the proposed stone materials, the addition of awnings, the enlargement of the scale of the cementitious wood siding to be in proportion to the building size, the revision of the western side to match the northern side finish materials, elimination of signage along the drive-through, and the addition of plaster reveals to break up the expanse of the plaster finish. The double height entry provides a strong architectural focal point and clearly demarcates the entrance for customers.

*Landscape Plan* The proposed landscape plan would provide 22 trees, in addition to grasses and shrubs, on a project site that currently has little landscaping. Five trees will be located along the Soquel Drive frontage and include three crepe myrtle with eastern redbud accent trees on either side of the driveway. Along the Commercial Way frontage, five trees are proposed, three crepe myrtle and two eastern redbud accent trees at the driveway. Twelve Chanticleer pear trees are proposed as parking lot trees which exceeds the required ratio of one tree for every five parking spaces. The proposed landscaping will soften the impact of both the new building and parking lot, as well as improve the aesthetics of this portion of Soquel Drive where there is currently little landscaping. As an anti-graffiti measure, and to soften the visual impact of the hardscaping, vines will be trained on the five-foot tall retaining wall located along the project site's eastern property line.

Although the project includes an exception to reduce the required five-foot landscape strip along portions of the western and eastern property lines to about two feet, this exception would have virtually no impact on public views since it would be interior to the project and not easily visible from public vantage points. The additional parking lot trees will compensate for the reduced landscape areas.

### **Over-height Retaining Wall and Fence**

Retaining walls and fences are allowed to a height of eight feet within side yard setbacks and three feet within the front yard setback (up to three and one-half feet when the top six inches is at least 50% open). In this case, because of the site's slope, a split-face concrete block retaining wall is proposed along the eastern property line which will have a height of about five feet. For safety, and as required by the building code, a three and one-half foot tall wrought iron fence is proposed to be placed on top of the wall, bringing the total height of the retaining wall and fence to about eight and one-half feet. This height requires authorization by a development permit. Given that the retaining wall is below grade, the fence portion complies with the fence height limit, and the necessity of the fence to prevent falls, the proposed additional height is reasonable.

### **Sign Exceptions**

The project includes requests for two exceptions to the County's sign ordinance (SCCC 13.10.581 *et seq.*). The exception requests are to allow for more than three business signs and an increase in the total allowable sign area. Four business signs are proposed: a monument sign along the Soquel Drive frontage, two signs on the building—one each on the northern and western sides, and a sign identifying the drive-through. Together the signs total about 140 square feet where the sign ordinance allows a maximum of 50 square feet.

The intent of the County's sign ordinance is to ensure that business signs are in proportion to the structure or parcel they identify. Given that the site is composed of two parcels, and the project is a relatively large commercial building, additional signs and sign area are reasonable. No sign is proposed facing Highway One, a scenic road.

### **Access, Circulation, Drive-through, Parking, and Traffic**

*Access* Access to the site would be available from both Commercial Way and Soquel Drive, with Soquel Drive being the main entrance. The Soquel Drive driveway would be constructed opposite the Dominican Hospital stop-controlled driveway. The project applicant has confirmed that delivery trucks can maneuver within the project site as well as exit via the Commercial Way driveway. Along both the Soquel Drive and Commercial Way frontages, a new sidewalk, curb, and gutter would be constructed. A pedestrian path of travel from Soquel Drive leads to the entrance of the store. An internal sidewalk along the building's western side will provide a safe path of travel for pedestrians within the site.

*Drive-through Pharmacy* The drive-through would be located at the southeast corner of the building, a location selected primarily for security reasons due to its visibility. As noted above, a sign facing west would identify the drive-through. For the mobility-impaired and sick, a pharmacy drive-through provides a practical solution to accessing prescriptions. In addition, pharmacy drive-throughs have a public health benefit in that infectious customers remain isolated in their vehicle.

*Parking* SCCC 13.10.552(B) provides parking requirements for both vehicles and bicycles. Retail pharmacies are required to provide parking at a ratio of one space for every 300 square feet of floor area, not including storage or loading areas. The project proposes 14 bicycle spaces and 49 parking spaces which complies with the 14 bicycle and 44 vehicle spaces required by code. The future addition of a 200 square foot minute clinic would require one additional parking



space, bringing the required parking to 45 spaces.

*Traffic* A traffic impact analysis (TIA) for the project was prepared by Kimley Horn, dated May 2019 (Exhibit A, Attachment 4). In addition to a Level of Service (LOS) analysis, the TIA provides a Vehicle Miles Travelled (VMT) analysis. Because the project increases the density of retail pharmacies, resulting in a reduction in trip lengths, the TIA found that the project will result in an overall decrease in VMT. To address operational impacts identified in the LOS analysis for the Mission Drive and Soquel Drive intersection, the TIA recommends that a split phasing signal operation be implemented on the northbound and southbound approaches. The project applicant would pay the project's proportion of the improvement and this recommendation is included as a condition of approval. The Department of Public Works has accepted the TIA.

### **Environmental Review**

Environmental review has been required for the proposed project per the California Environmental Quality Act (CEQA). The project was reviewed by the County's Environmental Coordinator on March 12, 2020. A preliminary determination to issue a Negative Declaration with Mitigations (Exhibit A) was made on March 19, 2020. The mandatory public comment period expired on April 27, 2020.

Comments were received from two agencies, Caltrans and the Native American Heritage Foundation, and one member of the public who had comments on the transportation section (Exhibit A, Attachment 5). Each of these comment letters have been addressed (Exhibit A, Attachment 8) with none of the comments requiring changes to the initial study or mitigations.

The environmental review process focused on the potential impacts of the project in the areas of aesthetics and visual impacts, air quality, geology and soils, noise, and transportation with mitigations developed for noise impacts during construction. The environmental review process generated mitigation measures that will reduce potential noise impacts from the proposed development.

### **Conclusion**

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

### **Staff Recommendation**

- Adoption of the Mitigated Negative Declaration (Exhibit A) pursuant to the California Environmental Quality Act;
- **APPROVAL** of Application Number **181576**, based on the attached findings and conditions.

**Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.**

**The County Code and General Plan, as well as hearing agendas and additional information are available online at: [www.sccoplanning.com](http://www.sccoplanning.com)**

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### **Exhibits**

- A. Mitigated Negative Declaration, including the addition of
  - i. Comment letters and responses as Attachment 8
  - ii. Minor revisions to the TIA as Attachment 9
- B. Findings
- C. Conditions
- D. Project plans
- E. Assessor's, Location, Zoning and General Plan Maps
- F. Parcel information
- G. Program statement
- H. Water will-serve letter

## Commercial Development Permit Findings

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

This finding can be made, in that the project is an area designated for commercial uses. Construction will comply with prevailing building technology, the California Building Code, and the County Building ordinance to ensure the optimum in safety and the conservation of energy and resources.

The project site used to support an auto wrecking business. Tests indicate that there is residual arsenic and lead contamination in the north and northeast portion of APN 025-071-20. According to the County's Environmental Health Services (EHS) division, which issued a conditional closure letter, the contamination does not currently pose a health hazard (see Exhibit A, Attachment 1) but could become a hazard with site disturbance such as grading. With the implementation of the required Soils Management Plan (Exhibit A, Attachment 2), the health, safety, and welfare of persons working in the neighborhood and the general public will be protected.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made, in that the proposed location of the retail pharmacy and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the C-2 (Community Commercial) zone district. The building will meet all site standards for the zone district. The project site is located within the Sustainable Santa Cruz County plan's Medical District/Flea Market focus area, and a 24-hour pharmacy with a drive-through will support the medical uses in the vicinity.

Although less than 24-hour per day use is anticipated, the applicant requests approval of 24-hour per day operation. A 24-hour use is appropriate given the site's location between a highway and an arterial roadway, within a commercial zone district, and across from a hospital with a 24-hour emergency room.

The project includes a pharmacy drive-through. Santa Cruz County Code (SCCC) 13.10.652 prohibits drive-through uses which are defined as "...any use which provides foods, goods, or service to occupants of automobiles passing continuously past a pick-up station..." (SCCC 13.10.700-D). On December 10, 2014, the Planning Commission interpreted the code to allow the pharmacy drive-through use, determining that it does not meet the County Code definition of "continuous" use because the CVS drive-through use only accounts for 3-4% of total store sales. The applicant has relied upon this interpretation for the current application.

The project includes requests for two exceptions to the County's sign ordinance (SCCC 13.10.581 *et seq*). The exception requests are to allow for more than three business signs and an

increase in the total allowable sign area. Four business signs are proposed: a monument sign along the Soquel Drive frontage, two signs on the building—one each on the northern and western sides, and a sign identifying the drive-through. Together the signs total about 140 square feet where the sign ordinance allows a maximum of 50 square feet.

SCCC 13.10.525 (Regulations for fences and retaining walls within required yards) limited fence and retaining heights to eight feet within side yard setbacks and three feet within front yard setbacks. Retaining walls and fences greater than the code allowance can be authorized with a development permit. In this case, an approximately five-foot tall retaining wall will be constructed along the eastern property line. This will create a grade change between the project site and its eastern neighbor. In order to prevent falls and to comply with the building code, a three and one-half-foot tall fence is proposed to be located on top of the retaining wall, resulting in an overall height of about eight and one-half feet. In this case, the visual impact of the fence/retaining wall and impacts on drivers' line of sight will be minimized since most of the height will be below grade.

The proposed bicycle and vehicle parking comply with the parking ratios required in SCCC 13.10.552(B) where one parking space is required for every 300 square feet of retail area, not including areas used for storage or loading. The project proposes 14 bicycle spaces and 49 parking spaces which complies with the 14 bicycle and 44 vehicle spaces required by code. The future addition of a 200 square foot minute clinic would require one additional parking space, bringing the required parking to 45 spaces.

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

This finding can be made, in that the proposed commercial use is consistent with the use and density requirements specified for the C-C (Community Commercial) land use designation in the County General Plan. The project complies with General Plan Policy 2.14.2 (Allowed uses in the Community Commercial Designation) which calls for a wide variety of retail and service facilities, including retail sales such as the proposed use. In addition, the project complies with General Plan Policy 8.5.1 (Concentrate Commercial Uses) which directs commercial uses to be developed in designated commercial areas to avoid new strip commercial uses which may have negative impacts. The infill project site is located within a developed commercial area and the parcel is designated for commercial use.

In addition, the project complies with General Plan Policy 2.14.6 (Quality of Commercial Design) which requires quality commercial development by way of regulating signage, landscaping, parking and building design among other aspects, as well as requires that uses be compatible with adjacent land uses and neighborhood character. The project was subject to design review which resulted in several changes to improve the project design. In addition, the proposed use is compatible with the uses found in the area, which is a part of the Sustainable Santa Cruz County Medical District/Flea Market focus area. The proposed retail use will complement the existing hospitals and medical/dental offices in the vicinity by providing a nearby retailer of medical supplies, including prescriptions. The proposed pharmacy drive-through further complements the uses in the area as it will allow sick or mobility-impaired drivers to remain in their vehicles.

A specific plan has not been adopted for this portion of the County.

4. That the proposed use will not overload utilities, and will not generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made, in that the applicant submitted a traffic impact analysis (TIA) for the project which was prepared by Kimley Horn, dated May 2019, and accepted by the Department of Public Works (Exhibit A, Attachment 4). The TIA indicates that Vehicle Miles Travelled (VMT) will decrease and that Level of Service (LOS) and circulation impacts can be addressed by restricting turn movements and modifying signal timing.

The TIA provides both a Level of Service analysis and Vehicle Miles Travelled (VMT) analysis. Where LOS measures the length of delay as a means of evaluating traffic impacts, VMT takes a more regional perspective with the goal of reducing the distance driven in single-occupancy vehicles in order to reduce greenhouse gas emissions and promote active transportation. While communities may use the LOS method to evaluate impacts from project traffic on local intersections and roads, for the purpose of administering CEQA, State statute requires that VMT be the method used to evaluate environmental impacts resulting from project traffic.

The TIA's analysis is informed by the California Office of Planning and Research (OPR) Technical Advisory on VMT. The Advisory states that local-serving retail development, such as the proposed project, tends to shorten trips and reduce VMT. By increasing the density of the retail pharmacy opportunities, shorter trips will result, translating into fewer vehicle miles travelled. As described in the TIA, the proposed location fills a gap in the existing pharmacy distribution in the area (Attachment 4, Figure 17). In addition, the Sustainable Santa Cruz County Plan identifies the project site as being within the Medical District/Flea Market focus area. A full-service retail pharmacy in this location will serve patients leaving the hospital and other medical providers in the Medical District, reducing the overall number of vehicle miles travelled. The TIA concludes that the project will result in a reduction of vehicle miles travelled.

In addition, the TIA provided Level of Service information to evaluate the project's operational impacts as measured by the length of delay at seven nearby intersections. The TIA includes two recommendations to improve operations. To prevent turning conflicts with commute traffic, both the Dominican Hospital and project's Soquel driveways would have restricted left turns during peak traffic periods. Dominican Hospital has provided a letter authorizing the installation of the signs on their property (see Exhibit A, Attachment 4). In addition, for the Mission Drive and Soquel Drive intersection, the TIA recommends that a split phasing signal operation be implemented on the northbound and southbound approaches. The project applicant would pay the project's proportion of the improvement which would be 1.9% of the improvement cost. These improvements are included as conditions of approval.

The proposed retail pharmacy will not overload utility demand as the project will be required to comply with the California Building Code and the County ordinances that ensure optimum conservation of energy. In addition, the project will be required to comply with the requirements of the City of Santa Cruz Water District, which implements water efficiency landscape requirements.

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made, in that the proposed structure is located in a commercial-zoned area

with a mix of use types and a variety of architectural styles. The proposed retail pharmacy will complement and harmonize with the existing medical and dental uses in this area which is designated in the Sustainable Santa Cruz Plan as the Medical District/Flea Market focus area. The site is located between Highway One and Soquel Drive, an arterial roadway, so access to the site is readily available. Architectural styles in the vicinity range from utilitarian commercial buildings such as the auto repair building located next door, to the large Dominican hospital building across the street from the project site. Given this broad range of styles, the proposed contemporary style will be compatible with the physical design aspects of the neighborhood. No residential use is proposed.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed retail pharmacy will be of an appropriate scale and type of design that will enhance the aesthetic qualities of the surrounding properties and will not reduce or visually impact available open space in the surrounding area.

The project complies with the requirements of the Design Standards and Guidelines found in chapter 13.11 both in terms of compatible site design and building design. The contemporary-style building has a distinctive entrance, a mix of finish materials that reduce the apparent mass and bulk of the structure, and architectural details such as awnings with brackets that provide visual interest. The site design has accounted for circulation, parking, and landscaping. Although the project includes an exception to reduce the required five-foot landscape strip along portions of the western and eastern property lines to about two feet, this exception would have virtually no impact on public views since it would be interior to the project and not easily visible from public vantage points. The additional parking lot trees will compensate for the reduced landscape areas. In addition, the over-height retaining wall and fence located along the eastern property line are proposed to be constructed of split-face concrete block topped with a wrought iron fence. Most of the retaining wall and fence will be screened by the building itself. A vine will be trained on the wall as an anti-graffiti measure and to add more plant material to the site.

## Conditions of Approval

Exhibit D: Architectural plans, prepared by wd, 15 sheets, dated 11/15/18  
Civil plans, six sheets, prepared by Kimley Horn, revised to 5/14/19  
Landscape Plan, one sheet, revised to 5/14/19  
Sign Plan, nine sheets, prepared by Icon, undated

- I. This permit authorizes the construction of a retail pharmacy with a pharmacy drive-through and related parking lot, sign, fence, and landscape improvements as indicated on the approved Exhibit "D" for this permit. This approval does not confer legal status on any existing structure(s) or existing use(s) on the subject property that are not specifically authorized by this permit. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:
  - A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.
  - B. Pay the required fee to the Clerk of the Board of the County of Santa Cruz for posting the Mitigated Negative Declaration as required by the Mitigated Negative Declaration.
  - C. Combine APNs 025-071-20 and 025-071-05 into one parcel, prior to issuance of any Building or Grading Permit.
  - D. Obtain a Demolition Permit from the Santa Cruz County Building Official.
  - E. Obtain a Building Permit from the Santa Cruz County Building Official.
    1. Any outstanding balance due to the Planning Department must be paid prior to making a Building Permit application. Applications for Building Permits will not be accepted or processed while there is an outstanding balance due.
  - F. Obtain a Grading Permit from the Santa Cruz County Building Official.
  - G. Obtain an Encroachment Permit from the Department of Public Works for all off-site work performed in the County road right-of-way. If pedestrian, bicycle or vehicle traffic will be impacted a traffic control plan is required.
- II. Prior to issuance of a Building Permit the applicant/owner shall:
  - A. Submit final architectural plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "D" on file with the Planning Department. Any changes from the approved Exhibit "D" for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the

**EXHIBIT B**

proposed development. The final plans shall include the following additional information:

1. A copy of the text of these conditions of approval incorporated into the full size sheets of the architectural plan set.
2. One elevation shall indicate materials and colors as they were approved by this Discretionary Application. If specific materials and colors have not been approved with this Discretionary Application, in addition to showing the materials and colors on the elevation, the applicant shall supply a color and material sheet in 8 1/2" x 11" format for Planning Department review and approval.
3. Submit the final approved sign plan. Each illuminated sign shall include a easily accessed dimmer. No more than four business signs (two building signs, one pharmacy sign and one drive through sign) are allowed and the sign area shall not exceed the area shown on the sign plan.
4. Show the location of the required turn restriction sign on the project plans as well as the proposed language prohibiting turns on weekdays between the hours of 7 AM and 9 AM and 4 PM and 6 PM.
5. All exterior lighting shall be shown on the plans as shielded to prevent offsite glare. Pole-mounted lights shall not exceed 15 feet in height. The construction plans shall indicate the location, intensity, and variety of all exterior lighting fixtures.
  - a. All lighting shall meet energy code requirements of the California Building Code.
  - b. All lighting shall be directed downward onto the site and shielded such there is no overspill onto adjacent properties.
6. Grading, drainage, and erosion control plans.
7. All new electrical power, telephone, and cable television service connections shall be installed underground. Pad-mounted transformers shall not be located in the front setback or in any area visible from public view unless they are completely screened by walls and/or landscaping (underground vaults may be located in the front setback). Utility equipment such as electrical and gas meters, electrical panels, junction boxes, and backflow devices shall not be located on exterior wall elevations facing streets unless screened from streets and building entries using architectural screens, walls, fences, and/or plant material.
8. If a fence/retaining wall becomes required along the western property line, it shall match the same fence style (wrought iron) as the fence located along the eastern property line as shown in Exhibit D.
9. All rooftop equipment shall be designed to be an integral part of the building design and shall be screened.



10. A final Landscape Plan for the entire site, which implements the landscape plan approved as a part of Exhibit D. The plan shall comply with the requirements of the Santa Cruz Water District.
  11. Details showing compliance with fire department requirements.
  12. Details showing compliance with accessibility requirements, including:
    - a. Exterior route details shall be provided to include slopes, widths, surface materials, and detectable warnings.
    - b. Truncated domes shall be detailed at required areas. [CBC 11B--247.1.2.5]
    - c. Accessible parking details to include slopes, striping and signage shall be provided. [CBC 11B-501]
    - d. Doors, doorways and gates shall be detailed. Include maneuvering clearances, threshold detail and hardware. [CBC 11B-404]
    - e. Complete and dimensioned details for restrooms shall be provided. Include fixture mounting heights, grab bars, maneuvering clearances, and door signage. [CBC 11B-603]
    - f. Signs shall be detailed to include character size, sign location, and Type II Braille, as required. [CBC 11B-216]
    - g. Sales counters and service counters shall be detailed and dimensioned to be 34" maximum above finished floor for a minimum 36" width. [CBC 11B-227.1, 11B-904.4.1]
    - h. Check out counters and aisles shall be detailed to comply with CBC 11B-216.11
    - i. Spaces and electrical raceways shall be provided for future vehicle charging stations. [CALGreen 5.106.5.3. CBC 11B-228.3]
    - j. Designated clean air/vanpool/ev parking spaces shall be provided. [CALGreen 5.106.5.2]
- B. The Commercial Way driveway shall use the Caltrans Standard Plan A87A for the driveway detail.
- C. Meet all requirements of and pay Zone 5 drainage fees to the County Department of Public Works, Stormwater Management. Drainage fees will be assessed on the net increase in impervious area. In addition to the requirements listed in the 3/26/19 review by Alyson Tom, the following is a condition of approval:
1. The project shall not divert any runoff from the areas of the site that currently drain to Commercial Way/Caltrans property to the Soquel Drive system. The areas of the site that currently drain to Soquel Drive (portions of APN 025-071-05) may tie into the system in Soquel Drive, however the on-site flood control mitigation facility shall be sized to store the post-development 25 year storm while releasing at the pre-development (natural conditions) 5 year storm flows. The remainder of the project shall provide the same on-site mitigations and follow existing drainage patterns to and drain to Commercial Way. The applicant shall coordinate any work (analysis and/or upgrades) in Commercial Way with Caltrans as this is their property.

2. Revised civil plans shall include a proposed tie-in to the drainage system on the gas station property to the West. The applicant shall obtain permission from the gas station property owner to complete this work and shall correct the condition issues of the exposed rebars, if this condition exists at or downstream of the proposed tie-in.
- D. Comply with the requirements of the Department of Santa Cruz, Sanitation.
1. An estimate of the daily water consumption.
  2. Flow calculations for the 6" lateral and for a 4" lateral serving the same routing for review with the District engineering staff in determining the appropriate size of the lateral.
  3. Proposed sewer lines, showing the following: length of pipe, pipe material, cleanouts located maximum of 100-feet apart, ground and invert elevations, and slope of each line segment (2% minimum for private laterals), connection to the existing public sewer; a clean out at every change in alignment (vertical or horizontal) of the lateral; and a realignment of the lateral to connect to the public sewer main approximately 20' downstream from the manhole, allowing for an obtuse angle connection to the sewer main.
  4. It is recommended that the proposed building include the installation of a water sub-meter, separating irrigation water from domestic water, to assist the applicant/developer in determining the quantity of domestic and interior water for the purpose of calculating annual sewer service charges.
  5. The project sewer design and connection of the project to the Santa Cruz County Sanitation District system will be required to conform to the *County of Santa Cruz Design Criteria (CDC) Part 4, Sanitary Sewer Design*.
- E. Obtain Environmental Health approval of the Soils Management Plan. The report must be submitted to Environmental Health Hazardous Materials Program for approval. Please contact John Gerbrandt, HazMat Inspector, 831-454-2731, for more information.
- F. Meet all requirements of the Environmental Planning section of the Planning Department.
1. The project shall comply with the recommendations of the soils report.
  2. Building permit application plans shall reference the soils report and update(s), include contact information for the geotechnical engineer, and include a statement that the project shall conform to the recommendations of the geotechnical engineer.
  3. Building permit application plans shall clearly represent all proposed grading, including any over-excavation and re-compaction as recommended by the geotechnical engineer.
  4. The total site disturbance will be greater than 1 acre, to prevent erosion

- problems from occurring during construction, the owner/applicant or their General Contractor shall obtain an NPDES General Permit for Stormwater Discharges Associated with Construction Activities. A Qualified Storm Water Pollution Prevention Practitioner (QSP) shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP), and comply with general conditions of the NPDES permit and specific conditions of the SWPPP. This shall be done prior to any grading or land alteration for the project. The Waste Discharge Identification (WDID) shall be provided by the QSP at a pre-construction meeting.
5. The applicant shall submit a drainage plan that complies with the requirements set forth in 2016 California Building Code (CBC) Section 1804.4 and the recommendations of the soils engineer.
  6. The applicant shall submit a signed and stamped Soils (Geotechnical) Engineer Plan Review Form to Environmental Planning. The plan review form shall reference each reviewed sheet of the final plan set by its last revision date. Any updates to the soils report recommendations necessary to address conflicts between the report and plans must be provided via a separate addendum to the soils report. The author of the report shall sign and stamp the completed form. An electronic copy of this form may be found on our website: [www.sccoplanning.com](http://www.sccoplanning.com), under "Environmental", "Geology & Soils", "Assistance & Forms", "Soils Engineer Plan Review Form".
- G. Meet all requirements and pay any applicable plan check fee of the Central Fire Protection District.
  - H. Submit 3 copies of plan review letters prepared and stamped by the project Geotechnical Engineer.
  - I. The development is subject to Live Oak Transportation Improvement Area (TIA) fee. Per the Traffic Impact Study prepared by Kimley Horn, transportation consultant, dated May 2020, the project is required to pay \$ 268,410.60 [(\$314,664 - \$ 23,126.70 (credit for existing facilities))]. The TIA fee is to be split evenly between Transportation Improvement Fees and Roadside Improvement Fees.
  - J. Pay the current fee for Child Care mitigation for 13,111 square feet of new commercial space. Currently, this fee is \$0.23 per square foot.
  - K. Pay the current Affordable Housing Impact Fee. The fees are based on new square footage and the current fee for non-residential construction is \$3 per square foot. This fee is subject to change.
  - L. Provide off-street parking for 49 cars of which up to 10% may be compact car spaces. Standard parking spaces must be 8.5 feet wide by 18 feet long and compact parking spaces must be 7.5 feet wide by 16 feet long. Parking must be clearly designated on the plot plan and located entirely outside of the right-of-way.
  - M. Submit a written statement signed by an authorized representative of the school

district in which the project is located confirming payment in full of all applicable developer fees and other requirements lawfully imposed by the school district.

III. Prior to Site Disturbance

- A. A preconstruction meeting shall be scheduled 1-4 days prior to commencement of earthwork. Attendees shall include Environmental Planning staff, Environmental Health Services Hazardous Materials staff, the grading contractor, the soils engineer and the civil engineer.

IV. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:

- A. All site improvements shown on the final approved Building Permit plans shall be installed.
- B. Earthwork is prohibited during the rainy season (October 15 – April 15) unless a separate winter grading permit is approved by the Planning Director. Environmental Health Hazardous Materials staff must also authorize winter grading.
- C. Require that all construction and maintenance equipment power by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provide by the manufacturer and that all equipment be operated and maintained to minimize noise generation.
- D. Prohibit gasoline or diesel engines from having unmuffled exhaust.
- E. Use noise-reducing enclosures around stationary noise-generating equipment capable of 6 dB attenuation.
- F. Install two signs language prohibiting left turns on weekdays between the hours of 7 AM and 9 AM and 4 PM and 6 PM at the project's Soquel Drive driveway (on the east side of the driveway) and at the Dominican Hospital stop-controlled driveway on Soquel Drive located directly opposite the project driveway.
- G. Back flow devices and other landscape irrigation valves shall not be located in the front setback or area visible from public view, unless they are completely screened by walls and/or thick landscaping, and shall not obstruct drivers' line of sight.
- H. The project must comply with all recommendations of the approved soils reports.
- I. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.
- J. Pursuant to Sections 16.40.040 and 16.42.080 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with

this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.080, shall be observed.

V. Operational Conditions

- A. 24-hour per day operations is authorized.
- B. In the event that site lighting or illuminated business signs result in off-site glare as determined by the Planning Director, the following measures shall be implemented to the extent necessary to reduce glare:
  - a. Reduction of the total effective light emitted (change in wattage or bulb intensity),
  - b. Change in the type or method of sign lighting (change in bulb or illumination type),
  - c. Removal of the lighting creating the off-site glare.
- C. Deliveries shall only occur when the drive-through is closed.
- D. All landscaping and site improvements shall be permanently maintained and, in the event of that plants or trees become diseased or die, they shall be replaced in kind.
- E. Outside storage of stock-in-trade is prohibited.
- F. No additional signage or banners are allowed without prior authorization from the Planning Department.
- G. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.

VI. Mitigation Monitoring Program

The mitigation measures listed under this heading have been incorporated in the conditions of approval for this project in order to mitigate or avoid significant effects on the environment. As required by Section 21081.6 of the California Public Resources Code, a monitoring and reporting program is hereby adopted as a condition of approval for this project. This program is specifically described following each mitigation measure described below. The purpose of this monitoring is to ensure compliance with the environmental mitigations during project implementation and operation. Failure to comply with the conditions of approval, including the terms of the adopted monitoring program, may result in permit revocation pursuant to section 18.10.462 of the Santa Cruz County Code.

Mitigation NOI-1: Condition of Approval IV.C

Require that all construction and maintenance equipment power by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provide by the manufacturer and that all equipment be operated and maintained to minimize noise generation.

Mitigation NOI-2: Condition of Approval IV.D

Prohibit gasoline or diesel engines from having unmuffled exhaust.

Mitigation NOI-3: Condition of Approval IV.E

Use noise-reducing enclosures around stationary noise-generating equipment capable of 6 dB attenuation.

VII. Indemnification

The applicant/owner shall indemnify, defend with counsel approved by the COUNTY, and hold harmless the COUNTY, its officers, employees, and agents from and against any claim (including reasonable attorney's fees, expert fees, and all other costs and fees of litigation), against the COUNTY, its officers, employees, and agents arising out of or in connection to this development approval or any subsequent amendment of this development approval which is requested by the applicant/owner, regardless of the COUNTY's passive negligence, but excepting such loss or damage which is caused by the sole active negligence or willful misconduct of the COUNTY. Should the COUNTY in its sole discretion find the applicant's/owner's legal counsel unacceptable, then the applicant/owner shall reimburse the COUNTY its costs of defense, including without limitation reasonable attorney's fees, expert fees, and all other costs and fees of litigation. The applicant/owner shall promptly pay any final judgment rendered against the COUNTY (and its officers, employees, and agents) covered by this indemnity obligation. It is expressly understood and agreed that the foregoing provisions are intended to be as broad and inclusive as is permitted by the law of the State of California and will survive termination of this development approval.

- A. The COUNTY shall promptly notify the applicant/owner of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. The COUNTY shall cooperate fully in such defense.
- B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:
  - 1. COUNTY bears its own attorney's fees and costs; and
  - 2. COUNTY defends the action in good faith.
- C. Settlement. The applicant/owner shall not be required to pay or perform any settlement unless such applicant/owner has approved the settlement. When representing the COUNTY, the applicant/owner shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of

any of the terms or conditions of the development approval without the prior written consent of the COUNTY.

- D. Successors Bound. The "applicant/owner" shall include the applicant and/or the owner and the successor'(s) in interest, transferee(s), and assign(s) of the applicant and/or the owner.

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Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

**Please note: This permit expires three years from the effective date listed below unless a building permit (or permits) is obtained for the primary structure described in the development permit (does not include demolition, temporary power pole or other site preparation permits, or accessory structures unless these are the primary subject of the development permit). Failure to exercise the building permit and to complete all of the construction under the building permit, resulting in the expiration of the building permit, will void the development permit, unless there are special circumstances as determined by the Planning Director.**

Approval Date: \_\_\_\_\_

Effective Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

\_\_\_\_\_  
Jocelyn Drake  
Deputy Zoning Administrator

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Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

# Exhibit A

## Mitigated Negative Declaration





# County of Santa Cruz

## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131

KATHLEEN MOLLOY, PLANNING DIRECTOR

[www.sccoplanning.com](http://www.sccoplanning.com)

### NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

#### NOTICE OF PUBLIC REVIEW AND COMMENT PERIOD

Pursuant to the California Environmental Quality Act, the following project has been reviewed by the County Environmental Coordinator to determine if it has a potential to create significant impacts to the environment and, if so, how such impacts could be solved. A Negative Declaration is prepared in cases where the project is determined not to have any significant environmental impacts. Either a Mitigated Negative Declaration or Environmental Impact Report (EIR) is prepared for projects that may result in a significant impact to the environment.

Public review periods are provided for these Environmental Determinations according to the requirements of the County Environmental Review Guidelines. The environmental document is available for review at the County Planning Department located at 701 Ocean Street, in Santa Cruz. You may also view the environmental document on the web at [www.sccoplanning.com](http://www.sccoplanning.com) under the Planning Department menu. If you have questions or comments about this Notice of Intent, please contact Matt Johnston of the Environmental Review staff at (831) 454-5357.

The County of Santa Cruz does not discriminate on the basis of disability, and no person shall, by reason of a disability, be denied the benefits of its services, programs or activities. If you require special assistance in order to review this information, please contact Bernice Shawver at (831) 454-3137 to make arrangements.

**PROJECT: CVS**

**APP #: 181576**

**APNs: 025-071-05 & -20**

**PROJECT DESCRIPTION:** The proposed project is to combine two parcels, demolish the existing improvements, and construct a new 13,111 square foot retail pharmacy – including a mezzanine for storage – with a drive-through pharmacy window, and related improvements, including frontage improvements and business signs. The project requires a Commercial Development Permit, an Exception to reduce the required landscape strip from five to two feet, and an Exception to allow four signs totaling 92 square feet where one sign and 50 square feet is allowed.

**PROJECT LOCATION:** The project is located between Soquel Drive and Commercial Way within the community of Live Oak in unincorporated Santa Cruz County. Santa Cruz County is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay and the Pacific Ocean.

**APPLICANT/OWNER:** Leanna Swenson, Boos Development West, LLC for Plymouth-Grant LLC

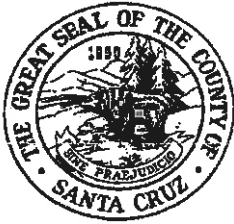
**PROJECT PLANNER:** Annette Olson, (831) 454-3134

**EMAIL:** [Annette.Olson@santacruzcounty.us](mailto:Annette.Olson@santacruzcounty.us)

**ACTION:** Mitigated Negative Declaration

**REVIEW PERIOD:** March 27, 2020 through April 27, 2020

This project will be considered at a public hearing before the Zoning Administrator. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.



# COUNTY OF SANTA CRUZ

## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

KATHLEEN MOLLOY, PLANNING DIRECTOR

<http://www.sccoplanning.com/>

## MITIGATED NEGATIVE DECLARATION

**Project: CVS**

**APPLICATION #: 181576**

**APNs: 025-071-05 & -20**

**Project Description:** The proposed project is to combine two parcels, demolish the existing improvements, and construct a new 13,111 square foot retail pharmacy – including a mezzanine for storage – with a drive-through pharmacy window, and related improvements, including frontage improvements with business signs. The project requires a Commercial Development Permit, an Exception to reduce the required landscape strip from five feet to two feet, and an Exception to allow four signs totaling 92 square feet where one sign and 50 square feet is allowed.

**Project Location:** The project is located between Soquel Drive and Commercial Way within the community of Live Oak in unincorporated Santa Cruz County. Santa Cruz County is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay and the Pacific Ocean.

**Owner: Plymouth-Grant LLC**

**Applicant: Leanna Swenson, Boos Development West, LLC**

**Staff Planner: Annette Olson, (831) 454-3134**

**Email: [Annette.Olson@santacruzcounty.us](mailto:Annette.Olson@santacruzcounty.us)**

**This project will be considered at a public hearing before the Zoning Administrator. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project**

### California Environmental Quality Act Negative Declaration Findings:

Find, that this Negative Declaration reflects the decision-making body's independent judgment and analysis, and; that the decision-making body has reviewed and considered the information contained in this Negative Declaration and the comments received during the public review period, and; on the basis of the whole record before the decision-making body (including this Negative Declaration) that there is no substantial evidence that the project will have a significant effect on the environment. The expected environmental impacts of the project are documented in the attached Initial Study on file with the County of Santa Cruz Clerk of the Board located at 701 Ocean Street, 5<sup>th</sup> Floor, Santa Cruz, California.

**Review Period Ends: April 27, 2020**

**Date: \_\_\_\_\_**

**MATT JOHNSTON, Environmental Coordinator  
(831) 454-5357**



# County of Santa Cruz

## PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

KATHLEEN MOLLOY, PLANNING DIRECTOR

www.sccoplanning.com

## CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) INITIAL STUDY/ENVIRONMENTAL CHECKLIST

**Date:** March 12, 2020

**Application Number:** 181576

**Project Name:** CVS

**Staff Planner:** Annette Olson

### I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

**APPLICANT:** Leanna Swenson, Boos Development West, LLC

**APN(s):** 025-071-05 & -20

**OWNER:** Plymouth-Grant LLC

**SUPERVISORAL DISTRICT:** First

**PROJECT LOCATION:** The project is located between Soquel Drive and Commercial Way within the community of Live Oak in unincorporated Santa Cruz County (Figure 1). Santa Cruz County is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay and the Pacific Ocean.

### SUMMARY PROJECT DESCRIPTION:

The proposed project is to combine two parcels, demolish the existing improvements, and construct a new 13,111 square foot retail pharmacy—including a mezzanine for storage—with a drive-through pharmacy window, and related improvements, including frontage improvements and business signs. The project requires a Commercial Development Permit, an Exception to reduce the required landscape strip from five to two feet, and an Exception to allow four signs totaling 92 square feet where one sign and 50 square feet is allowed.

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:** *All of the following potential environmental impacts are evaluated in this Initial Study. Categories that are marked have been analyzed in greater detail based on project specific information.*

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Aesthetics and Visual Resources | <input type="checkbox"/> Mineral Resources         |
| <input type="checkbox"/> Agriculture and Forestry Resources         | <input checked="" type="checkbox"/> Noise          |
| <input checked="" type="checkbox"/> Air Quality                     | <input type="checkbox"/> Population and Housing    |
| <input type="checkbox"/> Biological Resources                       | <input type="checkbox"/> Public Services           |
| <input type="checkbox"/> Cultural Resources                         | <input type="checkbox"/> Recreation                |
| <input type="checkbox"/> Energy                                     | <input checked="" type="checkbox"/> Transportation |
| <input checked="" type="checkbox"/> Geology and Soils               | <input type="checkbox"/> Tribal Cultural Resources |

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:** *All of the following potential environmental impacts are evaluated in this Initial Study. Categories that are marked have been analyzed in greater detail based on project specific information.*

- |  |   |
|--|---|
| <input type="checkbox"/> Greenhouse Gas Emissions                        | <input type="checkbox"/> Utilities and Service Systems      |
| <input checked="" type="checkbox"/> Hazards and Hazardous Materials      | <input type="checkbox"/> Wildfire                           |
| <input checked="" type="checkbox"/> Hydrology/Water Supply/Water Quality | <input type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Land Use and Planning                           |   |

**DISCRETIONARY APPROVAL(S) BEING CONSIDERED:**

- |  |   |
|--|---|
| <input type="checkbox"/> General Plan Amendment        | <input type="checkbox"/> Coastal Development Permit |
| <input type="checkbox"/> Land Division                 | <input checked="" type="checkbox"/> Grading Permit  |
| <input type="checkbox"/> Rezoning                      | <input type="checkbox"/> Riparian Exception         |
| <input checked="" type="checkbox"/> Development Permit | <input type="checkbox"/> LAFCO Annexation           |
| <input type="checkbox"/> Sewer Connection Permit       | <input type="checkbox"/> Other:                     |

**OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (e.g., permits, financing approval, or participation agreement):**

Permit Type/Action

Encroachment Permit  
SWPP

Agency

Caltrans  
RWQCB Central Coast

**CONSULTATION WITH NATIVE AMERICAN TRIBES:** *Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?*

No California Native American tribes traditionally and culturally affiliated with the area of Santa Cruz County have requested consultation pursuant to Public Resources Code section 21080.3.1.

**DETERMINATION:**

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in

the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

  
MATT JOHNSTON, Environmental Coordinator

3/19/20  
Date



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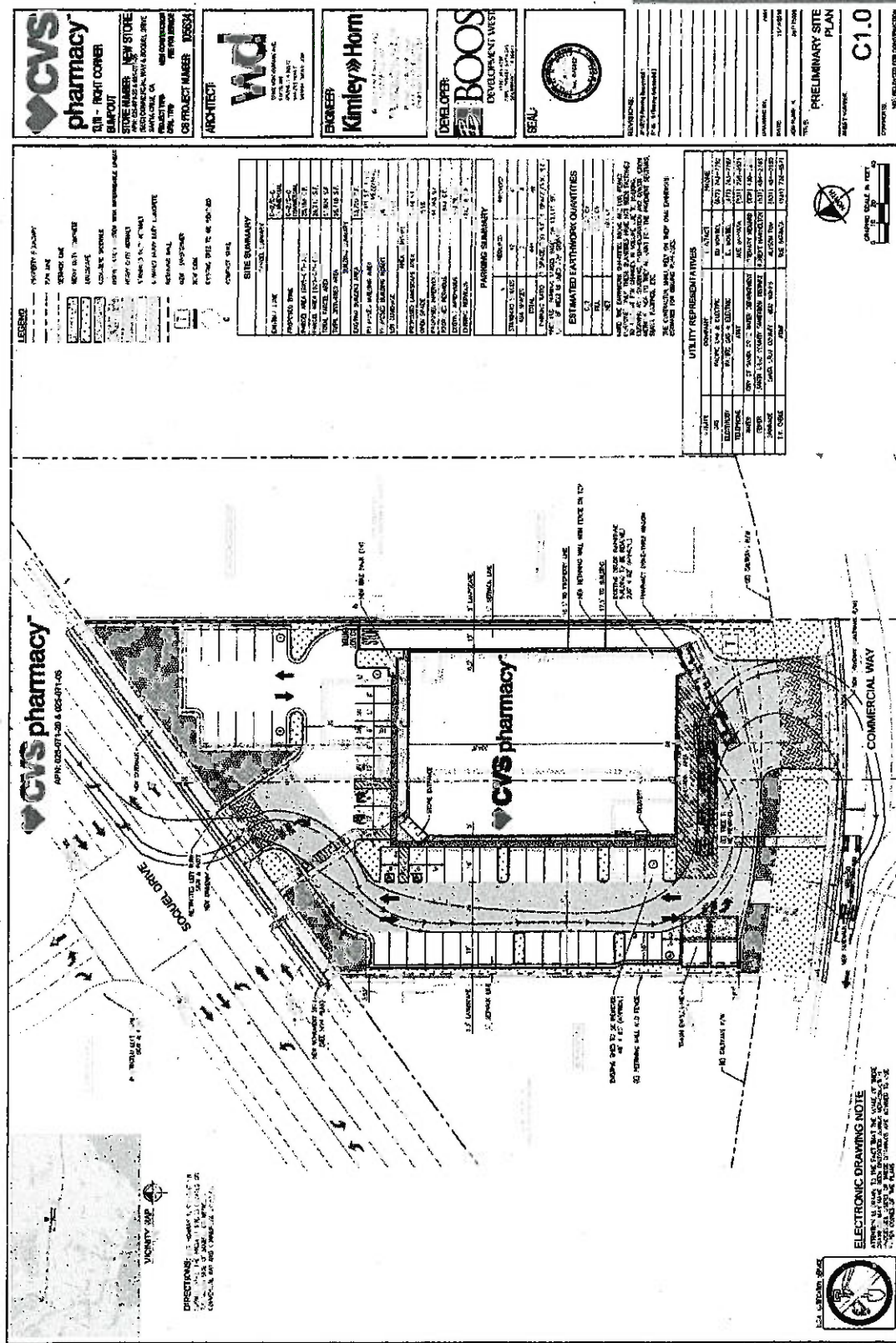


Figure 2: Project



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## II. BACKGROUND INFORMATION

### EXISTING SITE CONDITIONS:

Parcel Size (acres): 1.23 acres  
 Existing Land Use: Commercial  
 Vegetation: Negligible  
 Slope in area affected by project: ☒ 0 - 30% ☐ 31 - 100% ☐ N/A  
 Nearby Watercourse: Arana Gulch  
 Distance To: ~1,200 feet to the west

### ENVIRONMENTAL RESOURCES AND CONSTRAINTS:

Water Supply Watershed:	No	Fault Zone:	No
Groundwater Recharge:	No	Scenic Corridor:	Yes
Timber or Mineral:	No	Historic:	No
Agricultural Resource:	No	Archaeology:	No
Biologically Sensitive Habitat:	No	Noise Constraint:	No
Fire Hazard:	No	Electric Power Lines:	No
Floodplain:	No	Solar Access:	Yes
Erosion:	Low	Solar Orientation:	South
Landslide:	No	Hazardous Materials:	Yes
Liquefaction:	Low	Other:	N/A

### SERVICES:

Fire Protection:	Central	Drainage District:	Zone 5
School District:	Live Oak	Project Access:	Soquel Dr. & Commercial Wy.
Sewage Disposal:	County of Santa Cruz	Water Supply:	City of Santa Cruz

### PLANNING POLICIES:

Zone District: C-2  
 General Plan: C-C  
 Urban Services Line: ☒ Inside ☐ Outside  
 Coastal Zone: ☐ Inside ☒ Outside

### ENVIRONMENTAL SETTING AND SURROUNDING LAND USES:

#### Natural Environment

Santa Cruz County is uniquely situated along the northern end of Monterey Bay approximately 55 miles south of the City of San Francisco along the Central Coast. The Pacific Ocean and Monterey Bay to the west and south, the mountains inland, and the prime agricultural lands along both the northern and southern coast of the county create

limitations on the style and amount of building that can take place. Simultaneously, these natural features create an environment that attracts both visitors and new residents every year. The natural landscape provides the basic features that set Santa Cruz apart from the surrounding counties and require specific accommodations to ensure building is done in a safe, responsible and environmentally respectful manner.

The California Coastal Zone affects nearly one third of the land in the urbanized area of the unincorporated County with special restrictions, regulations, and processing procedures required for development within that area. Steep hillsides require extensive review and engineering to ensure that slopes remain stable, buildings are safe, and water quality is not impacted by increased erosion. The farmland in Santa Cruz County is among the best in the world, and the agriculture industry is a primary economic generator for the County. Preserving this industry in the face of population growth requires that soils best suited to commercial agriculture remain active in crop production rather than converting to other land uses.

#### **PROJECT BACKGROUND:**

The project site is comprised of two parcels (APNs 025-071-05 and -20), which would be merged as a part of the project. The parcels are located within the area identified in the Sustainable Santa Cruz County plan as the medical district/flea market focus area. The site is bound by Soquel Drive to the north, Commercial Way to the south, a 76-gas station to the west, and a parcel developed with a consignment furniture store and an auto repair shop to the east. To the north, across Soquel Drive, is Dominican Hospital and other medical offices. Across Commercial Way to the south is a Highway 1 offramp and, beyond the offramp, Highway 1 which is designated as a scenic road in the County's General Plan (Policy 5.10.10).

One of the two parcels, APN 025-071-20, was previously an auto wrecking business. That business left arsenic and lead contamination in the northern portion of the parcel.

#### **DETAILED PROJECT DESCRIPTION:**

The project is a retail pharmacy—CVS—which would include a drive-through pharmacy. Access to the pharmacy would be available from both Commercial Way and Soquel Drive, with Soquel Drive being the main entrance. The Soquel Drive driveway would be constructed opposite the Dominican Hospital stop-controlled driveway. The Commercial Way driveway would be constructed within the Caltrans right-of-way on the eastern side of the project site. Along both the Soquel Drive and Commercial Way frontages, a new sidewalk, curb, and gutter would be constructed. A monument sign would identify the business, as would a wall sign on the northern façade. The drive-through pharmacy sign would face west while the wall sign on the southern façade would face Highway 1. The project site is visible from Highway 1.

The building is proposed to be 13,111 square feet, not including a 1,712 square foot mezzanine which would be used for storage. The building would be located towards the eastern side of the property with a pharmacy drive-through located along the site's eastern property line. A parking lot with 49 parking spaces would be located along the site's Soquel frontage and to the west of the new building, with a loading dock located at the rear of the building. The trash and recycling enclosure would be in the project site's southwest corner.

As noted above, the site used to support an auto wrecking business. Tests indicate that there is residual arsenic and lead contamination in the north and northeast portion of APN 025-071-20. According to the County's Environmental Health Services (EHS) division, which issued a conditional closure letter, the contamination does not currently pose a health hazard (see Attachment 1) but could become a hazard with site disturbance such as grading. Given this, the project is required to implement a Soils Management Plan which provides direction on managing the site's soils to ensure that construction workers and the public are protected during site grading and development. A preliminary Soils Management Plan is included as Attachment 2.

To develop the project, the two existing structures on the subject parcels would be demolished. Those structures are an approximately 2,500 square foot storage building located in the southeast portion of APN 024-071-05 and a furniture store with a second-story residential unit on APN 024-071-20. The proposed grading includes 3,200 cubic yards of excavation and 3,300 cubic yards of fill (100 cubic yards of fill net) to establish the site's final elevations and to ensure that storm runoff would be controlled. This grading would be required to be done in conformance with the Soils Management Plan and the County's regulations regarding grading. A new retaining wall would be constructed along the site's eastern property line.

The existing conditions include about .74 acres of impervious area. With the project, the impervious area would increase to 1.04 acres, a net change of 13,068 square feet (.3 acres). Kimley-Horn and Associates prepared a Preliminary Stormwater Control Plan dated March 2019 to address the project stormwater runoff. The project engineer proposes to manage stormwater runoff in the following way. Runoff from sidewalks, parking lots and the building would be directed into landscape areas and three biofiltration treatment areas. Because the geotechnical report found that the project site is not suitable for infiltration due to clay soils, detention volumes have been provided that would ensure that the post project runoff rate would not exceed the pre-development rate. Runoff would be collected and released into the existing storm drain facilities.

Once the site work is completed, the building would be constructed. It is proposed to be finished in stucco and stone veneer (Attachment 3). As designed, the mass and bulk of the project has been reduced by using a variety of wall planes and finish materials. The building has a pronounced entryway that would provide a strong visual cue to customers as to how to

enter the building. The southern elevation building was designed in consideration of its visual impact on Highway 1.

The applicant requests that the pharmacy be allowed to be open 24 hours a day, seven days a week. The actual hours may be less than 24 hours per day. According to the applicant, the typical hours of operations for CVS stores are 7 AM to midnight, seven days a week, and for the pharmacy, 8 AM to 10 PM, Monday through Friday, with weekend pharmacy hours being 9 AM to 7 PM. In addition to fulfilling prescriptions, the store would sell typical pharmacy retail items such as non-prescription drugs, medical supplies, personal hygiene and beauty items, household supplies, greeting cards, seasonal items, grocery, and sundry items.



### III. ENVIRONMENTAL REVIEW CHECKLIST

#### A. AESTHETICS AND VISUAL RESOURCES

Except as provided in Public Resources Code section 21099, would the project:

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project is located in in an urbanized commercial district along Highway One. The project would not directly impact any public scenic vistas in the area.

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project site is not located along a designated state scenic highway.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project is located in the viewshed of Highway 1 which is designated as a scenic road in the County's General Plan. Views from Highway 1 are protected. General Plan Policy 5.10.12 requires that new development within the viewshed of a scenic road improve the visual quality through siting, architectural design, landscaping, and signage. In this case, this infill project would be visible from Highway 1, Soquel Drive and Commercial Way, which are all publicly accessible. The project site is located within the most urbanized portion of Highway 1 in the County. Further, the site is located within a commercial district that supports a broad range of businesses and architectural styles, including Dominican Hospital, a gas station, office buildings, large retailers, and medical offices. Numerous businesses are visible from Highway 1, including Marshall's which has an illuminated sign.

Because the existing structures on the parcel are dated and have been poorly maintained, the proposed building, landscaping and improvements would be a substantial improvement over the existing conditions. The site currently has no landscaping and a full landscape plan is included in the project. Landscaping, including five trees along the Commercial Way frontage, would soften the impact of the proposed development. In addition, the new building been designed to minimize visual impacts to Highway 1 by continuing the



architectural detail to the back of the building, and the additional signage requested has been reduced to the minimum amount needed to identify the business on this project site with two frontages

General Plan Policy 5.10.21 (Illuminated Signs Visible from Scenic Roads) prohibits illuminated signs visible from a scenic road except for state and county directional signs and in designated commercial and visitor-serving areas. The project site is located in a commercial zone district along the most urbanized section of Highway 1 in the County's jurisdiction and so is eligible for an illuminated sign exception (County Code Section 13.10.587). In addition, because the project site has double frontages, the application includes a request to allow for four signs, instead of the one business sign and one pedestrian-oriented sign allowed by Code. Given that only one of these signs would face Highway 1, the visual impact would be minimized. Because the structure is a large, commercial structure, the proposed 27.6 square foot sign would be in proportion to the building. The drive-through sign faces west, i.e., not south towards Highway 1, and so its impact on Highway 1 would be negligible.

Although the project includes an exception to reduce the required five-foot landscape strip along the western and eastern property lines to about two feet (13.10.074(A)(1)(h)), this exception would have virtually no impact on public views since it would be interior to the project and not visible from public vantage points. Given that the project would substantially improve the existing conditions and the fact that the area is a mostly built-out commercial district, the project's impact would be less than significant.

4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ☐ ☐ ☒ ☐

**Discussion:** The project would contribute an incremental amount of night lighting to the visual environment. However, the following project conditions would reduce this potential impact to a less than significant level: light standards in the parking lot would be limited to 15 feet in height, and all exterior light would be required to be directed onto the site and shielded. The project site is located in an urbanized area where there is existing night lighting.

## B. 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 Department 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:**

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project site does not contain any lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. In addition, the project does not contain Farmland of Local Importance. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide or Farmland of Local Importance would be converted to a non-agricultural use. No impact would occur from project implementation.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project site is zoned Community Commercial which is not an agricultural zone district. Additionally, the project site's land is not under a Williamson Act contract. Therefore, the project does not conflict with existing zoning for agricultural use, or a Williamson Act contract. No impact is anticipated.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. 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))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project is not located near land designated as Timber Resource. Therefore, the project would not affect the resource or access to harvest the resource in the future.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. Result in the loss of forest land or conversion of forest land to non-forest | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

use?

**Discussion:** No forest land occurs on the project site or in the immediate vicinity. See discussion under B-3 above. No impact is anticipated.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. <i>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?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project site and surrounding area within a radius of about 1.6 miles does not contain any lands designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance or Farmland of Local Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide, or Farmland of Local Importance would be converted to a non-agricultural use. In addition, the project site contains no forest land, and no forest land occurs within 2 miles of the project site. Therefore, no impacts are anticipated.

### C. AIR QUALITY

The significance criteria established by the Monterey Bay Air Resources District (MBARD)<sup>1</sup> has been relied upon to make the following determinations. Would the project:

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. <i>Conflict with or obstruct implementation of the applicable air quality plan?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project would not conflict with or obstruct any long-range air quality plans of the MBARD. Because general construction activity related emissions (i.e., temporary sources) are accounted for in the emission inventories included in the air quality plans, impacts to air quality plan objectives are less than significant.

General estimated basin-wide construction-related emissions are included in the MBARD emission inventory (which, in part, form the basis for the air quality plans cited below) and are not expected to prevent long-term attainment or maintenance of the ozone and particulate matter standards within the North Central Coast Air Basin (NCCAB). Therefore, temporary construction impacts related to air quality plans for these pollutants from the project would be less than significant, and no mitigation would be required, since they are presently estimated and accounted for in the District's emission inventory, as described below. No stationary sources would be constructed that would be long-term permanent sources of emissions.

<sup>1</sup> Formerly known as the Monterey Bay Unified Air Pollution Control District (MBUAPCD).

The project would result in new long-term operational emissions from vehicle trips (mobile emissions), the use of natural gas (energy source emissions), and consumer products, architectural coatings, and landscape maintenance equipment (area source emissions). Mobile source emissions constitute most operational emissions from this type of land use development project. However, emissions associated with buildout of this type of project is not expected to exceed any applicable MBARD thresholds. No stationary sources would be constructed that would be long-term permanent sources of emissions. Therefore, impacts to regional air quality as a result of long-term operation of the project would be less than significant.

Santa Cruz County is located within the NCCAB. The NCCAB does not meet state standards for ozone and particulate matter (PM<sub>10</sub>) (Monterey Bay Unified Air Pollution Control District (MBUAPCD), 2013a). These pollutants are both emitted during construction activities.

The primary sources of reactive organic gases (ROG) within the air basin are on- and off-road motor vehicles, petroleum production and marketing, solvent evaporation, and prescribed burning. The primary sources of NO<sub>x</sub> are on- and off-road motor vehicles, stationary source fuel combustion, and industrial processes. In 2010, daily emissions of ROGs were estimated at 63 tons per day. Of this, area-wide sources represented 49%, mobile sources represented 36%, and stationary sources represented 15%. Daily emissions of NO<sub>x</sub> were estimated at 54 tons per day with 69% from mobile sources, 22% from stationary sources, and 9% from area-wide sources. In addition, the region is "NO<sub>x</sub> sensitive," meaning that ozone formation due to local emissions is more limited by the availability of NO<sub>x</sub> as opposed to the availability of ROGs (MBUAPCD, 2013b).

PM<sub>10</sub> is the other major pollutant of concern for the NCCAB. In the NCCAB, highest particulate levels and most frequent violations occur in the coastal corridor. In this area, fugitive dust from various geological and man-made sources combines to exceed the standard. The majority of NCCAB exceedances occur at coastal sites, where sea salt is often the main factor causing exceedance. In 2005 daily emissions of PM<sub>10</sub> were estimated at 102 tons per day. Of this, entrained road dust represented 35% of all PM<sub>10</sub> emission, windblown dust 20%, agricultural tilling operations 15%, waste burning 17%, construction 4%, and mobile sources, industrial processes, and other sources made up 9% (MBUAPCD, 2008).

Emissions from construction activities represent temporary impacts that are typically short in duration, depending on the size, phasing, and type of project. Air quality impacts can nevertheless be acute during construction periods, resulting in significant localized impacts to air quality. Table 1 summarizes the threshold of significance for construction activities.

**Table 1: Construction Activity with Potentially Significant Impacts from Pollutant PM<sub>10</sub>**

Activity	Potential Threshold*
Construction site with minimal earthmoving	8.1 acres per day
Construction site with earthmoving (grading, excavation)	2.2 acres per day
*Based on Midwest Research Institute, <u>Improvement of Specific Emission Factors</u> (1995). Assumes 21.75 working weekdays per month and daily watering of site.	
Note: Construction projects below the screening level thresholds shown above are assumed to be below the 82 lb/day threshold of significance, while projects with activity levels higher than those above may have a significant impact on air quality. Additional mitigation and analysis of the project impact may be necessary for those construction activities.	
Source: Monterey Bay Unified Air Pollution Control District, 2008.	

## Impacts

### Construction

As required by the MBARD, construction activities (e.g., excavation, grading, on-site vehicles) which directly generate 82 pounds per day or more of PM<sub>10</sub> would have a significant impact on local air quality when they are located nearby and upwind of sensitive receptors (Table 1). Construction projects below the screening level thresholds shown in Table 1 are assumed to be below the 82 lb/day threshold of significance, while projects with activity levels higher than those thresholds may have a significant impact on air quality. The proposed project would require balanced grading with a net excavation volume of 100 cubic yards (3,200 CY cut and 3,300). Although the project would produce PM<sub>10</sub>, it would be far below the 82 pounds per day threshold. This would result in less than significant impacts on air quality from the generation of PM<sub>10</sub>.

Construction projects using typical construction equipment such as dump trucks, scrapers, bulldozers, compactors, and front-end loaders that temporarily emit precursors of ozone (i.e., volatile organic compounds [VOC] or oxides of nitrogen [NOx]), are accommodated in the emission inventories of state- and federally-required air plans and would not have a significant impact on the attainment and maintenance of ozone ambient air quality standard (AAQS) (MBUAPCD 2008).

Although not a mitigation measure per se (i.e., required by law), California ultralow sulfur diesel fuel with a maximum sulfur content of 15 ppm by weight will be used in all diesel-powered equipment, which minimizes sulfur dioxide and particulate matter.

The following BMPs would be implemented during all site excavation and grading.

### Recommended Measures

No mitigation is required. However, MBARD recommends the use of the following BMPs for the control of short-term construction generated emissions:

- Water all active construction areas at least twice daily as necessary and indicated by soil and air conditions.

- Prohibit all grading during periods of high wind (over 15 mph).
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days)
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed areas.
- Haul trucks shall maintain at least 2' 0" freeboard.
- Cover all trucks hauling soil, sand, and other loose materials.
- Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land.
- Plant vegetative ground cover in disturbed areas as quickly as possible.
- Cover inactive storage piles.
- Install wheel washers at the entrance to construction sites for all existing trucks.
- Pave all roads on construction sites.
- Sweep streets, if visible soil material is carried out from the construction site.
- Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and corrective action within 48 hours. The phone number of the Monterey Bay Air Resources District shall be visible to ensure compliance with Rule 402 (Nuisance),
- Limit the area under construction at any one time.

Implementation of the above recommended BMPs for the control of construction-related emissions would further reduce construction-related particulate emissions. These measures are not required by MBARD or as mitigation measures, as the impact would be less than significant without mitigation. These types of measures are commonly included as conditions of approval associated with development permits approved by the County.

2. *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?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

**Discussion:** The primary pollutants of concern for the NCCAB are ozone and PM<sub>10</sub>, as those are the pollutants for which the district is in nonattainment. Project construction would have a limited and temporary potential to contribute to existing violations of California air quality standards for ozone and PM<sub>10</sub> primarily through diesel engine exhaust and fugitive dust. The criteria for assessing cumulative impacts on localized air quality are the same as those for assessing individual project impacts. Projects that do not exceed MBARD's construction or operational thresholds and are consistent with the AQMP would

not have cumulatively considerable impacts on regional air quality (MBARD, 2008). Because the project would not exceed MBARD's thresholds and is consistent with the AQMP, there would not be cumulative impacts on regional air quality.

3. *Expose sensitive receptors to substantial pollutant concentrations?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

**Discussion:** Within 1,000 feet of the project site there are sensitive receptors; Dominican Hospital and other medical offices are located across Soquel Drive about 300 feet to the north and a childcare facility is located on Brookwood Drive about 600 feet to the northwest.

Diesel exhaust contains substances (diesel particulate matter [DPM], toxic air contaminants [TACs], mobile source air toxics [MSATs]) that are suspected carcinogens, along with pulmonary irritants and hazardous compounds, which may affect sensitive receptors such as young children, senior citizens, or those susceptible to respiratory disease. Where construction activity occurs in proximity to long-term sensitive receptors, a potential could exist for unhealthful exposure of those receptors to diesel exhaust, including residential receptors.

MBARD's CEQA Air Quality Guidelines indicate that the following traffic effects should be assumed to generate a significant carbon monoxide (CO) impact, unless CO dispersion modeling demonstrates otherwise:

- Intersections or road segments that operate at level of service (LOS) D or better would operate at LOS E or F with the project's traffic;
- Intersections or road segments that operate at LOS E or F where the volume-to-capacity (V/C) ratio would increase 0.05 or more with the project's traffic;
- Intersections that operate at LOS E or F where delay would increase by 10 seconds or more with the project's traffic;
- Unsignalized intersections which operate at LOS E or F where the reserve capacity would decrease by 50 or more with the project's traffic; or
- The project would generate substantial heavy-duty truck traffic or generate substantial traffic along urban street canyons or near a major stationary source of CO.

### Impacts

Areas with high vehicle density, such as congested highways, intersections and parking garages, have the potential to create high concentrations of CO, known as CO "hot spots,"

which can expose sensitive receptors to substantial pollutant concentrations. See above for CO hot spots analysis thresholds. Specifically, hot spots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal AAQS of 35 ppm or the state AAQS of 20 ppm.

As discussed in Section Q – Transportation, the Traffic Impact Analysis evaluated seven of intersections in the vicinity of the project. Those intersections are (1) Soquel Drive and Soquel Avenue, (2) Soquel Drive and Paul Sweet Road / Commercial Way, (3) Soquel Drive and Hospital Drive / project driveway on Soquel, (4) Soquel Drive and Hospital Drive / Commercial Way (5) Soquel Drive and Mission Drive, (6) Soquel Drive and Thurber Lane, (7) Highway 1 northbound on-off ramp / Commercial Way and project driveway (for locations see Attachment 4, page 6). Impacts occur in the cumulative plus project scenario (i.e., in the year 2035 with the project). Intersection 7, which is the project's southern driveway, would operate in the cumulative PM condition at LOS D which would degrade to LOS F with the project's traffic. Delays at that intersection in the cumulative plus project scenario would exceed ten seconds.

According to the traffic analysis by Kimley Horn, the project would increase the density of retail pharmacies in the area, resulting in an overall net decrease in Vehicle Miles Travelled (VMT). The California legislature adopted VMT as a measure of transportation impacts and also in order to reduce air quality impacts (vis a vis greenhouse gas) through denser infill development. Given that the project would decrease VMT, overall air quality for the region would be improved as a result of the project. Further, the addition of vehicle trips to the project intersections would not increase the volume to capacity ratio of any of the intersections by five percent or more during either the AM or PM peak hours. The intersection with the highest volume to capacity ratio increase is Soquel Drive and Mission Drive during the PM peak hour when the change would be 1.56%, i.e., well below the five percent threshold. Additionally, Intersection 7 has been identified by Caltrans as one targeted for improvement as a part of an overall plan to redesign the Highway 1 / Soquel Drive interchange. While not currently funded, the project has been designed by Caltrans and their analysis shows that once constructed, the LOS for Intersection 7 would improve to a LOS A.

The project includes a drive-through window. Drive-through windows can create a CO hot spot as a result of cars idling either while being served or while waiting to be served. In this case, the drive-through is limited to filling prescriptions. Unlike drive-through "fast food" restaurants where the drive-through represents a substantial portion of the overall business, the proposed drive-through is anticipated to account for less than 5% of the overall retail sales since it would be used exclusively for prescriptions. For comparison, MBARD identifies the threshold of significance for a "Fast Food w/Drive Thru" as being 15,600 square feet. This project, with 13,111 square feet and a low volume drive-through, would



not cause a significant impact. The following condition would further ensure that the drive-through does not pose an air quality risk.

#### BMP – Condition of Approval

Three signs shall be installed at the driveway directing customers driving combustion engine-vehicles to turn off their vehicles while waiting. The signs shall be installed at the beginning, middle and at the drive-through window itself.

The subject proposal reduces the region's VMT and a retail pharmacy is not growth inducing. These facts coupled with mitigation AQ-1 would reduce the overall air quality impact of the project to less than significant.

4. *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?* ☐ ☐ ☒ ☐

**Discussion:** Land uses typically producing objectionable odors include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses that would be associated with objectionable odors. Odor emissions from the proposed project would be limited to odors associated with vehicle and engine exhaust and idling from cars entering, parking, and exiting the facility. The project does not include any known sources of objectionable odors associated with the long-term operations phase.

During construction activities, only short-term, temporary odors from vehicle exhaust and construction equipment engines would occur. California ultralow sulfur diesel fuel with a maximum sulfur content of 15 ppm by weight would be used in all diesel-powered equipment, which minimizes emissions of sulfurous gases (sulfur dioxide, hydrogen sulfide, carbon disulfide, and carbonyl sulfide). Construction-related odors would be short-term and would cease upon completion. Therefore, no objectionable odors are anticipated from construction activities associated with the project.

The project would not create objectionable odors affecting a substantial number of people; therefore, the project is not expected to result in significant impacts related to objectionable odors during construction or operation.

#### D. BIOLOGICAL RESOURCES

*Would the project:*

1. *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 Wildlife, or U.S. Fish and Wildlife Service?

**Discussion:** Although the site is mapped as potential habitat for several species listed in the California Natural Diversity Database (CNDDDB), which is maintained by the California Department of Fish and Wildlife, it was determined after a site visit by a County resource planner that suitable habitat for these species unlikely to occur on the parcel. No special status species have been observed in the project area.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations (e.g., wetland, native grassland, special forests, intertidal zone, etc.) or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** There is no mapped or designated riparian habitat or other sensitive natural community on or adjacent to the project site.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** There are no mapped or designated federally protected wetlands on or adjacent to the project site. Therefore, no impacts would occur from project implementation.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project does not involve any activities that would interfere with the movements or migrations of fish or wildlife or impede use of a known wildlife nursery site.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. Conflict with any local policies or ordinances protecting biological resources (such as the Sensitive Habitat Ordinance, Riparian and Wetland Protection Ordinance, and the Significant Tree | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Protection Ordinance)?

**Discussion:** The project would not conflict with any local policies or ordinances.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project would not conflict with the provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact would occur.

## E. CULTURAL RESOURCES

Would the project:

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The existing structures on the property are not designated as a historic resource on any federal, state or local inventory. As a result, no impacts to historical resources would occur from project implementation.

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** No archaeological resources have been identified in the project area. Pursuant to SCCC section 16.40.040, if at any time in the preparation for or process of excavating or otherwise disturbing the ground, or any artifact or other evidence of a Native American cultural site which reasonably appears to exceed 100 years of age are discovered, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in SCCC Chapter 16.40.040.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 3. Disturb any human remains, including those interred outside of dedicated cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** Impacts are expected to be less than significant. However, pursuant to section 16.40.040 of the SCCC, and California Health and Safety Code sections 7050.5-7054, if at any time during site preparation, excavation, or other ground disturbance associated with this project, human remains are discovered, the responsible persons shall immediately

cease and desist from all further site excavation and notify the Sheriff-Coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archaeological report shall be prepared, and representatives of local Native American Indian groups shall be contacted. If it is determined that the remains are Native American, the Native American Heritage Commission will be notified as required by law. The Commission will designate a Most Likely Descendant who will be authorized to provide recommendations for management of the Native American human remains. Pursuant to Public Resources Code section 5097, the descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. Disturbance shall not resume until the significance of the resource is determined and appropriate mitigations to preserve the resource on the site are established.

#### F. ENERGY

*Would the project:*

1. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? ☐ ☐ ☒ ☐

**Discussion:** The project, like all development, would be responsible for an incremental increase in the consumption of energy resources during site grading and construction and, possibly, traffic delays during the construction phase. All project construction equipment would be required to comply with the California Air Resources Board (CARB) emissions requirements for construction equipment, which includes measures to reduce fuel-consumption, such as imposing limits on idling and requiring older engines and equipment to be retired, replaced, or repowered. In addition, the project would comply with General Plan policy 8.2.2, which requires all new development to be sited and designed to minimize site disturbance and grading. As a result, impacts associated with the small temporary increase in consumption of fuel during construction are expected to be less than significant.

The project's permanent operational energy use is also expected to be minimized through its conformance with CALGreen, the state of California's green building code, to meet all mandatory energy efficiency standards. The project is a retail pharmacy which is a local-serving business that, according to the Traffic Impact Analysis prepared for the project (Attachment 4), would result in a reduction of vehicle miles travelled (VMT). A reduction in VMT results in a reduction in greenhouse gasses.

In addition, the County has strategies to help reduce energy consumption and greenhouse gas (GHG) emissions. These strategies included in the *County of Santa Cruz Climate Action Strategy* (County of Santa Cruz, 2013) are outlined below.

### Strategies for the Reduction of Energy Use and GHG Emissions

- Develop a Community Choice Aggregation (CCA) Program, if feasible.<sup>2</sup>
- Increase energy efficiency in new and existing buildings and facilities.
- Enhance and expand the Green Business Program.
- Increase local renewable energy generation.
- Public education about climate change and impacts of individual actions.
- Continue to improve the Green Building Program by exceeding the minimum standards of the state green building code (Cal Green).
- Form partnerships and cooperative agreements among local governments, educational institutions, nongovernmental organizations, and private businesses as a cost-effective way to facilitate mitigation and adaptation.
- Reduce energy use for water supply through water conservation strategies.

### Strategies for the Reduction of Energy Consumption and GHG Emissions from Transportation

- Reduce vehicle miles traveled (VMT) through County and regional long-range planning efforts.
- Increase bicycle ridership and walking through incentive programs and investment in bicycle and pedestrian infrastructure and safety programs.
- Provide infrastructure to support zero and low emissions vehicles (plug in, hybrid plug-in vehicles).
- Increase employee use of alternative commute modes: bus transit, walking, bicycling, carpooling, etc.
- Increase the number of electric and alternative fuels vehicles in the County fleet.

Therefore, the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Impacts are expected to be less than significant.

2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? ☐ ☐ ☒ ☐

**Discussion:** AMBAG's 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) recommends policies that achieve statewide goals established by CARB, the California Transportation Plan 2040, and other transportation-related policies and state

<sup>2</sup> Monterey Bay Community Power (MBCP) was formed in 2017 to provide carbon-free electricity. All Pacific Gas & Electric Company (PG&E) customers in unincorporated Santa Cruz County were automatically enrolled in the MBCP in 2018.

senate bills. The SCS element of the MTP targets transportation-related greenhouse gas (GHG) emissions in particular, which can also serve to address energy use by coordinating land use and transportation planning decisions to create a more energy efficient transportation system.

The Santa Cruz County Regional Transportation Commission (SCCRTC) prepares a County-specific regional transportation plan (RTP) in conformance with the latest AMBAG MTP/SCS. The 2040 RTP establishes targets to implement statewide policies at the local level, such as reducing vehicle miles traveled and improving speed consistency to reduce fuel consumption.

In 2013, Santa Cruz County adopted a Climate Action Strategy (CAS) focused on reducing the emission of greenhouse gases, which is dependent on increasing energy efficiency and the use of renewable energy. The strategy intends to reduce energy consumption and greenhouse gas emissions by implementing a number of measures such as reducing vehicle miles traveled through County and regional long-range planning efforts, increasing energy efficiency in new and existing buildings and facilities, increasing local renewable energy generation, improving the Green Building Program by exceeding minimum state standards, reducing energy use for water supply through water conservation strategies, and providing infrastructure to support zero and low emission vehicles that reduce gasoline and diesel consumption, such as plug in electric and hybrid plug in vehicles that reduce.

The project Traffic Impact Analysis (TIA) found that the project would result in a net decrease in Vehicle Miles Travelled (VMT) consistent with the State's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018). Because the project would be local-serving and would increase the density of retail pharmacies thus resulting in shorter trips, the project would result in a VMT reduction.

In addition, the Santa Cruz County General Plan has historically placed a priority on "smart growth" by focusing growth in the urban areas through the creation and maintenance of an urban services line. Objective 2.1 directs most residential development to the urban areas, limits growth, supports compact development, and helps reduce sprawl. The Circulation Element of the General Plan further establishes a more efficient transportation system through goals that promote the wise use of energy resources, reducing vehicle miles traveled, and transit and active transportation options.

Energy efficiency is also a major priority throughout the County's General Plan. Measure C was adopted by the voters of Santa Cruz County in 1990 and explicitly established energy conservation as one of the County's objectives. The initiative was implemented by Objective

5.17 and includes policies that support energy efficiency, conservation, and encourage the development of renewable energy resources. Also, Goal 6 of the Housing Element promotes energy efficient building code standards for residential structures constructed in the County.

The project will be consistent with the AMBAG 2040 MTP/SCS and the SCCRTC 2040 RTP. The project would also be required to comply with the Santa Cruz County General Plan and any implemented policies and programs established through the CAS. In addition, the project design would be required to comply with CALGreen, the state of California's green building code, to meet all mandatory energy efficiency standards. Therefore, the project would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency.

## G. GEOLOGY AND SOILS

Would the project:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| A. 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. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| B. Strong seismic ground shaking?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| C. Seismic-related ground failure, including liquefaction?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| D. Landslides?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Discussion (A through D):** All of Santa Cruz County is subject to some hazard from earthquakes, and there are several faults within the County. While the San Andreas fault is larger and considered more active, each fault is capable of generating moderate to severe ground shaking from a major earthquake. Consequently, large earthquakes can be expected in the future. The October 17, 1989 Loma Prieta earthquake (magnitude 7.1) was the



second largest earthquake in central California history.

The project site is located outside of the limits of the State Alquist-Priolo Special Studies Zone or any County-mapped fault zone (County of Santa Cruz GIS Mapping, California Division of Mines and Geology, 2001). The project site is located approximately nine miles southwest of the San Andreas fault zone, and approximately 5.6 miles southwest of the Zayante fault zone. A geotechnical investigation for the project was performed by Moore Twining Associates, Inc., dated January 2018 (Attachment 5). The report concludes that the potential for surface rupture is low. The report does state that the site is potentially liquefiable, with seismic settlements of about two-third inch total and half-inch differential. These numbers are, however, below the threshold at which recommendations for site preparation and foundations become required. Given this, the site does not have the potential for seismic-related ground failure resulting from liquefaction. The site does not have slopes that could result in landsliding. Therefore, impacts associated with geologic hazards would be less than significant.

2. *Result in substantial soil erosion or the loss of topsoil?* ☐ ☐ ☒ ☐

**Discussion:** Some potential for erosion exists during the construction phase of the project, however, this potential is minimal because the site has relatively modest slopes and standard erosion controls are a required condition of the project. Prior to approval of a grading or building permit, the project must have an approved stormwater pollution control plan (SCCC Section 7.79.100), which would specify detailed erosion and sedimentation control measures. The plan would include provisions for disturbed areas to be planted with ground cover and to be maintained to minimize surface erosion. Impacts from soil erosion or loss of topsoil would be considered less than significant.

3. *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?* ☐ ☐ ☒ ☐

**Discussion:** The geotechnical report cited above (see discussion under G-1) did not identify a significant potential for damage caused by any of these hazards.

4. *Be located on expansive soil, as defined in section 1803.5.3 of the California Building Code (2016), creating substantial direct or indirect risks to life or property?* ☐ ☐ ☒ ☐

**Discussion:**



According to the geotechnical report for the project there are indications of soils with a medium expansion potential in the project area. Due to the expansive soils, the soils report recommends that the interior slab-on-grade and all slabs attached to the building be underlain by at least six inches of aggregate base soils over 12 inches of imported, non-expansive granular fill soils or aggregate base. The recommendations are required to be implemented to adequately reduce this potential hazard to a less than significant level.

5. Have soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems where sewers are not available for the disposal of waste water? ☐ ☐ ☐ ☒

**Discussion:** No septic systems are proposed. The project would connect to the Santa Cruz County Sanitation District, and the applicant would be required to pay standard sewer connection and service fees that fund sanitation improvements within the district as a condition of approval for the project.

6. Directly or indirectly destroy a unique paleontological resource or site of unique geologic feature? ☐ ☐ ☐ ☒

**Discussion:** No unique paleontological resources or sites or unique geologic features are known to occur in the vicinity of the project. A query was conducted of the mapping of identified geologic/paleontological resources maintained by the County of Santa Cruz Planning Department, and there are no records of paleontological or geological resources in the vicinity of the project parcel. No direct or indirect impacts are anticipated.

## H. GREENHOUSE GAS EMISSIONS

Would the project:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ☐ ☐ ☒ ☐

**Discussion:** The project, like all development, would be responsible for an incremental increase in greenhouse gas (GHG) emissions by usage of fossil fuels during the site grading and construction. In 2013, Santa Cruz County adopted a Climate Action Strategy (CAS) intended to establish specific emission reduction goals and necessary actions to reduce greenhouse gas levels to pre-1990 levels as required under Assembly Bill (AB) 32 legislation. The strategy intends to reduce GHG emissions and energy consumption by implementing measures such as reducing vehicle miles traveled through the County and regional long-range planning efforts and increasing energy efficiency in new and existing buildings and

facilities. Implementing the CAS, the MBCP was formed in 2017 to provide carbon-free electricity. All PG&E customers in unincorporated Santa Cruz County were automatically enrolled in the MBCP in 2018. All project construction equipment would be required to comply with the CARB emissions requirements for construction equipment. Further, all new buildings are required to meet the State's CalGreen building code. As a result, impacts associated with the temporary increase in GHG emissions are expected to be less than significant (see question F-2).

Strategies for the Reduction of Greenhouse Gases:

- Reduce vehicle miles traveled (VMT) through County and regional long-range planning efforts.
- Increase bicycle ridership and walking through incentive programs and investment in bicycle and pedestrian infrastructure and safety programs.
- Provide infrastructure to support zero and low emissions vehicles (plug in, hybrid plug-in vehicles).
- Increase employee use of alternative commute modes: bus transit, walking, bicycling, carpooling, etc.
- Reduce County fleet emissions.

Strategies for the Reduction of Greenhouse Gases from Energy Use

- Develop a Community Choice Aggregation (CCA) Program, if feasible.<sup>3</sup>
- Increase energy efficiency in new and existing buildings and facilities.
- Enhance and expand the Green Business Program.
- Increase local renewable energy generation.
- Public education about climate change and impacts of individual actions.
- Continue to improve the Green Building Program by exceeding the minimum standards of the state green building code (Cal Green).
- Form partnerships and cooperative agreements among local governments, educational institutions, nongovernmental organizations, and private businesses as a cost-effective way to facilitate mitigation and adaptation.
- Reduce energy use for water supply through water conservation strategies.

As discussed in the Traffic Impact Analysis prepared for this project (Attachment 4), the proposed retail pharmacy would result in a net decrease in Vehicle Miles Travelled which would also result in a reduction in greenhouse gas production. Impacts are expected to be

<sup>3</sup> Monterey Bay Community Power (MBCP) was formed in 2017 to provide carbon-free electricity. All Pacific Gas & Electric Company (PG&E) customers in unincorporated Santa Cruz County were automatically enrolled in the MBCP in 2018.

less than significant.

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** See the discussion under H-1 above. No significant impacts are anticipated.

## I. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project would not create a significant hazard to the public or the environment. No routine transport or disposal of hazardous materials is proposed. However, during construction, fuel would be used at the project site. In addition, fueling may occur within the limits of the staging area proposed to be located on-site. Best management practices would be used to ensure that no impacts would occur. Impacts are expected to be less than significant.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** See discussion under I-1 above. In addition, the project is included on the list of hazardous sites in Santa Cruz County as a result of lead and arsenic contamination that occurred when the site was used for an auto wrecking business. Although lead is dangerous to all humans, it is particularly dangerous to children and pregnant women as it effects the brain and nervous system of developing humans. Arsenic is identified as a carcinogen.

The County of Santa Cruz Environmental Health Services (EHS) division issued a conditional case closure letter (see Attachment 1). In the letter, EHS states that although the elevated chemical concentrations do not currently present an unacceptable health and/or ecological risk, acceptable risk levels could be exceeded if there were a change in the site configuration or use. In anticipation of the project-related grading and site work, Environmental Health has required the preparation of a Soils Management Plan (SMP). The SMP provides direction on how to handle the site's soil (e.g., dust control) to ensure the public's and workers' safety. The SMP is included as Attachment 2. Project conditions of approval will include a requirement to implement the SMP. With the implementation of the

SMP, project impacts would be considered less than significant.

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 3. <i>Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** DeLaveaga Elementary School is located at 1145 Morrissey Blvd., approximately .6 miles to the northwest of the project site. Although fueling of equipment is likely to occur within the staging area, BMPs to contain spills would be implemented. In addition, with the implementation of the Soil Management Plan (see I-2, above), the site's lead and arsenic contamination would be appropriately contained. With the implementation of the SMP, the impact would be less than significant.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 4. <i>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?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project site is included on the 12/3/18 list of hazardous sites in Santa Cruz County compiled pursuant to Government Code section 65962.5. See discussion in I.2. above.

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 5. <i>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 or excessive noise for people residing or working in the project area?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project is not located within two miles of a public airport or public use airport. Dominican Hospital does have a heliport for medical transportation, but given the modest use of the heliport, the project would not expose people to a safety hazard or excessive noise from the heliport use. A less than significant impact is anticipated.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 6. <i>Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project would not conflict with implementation of the County of Santa Cruz Local Hazard Mitigation Plan 2015-2020 (County of Santa Cruz, 2020). Therefore, no

impacts to an adopted emergency response plan or evacuation plan would occur from project implementation.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** See discussion under Wildfire Question T-2. The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. No impact would occur.

## J. HYDROLOGY, WATER SUPPLY, AND WATER QUALITY

Would the project:

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:**

The project would not discharge runoff either directly or indirectly into a public or private water supply. No commercial or industrial activities are proposed that would generate a substantial amount of contaminants. However, runoff from this project may contain small amounts of chemicals and other contaminants, such as pathogens, pesticides, trash, and nutrients. The parking and driveway associated with the project would incrementally contribute urban pollutants to the environment; however, the contribution would be small, given the size of the driveway and parking area. Potential siltation from the project would be addressed through implementation of erosion control BMPs. No water quality standards or waste discharge requirements would be violated, and surface or ground water quality would not otherwise be substantially degraded. Biofiltration treatment systems are proposed to both provide water quality treatment as well as a detention volume. In addition, because the project is over an acre in size, the project will be required to prepare a Stormwater Pollution Prevention Plan to address potential pollution from construction activities. Impacts would be less than significant.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project would obtain water from the City of Santa Cruz and would not rely on private well water. Although the project would incrementally increase water



demand, the City of Santa Cruz has indicated that adequate supplies are available to serve the project (Attachment 6). The project is not located in a mapped groundwater recharge area or water supply watershed and will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Impacts would be less than significant.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 3. <i>Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| A. <i>result in substantial erosion or siltation on- or off-site;</i>   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| B. <i>substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;</i>  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| C. <i>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; or;</i>                              | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| D. <i>impede or redirect flood flows?</i>   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Discussion:** A preliminary stormwater control plan prepared by Kimley-Horn and Associates dated March 2019 have been reviewed for potential drainage impacts and accepted by the County Department of Public Works Stormwater Management Section staff. The runoff rate from the property would be controlled by the proposed detention volumes and an orifice sized to maintain the pre-development rate as required by the County Design Criteria. In addition, the project has incorporated a number of Low Impact Development (LID) strategies. Runoff would be directed to landscaped areas and three bioretention areas located along the northern and southern boundaries. Because the site is not suitable for infiltration due to clay soils, detention volumes would be provided for the design storms after which, runoff would be released at the pre-development rate. On the north side, release would be to the existing storm drain system located in Soquel. This system connects to the system located within Commercial Crossing / Highway One off ramp

through a pipe that crosses the parcel directly west of the subject parcel. The project applicant evaluated the capacity and condition of that pipe and found that upgrades would be required for it to be able to accept the project's runoff. To address this issue, Department of Public Works staff will require the project to detain the post-development 25-year storm while releasing at the pre-development (natural conditions) five year storm flows. There is ample space for subterranean detention volumes under the proposed parking lot. On the south side of the project, runoff enters the storm drain system located in Commercial Way for which there are no known downstream capacity issues. Impacts would be considered less than significant.

4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? ☐ ☐ ☐ ☒

**Discussion:**

Flood Hazards:

According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated May 16, 2012, no portion of the project site lies within a flood hazard zone, and there would be no impact.

Tsunami and Seiche Zones:

There are two primary types of tsunami vulnerability in Santa Cruz County. The first is a teletsunami or distant source tsunami from elsewhere in the Pacific Ocean. This type of tsunami is capable of causing significant destruction in Santa Cruz County. However, this type of tsunami would usually allow time for the Tsunami Warning System for the Pacific Ocean to warn threatened coastal areas in time for evacuation (County of Santa Cruz 2010).

A greater risk to the County of Santa Cruz is a tsunami generated as the result of an earthquake along one of the many earthquake faults in the region. Even a moderate earthquake could cause a local source tsunami from submarine landsliding in Monterey Bay. A local source tsunami generated by an earthquake on any of the faults affecting Santa Cruz County would arrive just minutes after the initial shock. The lack of warning time from such a nearby event would result in higher casualties than if it were a distant tsunami (County of Santa Cruz 2010).

Seiches are recurrent waves oscillating back and forth in an enclosed or semi-enclosed body of water. They are typically caused by strong winds, storm fronts, or earthquakes.

The project site is located approximately two miles inland, which is approximately 6.5 miles beyond the effects of a tsunami. The project site is located approximately 1.5 miles from the Santa Cruz Small Craft Harbor and would not be affected by a seiche. Therefore, there would be no impact.

5. *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**Discussion:** All County water agencies are experiencing a lack of sustainable water supply due to groundwater overdraft and diminished availability of streamflow. Because of this, coordinated water resource management has been of primary concern to the County and to the various water agencies. As required by state law, each of the County's water agencies serving more than 3,000 connections must update their Urban Water Management Plans (UWMPs) every five years, with the most recent updates completed in 2016.

County staff are working with the water agencies on various integrated regional water management programs to provide for sustainable water supply and protection of the environment. Effective water conservation programs have reduced overall water demand in the past 15 years, despite continuing growth. In August 2014, the Board of Supervisors and other agencies adopted the Santa Cruz Integrated Regional Water Management (IRWM) Plan Update 2014, which identifies various strategies and projects to address the current water resource challenges of the region. Other efforts underway or under consideration are stormwater management, groundwater recharge enhancement, increased wastewater reuse, and transfer of water among agencies to provide for more efficient and reliable use.

The County is also working closely with water agencies to implement the Sustainable Groundwater Management Act (SGMA) of 2014. By January 2020, Groundwater Sustainability Plans will be developed for two basins in Santa Cruz County that are designated as critically overdrafted, Santa Cruz Mid-County and Corralitos - Pajaro Valley. These plans will require management actions by all users of each basin to reduce pumping, develop supplemental supplies, and take management actions to achieve groundwater sustainability by 2040. A management plan for the Santa Margarita Basin will be completed by 2022, with sustainability to be achieved by 2042.

The project is located in Santa Cruz Mid-County. In 2016, Soquel Creek Water District (SqCWD), Central Water District (CWD), County, and City of Santa Cruz adopted a Joint Powers Agreement to form the Santa Cruz Mid-County Groundwater Agency for management of the Mid-County Basin under SGMA. SqCWD developed its own Community Water Plan and has been actively evaluating supplemental supply and demand reduction options.

Since the sustainable groundwater management plan is still being developed, the project will comply with SCCC Chapters 7.69 (Water Conservation), to ensure that it will not conflict with or obstruct implementation of current water quality control plans or sustainable groundwater management plans such as the Santa Cruz IRWMP and UWMP for



City of Santa Cruz Water District.

## K. LAND USE AND PLANNING

Would the project:

1. Physically divide an established community?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

**Discussion:** The project does not include any element that would physically divide an established community. No impact would occur.

2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

**Discussion:** The project would not cause a significant environmental impact due to a conflict with any land use plan, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. The project includes requests for three sign exceptions to the County's sign ordinance (13.10.581 *et seq*). The exceptions are to allow for: more than three business signs, an illuminated sign facing a scenic corridor, and an increase in the total allowable sign area. In addition, the applicant requests an exception to Santa Cruz County Code 13.11.074(A)(1)(h) to reduce the five-foot landscape strip required between parking areas and driveways and property lines. In both cases, the Code makes a provision for exceptions. If the exceptions are granted, this will ensure that the project will not conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect (see also the discussion under A-1 and A-3, above). The impact would be less than significant.

In addition to the landscape and sign exceptions, the project proposes to install a drive-through. SCCC 13.10.700-D states that a drive-through use "...means any use which provides foods, goods, or service to occupants of automobiles passing continuously past a pick-up station...." Although SCCC 13.10.652 (Drive-through uses) states, "No drive-through uses as defined in SCCC 13.10.700-D shall be permitted," the County's Planning Commission interpreted the Code on December 10, 2014 that this proposed drive-through use does not meet the County Code definition of "drive-through use." Planning Commission determined that, because the CVS drive-through use only accounts for 3-4% of total store sales, the drive-through did not meet the test of being in "continuous" use. Given this interpretation, the proposed drive-through would not conflict with any land use plan, policy, or regulation.

## L. MINERAL RESOURCES

Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The site does not contain any known mineral resources that would be of value to the region and the residents of the state. Therefore, no impact is anticipated from project implementation.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project site is zoned Community Commercial (C-2), which is not considered to be an Extractive Use Zone (M-3) nor does it have a land use designation with a Quarry Designation Overlay (Q) (County of Santa Cruz 1994). Therefore, no potentially significant loss of availability of a known mineral resource of locally important mineral resource recovery (extraction) site delineated on a local general plan, specific plan or other land use plan would occur as a result of this project.

## M. NOISE

Would the project result in:

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

## Discussion:

### County of Santa Cruz General Plan

The County of Santa Cruz has not adopted noise thresholds for construction noise. The following applicable noise related policy is found in the Public Safety and Noise Element of the Santa Cruz County General Plan (Santa Cruz County 1994).

- Policy 6.9.7 Construction Noise. Require mitigation of construction noise as a condition of future project approvals.

The General Plan also contains the following table, which specifies the maximum allowable noise exposure for stationary noise sources (operational or permanent noise sources) (Table 2).

Table 2: Maximum Allowable Noise Exposure for Stationary Noise Sources <sup>1</sup>		
	Daytime <sup>5</sup> (7:00 am to 10:00 pm)	Nighttime <sup>2, 5</sup> (10:00 pm to 7:00 am)
Hourly Leq average hourly noise level, dB <sup>3</sup>	50	45
Maximum Level, dB <sup>3</sup>	70	65
Maximum Level, dB – Impulsive Noise <sup>4</sup>	65	60
<b>Notes:</b> 1 As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied to the receptor side of noise barriers or other property line noise mitigation measures. 2 Applies only where the receiving land use operates or is occupied during nighttime hours 3 Sound level measurements shall be made with "slow" meter response. 4 Sound level measurements shall be made with "fast" meter response 5 Allowable levels shall be raised to the ambient noise levels where the ambient levels exceed the allowable levels. Allowable levels shall be reduced to 5 dB if the ambient hourly Leq is at least 10 dB lower than the allowable level. Source: County of Santa Cruz 1994		

### County of Santa Cruz Code

There are no County of Santa Cruz ordinances that specifically regulate construction or operational noise levels. However, Section 8.30.010 (Curfew—Offensive noise) of the SCCC contains the following language regarding noise impacts:

(A) No person shall make, cause, suffer, or permit to be made any offensive noise.

(B) "Offensive noise" means any noise which is loud, boisterous, irritating, penetrating, or unusual, or that is unreasonably distracting in any other manner such that it is likely to disturb people of ordinary sensitivities in the vicinity of such noise, and includes, but is not limited to, noise made by an individual alone or by a group of people engaged in any business, activity, meeting, gathering, game, dance, or amusement, or by any appliance, contrivance, device, tool, structure, construction, vehicle, ride, machine, implement, or instrument.

(C) The following factors shall be considered when determining whether a violation of the

provisions of this section exists:

(1) Loudness (Intensity) of the Sound.

(a) Day and Evening Hours. For purposes of this factor, a noise shall be automatically considered offensive if it occurs between the hours of 8:00 a.m. and 10:00 p.m. and it is:

- (i) Clearly discernible at a distance of 150 feet from the property line of the property from which it is broadcast; or
- (ii) In excess of 75 decibels at the edge of the property line of the property from which the sound is broadcast, as registered on a sound measuring instrument meeting the American National Standard Institute's Standard S1.4-1971 (or more recent revision thereof) for Type 1 or Type 2 sound level meters, or an instrument which provides equivalent data.

A noise not reaching this intensity of volume may still be found to be offensive depending on consideration of the other factors outlined below.

(b) Night Hours. For purposes of this factor, a noise shall be automatically considered offensive if it occurs between the hours of 10:00 p.m. and 8:00 a.m. and it is:

- (i) Clearly discernible at a distance of 100 feet from the property line of the property from which it is broadcast; or
- (ii) In excess of 60 decibels at the edge of the property line of the property from which the sound is broadcast, as registered on a sound measuring instrument meeting the American National Standard Institute's Standard S1.4-1971 (or more recent revision thereof) for Type 1 or Type 2 sound level meters, or an instrument which provides equivalent data.

A noise not reaching this intensity of volume may still be found to be offensive depending on consideration of the other factors outlined below.

- (2) Pitch (frequency) of the sound, e.g., very low bass or high screech;
- (3) Duration of the sound;
- (4) Time of day or night;
- (5) Necessity of the noise, e.g., garbage collecting, street repair, permitted construction activities;
- (6) The level of customary background noise, e.g., residential neighborhood, commercial zoning district, etc.; and
- (7) The proximity to any building regularly used for sleeping purposes. [Ord. 5205

§ 1, 2015; Ord. 4001 § 1, 1989]

### Sensitive Receptors

Some land uses are generally regarded as being more sensitive to noise than others due to the type of population groups or activities involved. Sensitive population groups generally include children and the elderly. Noise sensitive land uses typically include all residential uses (single- and multi-family, mobile homes, dormitories, and similar uses), hospitals, nursing homes, schools, and parks.

The nearest sensitive receptors are patients of Dominican Hospital which is located across Soquel Drive, approximately 300 feet to the north of the project area.

### Impacts

#### Potential Temporary Construction Noise Impacts

The use of construction equipment to accomplish the project would result in noise in the project area, i.e., construction zone. Table 3 shows typical noise levels for common construction equipment. The sources of noise that are normally measured at 50 feet, are used to determine the noise levels at nearby sensitive receptors by attenuating 6 dB for each doubling of distance for point sources of noise such as operating construction equipment. Noise levels at the nearest sensitive receptors for each site were analyzed on a worst-case basis, using the equipment with the highest noise level expected to be used.

Although construction activities would likely occur during daytime hours, noise may be audible to nearby residents. However, periods of noise exposure would be temporary. Noise from construction activity may vary substantially on a day-to-day basis.

Construction activity would be expected to use equipment listed in Table 3. Based on the activities proposed for the project, the equipment with the loudest operating noise level that would be used often during activity would be an excavator, which would produce noise levels of 85 dBA at a distance of 50 feet. The nearest sensitive receptor is located approximately 300 feet from the construction site. At that distance, the decibel level is reduced by approximately 15.56 to 69.44 decibels. However, these impacts would also be temporary.

Noise generated during project construction would increase the ambient noise levels in

Table 3: Typical Noise Levels for Common Construction Equipment (at 50 feet)	
Equipment	L <sub>eq</sub> (dBA)
Air Compressor	80
Backhoe	80
Chain Saw	85
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Saw	90
Crane	83
Dozer	85
Dump Truck	84
Excavator	85
Flat Bed Truck	84
Fork Lift	75
Generator	82
Grader	85
Ho-ram	90
Jack Hammer	88
Loader	80
Paver	85
Pick-up Truck	55
Pneumatic Tool	85
Roller	85
Tree Chipper	87
Truck	84

Source: Federal Transit Authority, 2006, 2018.



adjacent areas. Construction would be temporary, however, and given the limited duration of this impact it is considered to be less than significant with the incorporation of mitigation measures:

- NOI-1 Require that all construction and maintenance equipment powered by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.
- NOI-2 Prohibit gasoline or diesel engines from having unmuffled exhaust.
- NOI-3 Use noise-reducing enclosures around stationary noise-generating equipment capable of 6 dB attenuation.

Potential Permanent Impacts

The project would not result in a permanent increase in the ambient noise level. The main source of ambient noise in the project area is traffic noise along Soquel Drive, Commercial Way, and Highway 1 as well as intermittent siren noise from ambulances destined for Dominican Hospital's Emergency Room. Although the project would generate additional trips, the additional noise impact would be negligible relative to the existing traffic noise environment which includes a highway and an arterial roadway. Impacts are expected to be less than significant.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. Generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The use of construction and grading equipment would potentially generate periodic vibration in the project area. This impact would be temporary and periodic and is not expected to cause damage; therefore, impacts are not expected to be significant.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 3. For a project located within the vicinity of a private airstrip or 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project is not in the vicinity of a private airstrip or within two miles of a public airport. The heliport at Dominican Hospital provides medical transportation. The use of the heliport is infrequent in comparison to an airport. Therefore, the project would not expose people residing or working in the project area to a significant noise impact. Given this, the impact would be less than significant.

## N. POPULATION AND HOUSING

Would the project:

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Induce substantial unplanned 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project is designed at the intensity of development allowed by the General Plan and zoning designations for the parcel. Additionally, the project does not involve extensions of utilities (e.g., water, sewer, or new road systems) into areas previously not served. Consequently, it is not expected to have a significant growth-inducing effect. Impacts would be less than significant.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The existing building on APN 025-071-05 contains one apartment. As a part of the project, that apartment would be demolished to facilitate the construction of the retail pharmacy. However, the project would not displace a substantial number of people, and impacts would be less than significant.

## O. PUBLIC SERVICES

Would the project:

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 1. 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?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Police protection?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Schools?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d. Parks?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e. Other public facilities; including the maintenance of roads?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**Discussion (a through e):** The project site is served by the Central Fire Protection District and County Sheriff. Nearby schools are Green Acres Elementary Schools, Delaveaga Elementary School, and Harbor High School. Parks in the vicinity include Santa Cruz Gardens County Park, Delaveaga County Park, and Jose Avenue County Park.

While the project represents an incremental contribution to the need for services, the increase would be minimal. Moreover, the project meets all of the standards and requirements identified by the local fire agency, and school, park, and transportation fees to be paid by the applicant would be used to offset the incremental increase in demand for school and recreational facilities and public roads. Impacts would be considered less than significant.

#### P. RECREATION

*Would the project:*

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project would not substantially increase the use of existing neighborhood and regional parks or other recreational facilities. Impacts would be considered less than significant.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project does not propose the expansion or require the construction of additional recreational facilities. No impact would occur.

#### Q. TRANSPORTATION

*Would the project:*

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:**

A traffic impact analysis (TIA) for the project was prepared by Kimley Horn, dated May 2019 (Attachment 4). The TIA provides both LOS and VMT analyses in acknowledgment of



SB 743 which requires that jurisdictions adopt vehicle miles travelled (VMT) for thresholds of significance by July 2020. Since the proposed retail pharmacy would not open until after July 2020, VMT is the appropriate method for evaluating environmental impacts resulting from traffic and is discussed in Q-2 below. In this context, LOS information provides an indication of operational impacts, but is not relied upon to identify environmental impacts under CEQA.

The project site has frontages along both Soquel Drive and Commercial Way. Soquel Drive is a four-lane east/west arterial roadway that connects the City of Santa Cruz and Aptos. Commercial Way runs east/west and its western extent connect with the Highway 1 northbound off-ramp which then connects to the Soquel Drive / Paul Sweet Road intersection. Highway 1 is located just south of the project site.

Using the Institute of Transportation Engineers (ITE) trip generation data, the TIA project calculated that the project would result in 1,286 daily trips of which 62 trips would occur during the afternoon peak (PM). Traffic impacts to seven study intersections are evaluated in the report; those intersections are:

- (1) Soquel Drive and Soquel Avenue
- (2) Soquel Drive and Paul Sweet Road / Commercial Way
- (3) Soquel Drive and Hospital Drive / Project Driveway #1
- (4) Soquel Drive and Hospital Drive / Commercial Crossing
- (5) Soquel Drive and Mission Drive
- (6) Soquel Drive and Thurber Lane
- (7) Highway 1 northbound on/off ramps / Commercial Way and Project Driveway #2

These seven intersections were evaluated relative to the existing conditions and existing plus project for the following time periods: 2018, 2020 (near term), and 2035 (cumulative). The cumulative scenario is based upon an anticipated growth rate of 2.34% per year. This growth rate was applied to the 2018 calculated trips and impacts to the study intersections were then evaluated with and without the project (Attachment 4, page 35).

In the cumulative scenario, the project traffic engineer found that project traffic would result in a significant impact to the level of service (LOS) at three of the study intersections (Intersection 2, 5 and 7), as shown in the table below. LOS evaluates impacts based upon the control delay per motor vehicle (in seconds per vehicle) and is described on a scale of A through F, with LOS A representing free flow non-congested traffic conditions and an LOS F representing highly congested traffic conditions with what is commonly considered to be unacceptable delay at intersections.

Table 9 – Cumulative Plus Project Conditions Intersection Level of Service

#	Interaction	Maintaining Agency	Control Type	Cumulative Conditions						Cumulative Plus Project Conditions					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				Movement	Delay	LOS	Movement	Delay	LOS	Movement	Delay	LOS	Movement	Delay	LOS
1	Soquel Dr & Soquel Ave	SCC	Signal	Overall	66.0	E	Overall	70.0	E	Overall	65.0	E	Overall	70.7	E
2	Soquel Dr & Paul Sweet Rd / Commercial Way	Caltrans	Signal	Overall	120.0	F	Overall	76.1	E	Overall	126.7	F	Overall	79.0	F
3	Soquel Dr & Hospital Dr / Project Dwy #1 Worst Approach	SCC	SSSC	Overall	1.2	A	Overall	1.3	A	Overall	1.2	A	Overall	1.0	A
				SB	31.0	D	SB	41.8	E	SB	25.4	D	SB	27.1	D
4	Soquel Dr & Hospital Dr / Commercial Crossing	SCC	Signal	Overall	14.1	B	Overall	47.3	D	Overall	14.3	B	Overall	50.5	D
5	Soquel Dr & Mission Dr	SCC	Signal	Overall	28.8	C	Overall	78.5	E	Overall	29.9	C	Overall	79.8	E
6	Soquel Dr & Thurber Ln	SCC	Signal	Overall	58.3	E	Overall	23.3	C	Overall	53.6	E	Overall	24.1	C
7	Highway 1 NB On-Off Ramp / Commercial Way & Project Dwy #2 Worst Approach	Caltrans	SSSC	Overall	37.7	E	Overall	26.6	D	Overall	47.4	E	Overall	46.0	E
				SB	913.8	F	SB	413.7	F	SB	1020.7	F	SB	920.8	F

Intersections 2 and 7 are within California Department of Transportation (Caltrans) jurisdiction. Caltrans has identified LOS D as the acceptable service level for the Highway 1 & Soquel Avenue/Drive signalized intersections. Caltrans identifies impacts as occurring when the project causes a LOS E or worse or causes the existing measure of effectiveness to deteriorate at a State-operated intersection operating at LOS E or worse.

Caltrans plans to reconstruct the Highway 1 / Soquel Drive interchange of which Intersections 2 and 7 are a part. With the implementation of this plan, the LOS in the cumulative plus project scenario would improve to LOS D for Intersection 2 and LOS A for intersection 7. Although Caltrans has redesigned the interchange, the project is not yet funded. Caltrans has no mechanisms for accepting funds from a developer to mitigate a project's impact. The County has no authority over Intersections 2 and 7 and, therefore, must rely on Caltrans to resolve the low level of service in the cumulative scenarios.

Intersection 5 (Soquel Drive and Mission Drive) is within the County's jurisdiction and the County continues to use LOS to identify operational constraints at its intersections. The County's minimum acceptable LOS is D. In the cumulative and cumulative plus project scenarios PM peak, this intersection would function at LOS E and cause the critical movement volume to capacity ratio to increase by more than 1% (1.48%).

General Plan Policy 3.12.1. requires that proposed development projects "that would add traffic at intersections or on highway segments already at LOS E or F shall also be required to mitigate any traffic volume resulting in a 1% increase in the volume/capacity ratio of the sum of all critical movements." The 1% increase in the volume/capacity ratio of the sum of all critical movements threshold cited above in General Plan Policy 3.12.1, however, is no longer consider an appropriate threshold and is not used by the County due to past case law nullifying the ratio theory. As a result, the 1% threshold will not be applied to this project and a significant impact would not occur at intersection 5. Regardless, the Department of Public Works has reviewed the traffic study and established the implementation of a split phasing signal operation on the northbound and southbound approaches as a condition of approval for the project impacts. The project applicant would pay the project's proportion of the improvement which would be 1.9% of the improvement cost. With these measures

incorporated into the project, impacts would be less than significant.

In addition, the project design would comply with current road requirements, including the regulations under section 13.11.074 of the County Code, "Access, circulation and parking" to prevent potential hazards to motorists, bicyclists, and/or pedestrians, as well as the County of Santa Cruz Department of Public Works design criteria.

Santa Cruz County Code Section 15.12.030 states that all development projects shall pay a transportation and roadside improvement fee. The fee amount for non-residential developments is determined on a basis of project generated traffic as reported as end trips. Transportation and roadside improvement fees are paid into separate traffic and roadside improvement trust funds for each General Plan planning area. Fees for the proposed project—calculated at \$268,410—will be paid into the trust fund for the Live Oak planning area.

In addition, the project will provide ADA compliant sidewalk facilities along project frontages along Soquel Drive and Commercial Way. Class II bicycle improvements are available along Soquel Drive, including the recently constructed green bike lanes at Paul Sweet Road and Commercial Way / Highway Northbound On-Off ramps. Within the project, accommodations have been made for pedestrian circulation and bicycle racks have been provided near the front of the store. Given all of these considerations, impacts would be less than significant.

2. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1) (Vehicle Miles Traveled)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

**Discussion:** As noted above, in response to the passage of Senate Bill 743 in 2013 and other climate change strategies, the Governor's Office of Planning and Research (OPR) amended the CEQA Guidelines to replace LOS with vehicle miles traveled (VMT) as the measurement for traffic impacts. The "Technical Advisory on Evaluating Transportation Impacts in CEQA," prepared by the Office of Planning and Research (OPR) (2018) provides recommended thresholds and methodologies for assessing impacts of new developments using VMT. Tying significance thresholds to the State's GHG reduction goals, the guidance recommends a threshold reduction of 15% under current average VMT levels for residential projects (per capita) and office projects (per employee), and a tour-based<sup>4</sup> reduction from current trips for retail projects. Based on the latest estimates compiled from the Highway Performance Monitoring System, the average daily VMT in Santa Cruz County is 18.3 miles

<sup>4</sup> According to OPR's Technical Advisory, a "tour-based" assessment, "...counts the entire home-back-to-home tour that includes the project" (page 29).

per capita (Department of Finance [DOF] 2018; Caltrans 2018).

The project consists of a 13,111 square foot retail pharmacy located on Soquel Drive, a major arterial roadway in an urbanized portion of the County. The project is served by Santa Cruz METRO's (bus service) Route 71 which connects downtown Santa Cruz with Watsonville, and passes through the northern portion of Live Oak, Soquel, Aptos, and communities along Freedom Boulevard. A northbound bus stop is located almost directly across Soquel Drive from the project site and a southbound bus stop is located within a block's walk. Soquel Drive has both north and southbound bike lanes.

Kimley Horn provided a Traffic Impact Analysis (TIA) which, in addition to the LOS analysis described above, includes a VMT analysis (Attachment 4, page 51). The TIA's analysis is informed by the OPR's Technical Advisory. For local serving retail projects such as the one proposed, the Advisory states, "By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduced VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact" (page 16). In other words, by increasing the density of the retail pharmacy opportunities, shorter trips will result, translating into fewer vehicle miles travelled. The proposed location fills a gap in the existing pharmacy distribution in the area (Attachment 4, Figure 17, page 53) where, other than the small hospital pharmacy located on the Dominican campus and the small pharmacy located within the Palo Alto Medical Foundation building located at the intersection Soquel Drive and Capitola Road, the nearest pharmacies to the project site are the Walgreens located at Hagemann Avenue and Soquel and the Safeway pharmacy located on 41<sup>st</sup> Avenue. In addition, the Sustainable Santa Cruz County Plan identifies the project site as being within the Medical District. A full-service retail pharmacy in this location will serve patients leaving the hospital or other medical providers in the area, reducing the overall number of vehicle miles travelled. Given these considerations, including the fact that the project would reduce the County's VMT, the project will result in a beneficial impact.

In addition, per General Plan Objective 3.1 Vehicle Miles, it is the County of Santa Cruz's objective to "limit the increase in Vehicle Miles Traveled (VMT) to achieve as a minimum, compliance with the current Air Quality Management Plan." The project would reduce VMT by virtue of it being a local-serving retail use. Impacts from project implementation would be less than significant.

3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? ☐ ☐ ☐ ☒

**Discussion:** The project consists of the construction of new retail pharmacy and related



improvements such as a drive-through, parking lot, landscaping and signs. No increase in hazards would occur from project design or from incompatible uses. No impact would occur from project implementation.

4. Result in inadequate emergency access? ☐ ☐ ☐ ☒

**Discussion:** The project's road access meets County standards and has been approved by the local fire agency or California Department of Forestry, as appropriate.

## R. TRIBAL CULTURAL RESOURCES

1. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| A. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources Code section 5020.1(k), or  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| B. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Discussion:** Section 21080.3.1(b) of the California Public Resources Code (AB 52) requires a lead agency formally notify a California Native American tribe that is traditionally and culturally affiliated within the geographic area of the discretionary project when formally requested. As of this writing, no California Native American tribes traditionally and culturally affiliated with the Santa Cruz County region have formally requested a consultation with the County of Santa Cruz (as Lead Agency under CEQA) regarding Tribal Cultural Resources. However, no Tribal Cultural Resources are known to occur in or near the project area. Therefore, no impact to the significance of a Tribal Cultural Resource is anticipated from project implementation.

## S. UTILITIES AND SERVICE SYSTEMS

Would the project:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

### Discussion:

#### Water

The project would connect to an existing municipal water supply. The City of Santa Cruz Water District has determined that adequate supplies are available to serve the project (Attachment 6), and no new facilities are required to serve the project. No impact would occur from project implementation.

#### Wastewater

Municipal wastewater treatment facilities are available and have capacity to serve the project. No new wastewater facilities are required to serve the project. No impact would occur from project implementation.

#### Stormwater

The drainage analysis for the project *Preliminary Stormwater Control Plan*, prepared by Kimley-Horn and Associates dated March 2019 concluded that the project would comply with the County's Design Criteria for project stormwater management (Attachment 7). The County Department of Public Works Stormwater Management staff have reviewed the drainage information and have determined that, with the exception of a drainage pipe located on the 76 gas station property, downstream storm facilities are adequate to handle the increase in drainage associated with the project. The applicant evaluated the drainage pipe located on the 76 gas station and found that condition and capacity issues that would require upgrading. The Department of Public Works has remedied this capacity limitation by increasing the detention volumes on the subject parcel to the 25-year storm while releasing at the pre-development (natural conditions) five year storm flows. Therefore, no additional drainage facilities would be required for the project. No impacts are expected to occur from the project.

#### Electric Power

Pacific Gas and Electric Company (PG&E) provides power to existing and new developments in the Santa Cruz County area. As of 2018, residents and businesses in the County were automatically enrolled in MBCP's community choice energy program, which

provides locally controlled, carbon-free electricity delivered on PGE's existing lines. The proposed site is already served by electric power, but additional improvements are necessary to serve the site. However, no substantial environmental impacts will result from the additional improvements; impacts will be less than significant.

### Natural Gas

PG&E serves the urbanized portions of Santa Cruz County with natural gas. The proposed site is already served with natural gas, and no further improvements to serve the site are necessary; therefore, there will be no impact.

### Telecommunications

Telecommunications, including telephone, wireless telephone, internet, and cable, are provided by a variety of organizations. AT&T is the major telephone provider, and its subsidiary, DirectTV provides television and internet services. Cable television services in Santa Cruz County are provided by Charter Communications in Watsonville and Comcast in other areas of the county. Wireless services are also provided by AT&T, as well as other service providers, such as Verizon.

No improvements related to telecommunications are required, and there will be no impact.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

### **Discussion:**

The City of Santa Cruz Water District has indicated that adequate water supplies are available to serve the project and has issued a will-serve letter for the project, subject to the payment of fees and charges in effect at the time of service (Attachment 6). The development would also be subject to the water conservation requirements in Chapter 7.69 (Water Conservation) and 13.13 (Water Conservation—Water Efficient Landscaping) of the County Code and the policies of section 7.18c (Water Conservation) of the General Plan. Therefore, existing water supplies would be sufficient to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be less than significant.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Result in 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:**

The County of Santa Cruz has indicated that adequate capacity in the sewer collection system is available to serve the project and has indicated that sewer service is available for the project, subject to the payment of fees and charges in effect at the time of service. Therefore, existing wastewater collection/treatment capacity would be sufficient to serve the project. No impact would occur from project implementation.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 4. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** Due to the small incremental increase in solid waste generation by the project during construction and operations, the impact would not be significant.

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 5. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project would comply with all federal, state, and local statutes and regulations related to solid waste disposal. No impact would occur.

**T. WILDFIRE**

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Substantially impair an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project is not located in a State Responsibility Area, a Very High Fire Hazard Severity Zone, or a County-mapped Critical Fire Hazard Area and will not conflict with emergency response or evacuation plans. Therefore, no impact would occur.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project is not located in a State Responsibility Areas, a Very High Fire Hazard Severity Zone, or a County-mapped Critical Fire Hazard Area. However, the project design incorporates all applicable fire safety code requirements and includes fire protection devices as required by the local fire agency and is unlikely to exacerbate wildfire



risks. Impacts would be less than significant.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 3. <i>Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project is not located in a State Responsibility Areas, a Very High Fire Hazard Severity Zone, or a County-mapped Critical Fire Hazard Area. Improvements associated with the project are unlikely to exacerbate wildfire risks. Impacts would be less than significant.

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 4. <i>Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project is not located within a State Responsibility Areas, a Very High Fire Hazard Severity Zone, or a County-mapped Critical Fire Hazard Area. Downslope and downstream impacts associated with wildfires are unlikely to result from the project. Regardless, the project design incorporates all applicable fire safety code requirements and includes fire protection devices as required by the local fire agency. Impacts would be less than significant.

#### U. MANDATORY FINDINGS OF SIGNIFICANCE

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. <i>Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal community or eliminate important examples of the major periods of California history or prehistory?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The potential to substantially 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, substantially 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 were considered in the response to each question in Section III (A through T) of this Initial Study. As a result of this evaluation, there is no substantial evidence that significant effects associated with this project would result. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

2. 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)?
- |                          |                          |                                     |                          |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** In addition to project specific impacts, this evaluation considered the project's potential for incremental effects that are cumulatively considerable. As a result of this evaluation, there were determined to be no potentially significant cumulative effects associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

3. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?
- |                          |                          |                                     |                          |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings were considered in the response to specific questions in Section III (A through T). As a result of this evaluation, no potentially adverse effects to human beings associated with this project were identified. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

#### IV. REFERENCES USED IN THE COMPLETION OF THIS INITIAL STUDY

California Department of Conservation, 1980

Farmland Mapping and Monitoring Program Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance Santa Cruz County U.S. Department of Agriculture, Natural Resources Conservation Service, soil surveys for Santa Cruz County, California, August 1980.

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California Natural Diversity Database USGS 7.5 minute quadrangle; queried March 2, 2020.

CalFIRE, 2010

*Santa Cruz County-San Mateo County Community Wildfire Protection Plan.* May 2010.

Caltrans, 2018

California Public Road Data 2017: Statistical Information Derived from the Highway Performance Monitoring System. Released by the State of California Department of Transportation November 2018.

County of Santa Cruz, 1994

1994 General Plan and Local Coastal Program for the County of Santa Cruz, California. Adopted by the Board of Supervisors on May 24, 1994, and certified by the California Coastal Commission on December 15, 1994.

County of Santa Cruz, 2013

County of Santa Cruz Climate Action Strategy. Approved by the Board of Supervisors on February 26, 2013.

County of Santa Cruz, 2015

*County of Santa Cruz Local Hazard Mitigation Plan 2015-2020.* Prepared by the County of Santa Cruz Office of Emergency Services.

DOF, 2018

*E-5 Population and Housing Estimates for Cities, Counties and the State—January 1, 2011-2018.* Released by the State of California Department of Finance May 2018.

Federal Transit Administration, 2006

*Transit Noise and Vibration Impact Assessment Manual.*

Federal Transit Administration, 2018

*Transit Noise and Vibration Impact Assessment Manual.* September 2018.

FEMA

Flood Insurance Rate Map, Federal Emergency Management Agency. Accessed on March 19, 2020.

**MBUAPCD, 2008**

Monterey Bay Unified Air Pollution Control District (MBUAPCD), CEQA Air Quality Guidelines. Prepared by the MBUAPCD, Adopted October 1995, Revised: February 1997, August 1998, December 1999, September 2000, September 2002, June 2004 and February 2008.

**MBUAPCD, 2013a**

Monterey Bay Unified Air Pollution Control District, NCCAB (NCCAB) Area Designations and Attainment Status – January 2013. Available online at [http://www.mbuapcd.org/mbuapcd/pdf/Planning/Attainment\\_Status\\_January\\_2013\\_2.pdf](http://www.mbuapcd.org/mbuapcd/pdf/Planning/Attainment_Status_January_2013_2.pdf)

**MBUAPCD, 2013b**

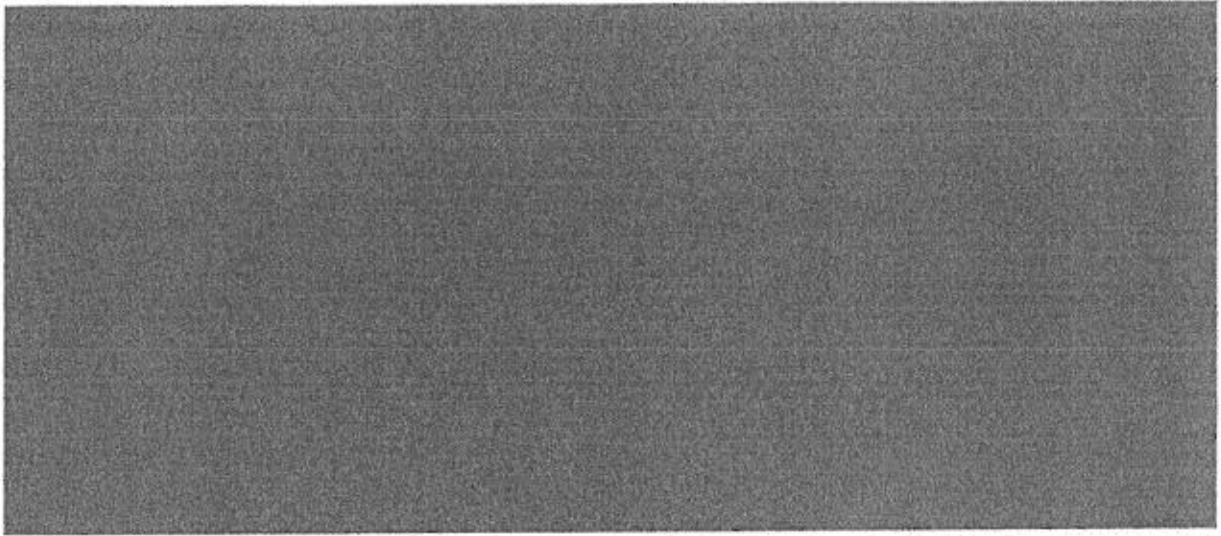
Triennial Plan Revision 2009-2011. Monterey Bay Unified Air Pollution Control District. Adopted April 17, 2013.

**OPR, 2018**

"Technical Advisory on Evaluating Transportation Impacts in CEQA." Available online at [http://www.opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](http://www.opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf).

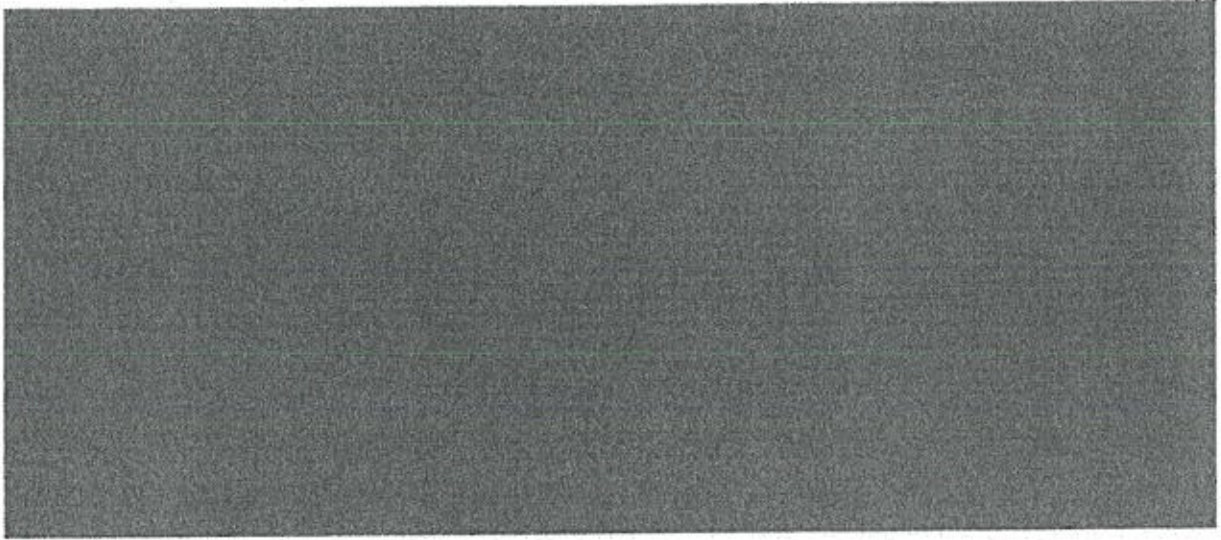


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## **Attachment 1**

### **Mitigation Monitoring and Reporting Program**



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NAME: CVS  
APPLICATION: 181576  
A.P.N: 025-071-05 & -20

## **NEGATIVE DECLARATION MITIGATIONS**

In order to reduce impacts from construction-related noise to a less than significant level, the following mitigations shall be required and shall be incorporated into the project conditions of approval:

- NOI-1 Require that all construction and maintenance equipment powered by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.
- NOI-2 Prohibit gasoline or diesel engines from having unmuffled exhaust.
- NOI-3 Use noise-reducing enclosures around stationary noise-generating equipment capable of 6 dB attenuation.

It shall be the responsibility of the project building inspectors to ensure these mitigations are met through the standard inspection process and through response to complaints.





# County of Santa Cruz

## HEALTH SERVICES AGENCY

701 OCEAN STREET, ROOM 312, SANTA CRUZ, CA 95060-4073

(831) 454-2022 FAX: (831) 454-3128

<http://www.co.santa-cruz.ca.us/>

ENVIRONMENTAL HEALTH

December 11, 2017

Mr. Joe Appenrodt  
Plymouth Grant LLC  
4375 Capitola Road  
Capitola, CA 95010  
Email: [appenrodt1@aol.com](mailto:appenrodt1@aol.com)

**SUBJECT:** *Automotive Wrecking and Dismantling Yard Case Closure, Bei-Scott Company, LLC (GeoTracker Global ID T10000006041), 1505 Commercial Way, Santa Cruz, California*

Dear Mr. Appenrodt:

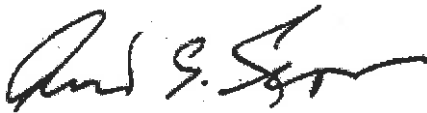
The County of Santa Cruz Environmental Health Division (CSCEHD) has reviewed the following document for the subject site: (1) *Remedial Excavation Completion Report & Request for No Further Action* (dated November 6, 2017, by Weber, Hayes & Associates [WHA]). Thank you for the submittal. Your consultant recommends this site for case closure. Our review of site conditions and the cited document suggests that no further assessment and/or remediation are needed for our agency at this time.

Our agency has a site-specific condition for this case closure. We note that lead and arsenic soil chemical concentrations remain above health and/or ecological risk-based screening levels at approximately 0.5 feet below the ground surface in a limited area along the northern and northeastern property boundary (soil samples SW-1 through SW-5). Although we understand the elevated chemical concentrations do not currently present an unacceptable health and/or ecological risk, acceptable risk levels could be exceeded if there were a change in the site configuration or use. Based on these considerations, prior to any grading, excavation, or dewatering in the impacted area or any changes to the site configuration or use, you are required to notify our agency for an evaluation of any special requirements that may be appropriate to protect human health and/or the environment.

Please recognize that our case-closure determination does not relieve you or future owners or operators of requirements from other agencies or of additional requirements from our agency if regulations or standards change or if further review, information, or site findings indicate that additional activities are warranted. If new information becomes available regarding soil or groundwater contamination at the site or if site use or site activities change such that possible exposure to a released hazardous material or waste may occur, this information must be reported to our agency. Any person who has knowledge of or observes a release of a hazardous material or waste that they suspect to be unauthorized is required to report the release immediately or as soon as practically possible to our agency.

Thank you for your cooperation in addressing this site mitigation case and for your commitment to the protection of water quality and environmental health in the County of Santa Cruz. If you have any comments or questions regarding this letter, you may contact John Gerbrandt at [John.Gerbrandt@santacruzcounty.us](mailto:John.Gerbrandt@santacruzcounty.us) or (831) 454-2731, 8:00 a.m. to 9:30 a.m., Monday through Friday.

Sincerely,

A handwritten signature in black ink, appearing to read "Arnold Leff".

Arnold Leff, M.D., R.E.H.S.  
Director of Environmental Health

Cc: Mr. Jered Chaney, WHA ([jered@weber-hayes.com](mailto:jered@weber-hayes.com))  
Mr. John Gerbrandt, SCCEHD ([John.Gerbrandt@santacruzcounty.us](mailto:John.Gerbrandt@santacruzcounty.us))

## SOIL MANAGEMENT PLAN

***Proposed CVS Store No. 10395  
Southeast Corner of Soquel Drive and Commercial Way  
Santa Cruz, California***

***July 2014***

The material and data were prepared under the supervision of the undersigned. This report was prepared consistent with current construction industry standards and environmental consulting principles and practices that are within the limitations provided herein.

Written and Approved by:

*William A. Mitchell*

William A. Mitchell, PG  
Senior Geologist



Reviewed by:

*Ramil G. Reyes*

Ramil G. Reyes, REPA  
Client Program Manager

**EXHIBIT A**  
**ATTACHMENT 2**

## **Table of Contents**

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1.0	Introduction .....	1-2
1.1	Site Description .....	1-2
1.2	Findings of Prior Site Assessments and Investigations .....	1-2
1.3	Objective .....	1-6
2.0	Future Construction/Redevelopment on the Property .....	2-1
2.1	Potential Excavation Areas .....	2-1
2.2	PPE Measures .....	2-1
2.3	Dust Control .....	2-1
2.4	Soil Storage & Handling .....	2-2
2.5	Activities Requiring Special Procedures/Hazard Communication .....	2-3
3.0	Soil Testing and Observation .....	3-1
3.1	Site Wide Grading .....	3-1
3.2	Near-surface Soil Disturbance .....	3-1
4.0	Soil Disposal .....	4-1
4.1	Non-hazardous Soil .....	4-1
4.2	Hazardous Soil .....	4-1
4.3	Soil Screening Criteria .....	4-1
5.0	References .....	5-1

## **List of Figures**

---

Figure 1 – Site Location Map

Figure 2 – Site Plan

Figure 3 – Prior Phase II Boring Locations Map

Figure 4 – Prior Additional Phase II Boring and Test Pit Locations Map

Figure 5 – Prior Additional Phase II Trench Line Map

## **1.0 Introduction**

---

CB&I Environmental & Infrastructure, Inc. (CB&I), is pleased to present this Soil Management Plan (SMP), which has been developed for Armstrong Development Properties, Inc. (Armstrong) and CVS Pharmacy, Inc. (CVS) to address potential petroleum hydrocarbon exposures to construction workers, nearby residents, pedestrians and future users of the Site and to provide guidance to workers conducting ground disturbance actions required for redevelopment activities across the proposed CVS site area located on the Southeast Corner of Soquel Drive and Commercial Way in Santa Cruz, California (herein referred to as "Subject Property" or "Site"). The site location is depicted in **Figure 1** and a site plan is included as **Figure 2**.

### **1.1 Site Description**

The Subject Property, approximately 1.19 acres of a rectangular-shaped parcel of land, is located at the southeast corner of Soquel Drive and Commercial Way in the City of Santa Cruz. The Subject Property is currently improved with two buildings. The western-most building located at 1505 Commercial Way consists of a one-story retail building occupied by "WorkSpace", an office furniture store. The eastern-most building located at 1515 Commercial Way is occupied by a two-story retail/residential building occupied by "Decor Furniture", a home-furnishing store, and an apartment located on the second floor of the building. The far western side of the Subject Property is leased to Lewis Plaster Service (LPS) and also addressed as 1505 Commercial Way. This business uses a portion of the Subject Property as an equipment/material storage yard. The remaining portions of the Subject Property are paved with asphalt and used for parking and drive areas.

Prior assessments have been conducted by CB&I on the Subject Property, including a prior Phase I Environmental Site Assessment (Phase I ESA) dated February 17, 2014 and two prior Phase II ESAs dated April 14, 2014 and June 4, 2014, respectively, that describes the nature and extent of known contamination that was identified at the Subject Property, which are further detailed in the sections presented below.

### **1.2 Findings of Prior Site Assessments and Investigations**

Based on the findings of the Phase I ESA, further environmental response actions or investigation activities in connection with the Subject Property were deemed warranted including the following:

- CB&I recommended that the equipment/material storage yard be re-inspected once the materials and equipment are removed. The drums of waste oil and the container of waste oil filters, and the other potentially hazardous materials (coatings, vehicle fluid containers, aerosol cans), will also need to be properly removed and disposed of in accordance with applicable governmental regulations. The re-inspection would enable CB&I to further evaluate the extent of surface staining that was observed, which also may require further assessment depending on the findings.
- CB&I also noted that a geophysical survey was conducted concurrent to the Phase I site reconnaissance. Due to the abundant metallic equipment/objects stored in the area, the geophysical survey had severe limitations in the evaluation of potential buried underground storage tanks (USTs) or other objects such as buried drums. CB&I recommended that the geophysical survey be re-done in the area of the yard once it has been cleared.
- CB&I also noted that a prior soil and groundwater assessment was conducted within the LPS yard by another consultant back in 1992 following the departure of the former auto wrecking business. While no soil or groundwater impacts were identified during this assessment, a groundwater monitoring well was installed and a debris/fill area was noted. CB&I was not able to confirm in the Phase I assessment whether the well was properly abandoned, or whether the debris/fill area was removed. Further inspection of the yard area once cleared of the equipment/material may resolve these potential issues.

As a result of the findings from the Phase I ESA, CB&I subsequently conducted a Phase II ESA soil sampling assessment on the Subject Property. The objective of the Phase II ESA investigation was to determine the potential soil impacts associated with past on-site activities and to identify existing underground utility lines within the Subject Property area and to look for geophysical anomalies that may be indicative of USTs and/or other buried objects in the subsurface. The chemicals of potential concern included gasoline, diesel fuel, motor oil, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals.

The findings of the geophysical survey conducted during this Phase II assessment did not reveal evidence of anomalies characteristic of USTs; however, some fairly large anomalies that could potentially represent buried metallic objects of unknown origins were found. Based on the past use of this portion of the Subject Property as an auto wrecking yard, there was a potential that buried auto parts, drums, or other objects of potential environmental concern may have been buried beneath the Subject Property. Additionally, the location of the former groundwater monitoring well could not be confirmed in the field by visual or geophysical equipment.

The soil analytical results indicated a few hot spots of surficial shallow soil contamination (upper one foot). This included the area around Borings B-1 and B-3 where elevated concentrations of metals were identified, and the area around Boring B-4 where elevated concentrations of TPH-D and TPH-M were found. However, the deeper soil samples from these borings (at 2 and 5 feet bgs) revealed concentrations that were either below ESLs or within the normal background levels for soils in Northern California for metals. Please refer to **Figure 3 - Prior Phase II Boring Locations Map**.

Based on the results of this Phase II ESA investigation, the following recommendations were made with the respect to the Subject Property:

- A backhoe should be utilized to further investigate the areas of the identified geophysical anomalies via trenching or pot holing. In the event that stained soil and/or metal debris/objects are found, soil samples should be collected for environmental analysis with the debris/objects removed from the Subject Property in accordance with applicable regulations and guidelines. The backhoe should also be utilized to collect shallow (1 to 5 feet) soil samples surrounding Borings B-1, B-3, and B-5 to further evaluate the horizontal extent of the identified soil impacts in these areas.
- During site redevelopment, shallow soils (upper 1 foot) excavated from the areas around Borings B-1, B-3, and B-4 should be separately stockpiled onsite for further characterization and possible disposal off site and not used as backfill material.
- A Soils Management Plan (SMP) should be developed prior to the development of the Subject Property in order to assist construction personnel with the management of potential impacted residual soil that may be encountered during site development.

As a result of the findings from the Phase II ESA, CB&I subsequently conducted an additional Phase II ESA soil sampling and backhoe investigation on the Subject Property. The scope of work for this additional Phase II ESA was conducted to meet the recommendations put forth above as a result of the findings from the initial Phase II ESA investigation.

The objective of the backhoe investigation was to further investigate the five geophysical anomalies identified in the prior Phase II ESA. The objective of the additional soil sampling portion of the Phase II ESA was to further evaluate the lateral and vertical extent of the previously identified soil impacts. The chemicals of potential concern included diesel fuel, motor oil, and metals.

Based on the findings of the prior Phase II ESA and this additional Phase II ESA, fill soils containing metallic debris (mostly abandoned auto parts), were found in the majority of the soil



sampling and trench locations within the equipment yard portion of the Subject Property. The fill soils were found in the borings/test pits, as well as in the five backhoe trenches excavated in each of the five geophysical anomalies identified in the prior geophysical survey within the equipment storage yard portion of the Subject Property. The fill soils generally extend from the ground surface to a depth of approximately 1.5 feet bgs; however, within the area of the trench T-4, up to 2 feet of fill was encountered. Underneath the fill soils was a silty sand that contained trace amounts of clay to the maximum depth explored.

The fill soils encountered in the trenches identified as "T-1 through T-4" contained abundant metal debris, including various automotive parts, metal frames, and a blade from a small tractor. Underneath the metallic debris fill was native soils. Accordingly, the geophysical anomalies found in these locations were due to the metallic debris in the fill and not from a buried UST or other subsurface structure.

In trench T-5, which was excavated in the far southwestern portion of the equipment yard, two steel utility pipes were found at depths between 1 and 2 feet bgs, which were the likely source of the small anomaly previously found in this location. Due to the presence of the utility pipes, CB&I could not excavate deeper than this depth.

In summary, the backhoe investigation did not identify evidence of a buried UST or a potential groundwater monitoring well.

The analytical soil results indicated that the majority of the fill soils in the equipment storage yard contain elevated concentrations of one or more metals, including Barium, Cadmium, Copper, Lead, Nickel, and Zinc. Some of the metal concentrations exceed Total Threshold Concentration Limits (TTLC) and therefore, classify the material as a "hazardous waste" upon excavation. A few of the soil samples also contained slightly elevated concentrations of TPH-D and TPH-M. No significant concentrations of metals, TPH-D, or TPH-M were found in the underlying native soils. Based on the data collected in the prior and additional Phase II assessments, CB&I concluded that the identified metal, TPH-D, and TPH-M impacts found in the equipment yard are only restricted to the shallow fill soils. Please refer to **Figure 4 - Prior Additional Phase II Boring and Test Pit Locations Map** and **Figure 5 - Prior Additional Phase II Trench Line Map**.

Based on the results of the additional Phase II ESA investigation, the following recommendations were made:

- The impacted fill soils from the equipment yard portion of the Subject Property should be excavated and not re-used on site during future grading activities. Any impacted fill



material should be temporary stockpiled on the Subject Property for future offsite disposal pending full laboratory characterization.

- Local hazardous waste landfill facilities should be contacted and provided the analytical data collected during both Phase II assessments for evaluation of potential disposal options. Accepting landfill facilities should provide any additional characterization testing requirements in order to accept the waste. It is likely that composite soil samples will be required of the resulting stockpile(s) for additional analytical testing and profiling.
- Due to the widespread occurrence of metal and petroleum impacted fill soils (at shallow depths) over the equipment yard portion of the Subject Property, CB&I recommends that the prior and additional Phase II ESA reports be submitted to the local environmental health department for review and comment.

Based on the above referenced prior environmental reports and given the nature of past and current onsite operations, CB&I also recommended that a SMP be prepared prior to construction work taking place at the Subject Property.

### **1.3 Objective**

The purpose of this SMP is to assist with the handling and disposal of potentially impacted soil that may be encountered during the proposed retail development activities planned for the Site. Implementation of the SMP will address residual soil impacts that may be potentially found in the areas of the equipment yard portion of the Subject Property and any other pockets of residual petroleum contamination found on other portions of the Site. Additionally, since groundwater beneath the Subject Property was reported to range from a depth of approximately 14 to 15 feet below ground surface (bgs), it is not likely to be encountered during proposed construction activities and therefore, not considered in the development of this SMP for the Subject Property.

The following sections below address these concerns as it relates to planned overall site development and the tasks associated with potential soil disturbances prior to construction of the proposed retail development.

## **2.0 Future Construction/Redevelopment on the Property**

---

### **2.1 Potential Excavation Areas**

In order to ensure that the majority of potentially impacted soils that have been identified from prior onsite investigations have been removed, CB&I recommends excavating both vertically and laterally in the area of any planned excavations that may take place as a result of future construction activities on the Subject Property. Any soils that would be possibly removed from any excavation area that is suspected to be potentially contaminated should be separately stockpiled onsite for characterization and disposal purposes.

Once soil samples collected from these excavations show that contamination is "non-detect" or at acceptable levels, CB&I recommends proceeding with backfilling the excavation with the stockpiled soils (if clean) or with imported material to bring the excavations to approximately the existing grade.

### **2.2 PPE Measures**

Based on the findings of CB&I's two prior Phase II ESAs, no special Personal Protective Equipment (PPE) measures are needed. Dust protection is recommended. Project-specific Health and Safety Plans developed by the General Contractor or appropriate project personnel should be consulted for the proper level of PPE. Standard environmental health and safety (EHS) guidelines and procedures as well as industry-standard safety practices and procedures to prevent exposure during onsite field activities should be generally followed. Before initiating field work, a safety meeting should be conducted to address potential environmental and physical hazards associated with the history of the Subject Property.

### **2.3 Dust Control**

Dust control measures are to be implemented to reduce exposure during excavation work. These measures are to include moisture-conditioning the soil, using dust suppressants, covering exposed soil and stockpiles with weighted plastic sheeting, or capping the site with buildings asphalt or at least two feet of clean imported fill.

The dust control plan shall include procedures to prevent visible dust from crossing the property line or from being tracked out to public streets and tire cleaning and road cleaning that include a tire shaker rumble pad, wet sweeping or vacuuming of any residual dirt tracked out onto City streets and a tire wash station for use during storm events or muddy conditions. City streets will be wet cleaned or vacuumed on a daily basis. Haulage trucks will be inspected before being released from the site, haulage and excavation areas will be kept sufficiently wet to prevent

visible dust clouds, and storage piles will be kept wet during active dumping and covered with plastic sheeting or Mirafi fabric.

Inactive stockpiles will be covered and covers will be secured in place. If any open excavations are inactive for seven days or more, they will be stabilized against wind erosion with plastic sheeting. Unpaved travel ways, parking lots and staging areas will be covered with a surface of gravel to at least a depth of three inches. Earthmoving, grading and excavation will be done on a surface that has been wet down prior to disturbance. If wind speeds develop that result in dust emissions approaching the property line, then hand watering will occur during excavation or the operation will be shut down. Two zones are to be set up to contain potential petroleum hydrocarbon contamination within the working site. Mist or spray water will be applied while loading transport vehicles. Transport vehicles will be covered with tarpaulins. Drop heights will be minimized while loading transport vehicles. During periods of high winds greater than 25 mph, activities will be minimized or stopped. All paved areas for equipment will be swept daily. Wind screens will be installed on boundary fences.

## **2.4 Soil Storage & Handling**

Based on review of soils data, the area of the Subject Property is mapped as Holocene alluvial deposits. These deposits consist of gravel, sand, silt, and clay. According to information from the U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS), the area of the Subject Property has a "loam" soil surface texture. The soil profile in the area of the Subject Property is identified as consisting of loam from a depth of 0 - 18 inches below ground surface (bgs), followed by clay to 38 inches bgs, and then underlain by sand clay loam to a depth 62 inches bgs. More specifically, based on a review of soil data from CB&I's two prior Phase II ESAs, the shallow subsurface stratigraphy encountered during sampling consisted of fill soils made up of mostly sand/gravel, silty sand, and silty clay from the ground surface to a depth of approximately 1.5 feet bgs. Underneath the fill soils was a silty sand that contained trace amounts of clay to a depth of 5 feet bgs. Free groundwater was not encountered in any of the borings installed as part of the two prior Phase II investigations.

Soils that appear normal do not require special handling and may be graded, excavated and managed without special precautions. If odiferous, darkly discolored dark gray or black, or oily appearing soil is encountered, it should be stockpiled on an impermeable material, such as visqueen, and located away from drainage swales wherever possible until tested. The stockpiled material should also be protected with an impermeable cover, held down by weights. Alternatively, the excavated material can be stored in compatible Department of Transportation (DOT)-rated storage containers (55-gallon drums or roll-off bins). These soils should be tested and managed as recommended below.

Excavated soil that is impacted is to be disposed off-site after proper profiling for disposal. Since potentially contaminated shallow fill soils is to be excavated and disposed of off-site, there will be no risk of direct contact by future site users. It is not anticipated that groundwater will be encountered during construction. Based on the review of the groundwater monitoring report titled *Third and Fourth Quarter 2012 Groundwater Monitoring Report, 76 Service Station No. 6193, 1500 Soquel Drive, Santa Cruz, California*, prepared by Stantec and dated December 20, 2012, groundwater was found to range in depth between approximately 14.84 to 15.84 feet below top of casing with a southwesterly groundwater flow direction.

## **2.5 Activities Requiring Special Procedures/Hazard Communication**

Subsurface excavation at the Site may require special procedures. Prior to on-site excavation or grading activities, onsite workers shall be notified of contaminant levels detected during prior subsurface investigations. In the event of an emergency, where the work is required to maintain the Site or prevent erosion of soils off-site, it may proceed and the appropriate regulatory agency shall be notified at the earliest opportunity.

Any worker involved in excavating soil at the Site should be informed of the following:

- Over the majority of the Site, excavation may expose soils containing residual Metals and Total Petroleum Hydrocarbons as Diesel Fuel (TPH-D) and Motor Oil (TPH-MO) below the level of concern for health risk.
- Any excavated soil that is discolored (dark gray or black) or oily in appearance should be handled as potentially hazardous until tested.
- Any soil to be removed from the Site shall be characterized prior to off-site transport and should be considered potentially hazardous until tested.

CB&I recommends that if unanticipated hazardous materials are encountered, the work is to stop and the site superintendent and CB&I are to be notified to conduct an inspection. If an undocumented and/or abandoned UST is encountered, a licensed UST removal contractor is to be contacted for the proper removal and disposal of the UST. Proper permits and notifications are to be applied for prior to the UST removal from the local environmental health department, the local fire department, and/or any other applicable regulatory agency. A site-specific health and safety plan (HASP) should be developed for the project, which should include air sampling and monitoring, as applicable. Upon completion of the project, a final report is to be submitted to the overseeing regulatory agency as required.

**EXHIBIT A**

**ATTACHMENT 2**

### **3.0 Soil Testing and Observation**

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When darkly discolored or oily soil is encountered, excavated soil should be tested for potential contamination. Following are guidelines for soil testing.

#### **3.1 Site Wide Grading**

If during grading activities odiferous, discolored or oily soils are encountered, the soils management and testing protocols described in the following sections should be implemented.

For dust control purposes, soil should be wetted before grading activities begin. During wetting activities, the Site should not be over watered to the extent that run-off is generated. Site-wide grading activities should follow all applicable regulations under the California National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges associated with Construction Activities.

#### **3.2 Near-surface Soil Disturbance**

When subsurface excavation or soil disturbance activities are undertaken at the Site, no special soil management conditions are required unless odiferous, discolored or oily appearing soils are encountered. When odiferous, dark gray or black, or oily appearing soils are encountered during routine soil disturbance or excavation activities at the Site, the following soil tests are recommended:

- Any location throughout the Site where oily, discolored soils are encountered, they should be tested using the U.S. EPA SW-846 Methods 6020B/7471A for Title 22 Metals, EPA Method 8270C for SVOCs, EPA Method 8260 for VOCs/TPH-G, and EPA Method 8015B for TPH-D and TPH-MO.
- Based upon the total concentrations of the constituents, additional testing may be required to characterize the soils per California Code of Regulations (CCR) Title 22 Section 66261 and the Code of Federal Regulations (CFR) Title 40 Part 261.

**EXHIBIT A**

## **4.0 Soil Disposal**

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Soils excavated to be removed off-site should be managed by the following soils handling procedures.

### **4.1 Non-hazardous Soil**

Excavated soil to be removed off-site, that is characterized as “non-hazardous” by testing for the above noted analytes, may be transported to a municipal landfill, recycled, or returned to the excavation area.

### **4.2 Hazardous Soil**

Excavated soil to be transported off-site that exceeds the hazardous threshold for the above noted analytes, must be handled in accordance with current state and federal hazardous waste laws. Unless prior approval is granted from the local environmental health department or any applicable regulatory oversight agency, the material must be stored in appropriate containers on-site for no more than 90 days, and it must be properly manifested, utilizing a Hazardous Waste Manifest and transported off-site by a licensed hazardous waste transporter to a licensed facility for appropriate treatment or disposal.

### **4.3 Soil Screening Criteria**

Soil screening levels for soil are presented to help project management and field personnel manage impacted soil during excavation activities. Potential options for excavated soil are (1) on-site reuse, (2) off-site soil recycling or off-site disposal at a Class III facility, and (3) off-site disposal at Class I hazardous waste facility. The above options are primarily dependent on the concentrations of contaminants and approval of site-specific cleanup criteria by a lead regulatory agency. Soils with contaminants below California Health Hazard Screening Levels (CHHSLs) are considered acceptable for unrestricted uses (Cal/EPA, 2005).

Soil samples used for soil profiling will be compared to Total Threshold Limit Concentrations (TTLC) and Soluble Threshold Limit Concentration (STLC) as described in CCR Title 22 Section 666261.20. Soil that is less than TTLC criteria, but greater than 10 times STLC limits will be analyzed using the Waste Extraction Test (WET). If the result of the WET test is greater than the STLC limits, then the soil will be considered a “California Hazardous Waste” and therefore, the soil would be disposed of at a Class I facility.



## 5.0 References

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California Code of Regulations (CCR), Title 22 Chapter 11, Article 5 Categories of Hazardous Waste, Section 66261.113; Total Threshold Limit Concentration Values of Persistent and Bioaccumulative Toxic Substances in Extremely Hazardous Wastes.

[http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/OEARA\\_REG\\_Title22\\_Ch11.cfm](http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/OEARA_REG_Title22_Ch11.cfm)

CCR, Title 22 Chapter 11, Article 3, Section 22261.24-1, Table III List of Organic Persistent and Bioaccumulative Toxic Substances and Their Soluble Threshold Limit Concentration (STLC) and Total Threshold Limit Concentration (TTLC) Values.

[http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/OEARA\\_REG\\_Title22\\_Ch11.cfm](http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/OEARA_REG_Title22_Ch11.cfm)

CCR, Title 22 Chapter 11, Appendix II; Waste Extraction Test (WET) Procedures.

[http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/OEARA\\_REG\\_Title22\\_Ch11.cfm](http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/OEARA_REG_Title22_Ch11.cfm)

California Environmental Protection Agency (Cal/EPA), 2005, *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*, January.

<http://www.calepa.ca.gov/Brownfields/documents/2005/CHHSLsGuide.pdf>

Code of Federal Regulations (CFR) Title 40, Chapter I Environmental Protection, Part 261. Identification and Listing of Hazardous Waste.

U.S. Environmental Protection Agency (EPA). 1986. *EPA Test Methods for Evaluating Solid Waste, Physical Chemical Methods, SW-846*. Third Edition and Final Updates, September.

*Phase I Environmental Site Assessment, Proposed CVS Store No. 10395, Southeast Corner of Soquel Drive and Commercial Way, Santa Cruz, California*, prepared by CB&I dated February 17, 2014.

*Phase II ESA Soil Sampling Assessment, Southeast Corner of Soquel Drive and Commercial Way, Santa Cruz, California, Proposed CVS Store No. 10395*, prepared by CB&I dated April 14, 2014.

*Additional Phase II ESA Soil Sampling and Backhoe Investigation, Southeast Corner of Soquel Drive and Commercial Way, Santa Cruz, California, Proposed CVS Store No. 10395*, prepared by CB&I dated June 4, 2014.



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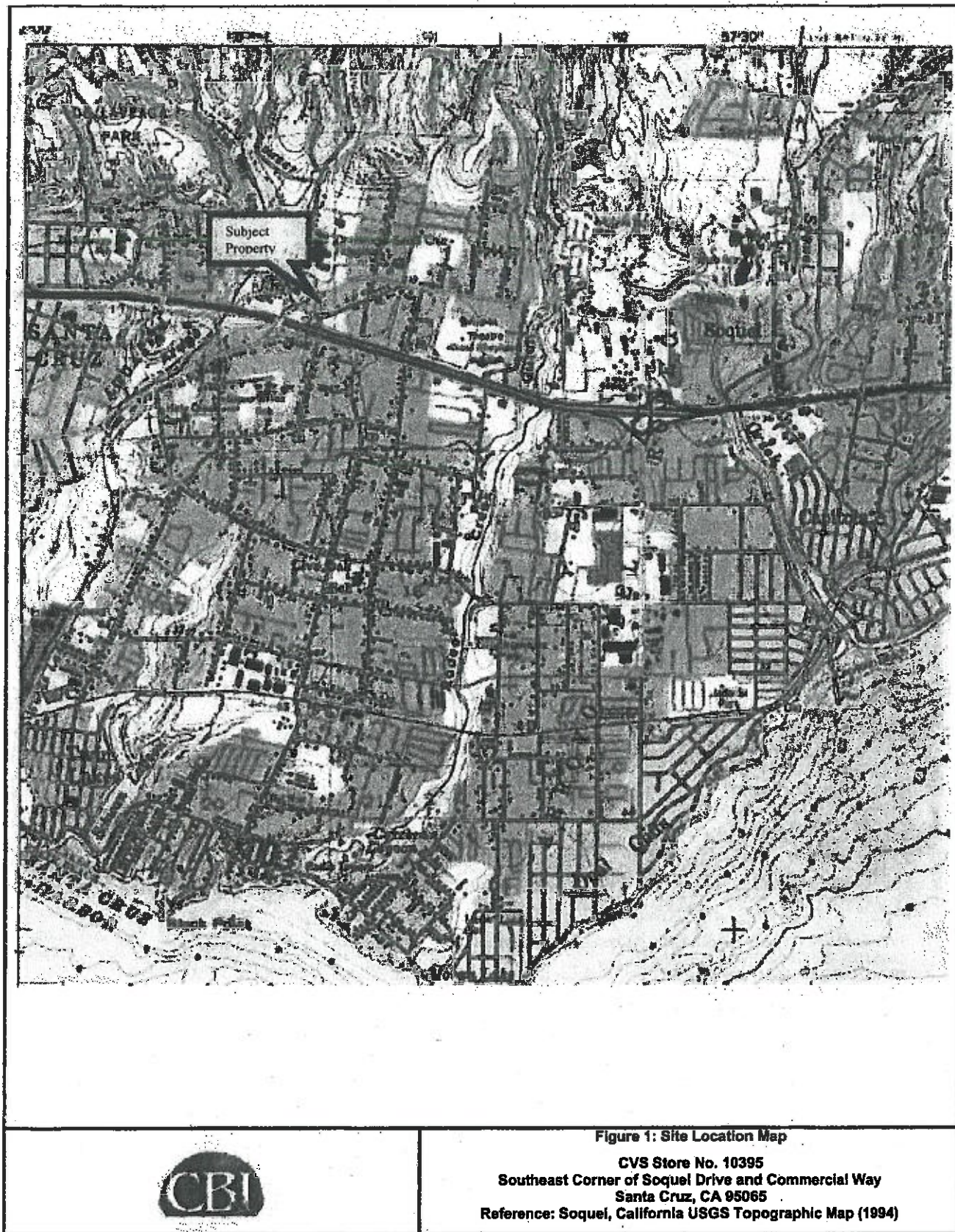
## *Site Figures*

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**EXHIBIT A**

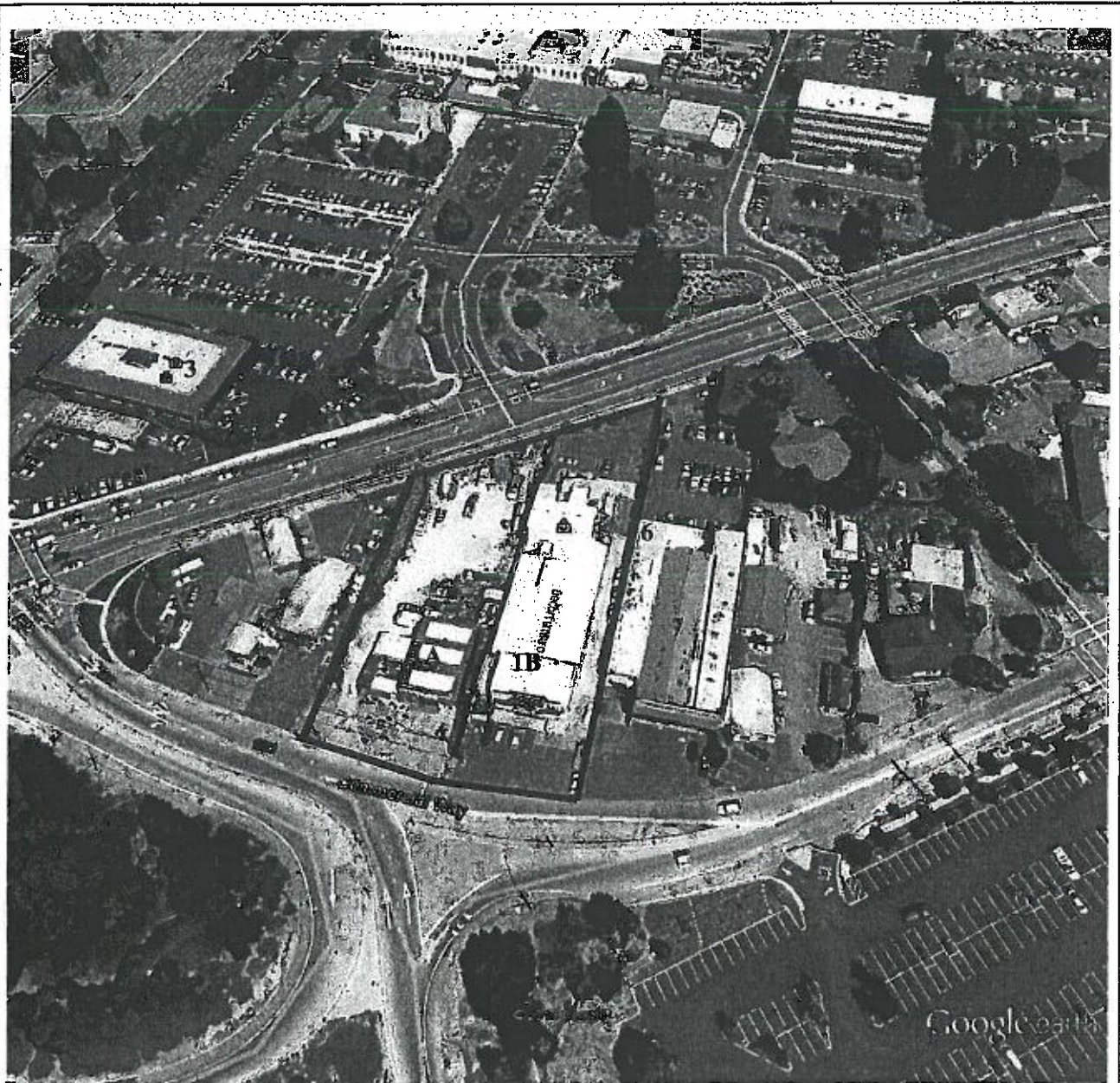
**ATTACHMENT 2**



**EXHIBIT A**

**ATTACHMENT 2**





**KEY:**

1. Subject Property: 1A: SC41 Furniture Outlet (1505 Commercial Way) and 1B: Decor Furniture (1515 Commercial Way)
2. Unocal Gasoline Station (1500 Soquel Drive)
3. Medical Office Building (1505 Soquel Drive)
4. Dominican Hospital (1555 Soquel Drive)
5. Multi-Tenant Commercial Building (1570 Soquel Drive)
6. Mid-County Auto Center (1521 Commercial Way)
7. Redo Furniture Consignment 1523 Commercial Way)
- P Parking Lot
- V Vacant Land



**Figure 2: Site Plan & Vicinity Map**

CVS Store No. 10395  
 Southeast Corner of Soquel Drive and Commercial Way  
 Santa Cruz, CA 95065  
 Reference: Google Earth 2013 Aerial Photograph

**EXHIBIT A**  
**ATTACHMENT 2**





**KEY:**

● B-1 Boring Location and Number



Former Waste Oil/Filter Drum Storage Area



**Figure 3: Prior Ph. II Boring Location Map**

CVS Store No. 10395  
 Southeast Corner of Soquel Drive and Commercial Way  
 Santa Cruz, CA 95065  
 Reference: Google Earth 2013 Aerial Photograph

**EXHIBIT A**  
**ATTACHMENT 2**





**KEY:**



Test Pit Location  
 Boring Location and Number (Prior Phase II ESA)  
 Former Waste Oil/Filter Drum Storage Area



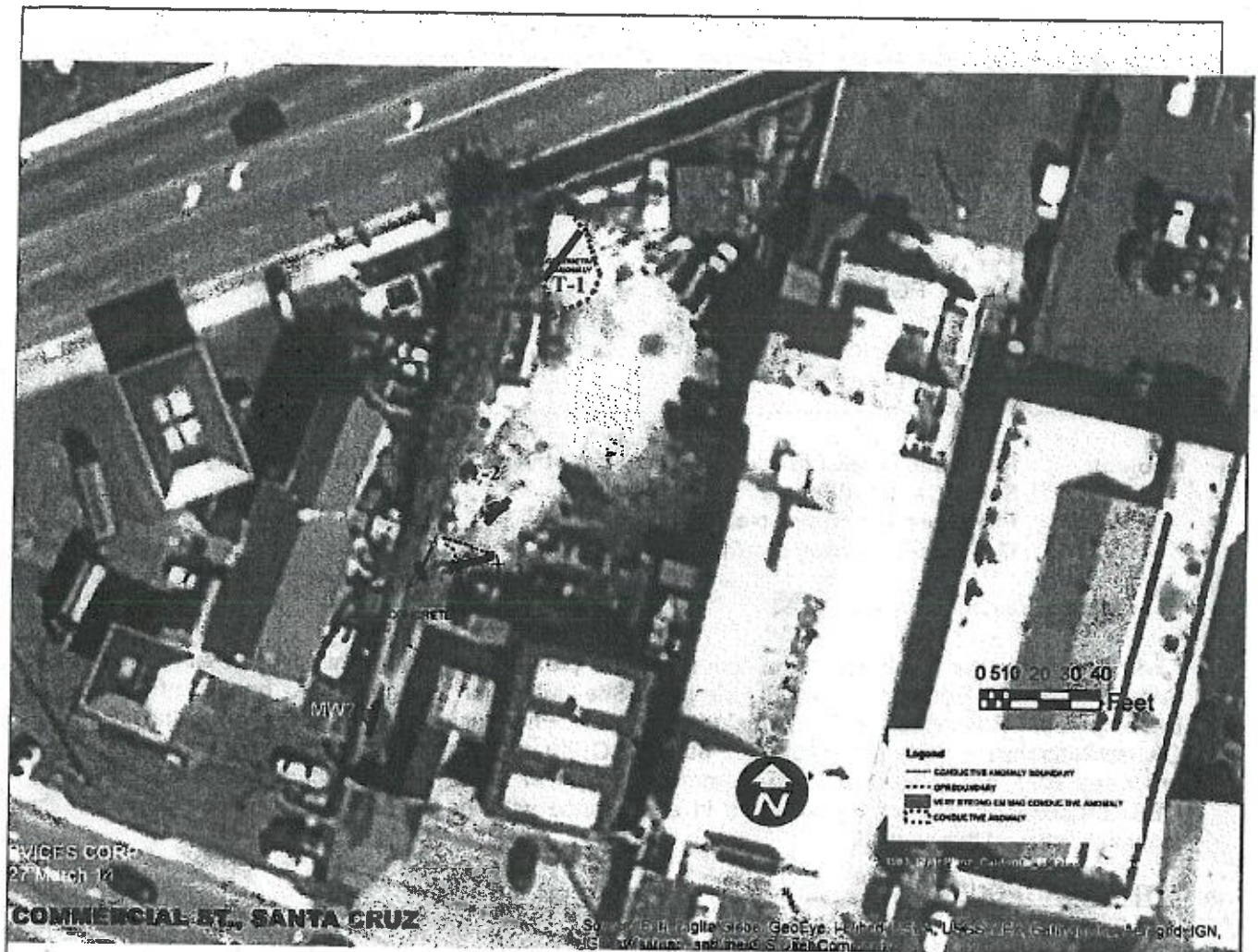
**Figure 4: Prior Additional Ph. II Boring and Test Pit Location Map**

CVS Store No. 10395  
 Southeast Corner of Soquel Drive and Commercial Way  
 Santa Cruz, CA 95065  
 Reference: Google Earth 2013 Aerial Photograph

**EXHIBIT A**

**ATTACHMENT 2**





**KEY:**  
T-1 Trench Line and Number



**Figure 5: Prior Additional Ph. II Trench Line Map**  
CVS Store No. 10395  
Southeast Corner of Soquel Drive and Commercial Way  
Santa Cruz, CA 95065  
Reference: Client Provided Drawing

**EXHIBIT A**

**ATTACHMENT 2**



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February 24, 2015

Mr. John B. Gerbrandt, PG, REHS  
Site Mitigation Program  
Santa Cruz County Environmental Health Service  
701 Ocean Street, Rm. 312  
Santa Cruz, CA 95060

**Subject: Remedial Work Plan for Property Located at 1505 Commercial Way  
Santa Cruz, California  
Proposed CVS Store No. 10395  
GeoTracker Global ID: T10000006041**

Dear Mr. Gerbrandt:

CB&I Environmental & Infrastructure, Inc. (CB&I) is pleased to present this Work Plan to the Santa Cruz County Environmental Health Service, Site Mitigation Program on behalf of Armstrong Development Properties, Inc. (Armstrong), CVS Pharmacy, Inc. (CVS), and the Property Owner/Responsible Party (Bel-Scott Company, LLC) for remediation services to be conducted at the proposed CVS site located at 1505 Commercial Way in Santa Cruz, California (Subject Property). CB&I proposes to conduct the services in accordance with the scope of work as presented in the sections below of this work plan.

## **SITE BACKGROUND**

### **Phase I Environmental Site Assessment**

CB&I completed a prior Phase I Environmental Site Assessment (ESA) of the Subject Property (proposed CVS site) in a report dated February 17, 2014. At the time of the prior Phase I ESA, the Subject Property was improved with two retail furniture stores, an apartment, and an equipment/material storage yard for a plaster service company, Lewis Plaster Service (LPS). Based on the results and findings of the prior Phase I ESA, the following recommendations were noted for consideration:

- CB&I recommended that the equipment/material storage yard be re-inspected by CB&I once the materials and equipment were removed. The drums of waste oil and the container of waste oil filters, and the other potentially hazardous materials (coatings, vehicle fluid containers, aerosol cans) will also need to be properly removed and disposed of in accordance with applicable governmental regulations. The re-inspection will enable CB&I to further evaluate the extent of surface staining that is present, which also may require further assessment depending on the findings.
- CB&I also noted that a geophysical survey was conducted concurrent to the site reconnaissance. Due to the abundant metallic equipment/objects stored in the area, the geophysical survey had severe limitations in the evaluation of potential buried underground storage tanks (USTs) or other objects, such as buried drums. CB&I recommended that the geophysical survey be re-done in the area of the yard once it had been cleared.

**EXHIBIT A**  
**ATTACHMENT 2**



- CB&I noted that a prior soil and groundwater assessment was conducted within the Lewis Plaster Service (LPS) yard by another consultant back in 1992 following the departure of the former auto wrecking business. While no soil or groundwater impacts were identified during this assessment, a groundwater monitoring well was installed and a debris/fill area was noted. CB&I was not able to confirm whether the well is still onsite or if it was properly abandoned, or whether the debris/fill area was removed during the Phase I ESA. Further inspection of the yard area once cleared of the equipment/materials may resolve these potential issues.

Due to the noted concerns associated with the soil staining, CB&I was requested by the Client to prepare a Phase II ESA work plan to further investigate the extent of potential impacts. Subsequently, a Phase II ESA Soil Sampling Assessment followed, as summarized below.

#### **Phase II ESA Soil Sampling Assessment**

CB&I completed a prior Phase II ESA Soil Sampling Assessment of the Subject Property in a report dated April 14, 2014. The purpose of this assessment was to address the environmental concerns noted in CB&I's prior Phase I ESA discussed above. A summary of the key findings of the Phase II ESA Soil Sampling Assessment are discussed below.

- A new geophysical survey (survey) was conducted in the material/equipment storage yard (equipment yard). Prior to the survey, the occupant of the storage yard was able to move several of the metallic objects out of the survey area in order to obtain a better survey of the area. The findings of the survey found two large geophysical anomalies and three smaller anomalies (five anomalies total) over the surveyed area. It was reported by the geophysical consultant that the anomalies did not appear characteristic of USTs, but the possibility of buried drums, auto parts, or other potential environmental concerns could not be ruled out. No visual evidence of the noted groundwater monitoring well was found, and the geophysical survey found no conclusive evidence of this well in any of the identified anomalies.
- Based on the findings of the assessment, fill soils consisting of sand/gravel, silty sand, and silty clay, were identified in four of the five soil borings from the ground surface to a depth of approximately 1.5 feet below ground surface (bgs).
- CB&I concluded that the analytical results indicated a few hot spots for surficial soil contamination (upper one foot). This includes the area around Borings B-1 and B-3 where elevated concentrations of metals were identified, and the area around Boring B-4 where elevated concentrations of Total Petroleum Hydrocarbons as Diesel Fuel and Motor Oil (TPH-D and TPH-M, respectively) were found. See attached **Figure 2** from the prior Phase II ESA investigation for previous boring and test pit sampling locations.
- In conclusion, CB&I recommended that a backhoe be utilized to further investigate the areas of the identified geophysical anomalies. In the event that stained soil and/or metal debris are found, CB&I also recommended that soil samples should be collected for analysis. In addition, the backhoe should also be utilized to collect shallow soil samples surrounding Borings B-1, B-3, and B-5 to further evaluate the horizontal extent of the identified soil impacts in these areas.

#### **Additional Phase II ESA Soil Sampling Assessment and Backhoe Investigation**

CB&I also completed a prior Additional Phase II ESA Soil Sampling Assessment and Backhoe Investigation of the Subject Property in a report dated June 3, 2014. The purpose of this assessment was to address the recommendations made in CB&I's prior Phase II ESA Soil Sampling Assessment discussed above. A summary of the key findings of the referenced assessment are discussed below.

- CB&I utilized a backhoe to excavate seven shallow test pits to collect step-out soil samples from areas of the equipment yard where elevated concentrations of heavy metals and/or total petroleum hydrocarbons as diesel fuel and motor oil (TPH-D and TPH-M, respectively) were previously identified. Each of the test pits were excavated to a depth of 2 feet bgs, with soil samples collected at 1- and 2-feet bgs. Two step-out test pits were excavated adjacent to Borings B-1, B-3, and B-4. The test pits were identified as "B-1A, B-1B, B-3A, B-3B, B-4A, and B-4B". An additional test pit (B-6) was also excavated in the center of the equipment yard.
- The backhoe was used to excavate trenches across each of the five anomalies. Each of the five trenches were excavated to a depth of 5 feet bgs, and were identified as "T-1, T-2, T-3, T-4, and T-5".
- The fill soils encountered in T-1 through T-4 contained abundant metal debris, including various automotive parts, metal frames, and a blade from a small tractor. Underneath the metallic debris-laden fill was native soils. Accordingly, the geophysical anomalies found in these locations were due to the metallic debris in the fill and not from buried USTs or other subsurface structures.
- In T-5, which was excavated in the far southwestern portion of the equipment yard, two steel utility pipes were found at depths between 1 and 2 feet bgs, which were the likely source of the small anomaly previously found at this location. Due to the presence of the utility pipes, CB&I could not excavate deeper than this depth.
- CB&I concluded that the backhoe investigation did not identify evidence of a buried UST or a potential groundwater monitoring well. Additionally, the analytical results indicated that the majority of the fill soils in the LPS yard contained elevated concentrations of one or more metals, including Barium, Cadmium, Copper, Lead, Nickel, and Zinc. Some of the metal concentrations exceed Total Threshold Concentration Limit (TTLC) and therefore, classifies the material as a "hazardous waste" upon excavation. A few of the soil samples also contained slightly elevated concentrations of TPH-D and TPH-M. No significant concentrations of metals, TPH-D, or TPH-M were found in the underlying native soils. Based on the data collected in the prior and additional Phase II assessments, CB&I concluded that the identified metal, TPH-D, and TPH-M impacts found in the equipment yard are likely restricted to the fill soils only. Accordingly, CB&I made the following recommendations:
  - The impacted fill soils from the equipment yard portion of the Subject Property should be excavated and not re-used on site during grading. The impacted fill material should be temporary stockpiled on the Subject Property (pending bulk assessment).
  - Local hazardous waste landfill facilities should be contacted and provided the analytical data collected during both assessments for evaluation of potential disposal options. Accepting landfill facilities should provide any additional characterization testing requirements in order to accept the waste. It is likely that composite soil samples will be required of the resulting stockpile(s) for additional analytical testing/profiling.
  - Due to the widespread occurrence of metal/petroleum impacted fill over the equipment yard portion of the Subject Property, CB&I recommended that the initial and subsequent additional Phase II ESA reports be submitted to the local environmental health department for review and comment.

### Soil Management Plan

CB&I also completed a prior Soil Management Plan (SMP) of the Subject Property dated July 2014. The purpose of the SMP is to assist construction workers and/or other site personal with the handling and disposal of potentially impacted soil that may be encountered during the proposed retail development activities planned for the Site. The implementation of the SMP will address residual soil

impacts that may be potentially found in the areas of the equipment yard portion of the Subject Property and any other pockets of residual petroleum contamination found on other portions of the Site.

### **Regulatory Response**

All of CB&I's prior environmental reports, including the SMP, were subsequently submitted to the Santa Cruz County Environmental Health Service (SCCEHS) for review. The SCCEHS responded back in a letter dated December 24, 2014 to Mr. Reid Schantz that outlines their comments and requirements for the Subject Property based on the review of all of CBI's prior reports titled *Response to Phase I Environmental Site Assessment, Phase II Environmental Site Assessment, and Soil Management Plan, Bei-Scott Company, LLC (GeoTracker Global D T10000006041), 1505 Commercial Way, Santa Cruz, California*. Mr. Schantz represents the Responsible Party (RP)/Property Owner, Bei-Scott Company, LLC.

Based on their review of the reports, the SCCEHS required that a work plan be prepared to remediate the impacted soil, or prepare a work plan to conduct additional investigation for characterizing chemical impacts and/or to further assess risks to human health and the environment. Additionally, the SCCEHS required the work plan to further investigate the location of the former on-site groundwater monitoring well, which had not been located during the previous assessments.

A copy of the Remedial Action Agreement dated August 8, 2014 between Bei-Scott Company, LLC and SCCEHS and a copy of the SCCEHS letter dated December 24, 2014 referenced above is included in **Attachment 2**.

### **SCOPE OF WORK**

It is CB&I's opinion that the Subject Property has been adequately characterized to this point based on the prior assessments/investigations that have already been completed as summarized above and further assessment for characterization purposes is not deemed necessary at this time. Accordingly, this work plan includes the scope of work to remediate impacted soils and further investigate the location of the former on-site groundwater monitoring well on the Subject Property. CB&I will conduct the proposed remedial activities in accordance with the following scope of work:

#### **Project Preparation, Setup, and completion of Work Plan**

In this preliminary task, CB&I will prepare for this remediation project, including the coordination with all project subcontractors who will be assisting CB&I with the proposed work. CB&I, Armstrong and/or Bei-Scott Company intends to provide all the services, equipment, operators, and laboratory testing necessary for the soil removal work.

This remedial work plan has been approved by Armstrong/Bei-Scott Company and is being submitted to the SCCEHS on their behalf by the required due date of February 27, 2015 in accordance with the SCCEHS letter dated December 24, 2014. The work plan must be approved by SCCEHS prior to commencing with any project activities.

#### **Health and Safety Plan**

CB&I will prepare a health and safety plan (HASP) detailing appropriate safety precautions and hospital contact information prior to starting soil removal activities. CB&I will use standard Environmental Health and Safety (EHS) guidelines and procedures as well as industry-standard safety practices and procedures to prevent exposure during the field investigation. Before initiating the field work, a tail-gate safety meeting will be conducted to address the potential environmental and physical hazards associated with the history of the Subject Property and the requirements of the proposed project.



### **Impacted Soil Excavation**

The impacted soil (estimated to be approximately 1,000 cubic yards) will be excavated from the Subject Property using a large backhoe (or similar construction equipment). See **Figure 1** for the Site Location Map and **Figure 2** for the approximate boundaries of the planned excavation area within the Subject Property (**Attachment 1**). The impacted soil will be either directly placed into dump trucks for appropriate off-site disposal or temporarily stockpiled on visqueen for later off-site disposal to an accepting landfill pending laboratory analysis/waste characterization results. In the event that the impacted soil is temporarily stockpiled, CB&I will assure that the impacted soil is completely covered with visqueen to prevent airborne release of its contents per the Monterey Bay Unified Air Pollution Control District requirements. CB&I assumes that the impacted soils will be restricted to the fill soils that were previously identified during our previous investigations, resulting in excavations from approximately 1 to 2 feet bgs across the entire yard per the locations of our prior sampling events. However, CB&I will direct the soil excavation remedial contractor to excavate deeper, if necessary, to remove all materials that appear to be fill soils. The selected soil excavation remedial contractor will provide adequate dust control systems to reduce the potential of dust exposure at the Subject Property and to the surrounding properties. CB&I will monitor for dust migration and will temporarily shut down operations if the provided dust mitigation methods are not adequately working. CB&I will also work with the soil excavation remedial contractor to assure that soil from the project site is not released onto the surrounding streets during the transport of the impacted soil.

### **Former On-Site Well Locating**

In the process of removing the impacted soils over the LPS yard, CB&I will effectively also be providing additional oversight and investigation to look for evidence of the former on-site groundwater monitoring well as is required by the SCCEHS. In the event that evidence of the groundwater monitoring well is found during the excavation work, CB&I will immediately contact the SCCEHS to decide what further well abandonment/closure procedures would be required (if any).

### **Confirmation Soil Sampling**

Following the removal of the impacted soils, CB&I will conduct confirmation soil sampling of the native soils to verify that the areas are free of impact or are at acceptable levels. CB&I plans to collect approximately up to 18 confirmation soil samples in an approximate grid-like pattern over the final excavation area. Soil samples will be obtained using a hand-driven, split-spoon sampling device, with the soil samples being retained in stainless steel tubes or the samples may also be collected directly from the bucket of the backhoe via hand sample collection and placed directly into laboratory-approved sample containers. The samples will be capped with Teflon-lined plastic end caps (if applicable), labeled, and placed in a chilled ice chest prior to delivery to McCampbell Analytical, Inc. in Pittsburg, California, a state-certified analytical laboratory for chemical characterization. The collected soil samples will be analyzed for TPH-G, TPH-D, TPH-M, VOCs, and CAM-17 Metals.

Hazardous waste sample analysis will also be completed as needed to determine if the excavated soils are considered "RCRA Direct Soil" or "RCRA Stabilization Soil". The tests associated with this hazardous waste determination are the "TCLP" and "STLC" in accordance with EPA Method 6010B/7000A. The excavated soils will be temporarily stockpiled onsite and sampled via composite sampling including up to four TCLP and four STLC analyses for heavy metals. Once the waste characterization determination is established, the waste soils from the project will be delivered to Buttonwillow Landfill located in Buttonwillow, California for final disposal.

For initial guidance on soil remediation goals, CB&I will compare the final site results to the current version of each of the following guidance screening concentrations for unrestricted (residential) land use and commercial/industrial land use: (1) Environmental Screening Levels (ESLs) where groundwater is a current or potential source of drinking water published by the California Regional Water Quality Control Board, San Francisco Bay Region (CRWQCB-SFBR, 2013) and (2) for

Mr. John B. Gerbrandt  
February 24, 2015  
Page 6

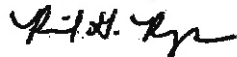
groundwater only (if applicable), the groundwater cleanup goals based on the Water Quality Control Plan (Basin Plan) established by the Central Coast Regional Water Quality Control Board (CCRWWCB). Chemicals not listed in these references should be compared with Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites developed by the US Environmental Protection Agency, Region 9.

#### Soil Remediation Report

At the conclusion of all field activities and after receipt of all analytical results, CB&I will prepare a Soil Remediation Report (with the objective to obtain a "No Further Action/Closure" letter) to be submitted to the SCCEHS and to the RWQCB (via GeoTracker upload as required) following Armstrong's/Bei-Scott Company's approval of the report.

CB&I is pleased to present this work plan to you. We look forward to your approval. If you have any questions, please contact me at 949-660-5494 or via email at [ramil.reyes@cbi.com](mailto:ramil.reyes@cbi.com).

Sincerely,  
CB&I Environmental & Infrastructure, Inc.



Ramil G. Reyes, REPA  
Project Manager



William A. Mitchell, PG  
Project Geologist



Cc: Mr. Josh Eisenhut, Armstrong  
Mr. Chris Bernard, Armstrong

#### Attachments:

Attachment 1 – Site Figures  
Attachment 2 – SCCEHS Correspondence Letters

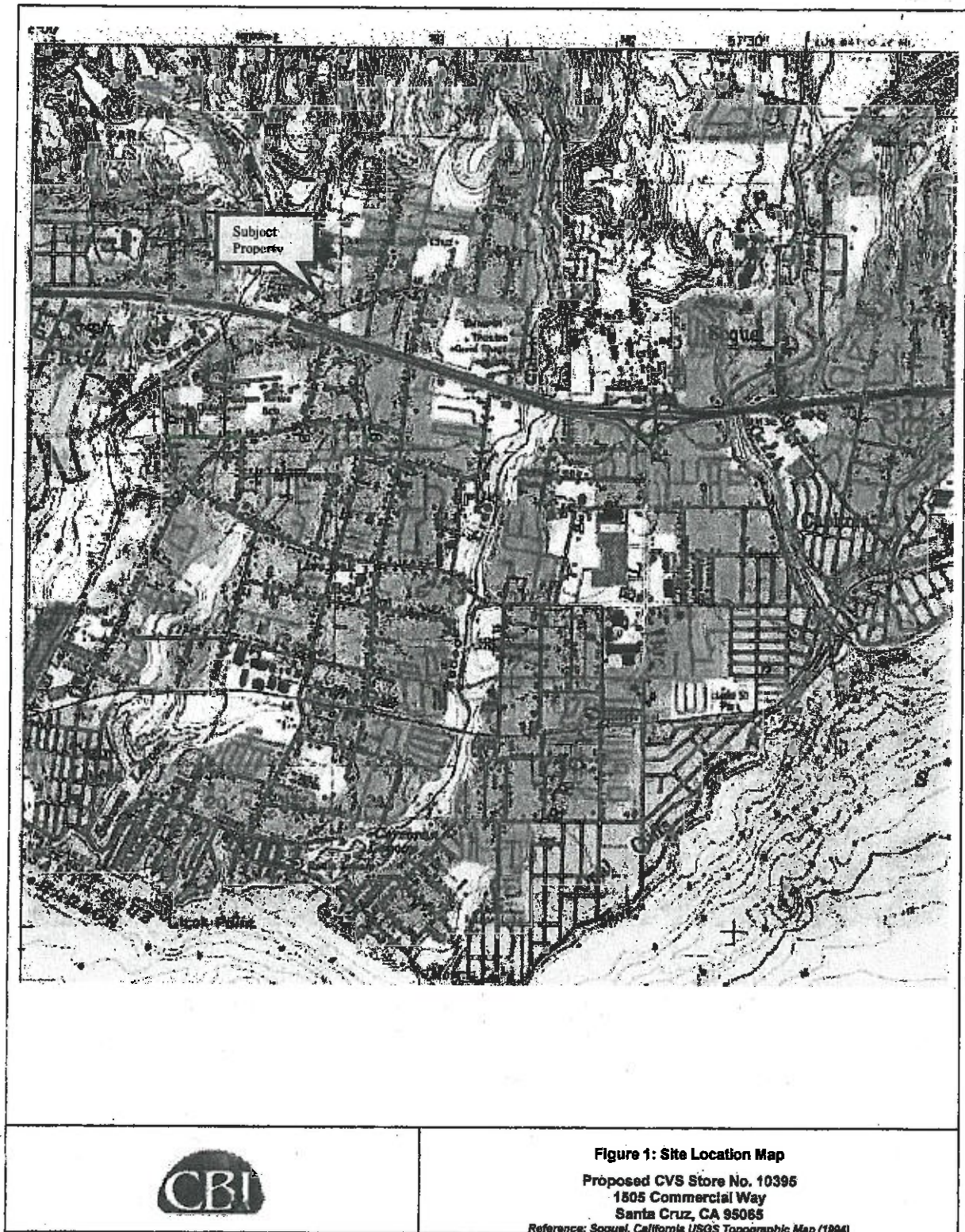
## **ATTACHMENT 1**

### **Site Figures**

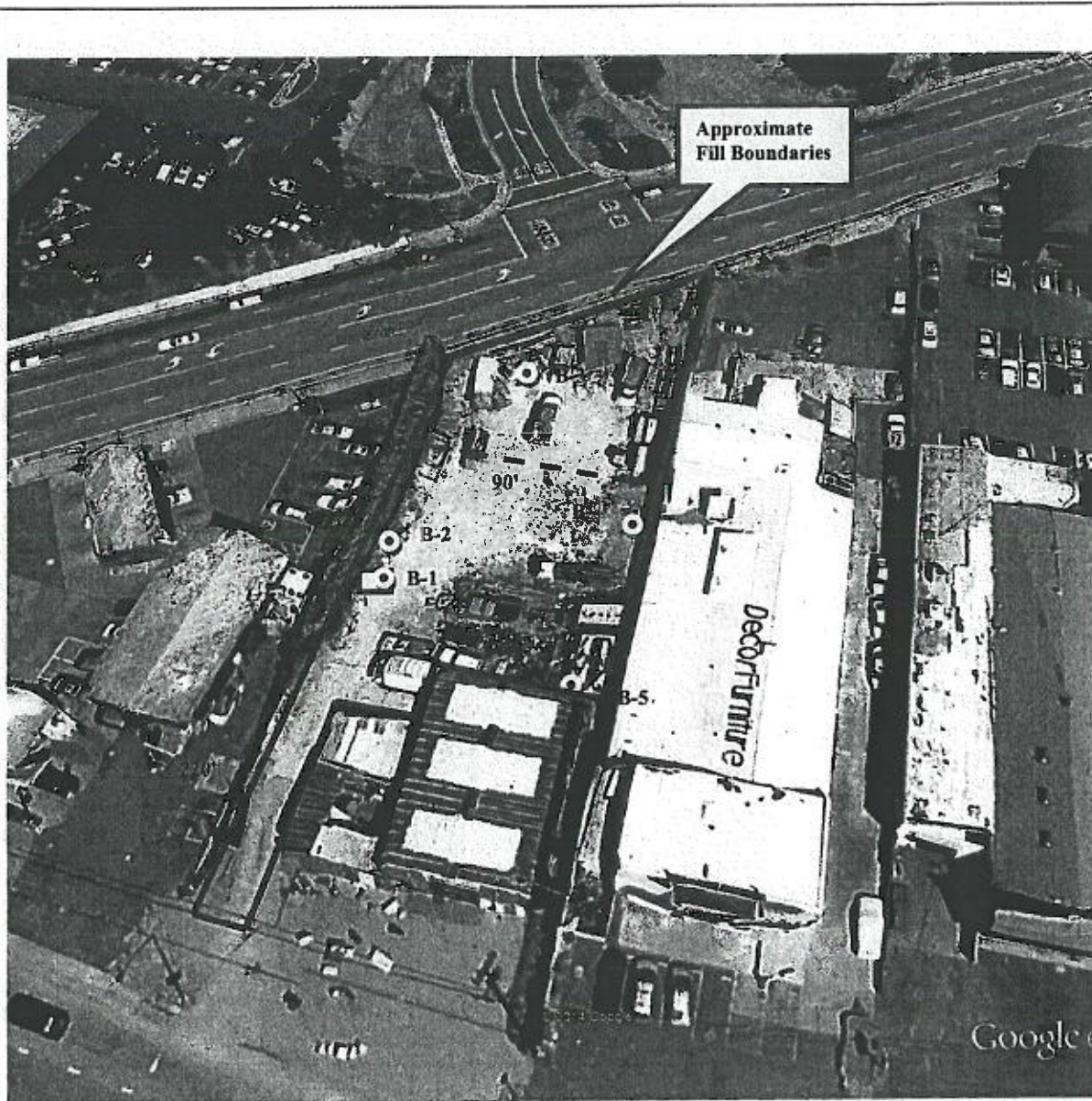
**EXHIBIT A**

**ATTACHMENT 2**









**KEY:**

● B-1 Prior Boring Location and Sample Number

■ Former Waste Oil/Filter Drum Storage Area



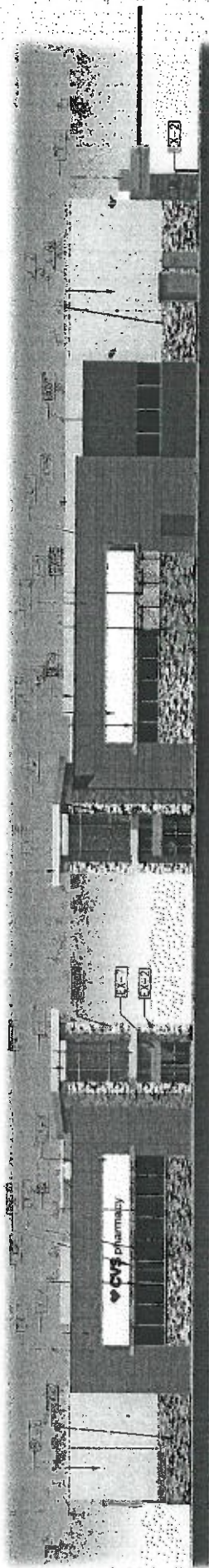
**Figure 2: Site Plan**

Proposed CVS Store No. 10395  
1505 Commercial Way  
Santa Cruz, CA 95065

Reference: Google Earth 2013 Aerial Photograph

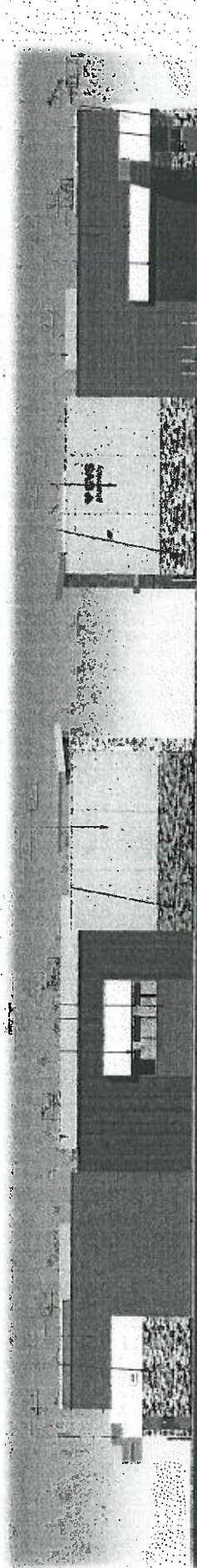
**EXHIBIT A**

**ATTACHMENT 2**



proposed front elevation

proposed right elevation



proposed left elevation

proposed rear elevation

- D-1 LUMBER/STEEL JOIST PANELS  
W/SPRINKLER SYSTEMS  
OUTDOOR LIGHTING
- D-2 LUMBER/STEEL JOIST PANELS  
W/SPRINKLER SYSTEMS  
OUTDOOR LIGHTING
- D-3 LUMBER/STEEL JOIST PANELS  
W/SPRINKLER SYSTEMS  
OUTDOOR LIGHTING
- D-4 LUMBER/STEEL JOIST PANELS  
W/SPRINKLER SYSTEMS  
OUTDOOR LIGHTING
- D-5 LUMBER/STEEL JOIST PANELS  
W/SPRINKLER SYSTEMS  
OUTDOOR LIGHTING
- D-6 LUMBER/STEEL JOIST PANELS  
W/SPRINKLER SYSTEMS  
OUTDOOR LIGHTING
- D-7 LUMBER/STEEL JOIST PANELS  
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- D-19 LUMBER/STEEL JOIST PANELS  
W/SPRINKLER SYSTEMS  
OUTDOOR LIGHTING
- D-20 LUMBER/STEEL JOIST PANELS  
W/SPRINKLER SYSTEMS  
OUTDOOR LIGHTING



CVS/Pharmacy - Color Elevations

Soquel Drive & Commercial Way - Santa Cruz, CA

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7007 DISCOVERY BLVD.  
DUBLIN, OHIO 43071



EXHIBIT A

ATTACHMENT 3





# CVS Pharmacy – Santa Cruz Transportation Impact Analysis

Prepared For:

BOOS DEVELOPMENT WEST, LLC

Prepared By:

**Kimley»Horn**

October 2019

**EXHIBIT A**  
**ATTACHMENT 4**

## Contents

EXECUTIVE SUMMARY .....	1
Project Description .....	1
Analysis Methodology .....	1
Study Intersections.....	2
Trip Generation Estimates .....	2
Vehicle Miles Traveled (VMT) Evaluation .....	2
Impacts and Mitigation Measures .....	2
1. INTRODUCTION .....	5
Analysis Methodology .....	5
Study Intersections.....	9
Report Organization .....	10
2. EXISTING CONDITIONS.....	11
Existing Roadway Network .....	11
Existing Study Intersections .....	11
Existing Peak-Hour Turning Movement Volumes .....	12
Existing Transit Facilities.....	15
Existing Pedestrian and Bicycle Facilities.....	15
Existing Level of Service at Study Intersections .....	16
3. PROPOSED PROJECT .....	17
Project Transportation Improvements.....	17
Trip Generation Estimates .....	18
Trip Distribution and Assignment.....	19
4. EXISTING PLUS PROJECT CONDITIONS .....	23
5. NEAR TERM CONDITIONS .....	27
Near Term Transportation Improvements.....	27
Near Term Traffic Volumes .....	27
Near Term Intersection Level of Service.....	29
Near Term Plus Project Intersection Level of Service .....	31

6. CUMULATIVE CONDITIONS .....	35
Cumulative Volumes .....	35
Cumulative Intersection Level of Service .....	35
Cumulative Plus Project Intersection Level of Service .....	39
7. HIGHWAY 1 .....	46
Highway 1 Planned Improvements .....	47
Funding for Highway 1 Improvements .....	48
8. POTENTIAL IMPACTS ON PEDESTRIAN, BICYCLE, AND TRANSIT MOBILITY .....	50
Pedestrian Mobility .....	50
Bicycle Mobility .....	50
Transit Mobility .....	50
Summary of Potential Impacts .....	50
9. VEHICLE MILES TRAVELED EVALUATION .....	51
Background .....	51
Analysis Methodology .....	51
Findings .....	52
10. OTHER TRANSPORTATION EVALUATIONS .....	54
On-Site Parking .....	54
Site Access and Circulation .....	54
11. SUMMARY OF IMPACTS AND MITIGATION MEASURES .....	56
APPENDIX .....	58

## Figures

Figure 1 – Project Location Map .....	6
Figure 2 – Project Site Plan .....	7
Figure 3 – Existing Conditions Lane Geometry and Traffic Control .....	13
Figure 4 – Existing Conditions Peak Hour Turning Movement Volumes .....	14
Figure 5 – Project Trip Distribution .....	21
Figure 6 – Project Peak Hour Trip Assignment .....	22

Figure 7 – Existing Plus Project Conditions Lane Geometry and Traffic Control.....	24
Figure 8 – Existing Plus Project Conditions Peak Hour Turning Movement Volumes .....	25
Figure 9 – Near Term Conditions Lane Geometry and Traffic Control .....	28
Figure 10 – Near Term Conditions Peak Hour Turning Movement Volumes.....	30
Figure 11 – Near Term Plus Project Conditions Lane Geometry and Traffic Control .....	32
Figure 12 – Near Term Plus Project Conditions Peak Hour Turning Movement Volumes.....	33
Figure 13 – Cumulative Conditions Lane Geometry and Traffic Control .....	37
Figure 14 – Cumulative Conditions Peak Hour Turning Movement Volumes .....	38
Figure 15 – Cumulative Plus Project Conditions Lane Geometry and Traffic Control .....	42
Figure 16 – Cumulative Plus Project Conditions Peak Hour Turning Movement Volumes.....	43
Figure 17 – Proximity of Similar Retail Stores .....	53

## Tables

Table 1 – Intersection Level of Service Definitions .....	8
Table 2 – Existing Conditions Intersection Level of Service .....	16
Table 3 – Project Trip Generation Estimates .....	19
Table 4 – Existing Plus Project Conditions Intersection Level of Service .....	26
Table 5 – Growth Rate Calculations .....	27
Table 6 – Near Term Conditions Intersection Level of Service.....	29
Table 7 – Near Term Plus Project Conditions Intersection Level of Service .....	34
Table 8 – Cumulative Conditions Intersection Level of Service.....	39
Table 9 – Cumulative Plus Project Conditions Intersection Level of Service.....	44
Table 10 – Mitigated Cumulative Plus Project Conditions Intersection Level of Service .....	45
Table 11 – Highway 1 Baseline Measures of Effectiveness .....	46
Table 12 – Queue Analysis (Existing, Near Term, and Cumulative Conditions).....	55

## EXECUTIVE SUMMARY

This report presents the results of the Transportation Impact Analysis (TIA) for the proposed Santa Cruz CVS (Project) located in Santa Cruz County, California (County).

## PROJECT DESCRIPTION

The Project proposes to construct a new CVS located south of the intersection of Soquel Drive and Hospital Drive. Project site land uses includes one multifamily residential unit and a furniture store.

The Project is anticipated to be open to customers seven days a week from 8:00 AM to 12:00 AM. It will include 13,111 square feet of gross floor area and drive-through pharmacy window. The pharmacy drive through window will be open from 8:00am to 12:00am Monday through Sunday. Additionally, the CVS could include a minute clinic that would provide flu shots and similar services. The Project will accommodate on-site parking for bicycles and passenger vehicles and will construct one driveway along Soquel Drive and one driveway along Commercial Way.

The Project will be accessed via a full access driveway on Soquel Drive with exceptions that left-turn out movement from the main CVS driveway will be restricted throughout the day and the left-turn out movement from the Hospital driveway will be restricted during the AM and PM peak periods.

## ANALYSIS METHODOLOGY

Impacts associated with the Project were evaluated for the weekday AM and PM peak one-hour periods, consistent with accepted County and Caltrans guidelines and criteria. Typically, peak periods extend over more than just the one hour analyzed, but this analysis presents the busiest one hour during each AM and PM peak period. Peak road network traffic in the study area was observed between 7:00am-9:00am in the AM and between 4:00pm-6:00pm in the PM. The TIA analysis was conducted for the one hour AM and one hour PM peaks for the following analysis scenarios:

- **Scenario 1: Existing (2018) Conditions**  
Based upon current traffic counts collected in March 2018 and existing roadway geometry and traffic control.
- **Scenario 2: Existing (2018) Plus Project Conditions**  
Based upon existing traffic volumes, existing roadway geometry, and traffic control and traffic generated by the Project.
- **Scenario 3: Near Term (2020) Conditions**  
Based upon future year traffic forecasts estimated for developments anticipated to occur at the time the Project is constructed in approximately the year 2020. These forecasts were determined by applying a historic average annual percent growth rate for two years after 2018, using Santa Cruz County Regional Transportation Commission (SCCRTC) ADT data.
- **Scenario 4: Near Term (2020) Plus Project Conditions**  
Based upon Project traffic added to the Near Term (2020) Conditions.
- **Scenario 5: Cumulative (2035) Conditions**  
Based upon future traffic forecasted for developments anticipated to occur through 2035. These forecasts were calculated by applying an average annual percent growth rate from year 2018 through year 2035, utilizing historic growth rates on Soquel Drive.
- **Scenario 6: Cumulative (2035) Plus Project Conditions**  
Based upon Project traffic added to the Cumulative year traffic volumes and 2035 Conditions.



## STUDY INTERSECTIONS

Seven study intersections were analyzed based on the anticipated Project trip assignment and knowledge of the study area, as well as consultation with Santa Cruz County (SCC) and Caltrans staff. The following intersections were evaluated in this study:

1. Soquel Drive & Soquel Avenue
2. Soquel Drive & Paul Sweet Road / Commercial Way
3. Soquel Drive & Hospital Drive / Project Driveway #1
4. Soquel Drive & Hospital Drive / Commercial Crossing
5. Soquel Drive & Mission Drive
6. Soquel Drive & Thurber Lane
7. Highway 1 NB On-Off Ramps / Commercial Way & Project Driveway #2

## TRIP GENERATION ESTIMATES

The Project is anticipated to generate approximately 50 gross AM peak hour trips, 135 gross PM peak hour trips, and 1,432 gross average daily trips on weekdays, based on Institute of Transportation Engineers (ITE) Trip Generation 10<sup>th</sup> Edition data and methodologies. Gross Project trips are reduced by 66 PM peak hour trips to account for pass-by trips, based ITE data and methodologies. ITE does not provide pass-by guidelines for AM peak hours, therefore, no pass-by reductions are applied to the AM peak trip generation estimates. Consistent with standard Santa Cruz County traffic engineering practices, the Project receives a trip credit for replacing the existing uses on the Project site, namely; 2,400 square feet of mini-warehousing, 1 apartment dwelling unit, and a 10,550-square foot furniture store resulting in a trip credit of 5 in the AM peak hour, 7 in the PM peak hour, and 80 average daily trips. **Therefore, the traffic analysis is based on the Project generating a net of 45 AM peak hour trips, 62 PM peak hour trips, and 1,286 daily trips.**

## VEHICLE MILES TRAVELED (VMT) EVALUATION

The VMT analysis considered how the introduction of this store, its location, and the nature of services that it would provide, would affect customers' destination choices given existing travel patterns. Based on the results of this assessment, it was determined that the proposed CVS store would result in a net VMT reduction. Accordingly, it was determined that the proposed CVS store would not result in a significant transportation impact with respect to SB 743 VMT evaluation methodologies.

## IMPACTS AND MITIGATION MEASURES

The Project will trigger impacts at study intersections identified below. Additionally, the Caltrans District 5 DEIR for highway 1 improvements identifies the construction of auxiliary lanes between Soquel and 41<sup>st</sup> and upgrades to the Soquel Drive interchange together with the construction of an HOV lane in the median. Construction of the auxiliary lanes is currently in the design phase. Improving the interchange is a long-term improvement.

### Soquel Drive & Paul Sweet Road / Commercial Way (Intersection #2)

Soquel Drive & Paul Sweet Road / Commercial Way is a Caltrans District 5 intersection. The study intersection operates at unacceptable LOS during AM and PM peak hours during Cumulative and Cumulative plus Project study scenarios. As part of the planned Highway 1 / Soquel Drive & Soquel Avenue

interchange improvements, Caltrans plans to construct the following improvements at this study intersection:

- Convert one westbound left turn lane to westbound through lane.
- Add one westbound shared through and right turn bay.
- Add one northbound left turn lane.
- Add one eastbound right turn bay

A detailed layout of this intersection is attached in **Appendix**.

Implementation of these improvements will result in LOS D during AM and PM peak hours for this intersection under Cumulative plus Project conditions. However, these improvements are currently unfunded and are not included in the County Capital Improvement Program (CIP). Caltrans does not have a fee program in place for collecting fair share impact fees and the planned interchange improvements are not under Santa Cruz County jurisdiction.

#### **Soquel Drive & Mission Drive (Intersection #5)**

Soquel Drive & Mission Drive is a Santa Cruz County intersection. The intersection will operate at an unacceptable LOS E during the PM peak during Cumulative and Cumulative plus Project conditions and addition of Project traffic will cause the critical movement volume to capacity ratio to increase by more than 1% (1.48%). Therefore, this intersection would be impacted by the Project. This impact would be mitigated by implementing split phasing signal operation on the northbound and southbound approaches. **The Project's proportional fair share payment for this impact is approximately 1.9%.** The engineering cost estimate for this improvement is \$81,000 (included in the **Appendix**). Therefore, the Project's fair share cost would be approximately \$1,570.

#### **Highway 1 NB On-Off Ramp / Commercial Way & Project Driveway #2 (Intersection #7)**

This is a Caltrans District 5 intersection. The study intersection operates at unacceptable LOS during AM and PM peak hours in Cumulative and Cumulative plus Project study scenarios. As part of the planned Highway 1 / Soquel Drive & Soquel Avenue interchange improvements, Caltrans plans to construct the improvements identified at Intersection #2 above, as well as ramp realignment and a cul-de-sac at the Project driveway.

Implementation of these improvements would improve intersection operations to LOS A during AM and PM peak hours. However, these improvements are currently unfunded and are therefore not included in the County Capital Improvement Project (CIP). The Cumulative impact is thus significant and unavoidable until the improvement is constructed.

#### **Traffic Improvement Area Fees**

The Project is required to pay a Transportation Improvement Area (TIA) fee to Santa Cruz County based on daily net new trips generated. The ITE Trip Generation Manual uses a daily trip rate of 6.3 trips per 1,000 square feet for the existing furniture store and Santa Cruz County Fee Schedule allows max of 40 trips per 1,000 square feet for the proposed pharmacy land use categories. Additionally, the ITE trip schedule uses a daily rate of 1.51 trips per 1,000 square feet for the existing warehouse land use category. The existing apartment land use is credited based on units, not daily trips. Daily rates identified in the ITE Trip

Generation Manual and referenced in this section are used in the fee calculations only. Consistent with County policies, ITE trip generation data and methodologies are used in this study's impact and mitigation analysis.

A **total fee credit of \$39,879** is estimated for the existing warehouse, apartment, and furniture land uses that will be demolished prior to construction of the proposed pharmacy. This includes Soquel Transportation Improvement fees (\$19,939.50) and Soquel Roadside Improvement fees (\$19,939.50). **The Project will be responsible to pay a total of \$268,410.60** (\$314,664 gross impact fee minus \$39,879 fee credit = \$268,410.60) in County improvement fees. These fees include Soquel Transportation Improvement fees and Soquel Roadside Improvement fees. These TIA fees are subject to change and are payable at the time the building permit is issued.

Through payment of the TIA fees and fair share payments identified above, the Project would mitigate all incremental Cumulative impacts.

### **Conclusion**

Based on the above mitigation measures, the Project will be required to pay a total of \$268,410.60 in traffic impact fees.

## 1. INTRODUCTION

This TIA presents the findings of the traffic analysis for the proposed construction of a new Santa Cruz CVS (the Project), which will be located south of the intersection of Soquel Drive and Hospital Drive, in unincorporated Santa Cruz County. The site currently contains one multifamily residential unit and a furniture store. The Project is anticipated to be open to customers seven days a week from 8:00 AM to 12:00 AM. It will include 13,111 square feet of gross floor area and pharmacy drive-through. The pharmacy drive through window hours of operations are anticipated to be from 8:00am to 12:00am Monday through Sunday. Additionally, the CVS could include a minute clinic that would provide flu shots and similar services. The Project will accommodate on-site parking for 13 bicycles and 50 passenger vehicles (including 4 ADA spaces) and will construct one driveway along Soquel Drive and one driveway along Commercial Way.

Figure 1 shows the location of the Project site, study intersections, and the surrounding study area. Figure 2 illustrates the Project site plan.

Based upon discussions with California Department of Transportation (Caltrans) Traffic Operation Staff at a meeting on January 4, 2018, it is anticipated that the existing Commercial Way connection to the Highway 1 northbound on and off ramp will be realigned once the interchange is improved. The new alignment will convert Commercial Way just west of the Project driveway into a cul-de-sac. The southern Project driveway onto Commercial way will then operate as a right-in, left-out only. This traffic analysis assumes these improvements will be constructed as part of the cumulative traffic modeling scenarios. This study complies with traffic impact analysis guidelines and criteria set forth by Santa Cruz County, the California Department of Transportation, and CEQA.

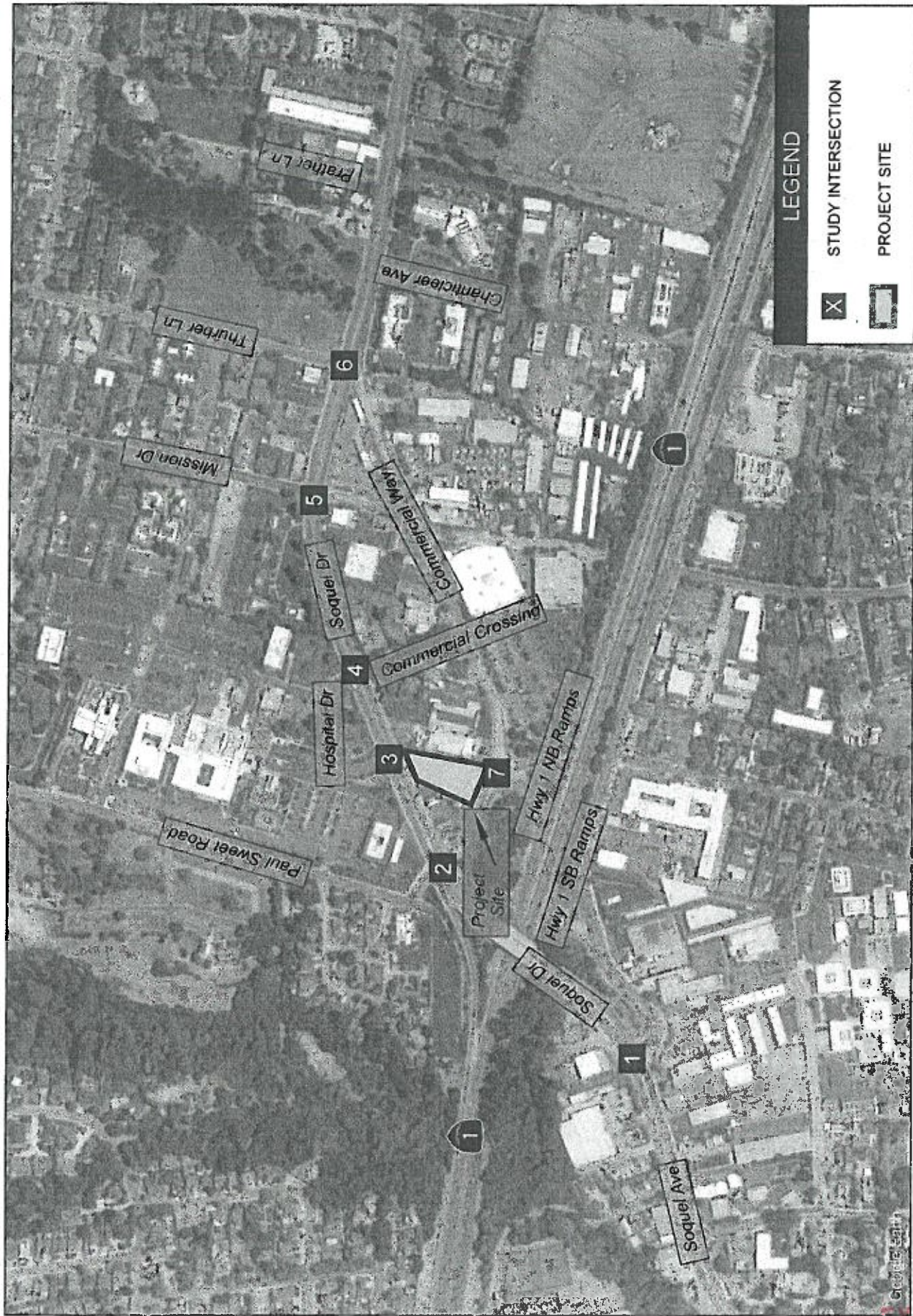
## ANALYSIS METHODOLOGY

### DEVELOPMENT CONDITIONS

This transportation impact analysis was based on the following development conditions:

- **Scenario 1: Existing (2018) Conditions**  
Based upon current traffic counts collected in March 2018 and existing roadway geometry and traffic control.
- **Scenario 2: Existing (2018) Plus Project Conditions**  
Based upon existing traffic volumes, existing roadway geometry, and traffic control and traffic generated by the Project.
- **Scenario 3: Near Term (2020) Conditions**  
Based upon future year traffic forecasts estimated for developments anticipated to occur at the time the Project is constructed in approximately the year 2020. These forecasts were determined by applying a historic average annual percent growth rate for two years after 2018, using Santa Cruz County Regional Transportation Commission (SCCRTC) ADT data.
- **Scenario 4: Near Term (2020) Plus Project Conditions**  
Based upon Project traffic added to the Near Term (2020) Conditions.
- **Scenario 5: Cumulative (2035) Conditions**  
Based upon future traffic forecasted for developments anticipated to occur through 2035. These forecasts were calculated by applying an average annual percent growth rate from year 2018 through year 2035, utilizing historic growth rates on Soquel Drive.
- **Scenario 6: Cumulative (2035) Plus Project Conditions**  
Based upon Project traffic added to the Cumulative year traffic volumes and 2035 Conditions.





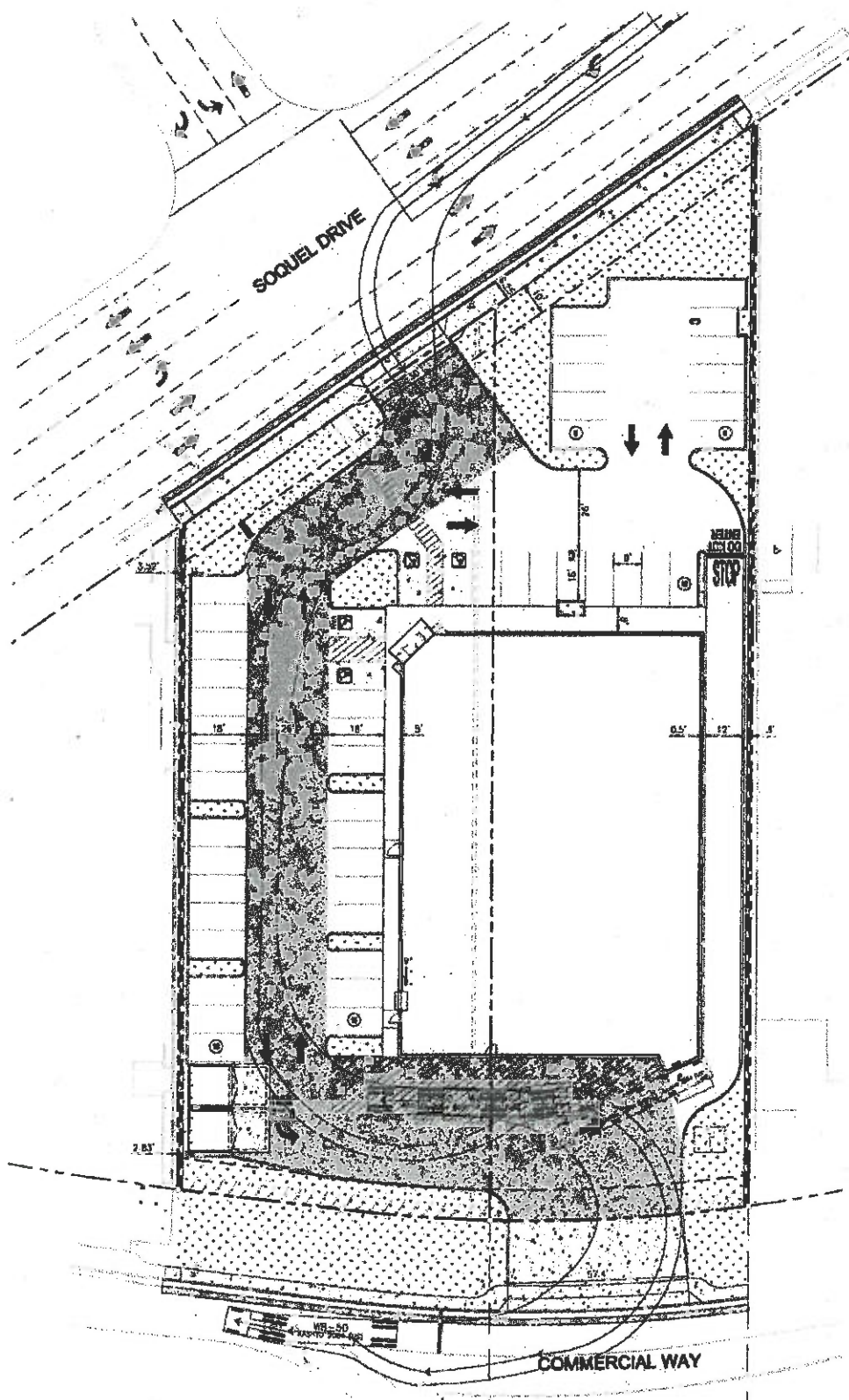
Santa Cruz CVS  
Figure 1  
**Project Location and Study Intersections**



**Kimley»Horn**  
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**EXHIBIT A**





#### LEGEND

- PROPERTY BOUNDARY
- CENTERLINE
- [Pattern] HEAVY DUTY CONCRETE
- [Pattern] LANDSCAPE
- [Pattern] CONCRETE SIDEWALK
- [Pattern] HEAVY DUTY ASPHALT
- RETAINING WALL
- [Symbol] NEW TRANSFORMER
- [Symbol] NEW SIGN
- [Symbol] EXISTING TREE

#### SITE DATA

APN	029-1-1-20
	029-071-05
SITE AREA	1.10 AC
PARCEL AREA	91,894 S.F.
EXISTING BUILDING AREA	13,750 S.F.
PROPOSED BUILDING AREA	13,111 S.F.
PROPOSED BUILDING HEIGHT	28'-10"
PROPOSED LANDSCAPE AREA	10,494 S.F.
F.A.R.	25%
OPEN SPACE	20%

#### PARKING DATA

	REQUIRED	PROVIDED
STANDARD SPACES	46	46
ADA SPACES	2	4
TOTAL	48	50
PARKING RATIO	1 SPACE/300 S.F.	1 SPACE/300 S.F.

#### PROJECT TEAM

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GRAPHIC SCALE IN FEET  
0 10 20 30

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Santa Cruz CVS  
Figure 2  
**Project Site Plan**

**EXHIBIT A**  
**ATTACHMENT 4**



## OPERATING CONDITIONS AND CRITERIA FOR INTERSECTIONS

Analysis of potential impacts at roadway intersections is based on the concept of Level of Service (LOS). The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. Levels of Service for this study were determined using methods defined in the *Highway Capacity Manual (HCM)* and *Synchro 9* traffic analysis software.

HCM methodologies include procedures for analyzing side-street stop-controlled (SSSC), all-way stop-controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the overall intersection. Table 1 relates the operational characteristics associated with each LOS category for signalized and unsignalized intersections.

**Table 1 – Intersection Level of Service Definitions**

Level of Service	Description	Signalized (Avg. control delay per vehicle sec/veh.)	Unsignalized (Avg. control delay per vehicle sec/veh.)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream	Less than 10	less than 10
B	Stable traffic. Traffic flows smoothly with few delays.	less than or equal to 10 to 20	less than or equal to 10 to 15
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	less than or equal to 20 to 35	less than or equal to 15 to 25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	less than or equal to 35 to 55	less than or equal to 25 to 35
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	less than or equal to 55 to 80	less than or equal to 35 to 50
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	greater than or equal to 80	greater than or equal to 50

Sources: Transportation Research Board, *Highway Capacity Manual 6*, National Research Council.

Project impacts are determined by comparing conditions without the proposed Project to those with the proposed Project. Significant impacts for intersections are created when traffic from the proposed Project causes the LOS to fall below the maintaining agency's LOS threshold or causes deficient intersections to deteriorate further per the criteria indicated below.

#### Santa Cruz County (SCC)

Consistent with the significant impact criteria documented in the Santa Cruz County General Plan, the County considers LOS C as the objective, but accepts LOS D as the minimum acceptable at both signalized and unsignalized study intersections where costs, right-of-way requirements, or environmental impacts of maintaining LOS under this policy are excessive, capacity enhancement may be considered infeasible. Therefore, the following conditions would result in a significant impact at a County intersection:

1. If the intersection operates at an acceptable LOS (i.e. LOS A, B, C, or D) without the Project during the weekday peak hour and degrades to an unacceptable LOS (i.e. LOS E or F) with the Project during the weekday peak hour.
2. If the intersection operates at an unacceptable LOS (i.e. LOS E or F) without the Project during the weekday peak hour, and the volume/capacity (v/c) ratio of the sum of all critical movements at the intersection increases by 1% or more.

#### California Department of Transportation (Caltrans)

Caltrans has identified the level of service objective LOS D as the acceptable service level for the Highway 1 & Soquel Avenue/Drive signalized intersections. Intersection impacts are defined to occur when the addition of Project traffic:

1. Causes operations to deteriorate from an acceptable level (LOS D) to an unacceptable level (LOS E or worse).
2. Causes the existing measure of effectiveness (average delay) to deteriorate at a State-operated intersection operating at LOS E or worse.

Under some circumstances, Caltrans will work with the maintaining agency to determine an acceptable LOS standard on a case-by-case basis when the study roadway facility is constrained.

#### STUDY INTERSECTIONS

The Project will generate new vehicular trips that will increase traffic volumes on the nearby street network. To assess changes in traffic conditions, the following intersections listed by jurisdiction, were selected in consultation with Santa Cruz County staff for evaluation:

1. Soquel Drive & Soquel Avenue (Signal Controlled) - SCC
2. Soquel Drive & Paul Sweet Road / Commercial Way (Signal Controlled) - Caltrans
3. Soquel Drive & Hospital Drive / Project Driveway (Side-Street Stop Controlled) - SCC
4. Soquel Drive & Hospital Drive / Commercial Crossing (Signal Controlled) - SCC
5. Soquel Drive & Mission Drive (Signal Controlled) - SCC
6. Soquel Drive & Thurber Lane (Signal Controlled) - SCC
7. Highway 1 NB On-Off Ramps / Commercial Way & Project Driveway #2 (Side-Street Stop Controlled) - Caltrans

\*SCC = Maintained by Santa Cruz County

***\*\*Caltrans = Maintained by California Department of Transportation***

These study intersections are illustrated in **Figure 1**.

## **REPORT ORGANIZATION**

This transportation impact analysis includes the following chapters:

**Chapter 2** describes the existing transportation system in the Project vicinity as well as current operating conditions at study intersections.

**Chapter 3** discusses the Project's trip generation characteristics as well as methodologies used to estimate trip credits and net Project traffic added to Project roadways. Transportation improvements proposed by the Project are also presented.

**Chapter 4** describes Existing Plus Project Conditions and analysis.

**Chapter 5** discusses Near Term Conditions with and without the Project.

**Chapter 6** discusses Cumulative Conditions with and without the Project.

**Chapter 7** describes the Highway 1 cumulative evaluation, Highway Corridor Investment Program, and future funding of improvements.

**Chapter 8** presents the Project's potential effects on pedestrian, bicycle, and transit mobility.

**Chapter 9** discusses on-site vehicle and bicycle parking, site access points and circulation.

**Chapter 10** presents the Transportation Impact Area fees and Project responsibilities based on net new daily trips.

A technical appendix is also attached containing traffic count data, traffic growth rate calculations, future Highway 1 improvement details, and intersection level of service analysis output sheets.

## 2. EXISTING CONDITIONS

### EXISTING ROADWAY NETWORK

Below is a description of the principal roadways within the study area:

**Highway 1** is a four-lane divided freeway in the Project vicinity and extends along the California coast connecting major cities including San Francisco, Santa Cruz, Monterey, San Louis Obispo, and Los Angeles to coastal communities. In the Project vicinity, Highway 1 is a major commuter and tourist route and has a posted speed limit of 65 miles per hour.

**Soquel Avenue / Drive** is an east-west arterial roadway that begins as Soquel Avenue from Downtown Santa Cruz to the east and continues as Soquel Drive to Aptos in the west, providing access to Highway 1 and connecting residential, retail and commercial land uses in the City of Santa Cruz, Santa Cruz County, Soquel, and Aptos. Soquel Drive is known as Soquel Avenue west of Highway 1. In the Project vicinity, Soquel Drive has a 35 mile per hour posted speed limit, is a four-lane, undivided arterial and has a two-way left-turn lane between Thurber Lane and Paul Sweet Road. Soquel Drive is a four-lane, divided arterial with a raised median from Paul Sweet Road to Soquel Avenue. Soquel Drive is a four-lane, undivided arterial with two-way left-turn lanes east of Paul Sweet Road and Highway 1 northbound on ramps.

**Thurber Lane** is a north-south collector roadway that begins at Soquel Drive in the City of Santa Cruz and ends just north of Cabrillo Avenue, providing access to residential land uses. Thurber Lane is a two-lane undivided roadway with a 30 mile per hour posted speed limit south of Winkle Avenue and with a 25 mile per hour posted speed limit north of Winkle Avenue.

**Commercial Way** is an east-west collector roadway that extends from Soquel Drive / Soquel Avenue to Thurber Lane in Santa Cruz County. The roadway connects to the Highway 1 northbound on / off ramp with westbound stop control and is a two-lane undivided roadway with a 30 mile per hour assumed speed limit.

### EXISTING STUDY INTERSECTIONS

**Soquel Drive & Soquel Avenue** is a four-legged, signal-controlled intersection with a marked crosswalk on the west leg. Westbound and eastbound left turn phasing are protected. Northbound and southbound approaches are split phase. The southbound leg is a private driveway serving local businesses.

**Soquel Drive & Paul Sweet Road – Commercial Way** is a four-legged, signal control with marked crosswalks on the north, east, and south leg. Westbound and eastbound left turn phasing are protected. Northbound and southbound approaches are split phase.

**Soquel Drive & Hospital Drive / Project Driveway #1** is a three-legged, side-street stop controlled (SSSC) intersection with a marked crosswalk on the north leg. The north leg provides access to a private driveway serving the Dominican Hospital. The future project driveway is proposed on the southern leg of the intersection.

**Soquel Drive & Hospital Drive / Commercial Crossing** is a four-legged, signal-controlled intersection with marked crosswalks on all four legs. Westbound and eastbound left turn phasing are protected. Northbound and southbound left turn phasing is permissive.

**Soquel Drive & Mission Drive** is a four-legged, signal-controlled intersection with marked crosswalks on all four legs. Westbound and eastbound left turn phasing are protected. Northbound and southbound left turn phasing is permissive.

**Soquel Drive & Thurber Lane** is a three-legged, signal-controlled intersection with marked crosswalks on the north and west leg. The westbound left turn phasing is protected.

**Highway 1 NB On - Off-Ramps / Commercial Way & Project Driveway #2** is a three-legged, side-street stop controlled (SSSC) intersection with no marked crosswalks.

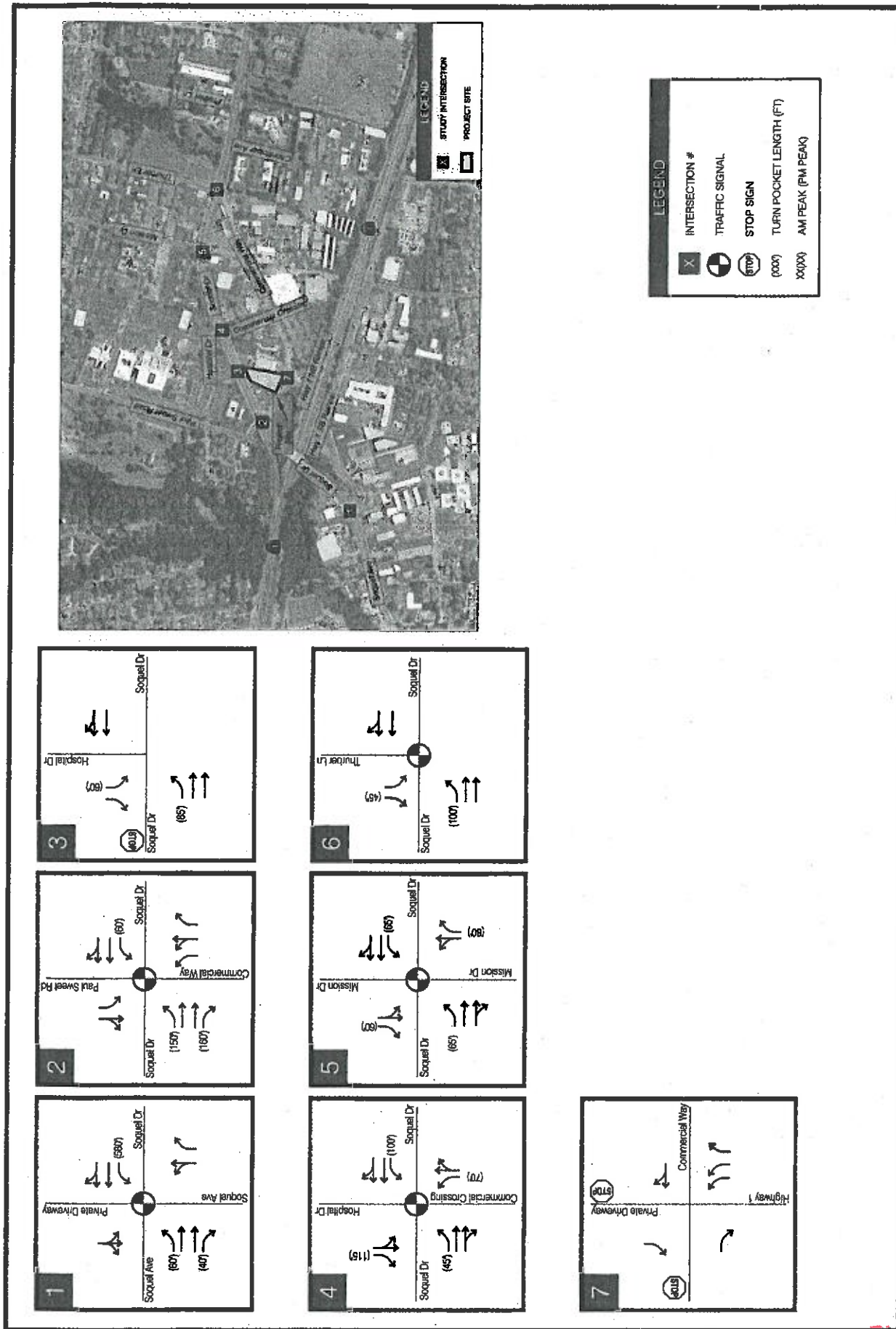
A site visit was conducted while traffic count data was collected to observe operations. Existing lane geometries and traffic control for the study intersections are illustrated in **Figure 3**.

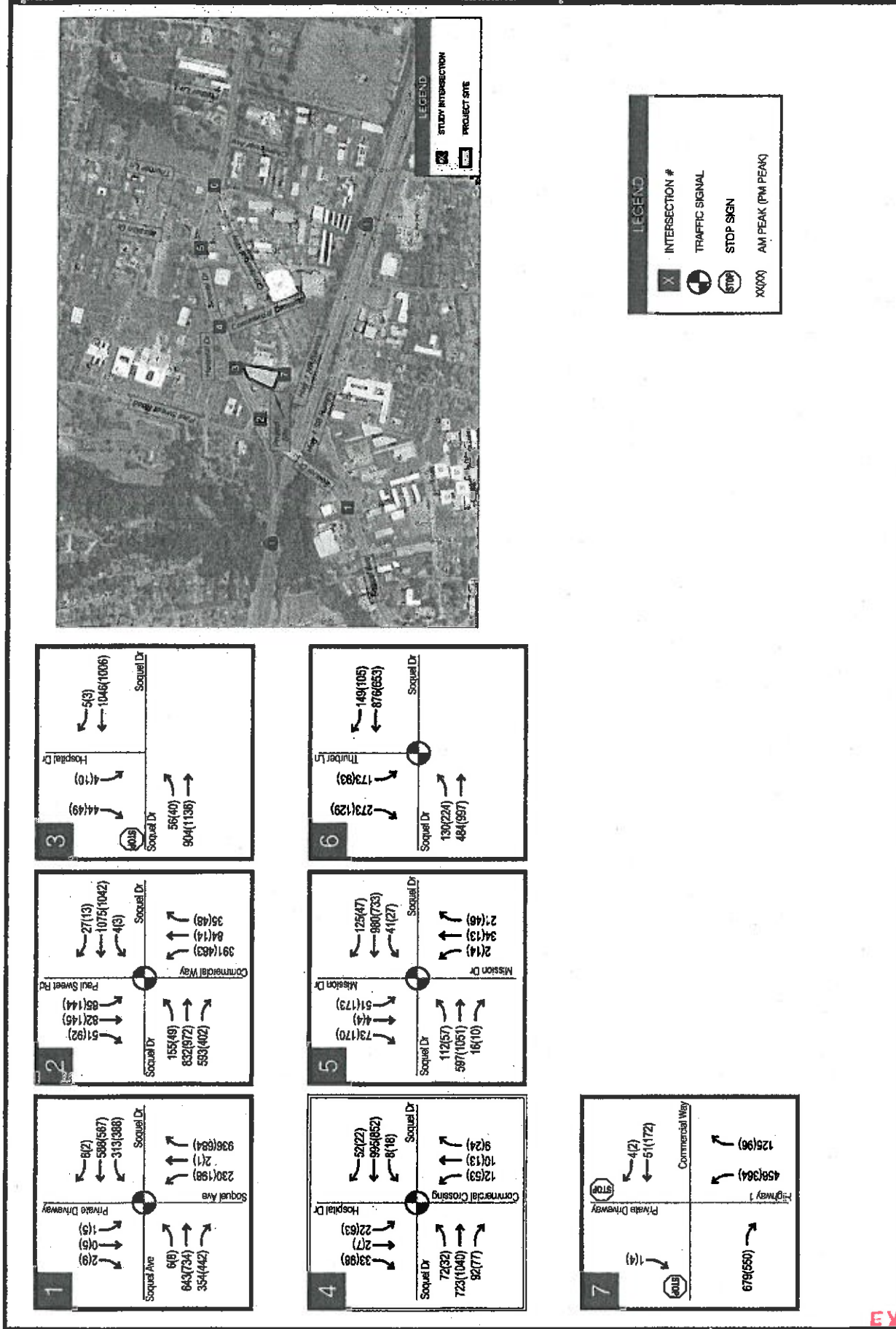
### EXISTING PEAK-HOUR TURNING MOVEMENT VOLUMES

Weekday intersection turning movement volumes for the seven existing study intersections, not including the future Project driveways, were collected on March 6<sup>th</sup>, 2018. These counts included vehicles, bicycles, and pedestrians. Volumes for intersections were collected during the AM and PM peak periods of 7:00-9:00 AM and 4:00-6:00 PM, respectively. These traffic counts were collected when local schools were in session and the weather was fair. Peak hour volumes at each intersection's respective peak were conservatively used in this analysis, therefore, some volume imbalances were observed between study intersections. Where imbalances occurred, volumes were conservatively increased above what was counted and shown in the traffic count data sheets. Existing peak hour turning movement volumes are shown in **Figure 4**. Field observations were conducted when traffic count data was collected and queues were measured in the field.

The highest one-hour morning (AM) and one hour afternoon/evening (PM) peaks were selected for analysis, consistent with County and State guidelines. U-turns are analyzed (and illustrated in all figures) as left-turns since 6 HCM methodologies do not provide analyze U-turns. Intersection volume data sheets for all traffic counts are provided in the **Appendix**.







## EXISTING TRANSIT FACILITIES

The Santa Cruz Metropolitan Transit District (SCMTD) provides transit services throughout Santa Cruz County and between the Cities of Santa Cruz, Capitola, Watsonville, and Scotts Valley. The Monterey-Salinas Transit (MST) provides transit services throughout Monterey County, between the Cities of San Jose and Santa Cruz and between the Cities of Templeton and Big Sur. The Project lies in the service area for METRO Routes 71 and 91X and for MST Route 78. Descriptions of the three routes as well as the nearest stop locations relative to the Project site are described below:

- The **Santa Cruz / Watsonville Route (Route 71)** serves south Santa Cruz County and provides public transit to the Cities of Santa Cruz, Capitola and Watsonville. It operates along Soquel Drive in the Project vicinity. Stops near the Project Site are located near the Soquel Park and Ride lot (less than ¼ mile west of the Project Site), in front of the Dominican Hospital (less than ¼ mile east of the Project Site), and near the Santa Cruz Medical Clinic (less than ¼ mile east of the Project Site).
- The **Presidio-Santa Cruz Express (Route 78)** serves Monterey County as well as nearby cities including the City of Santa Cruz. It operates along Soquel Drive in the Project vicinity. A stop near the Project site is located in front of the Dominican Hospital (less than ¼ mile east of the Project Site).
- The **Commuter Express Santa Cruz / Watsonville Route (Route 91X)** serves south Santa Cruz County and provides express public transit to the Cities of Santa Cruz, Capitola and Watsonville. It operates along Soquel Drive in the Project vicinity. A stop near the Project site is in front of the Dominican Hospital (less than ¼ mile east of the Project Site).

As illustrated above, multiple bus stops serving commuter routes are located within ¼ of a mile of the Project site.

## EXISTING PEDESTRIAN AND BICYCLE FACILITIES

### PEDESTRIANS

In the immediate Project vicinity and within walking distance (¼ mile), sidewalks currently exist on both sides of Soquel Drive. The Project proposes to construct ADA compliant sidewalk along the Soquel Drive Project frontage.

### BICYCLES

Existing Class I, II, and III bikeway facilities (within ½ mile of the Project) are discussed below:

**Class I** facilities are paved bicycle paths that are physically separated from the vehicular travel lane. No Class I facilities currently exist in the Project vicinity.

**Class II** facilities, which are striped bike lanes along the street, exist along both sides of Soquel Drive, along both sides of Commercial Way from west of Commercial Crossing to Mission Drive, and along both sides of Mission Drive from Commercial Way to Soquel Drive. The bike facilities along Soquel Drive are approximately five feet wide (based on google earth aerial measurements) and connect to Soquel Drive & Dominican Hospital and Soquel Drive & Paul Sweet Road SCMTD transit stops.

**Class III** bicycle facilities are bike routes denoted by signs that are shared with vehicles along the roadway. No Class III bicycle facilities currently exist in the Project vicinity.

## EXISTING LEVEL OF SERVICE AT STUDY INTERSECTIONS

Traffic operations were evaluated at the study intersections based existing conditions lane geometry, traffic control, and peak hour traffic volumes.

All study intersections operate at an acceptable LOS under existing conditions.

Results of the analysis are presented in **Table 2** and Synchro output sheets are provided in the **Appendix**.

**Table 2 – Existing Conditions Intersection Level of Service**

#	Intersection	Maintaining Agency	Control Type	Existing Conditions					
				AM Peak Hour			PM Peak Hour		
				Movement	Delay	LOS	Movement	Delay	LOS
1	Soquel Dr & Soquel Ave	SCC	Signal	Overall	25.5	C	Overall	32.6	C
2	Soquel Dr & Paul Sweet Rd / Commercial Way	Caltrans	Signal	Overall	31.4	C	Overall	28.0	C
3	Soquel Dr & Hospital Dr / Project Dwy #1	SCC	SSSC	Overall	0.7	A	Overall	0.6	A
	<i>Worst Approach</i>			SB	15.3	C	SB	15.7	C
4	Soquel Dr & Hospital Dr / Commercial Crossing	SCC	Signal	Overall	3.4	A	Overall	5.7	A
5	Soquel Dr & Mission Dr	SCC	Signal	Overall	7.2	A	Overall	43.2	D
6	Soquel Dr & Thurber Ln	SCC	Signal	Overall	15.0	B	Overall	9.8	A
7	Highway 1 NB On-Off Ramp / Commercial Way & Project Dwy #2	Caltrans	SSSC	Overall	4.1	A	Overall	3.9	A
	<i>Worst Approach</i>			SB	12.3	B	SB	9.1	A

**Notes:**

1. Analysis performed using HCM 6 methodologies.

2. Delay indicated in seconds/vehicle.

3. SCC LOS standard is D. Caltrans LOS standard is D.

4. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in bold.

5. HCM and Synchro methodology is unable to estimate delays for Study Intersection #7 due to non-standard traffic control. A SimTraffic microsimulation analysis was conducted instead, to determine average vehicle delay estimates.

Source: Kimley Horn and Associates, 2018.



### 3. PROPOSED PROJECT

#### PROJECT TRANSPORTATION IMPROVEMENTS

##### PROJECT SITE ACCESS AND PARKING

As part of the Project, new sidewalk, curb, and gutter frontage improvements will be constructed along Soquel Drive and Commercial Way. The Project proposes to construct one driveway onto Soquel Drive at the northwest corner of the site (Study Intersection #2) and one driveway onto Commercial Way at the south end of the site (Study Intersection #7). Both Project driveways will be side-street stop controlled (SSSC). Left-turn out of the Project driveway onto Soquel Drive will be restricted throughout the day, while left-turn out of the Hospital driveway onto Soquel Drive will be restricted during the AM and PM peak periods only (and 7:00am to 9:00am and 3:00pm to 6:00pm, respectively).

The Project will provide 50 vehicle parking stalls on-site (including 4 Americans with Disabilities Act (ADA) spaces) and 13 bicycle rack spaces. Vehicular parking will be allocated as follows:

- Employee, Customer, Etc. Spaces (50 total):
  - 46 – Employee / Customer Spaces
  - 4 – ADA Spaces

Project frontage improvements will be constructed consistent with ADA requirements. The Project site plan is illustrated shown in **Figure 2**.

##### SOQUEL DRIVE / PROJECT DRIVEWAY #1 (INTERSECTION #3)

The driveway that currently exists and provides access to the existing Decor Furniture store will be demolished and a new Project driveway will be constructed and aligned with the existing Dominican Hospital stop controlled driveway on Soquel Drive (Intersection #2) to create a four-leg intersection. The Project driveway will be stop-controlled and will restrict left-turns out of the driveway throughout the day. Westbound left-turns and eastbound right-turns will be permitted for motorists entering the Project site throughout the day. It is anticipated that the north driveway, that currently provides ingress and egress to Dominican Hospital users will continue to be stop-controlled and will restrict left-turns out from 7:00am to 9:00am and 3:00pm to 6:00pm once the CVS Project is constructed. This would result in acceptable levels of service during the AM and PM peak hours.

Westbound left-turn striping improvements along Soquel Drive at the Project Driveway will be constructed by the Project.

##### HIGHWAY 1 NB ON-OFF RAMP / COMMERCIAL WAY & PROJECT DRIVEWAY #2 (INTERSECTION #7)

The driveway that currently exists and is stop controlled, provides access to the existing mini-warehouse. The existing driveway will be demolished and a new Project driveway will be constructed on Highway 1 Northbound On-Off Ramps / Commercial Way (Intersection #7). Only right-turns in and right-turns out of this Project driveway will be permitted during Existing and Near Term Conditions. It is anticipated that the planned Caltrans ramp improvements, which will convert Commercial Way into a cul-de-sac and will no longer connect to the Highway 1 Ramp, will be constructed by future year 2035. It is expected that the Project driveway during Cumulative Conditions will be stop-controlled, will continue to have access to Commercial Way, and that right-turns in and left-turns out of the driveway will be permitted.



Concepts of the proposed intersection improvements, Project driveways, and Commercial Way cul-de-sac are shown in the **Appendix**.

## TRIP GENERATION ESTIMATES

Trip generation was developed for this project using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10<sup>th</sup> Edition. Pharmacy with Drive-Through Window (Land Use #881) average trip rates were used to determine project trips for the proposed 13,111-square foot pharmacy. The existing site currently has the following land uses:

- 2,400-square feet of warehouse storage (ITE Land Use 151)
- One (1) apartment unit (ITE Land Use 220)
- A 10,550-square foot furniture store (ITE Land Use 890)

The Project is anticipated to generate 1,432 gross daily trips, 50 gross AM Peak hour trips (27 IN / 23 OUT), and 135 gross PM Peak hour trips (68 IN / 67 OUT). The existing storage space, apartment unit, and furniture store generates 80 daily trips, 5 AM Peak hour trips (3 IN / 2 OUT), and 7 PM Peak hour trips (3 IN / 4 OUT). The existing land uses will be demolished with the construction of the Project; therefore, the existing trips are assumed as a trip credit.

Pass-by trip credits for the Project were calculated using ITE methodologies and data (Institute of Transportation Engineers Handbook, 3<sup>rd</sup> Edition, 2017), as well as knowledge of the area and the proposed development. ITE does not provide data for AM peak hour pass-by trips or daily pass-by trips and the proposed development isn't anticipated to generate a high number of pass-by trips during the AM Peak hour, therefore, pass-by trips are conservatively estimated at 0% for the AM Peak hour period and daily pass-by trips are conservatively assumed to be equivalent to the PM peak hour pass-by trips. ITE indicates a 49% pass-by trip proportion during the PM Peak hour for Land Use 881 (Pharmacy with Drive-Through Window). The Dominican Hospital is located directly north of the proposed CVS Pharmacy and it is anticipated that hospital trips will be linked with trips to the proposed CVS. Additionally, Soquel Drive/Avenue is a busy roadway connecting City and County residents to work and retail land uses; therefore, it is anticipated that a high number of pass-by trips will be generated by the proposed development, as represented by the 49% pass-by trip proportion. Diverted link trips are expected to be relatively low and no reductions are assumed as a conservative estimate.

Assuming the credit for existing uses and pass-by trips, the net new trip generation for the proposed Project is 1,286 daily trips, 45 AM Peak hour trips (24 IN / 21 OUT), and 62 PM Peak hour trips (32 IN / 30 OUT). Table 3 below shows the results of the trip generation analysis.

The CVS could include a minute clinic that would provide flu shots and similar services that can be provided by pharmacists and staff. This service is not anticipated to generate additional trips and will be a service provided to the local community. This service is typical of what is provided by most pharmacies.

**Table 3 – Project Trip Generation Estimates**

Land Use	Size	Units	Daily Trip Rate	Daily Trips	AM Peak Hour Rate	AM Peak Hour Trips (IN/OUT)	PM Peak Hour Rate	PM Peak Hour Trips (IN/OUT)
<b>Existing Conditions</b>								
Mini-Warehousing (LU 151)	2,400	KSF <sup>3</sup>	1.51	4	0.10	1 (1/0)	0.17	1 (0/1)
Apartment (LU 220)	1	DU	7.32	8	0.46	1 (0/1)	0.56	1 (1/0)
Furniture Store (LU 890)	10,550	KSF <sup>3</sup>	6.30	68	0.26	3 (2/1)	0.52	5 (2/3)
<b>Total Existing Trip Credit</b>	-	-	-	-80	-	-5 (-3/-2)	-	-7 (-3/-4)
<b>Proposed Conditions</b>								
Pharmacy with Drive-Through Window (LU 881)	13,111	KSF <sup>3</sup>	109.16	1,432	3.84	50 (27/23)	10.29	135 (68/67)
<b>Pass-By Reduction</b>								
<b>Retail Pass-By Reduction (PM: 49%)<sup>2</sup></b>	-	-	-	-66	-	0 (0/0)	-	-66 (-33/-33)
<b>Net Trip Generation</b>	-	-	-	<b>1,286</b>	-	<b>45 (24/21)</b>	-	<b>62 (32/30)</b>

Source: *Institute of Transportation Engineers (ITE) Trip Generation Manual, 10<sup>th</sup> Edition (2017)*

1. Trip generation estimates based on ITE average rates.
2. Pass-by trip reduction based on ITE data. Diverted link trip reductions were conservatively not assumed in this trip generation estimate.
3. KSF = 1,000 Square Feet

## TRIP DISTRIBUTION AND ASSIGNMENT

The Project trip distribution was developed based on consultation with Santa Cruz County staff, traffic patterns in the study area, the local travel demand model, and knowledge of the study area.

Due to the existing and proposed land use types, the same trip distribution was used for Project trips and existing use trip credits. Trips are expected to travel to and from the site via Highway 1, with 14% of Project trips traveling on North Highway 1 and 13% of Project trips traveling south on Highway 1. 17% of Project trips are expected travel to and from Soquel Avenue west of the site. 26% of Project trips are expected to travel to and from Soquel Drive east of the site and 10% of trips are expected to travel to and from Soquel Avenue south of the site. Approximately, 5% of Project trips are anticipated to travel to and from Paul Sweet Road, Mission Drive, Thurber Lane, and Chanticleer Avenue. Figure 5 graphically illustrates the assumed distribution in relation to the Project site and study intersections.

Left-turns out of the Project Driveway #1 (Intersection #3) will be restricted throughout the day and left-turns out of the Hospital driveway will be restricted during the AM and PM peak periods only. All left-turn restrictions will be accomplished using signage. Consequently, motorists that wish to travel west on Soquel Drive during Existing and Near Term Conditions will to either:

- Make a right-turn out of Project Driveway #1 and then make a u-turn at the signal controlled Soquel Drive & Commercial Crossing / Hospital Drive (Intersection #4); or
- Make a right-turn out of Project Driveway #2 onto Highway 1 Northbound On-Off Ramps / Commercial Way.

For Cumulative Conditions, it is anticipated that all motorists that desire to go westbound on Soquel Drive will make a right-turn out of Project Driveway #1 and then make a u-turn at the Soquel Drive & Commercial Crossing / Hospital Drive (Intersection #4).

**Figure 6** shows the net Project trip assignment for AM and PM peak hour periods during Existing and Near Term Conditions at study intersections. The Cumulative Conditions trip assignment was refined to account for the future construction of a cul-de-sac on Commercial Way.





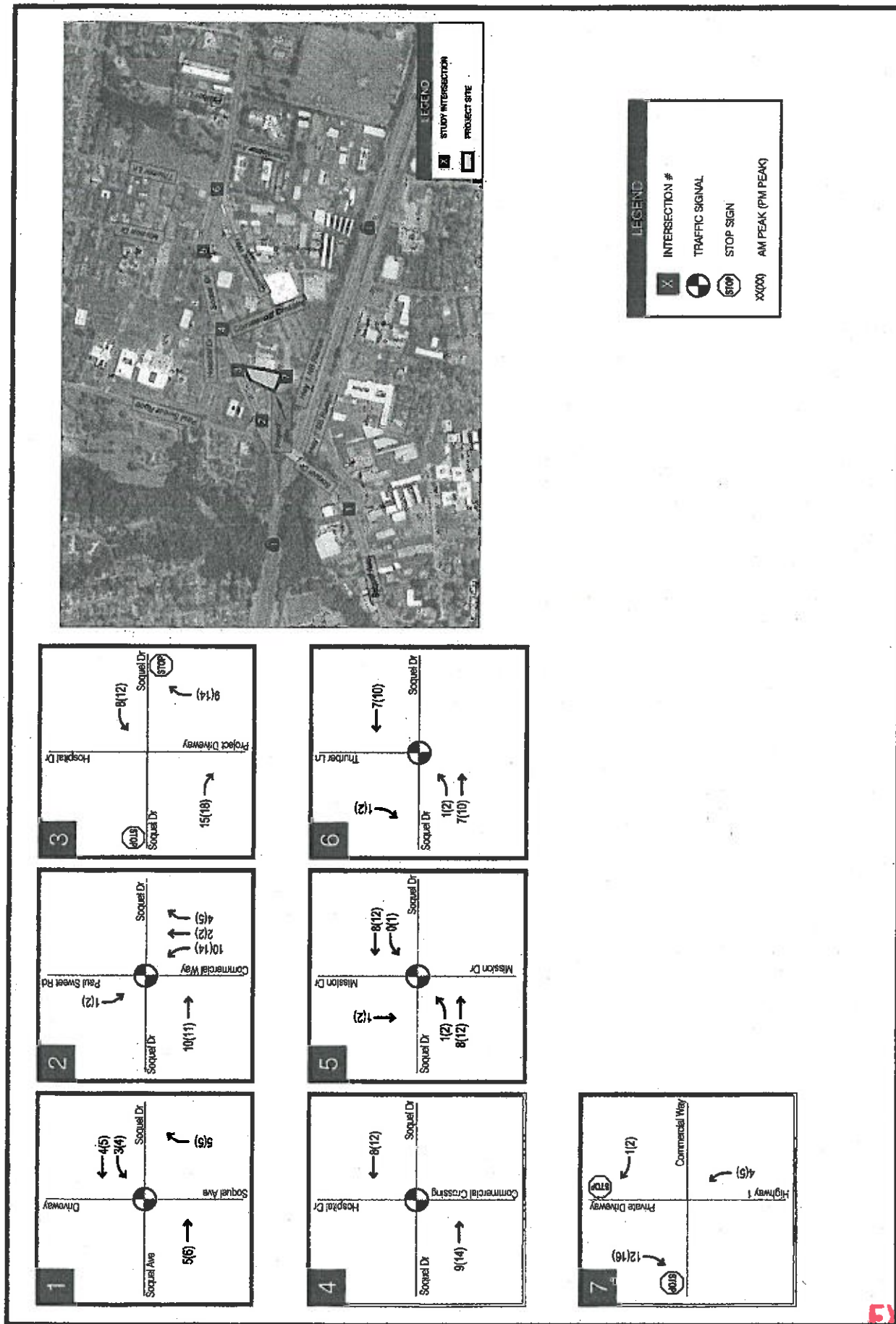
CVS Pharmacy Santa Cruz  
 Figure 1  
**Study Intersections and Project Trip Distribution**



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#### 4. EXISTING PLUS PROJECT CONDITIONS

Traffic operations were evaluated at the study intersections under Existing plus Project conditions. **Figure 7** shows the Existing Plus Project lane geometry and traffic control and **Figure 8** shows the Existing Plus Project peak hour traffic volumes.

Existing Plus Project analysis results are presented in **Table 4**. As shown in the table, all study intersections will continue to operate at acceptable levels of service.

Synchro output sheets are provided in the **Appendix**.

# Existing Plus Project Lane Geometry and Traffic Control

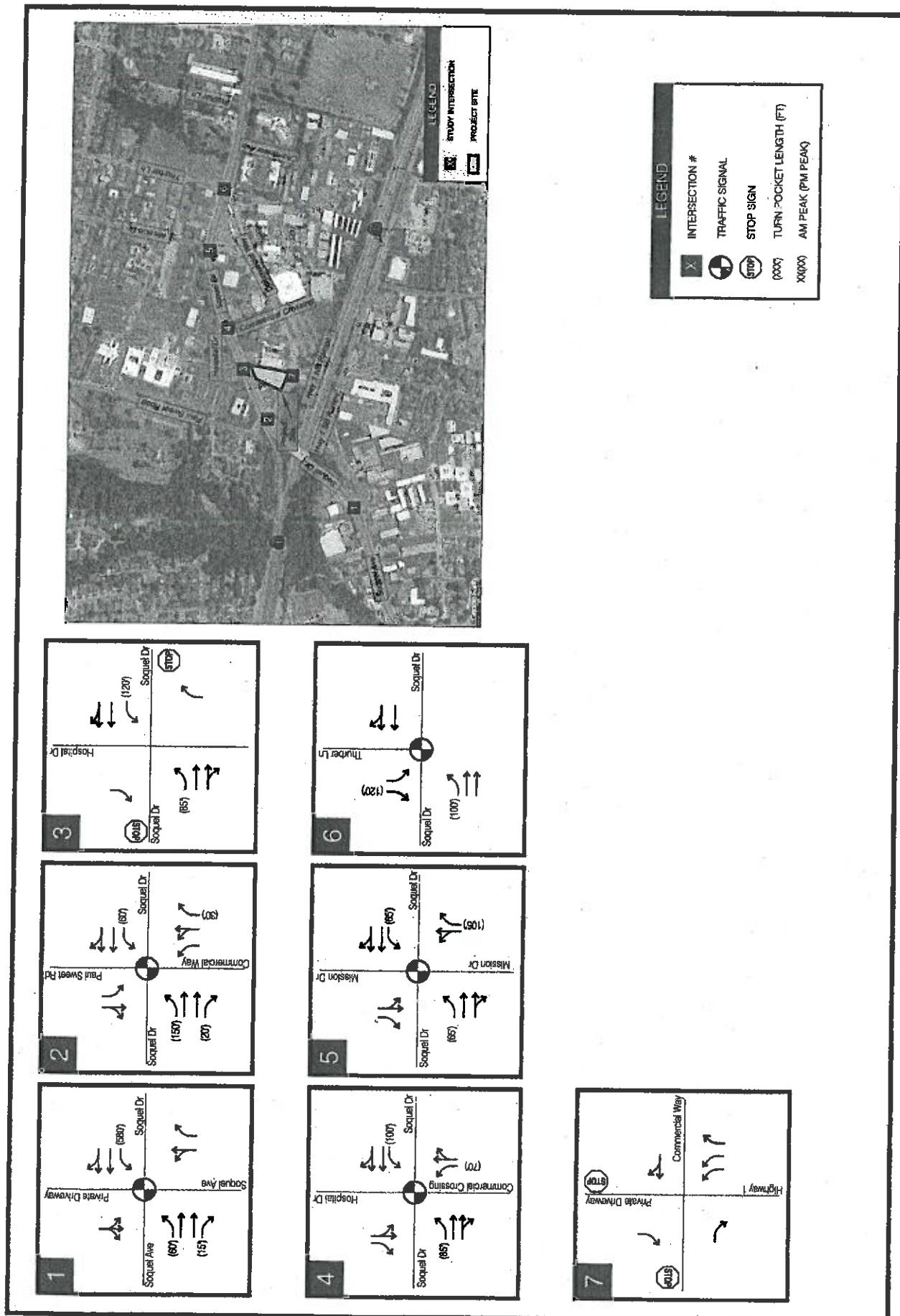


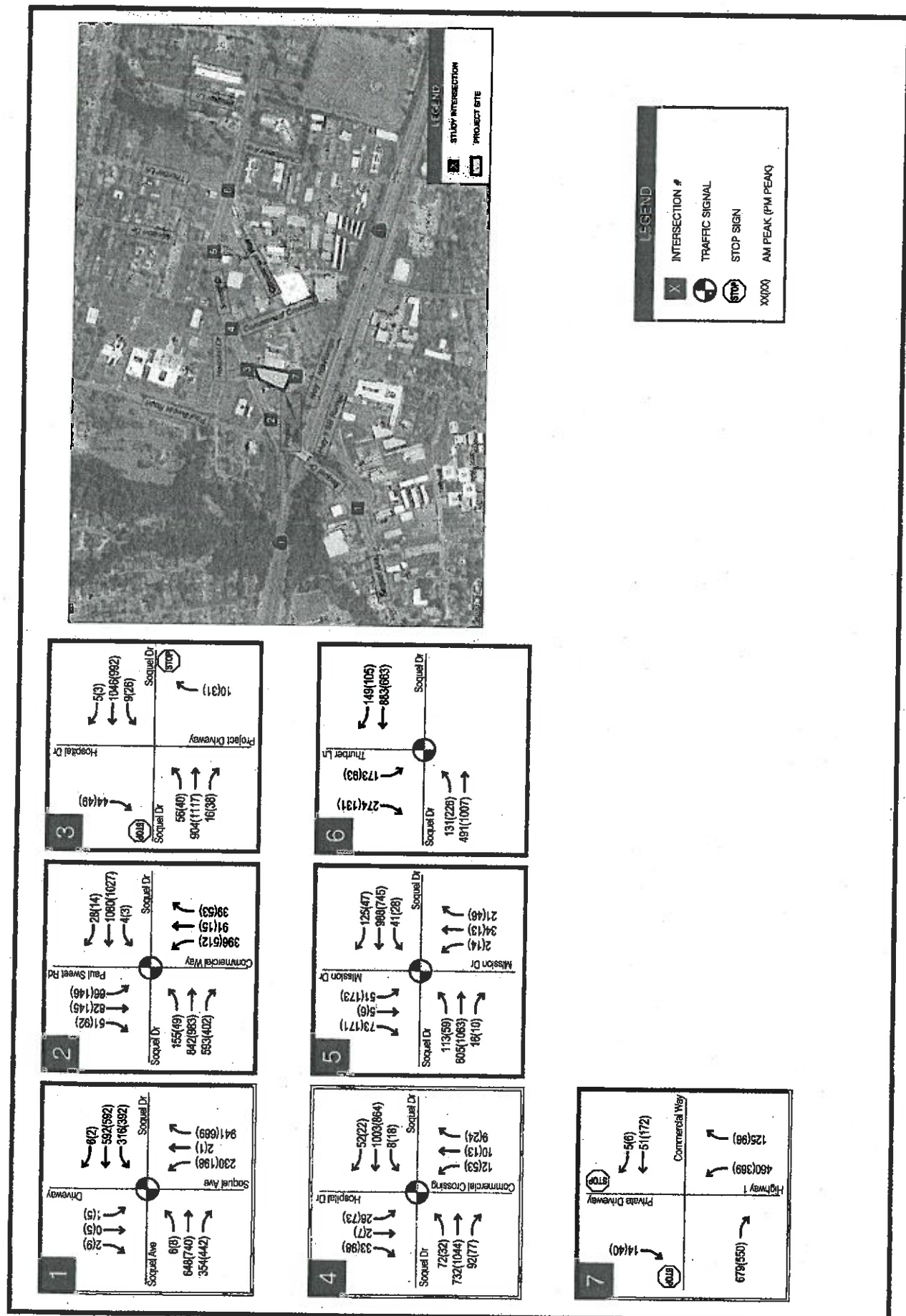
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ATTACHMENT 4



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**Table 4 – Existing Plus Project Conditions Intersection Level of Service**

#	Intersection	Maintaining Agency	Control Type	Existing Conditions						Existing Plus Project Conditions					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				Movement	Delay	LOS	Movement	Delay	LOS	Movement	Delay	LOS	Movement	Delay	LOS
1	Soquel Dr & Soquel Ave	SCC	Signal	Overall	25.5	C	Overall	32.6	C	Overall	25.6	C	Overall	32.7	C
2	Soquel Dr & Paul Sweet Rd / Commercial Way	Caltrans	Signal	Overall	31.4	C	Overall	28.0	C	Overall	31.8	C	Overall	28.9	C
3	Soquel Dr & Hospital Dr / Project Dwy #1	SCC	SSSC	Overall	0.7	A	Overall	0.6	A	Overall	0.7	A	Overall	0.8	A
	Worst Approach			SB	15.3	C	SB	15.7	C	SB	14.1	B	NB	14.2	B
4	Soquel Dr & Hospital Dr / Commercial Crossing	SCC	Signal	Overall	3.4	A	Overall	5.7	A	Overall	3.5	A	Overall	5.8	A
5	Soquel Dr & Mission Dr	SCC	Signal	Overall	7.2	A	Overall	43.2	D	Overall	7.2	A	Overall	44.2	D
6	Soquel Dr & Thurber Ln	SCC	Signal	Overall	15.0	B	Overall	9.8	A	Overall	15.0	B	Overall	9.9	A
7	Highway 1 NB On-Off Ramp / Commercial Way & Project Dwy #2	Caltrans	SSSC	Overall	4.1	A	Overall	3.9	A	Overall	4.4	A	Overall	4.4	A
	Worst Approach			SB	12.3	B	SB	9.1	A	SB	16.0	C	SB	11.2	B

**Notes:**

1. Analysis performed using HCM 6 methodologies.
  2. Delay indicated in seconds/vehicle.
  3. SCC LOS standard is D. Caltrans LOS standard is D.
  4. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in bold.
  5. HCM and Synchro methodology is unable to estimate delays for Study Intersection #7 due to non-standard traffic control. A SimTraffic microsimulation analysis was conducted instead, to determine average vehicle delay estimates.
- Source: Kimley Horn and Associates, 2018.



## 5. NEAR TERM CONDITIONS

Traffic operations were evaluated under the following development conditions:

- Near Term (2020) Conditions
- Near Term (2020) plus Project Conditions

### NEAR TERM TRANSPORTATION IMPROVEMENTS

Per discussions with the County, and as documented in the County's 2014 Regional Transportation Plan (RTP), there are no near term (on or before future year 2020) programmed network improvements in the Project study area nor are there any intersections expected to be constructed prior to opening the Project that have not already been completed.

Figure 9 illustrates the intersection geometry and traffic control assumed in the Near-Term 2020 analysis, which are the same as Existing Conditions. Also, no future (near term) signalization is planned for any of the study intersections.

### NEAR TERM TRAFFIC VOLUMES

#### NEAR TERM TRAFFIC VOLUME GROWTH RATES

Near Term describes the approximate year and conditions when the Project would open its doors to the public. For purposes of this analysis, Near Term Conditions is assumed to be in the year 2020. Near Term Conditions can be calculated by either identifying the approved, but not yet constructed projects that would add traffic to the road network by 2020 or by estimating traffic growth, based on historical and future projections.

Kimley-Horn coordinated with County staff to determine if there were any development projects near the Project site that are in various stages of planning, approval, or development. No specific projects were identified by County Staff during these communications. Therefore, historical average daily traffic volumes (ADTs), obtained from the Santa Cruz County Regional Transportation Commission (SCRTC), were used to estimate the growth from potential projects for the Near-Term 2020 conditions as discussed below.

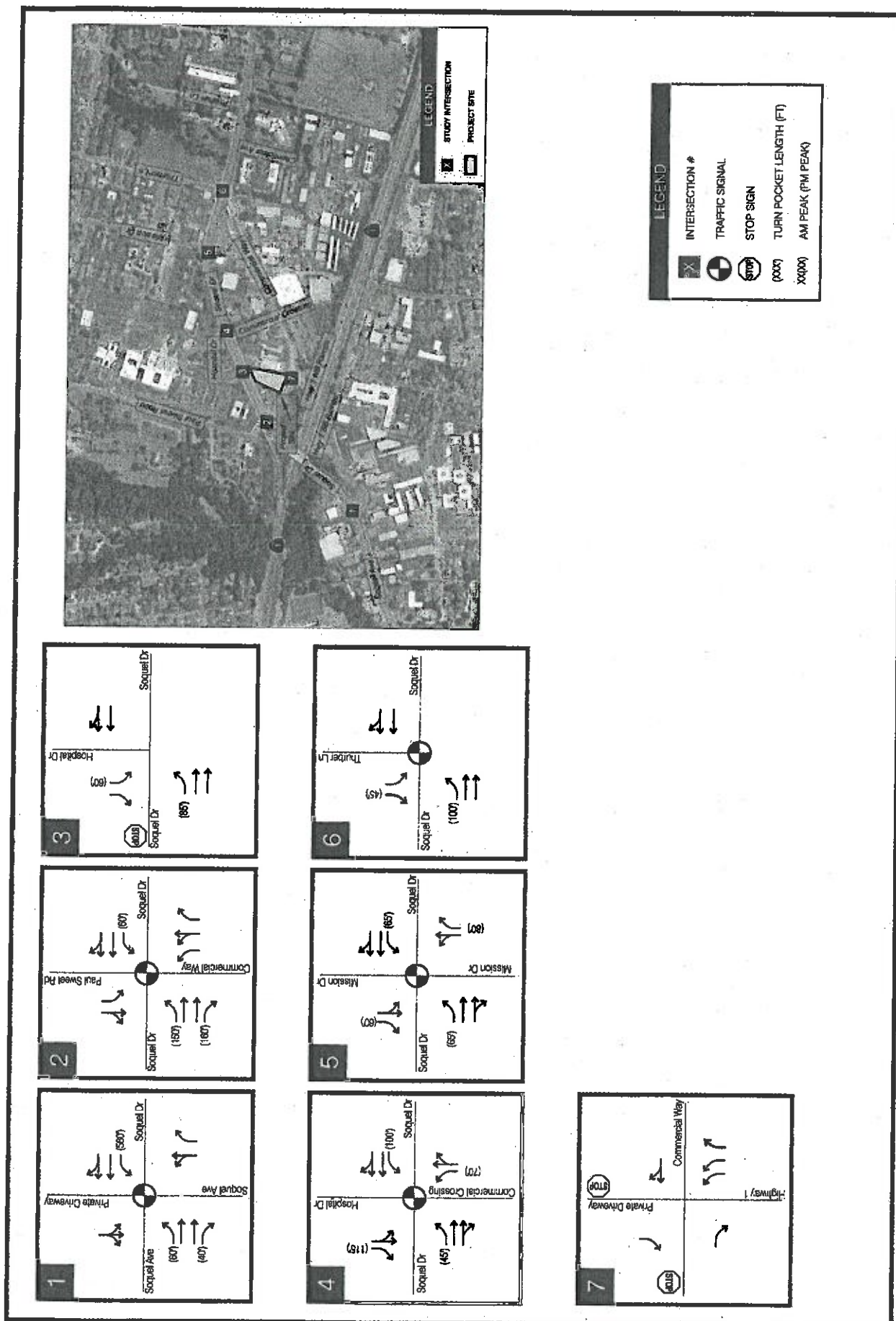
The most recent bi-directional ADTs, with years varying across roadway segments in the County, were compared against historical ADTs of applicable roadways. Year 2020 turning movement volumes were calculated by adding the growth increment to the current year (2018) traffic count to calculate the final adjusted roadway link forecast volume. It was calculated that volumes along Soquel Drive and Soquel Avenue within the Project vicinity would increase by approximately 2.34% per annum. This growth rate is approximately the same as travel demand forecasts in the Santa Cruz Regional Transportation Commission travel demand models. The estimated growth rates were applied to both main and side street movements. Values and calculations to support this growth rate are shown in Table 5.

Table 5 – Growth Rate Calculations

Roadway Segment		Most Recent		Oldest AADT		Growth Rate (taken over period of time)	Annual Growth Rate
		Year	AADT	Year	AADT		
Soquel Dr	W/O Mission Dr (Jul. 2015-Nov. 2008)	2011	22,541	2007	20,551	1.097	2.34%

Data Source: Santa Cruz County Regional Transportation Commission, Average Daily Traffic Bi-directional Volumes (2007 – 2011).





## NEAR TERM TRAFFIC VOLUME DEVELOPMENT

Near Term (2020) volumes were calculated by using the annual growth rates determined based on historical volume data and were applied to main street and minor street movements of the study roadways. The application of the growth rates to minor street movements assumes that study intersection side-street volumes will grow at the same rate as main street volumes from which the growth rates were derived, which is a conservative estimate. The growth rates were applied to the existing counts in 2018 and grown to 2020 for Near Term analysis scenarios. Peak hour volumes are presented in **Figure 10**.

## NEAR TERM INTERSECTION LEVEL OF SERVICE

Near Term (Year 2020) conditions were evaluated at the study intersections based on lane geometry and traffic control illustrated in **Figure 9** and peak hour volumes in

All study intersections would operate at acceptable LOS during near term conditions.

Results of the analysis are presented in **Table 6** and Synchro output sheets are provided in the **Appendix**.

**Table 6 – Near Term Conditions Intersection Level of Service**

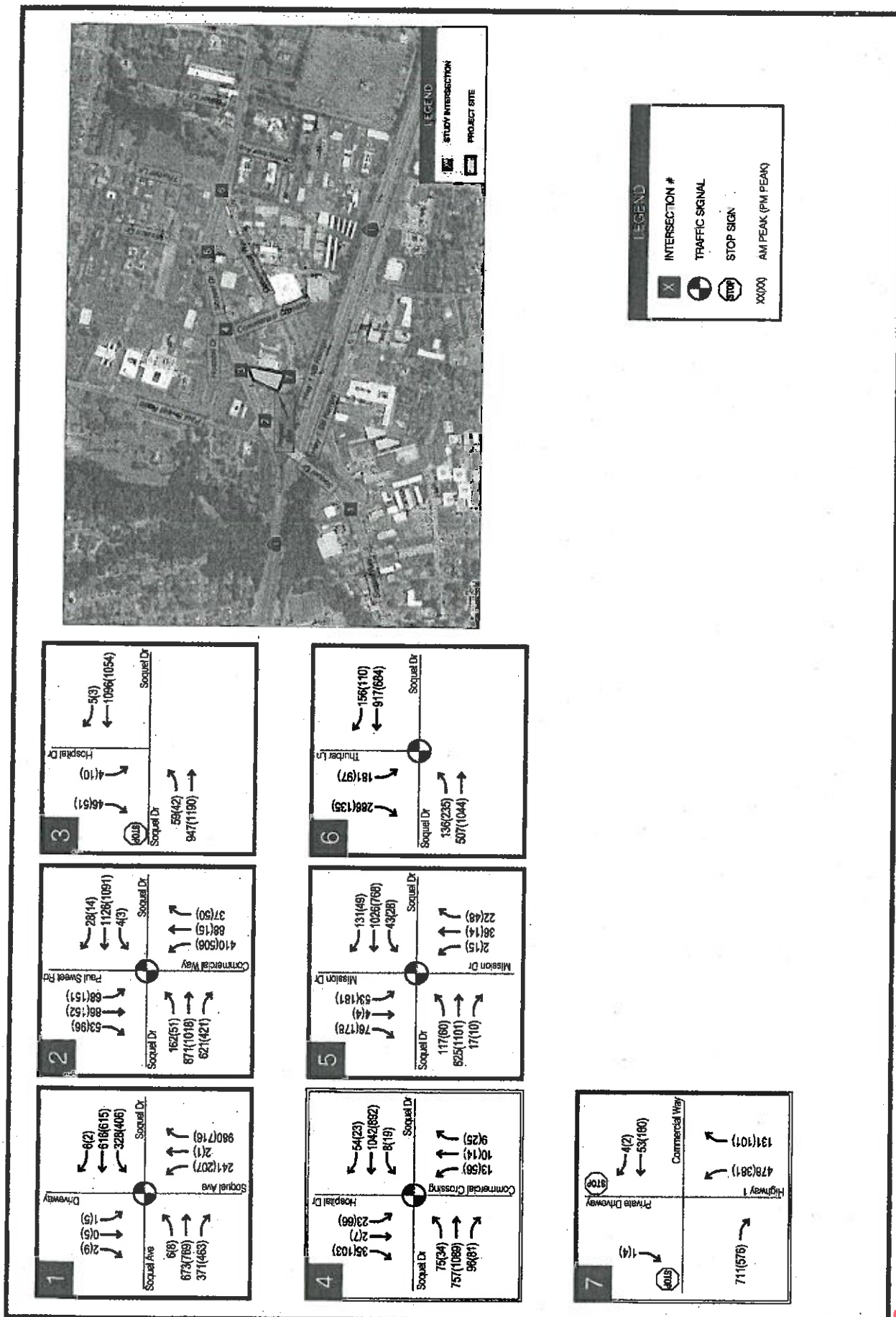
#	Intersection	Maintaining Agency	Control Type	Near Term Conditions					
				AM Peak Hour			PM Peak Hour		
				Movement	Delay	LOS	Movement	Delay	LOS
1	Soquel Dr & Soquel Ave	SCC	Signal	Overall	28.3	C	Overall	33.5	C
2	Soquel Dr & Paul Sweet Rd / Commercial Way	Caltrans	Signal	Overall	33.0	C	Overall	28.8	C
3	Soquel Dr & Hospital Dr / Project Dwy #1	SCC	SSSC	Overall	0.7	A	Overall	0.6	A
	Worst Approach			SB	15.9	C	SB	16.3	C
4	Soquel Dr & Hospital Dr / Commercial Crossing	SCC	Signal	Overall	3.5	A	Overall	5.8	A
5	Soquel Dr & Mission Dr	SCC	Signal	Overall	7.4	A	Overall	46.4	D
6	Soquel Dr & Thurber Ln	SCC	Signal	Overall	16.0	B	Overall	10.1	B
7	Highway 1 NB On-Off Ramp / Commercial Way & Project Dwy #2	Caltrans	SSSC	Overall	4.1	A	Overall	4.6	A
	Worst Approach			SB	12.7	D	SB	12.5	B

**Notes:**

1. Analysis performed using HCM 6 methodologies.
2. Delay indicated in seconds/vehicle.
3. SCC LOS standard is D. Caltrans LOS standard is D.
4. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in bold.
5. HCM and Synchro methodology is unable to estimate delays for Study Intersection #7 due to non-standard traffic control. A SimTraffic microsimulation analysis was conducted instead, to determine average vehicle delay estimates.

Source: Kimley Horn and Associates, 2018.

EXHIBIT A



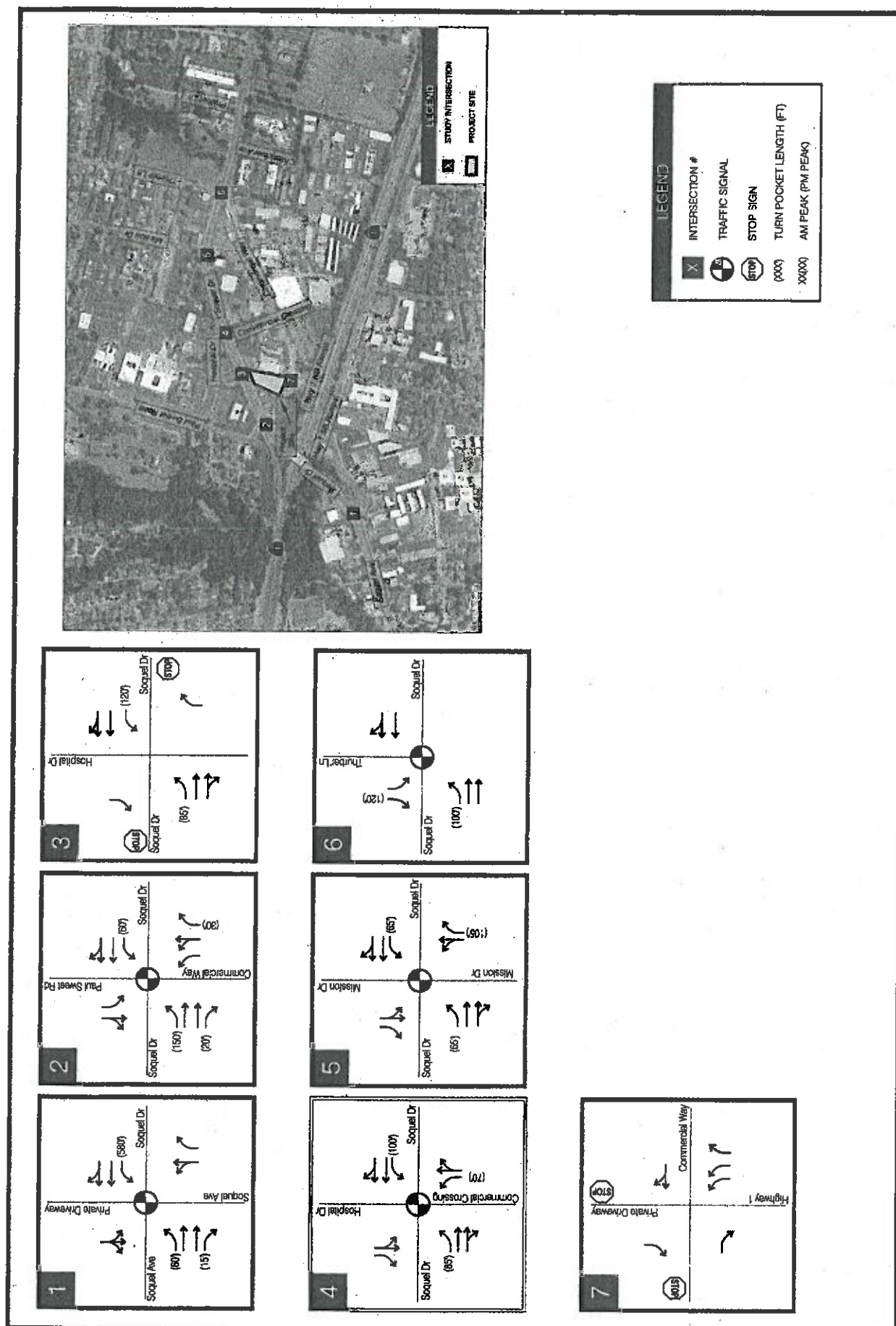
## NEAR TERM PLUS PROJECT INTERSECTION LEVEL OF SERVICE

Traffic operations were evaluated at the study intersections based on Near Term plus Project conditions. Near Term Plus Project lane geometry and traffic control is shown in **Figure 11** and Near Term Plus Project peak hour traffic volumes are shown in **Figure 12**.

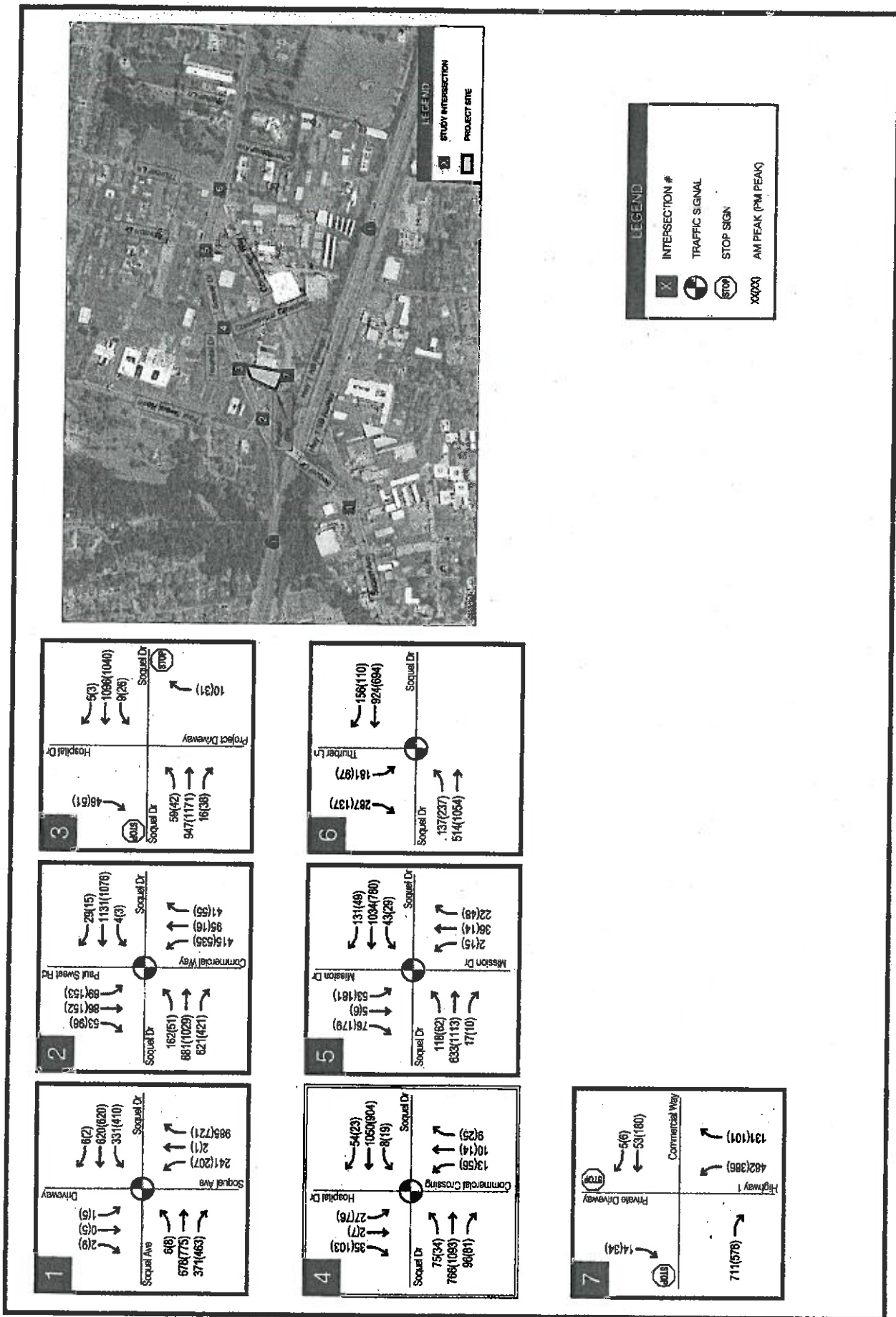
Near Term plus Project analysis results are presented in **Table 7**. As shown in the table, all study intersections would continue to operate at acceptable levels of service under Near Term plus Project conditions.

Synchro output sheets are provided in the **Appendix**.









**Table 7 – Near Term Plus Project Conditions Intersection Level of Service**

#	Intersection	Maintaining Agency	Control Type	Near Term Conditions						Near Term Plus Project Conditions					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				Movement	Delay	LOS	Movement	Delay	LOS	Movement	Delay	LOS	Movement	Delay	LOS
1	Soquel Dr & Soquel Ave	SCC	Signal	Overall	26.3	C	Overall	33.5	C	Overall	28.3	C	Overall	33.6	C
2	Soquel Dr & Paul Sweet Rd / Commercial Way	Caltrans	Signal	Overall	33.0	C	Overall	28.8	C	Overall	33.8	C	Overall	29.9	C
3	Soquel Dr & Hospital Dr / Project Dwy #1	SCC	SSSC	Overall	0.7	A	Overall	0.6	A	Overall	0.7	A	Overall	0.8	A
	<i>Worst Approach</i>			SB	15.9	C	SB	16.3	C	SB	14.6	B	NB	14.6	B
4	Soquel Dr & Hospital Dr / Commercial Crossing	SCC	Signal	Overall	3.5	A	Overall	5.8	A	Overall	3.5	A	Overall	5.9	A
5	Soquel Dr & Mission Dr	SCC	Signal	Overall	7.4	A	Overall	46.4	D	Overall	7.5	A	Overall	47.4	D
6	Soquel Dr & Thurber Ln	SCC	Signal	Overall	16.0	B	Overall	10.1	B	Overall	16.1	B	Overall	10.2	B
	Highway 1 NB On-Off Ramp / Commercial Way & Project Dwy #2	Caltrans	SSSC	Overall	4.1	A	Overall	4.6	A	Overall	4.8	A	Overall	4.8	A
				SB	12.7	D	SB	12.5	B	Worst Approach	18.6	C	Worst Approach	13.0	B

**Notes:**

1. Analysis performed using HCM 6 methodologies.
  2. Delay indicated in seconds/vehicle.
  3. SCC LOS standard is D. Caltrans LOS standard is D.
  4. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.
  5. HCM and Synchro methodology is unable to estimate delays for Study Intersection #7 due to non-standard traffic control. A Sim Traffic microsimulation analysis was conducted instead, to determine average vehicle delay estimates.
- Source: Kimley Horn and Associates, 2018.

## 6. CUMULATIVE CONDITIONS

Traffic operations were evaluated under the following cumulative conditions:

- Cumulative (2035) Conditions
- Cumulative (2035) Plus Project Conditions

**Figure 13** illustrates the intersection geometry and traffic control anticipated in Cumulative (2035) conditions, which assumes the realignment of northbound Highway 1 On / Off ramps and closure of Commercial Way (east of southern Project driveway). All other study intersection geometries are anticipated to remain unchanged from Existing and Near Term Conditions.

It is assumed that cycle lengths, offsets, and split signal timings will be updated to account for future traffic volumes on the study corridor prior to 2035. Minor refinements to signal timings in the Cumulative Conditions Synchro models were made accordingly.

Santa Cruz County and Caltrans staff, along with Kimley-Horn determined that future year 2035 would be representative of Cumulative Conditions and analysis was conducted accordingly. Since determination of Cumulative Conditions and capacity analysis for this Project, AMBAG and SCCRTC have released updated models that project volumes to future year 2040.

### CUMULATIVE VOLUMES

Year 2035 roadway link volumes were calculated in a similar method to the Near-term 2020 volumes.

ADTs were obtained from the Santa Cruz County Regional Transportation Commission (SCCRTC) and were used to estimate the growth from potential projects for the Cumulative 2035 conditions as discussed below. Volume data used to estimate growth rates can be found in the **Appendix**.

The most recent available bi-directional ADTs, whose years vary across roadway segments in the County, were compared historical ADTs for applicable roadways. Year 2035 turning movement volumes were calculated by adding the growth increment to the existing year (2018) traffic count to calculate the final adjusted forecasted movement volume. Under these methods, it was calculated that volumes in the Project vicinity would increase by 2.34% per annum. The derived growth rates were applied to both main and side street movements on respective corridors. Cumulative peak hour traffic volumes are shown in **Figure 14**.

### CUMULATIVE INTERSECTION LEVEL OF SERVICE

The Caltrans District 5 DEIR for Highway 1 improvements identifies the construction of auxiliary lanes between Soquel and 41<sup>st</sup> and upgrades to the Soquel Drive interchange together with the construction of an HOV lane in the median. Construction of the auxiliary lanes is currently in the design phase. Improving the interchange is a long-term improvement. The full improvements are currently unfunded and are therefore not assumed in the baseline Cumulative Conditions level of service analysis. Based on discussions with Caltrans District 5 staff, this analysis does assume that Commercial Way will be converted to a cul-de-sac at the Highway 1 northbound Off-Ramp.

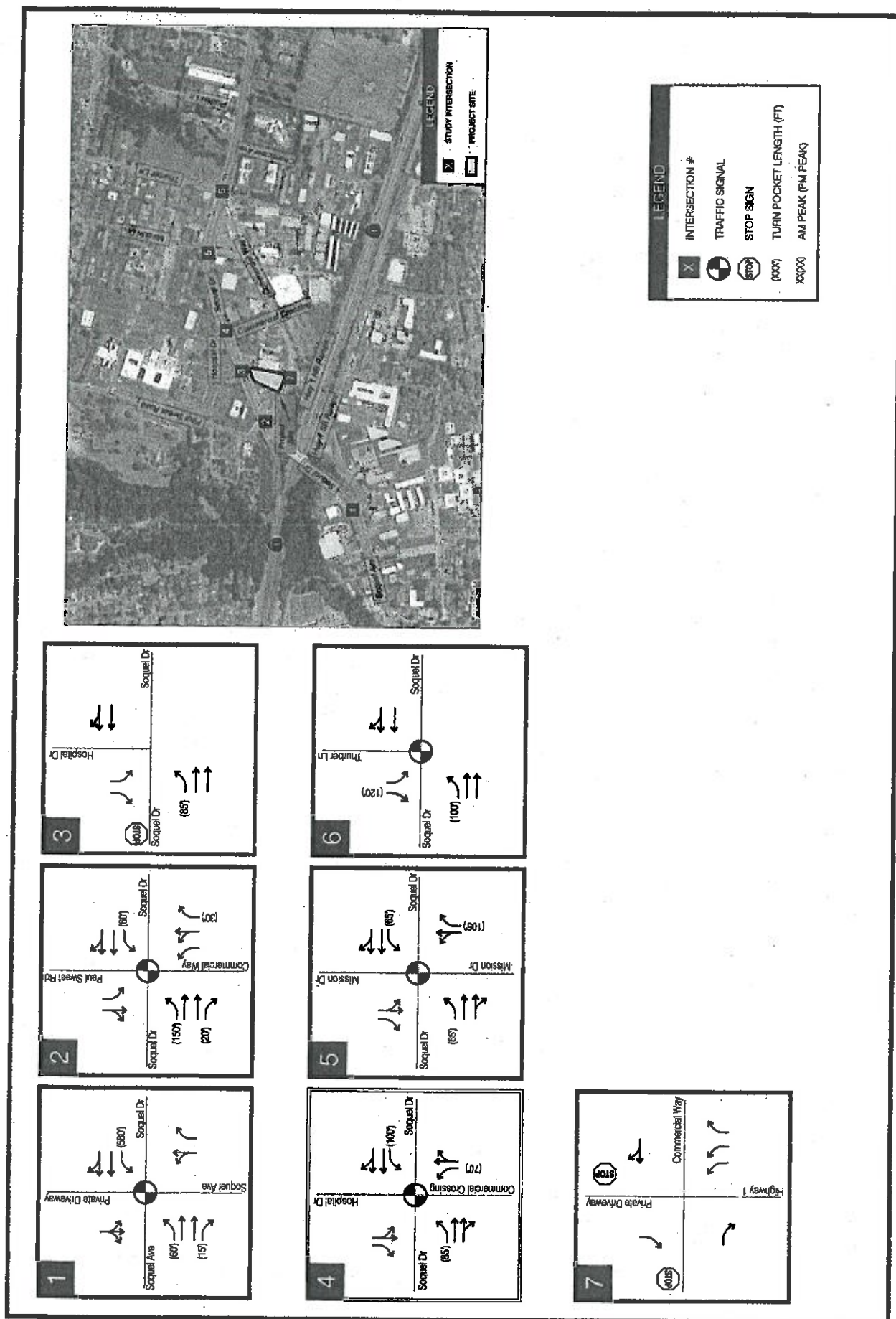
Traffic operations were evaluated at the study intersections based on Cumulative lane geometry and traffic control as shown in **Figure 13** and Cumulative peak hour traffic volumes as shown in **Figure 14**.

The following intersections will operate at an unacceptable LOS during Cumulative conditions:

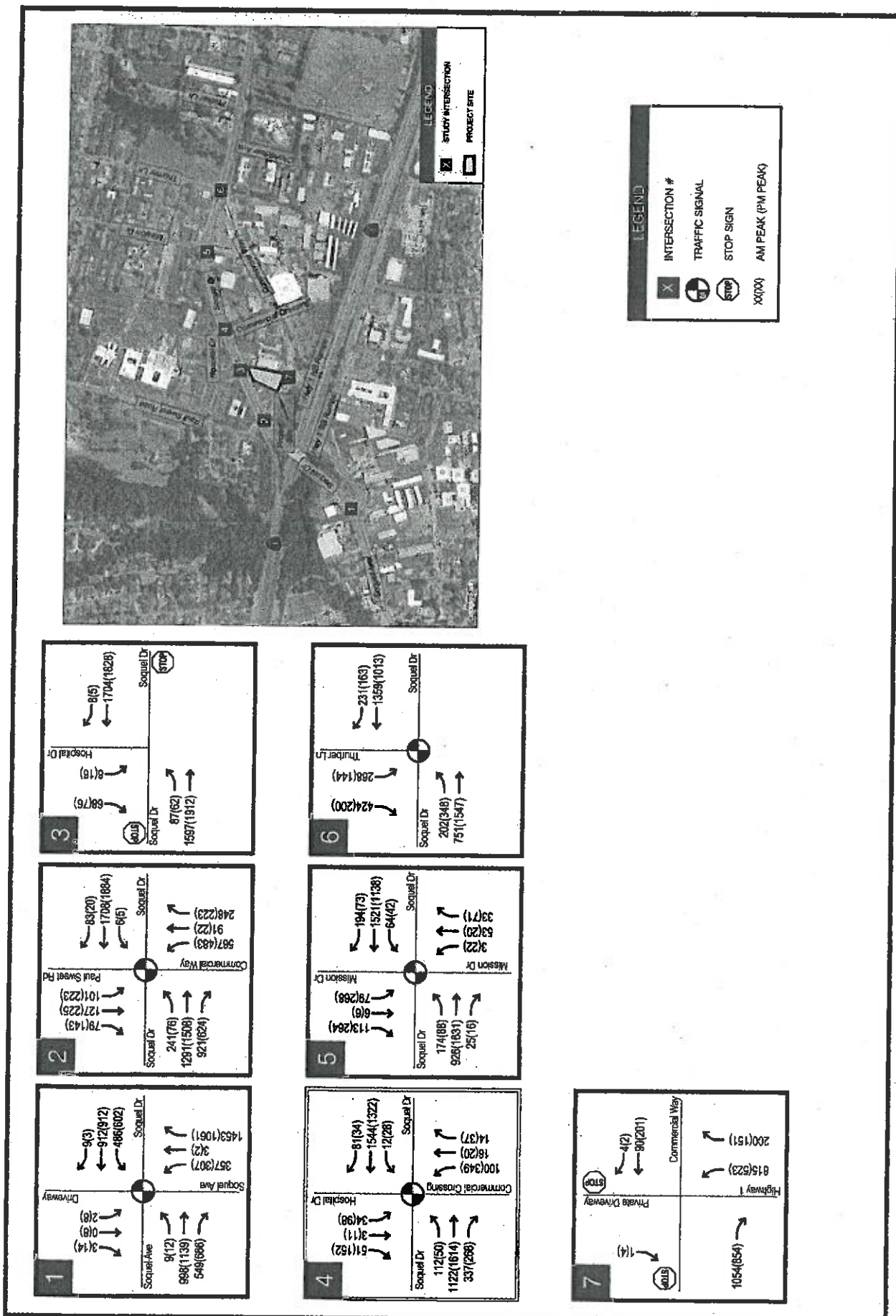
- Soquel Drive & Soquel Avenue (Intersection #1) (AM & PM peak hours)
- Soquel Drive & Paul Sweet Road / Commercial Way (Intersection #2) (AM & PM peak hours)
- Soquel Drive & Hospital Drive / Project Dwy #1 (Intersection #3) (PM peak hours)
- Soquel Drive & Mission Drive (Intersection #5) (PM peak hour)
- Soquel Drive & Thurber Lane (Intersection #6) (AM peak hour)
- Highway 1 NB On-Off Ramp / Commercial Way & Project Driveway #2 (Intersection #7) (AM & PM peak hours)

Results of the analysis are presented in Table 8 and Synchro output sheets are provided in the Appendix.









**Table 8 – Cumulative Conditions Intersection Level of Service**

#	Intersection	Maintaining Agency	Control Type	Cumulative Conditions					
				AM Peak Hour			PM Peak Hour		
				Movement	Delay	LOS	Movement	Delay	LOS
1	Soquel Dr & Soquel Ave	SCC	Signal	Overall	64.8	F	Overall	75.0	F
2	Soquel Dr & Paul Sweet Rd / Commercial Way	Caltrans	Signal	Overall	64.8	F	Overall	75.0	F
3	Soquel Dr & Hospital Dr / Project Dwy #1	SCC	SSSC	Overall	1.2	A	Overall	1.3	A
	Worst Approach			SB	31.0	D	SB	31.0	D
4	Soquel Dr & Hospital Dr / Commercial Crossing	SCC	Signal	Overall	14.1	B	Overall	47.3	D
5	Soquel Dr & Mission Dr	SCC	Signal	Overall	28.8	C	Overall	28.8	C
6	Soquel Dr & Thurber Ln	SCC	Signal	Overall	23.3	C	Overall	23.3	C
7	Highway 1 NB On-Off Ramp / Commercial Way & Project Dwy #2	Caltrans	SSSC	Overall	26.5	D	Overall	26.5	D
	Worst Approach			SB	11.0	C	SB	11.0	C

Notes:

1. Analysis performed using HCM 6 methodologies.

2. Delay indicated in seconds/vehicle.

3. SCC LOS standard is D. Caltrans LOS standard is D.

4. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

5. HCM and Synchro methodology is unable to estimate delays for Study Intersection #7 due to non-standard traffic control. A SimTraffic microsimulation analysis was conducted instead, to determine average vehicle delay estimates.

Source: Kimley Horn and Associates, 2018.

## CUMULATIVE PLUS PROJECT INTERSECTION LEVEL OF SERVICE

Traffic operations were evaluated at the study intersections based on Cumulative Plus Project conditions. Cumulative Plus Project lane geometry and traffic control is shown in **Figure 15** and Cumulative Plus Project peak hour traffic volumes are shown in **Figure 16**.

Cumulative Plus Project analysis results are presented in **Table 9**. The following study intersections would operate at unacceptable levels of service in Cumulative plus Project Conditions:

- Soquel Drive & Soquel Avenue (Intersection #1) (AM & PM peak hours)\*

AM Peak				
Condition	EBLT+WBT	WBLT+EBT	NBLT+SBT	SBLT+NBT
Cumulative (v/c)	0.964	1.698	1.538	1.538
Cumulative + Project (v/c)	0.965	1.704	1.538	1.538
<b>v/c Change</b>	<b>0.10%</b>	<b>0.35%</b>	<b>0.00%</b>	<b>0.00%</b>
PM Peak				
Condition	EBLT+WBT	WBLT+EBT	NBLT+SBT	SBLT+NBT
Cumulative (v/c)	1.011	2.080	1.687	1.687
Cumulative + Project (v/c)	1.013	2.092	1.687	1.687
<b>v/c Change</b>	<b>0.20%</b>	<b>0.58%</b>	<b>0.00%</b>	<b>0.00%</b>

- Soquel Drive & Paul Sweet Road / Commercial Way (Intersection #2) (AM & PM peak hours)

Condition	EBLT+WBT	WBLT+EBT	NBLT+SBT	SBLT+NBT
Cumulative (v/c)	2.658	1.227	1.936	0.427
Cumulative + Project (v/c)	2.658	1.234	1.955	0.431
<b>v/c Change</b>	<b>0.00%</b>	<b>0.57%</b>	<b>0.98%</b>	<b>0.94%</b>

Condition	EBLT+WBT	WBLT+EBT	NBLT+SBT	SBLT+NBT
Cumulative (v/c)	2.000	1.309	2.021	0.685
Cumulative + Project (v/c)	2.012	1.323	2.025	0.691
<b>v/c Change</b>	<b>0.60%</b>	<b>1.07%</b>	<b>0.20%</b>	<b>0.88%</b>

- Soquel Drive & Mission Drive (Intersection #5) (PM peak hour)

Condition	EBLT+WBT	WBLT+EBT	NBLT+SBT	SBLT+NBT
Cumulative (v/c)	1.345	1.687	0.957	3.216
Cumulative + Project (v/c)	1.366	1.692	0.957	3.225
<b>v/c Change</b>	<b>1.56%</b>	<b>0.30%</b>	<b>0.00%</b>	<b>0.28%</b>

- Soquel Drive & Thurber Lane (Intersection #6) (AM peak hour)\*\*

Condition	EBLT+WBT	WBLT+EBT	NBLT+SBT	SBLT+NBT
Cumulative (v/c)	1.695	0.322	-	0.679
Cumulative + Project (v/c)	1.703	0.325	-	0.679
<b>v/c Change</b>	<b>0.47%</b>	<b>0.93%</b>	<b>0.00%</b>	<b>0.00%</b>

- Highway 1 NB On-Off Ramp / Commercial Way & Project Driveway #2 (Intersection #7) (AM & PM peak hours)

- Intersection #7 geometry is non-standard and critical v/c outputs are not available via Synchro software.

*\*The volume to capacity (v/c) ratio of all critical lanes for the deficient County intersections (Intersections #1, #2, #5, & #6) were calculated and shown in the table above. Based on the analysis, the change in critical v/c results in a less than 1% increase for intersections #1 & #6. Therefore, these intersections are not significantly impacted by the Project. The critical v/c increases by more than 1% for intersections #2 and #5, therefore, it would be significantly impacted by the Project. Mitigation recommendations are discussed below.*

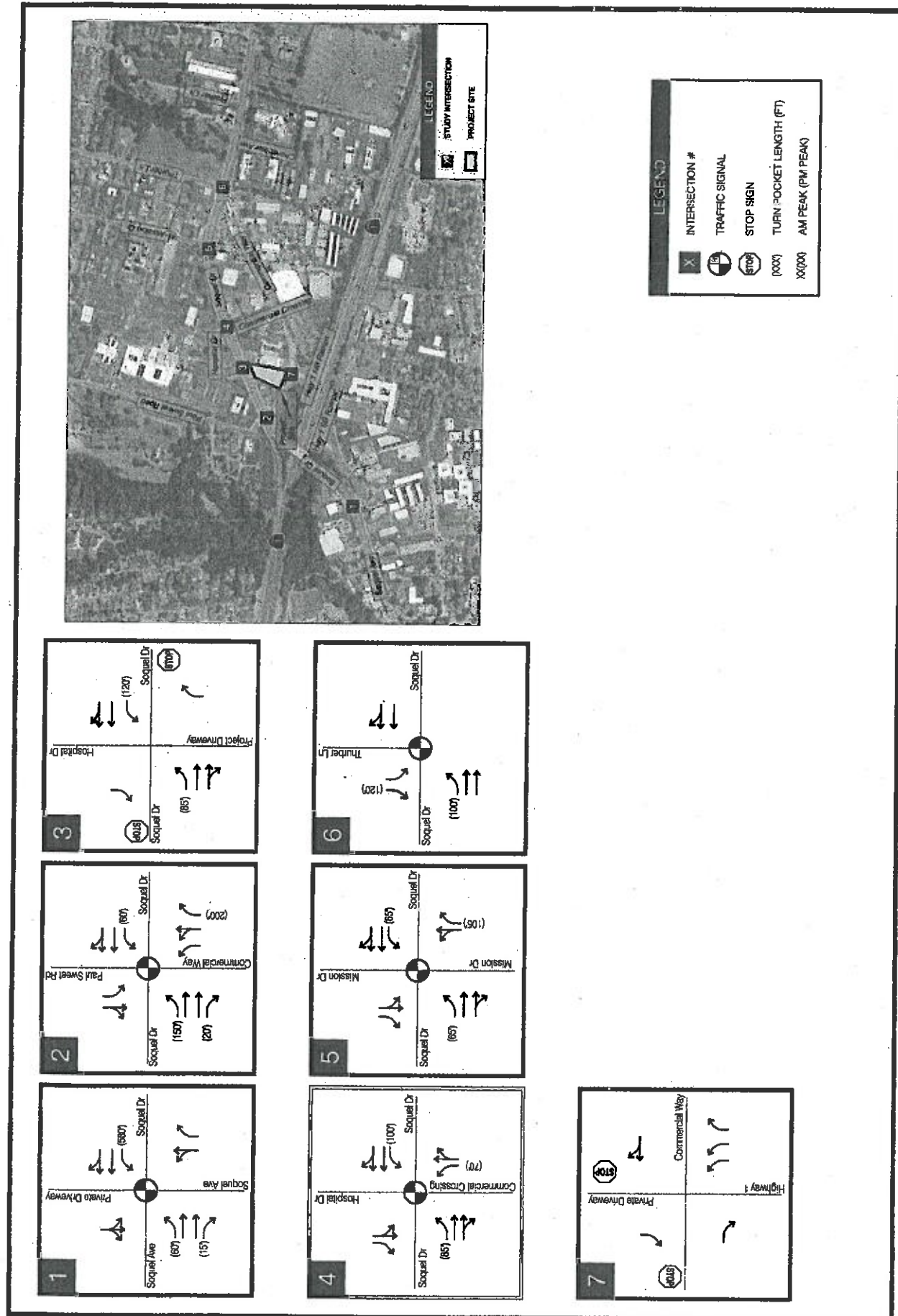
Addition of Project traffic would contribute to an increase in delay at the Caltrans intersection (Intersection #2). The following improvements would mitigate all potential significant impacts to County and Caltrans study intersections:

- Intersection #2: Caltrans plans to widen Highway 1/Soquel Drive interchange. The westbound left turn lane will be converted to the through lane. One westbound right turn lane, northbound left turn lane, and an eastbound right turn bay will be installed at this intersection. A detailed layout is shown in **Appendix**. Implementation of these improvements would improve intersection operations to LOS D during AM and PM peak hours. However, these improvements are currently unfunded and are therefore not included in the County Capital Improvement Project (CIP). The Cumulative impact is thus significant and unavoidable until the improvement is constructed.
- Intersection #5: implement northbound and southbound split phasing signal operation and optimize splits.
- Intersection #7: implement interchange improvements identified for Intersection #2, ramp realignment, and cul-de-sac construction. Implementation of these improvements would improve intersection operations to LOS A during AM and PM peak hours. However, these improvements are currently unfunded and are therefore not included in the County Capital Improvement Project (CIP). The Cumulative impact is thus significant and unavoidable until the improvement is constructed.

Mitigated Cumulative Plus Project analysis results are shown in **Table 10**.

Synchro output sheets are provided in the **Appendix**.



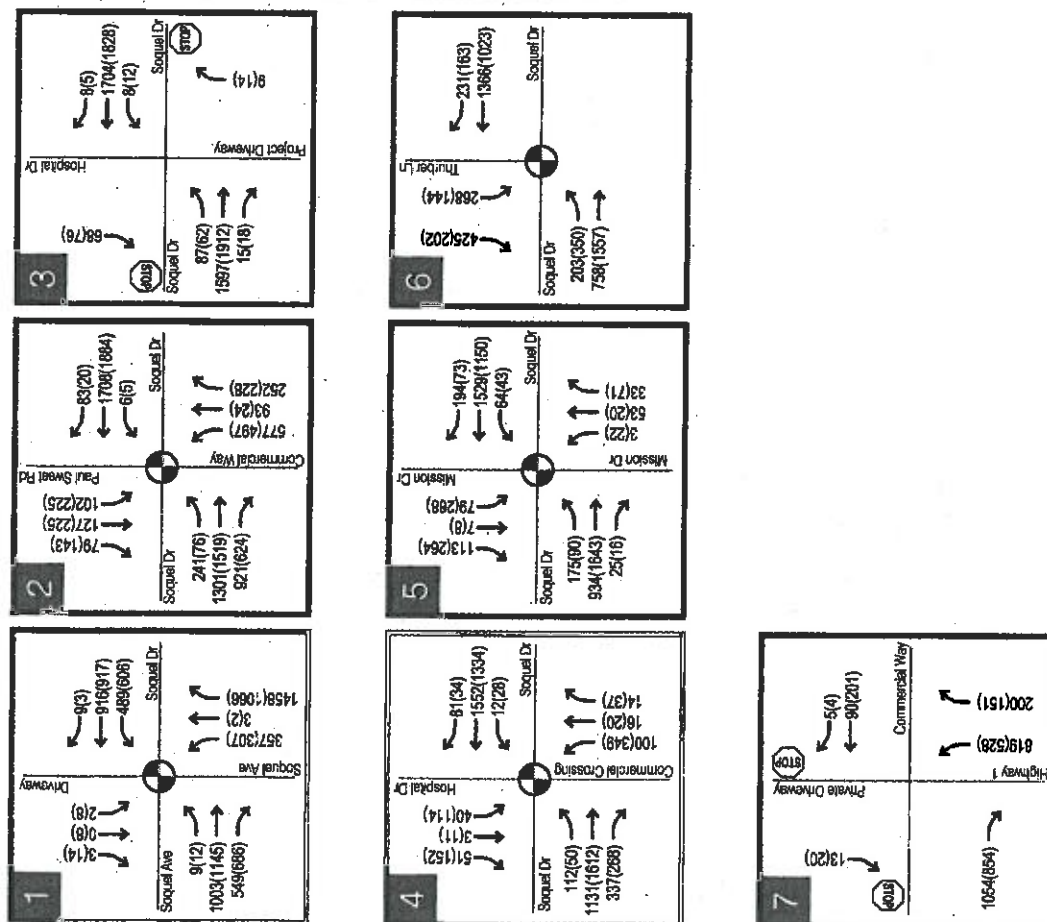




# Cumulative Plus Project Peak Hour Turning Movement Volumes



EXHIBIT A  
ATTACHMENT 4



**Table 9 – Cumulative Plus Project Conditions Intersection Level of Service**

#	Intersection	Maintaining Agency	Control Type	Cumulative Conditions						Cumulative Plus Project Conditions					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				Movement	Delay	LOS	Movement	Delay	LOS	Movement	Delay	LOS	Movement	Delay	LOS
1	Soquel Dr & Soquel Ave	SCC	Signal	Overall			Overall			Overall			Overall		
2	Soquel Dr & Paul Sweet Rd / Commercial Way	Caltrans	Signal	Overall			Overall			Overall			Overall		
3	Soquel Dr & Hospital Dr / Project Dwy #1 Worst Approach	SCC	SSSC	Overall	1.2	A	Overall	1.3	A	Overall	1.2	A	Overall	1.0	A
4	Soquel Dr & Hospital Dr / Commercial Crossing	SCC	Signal	Overall	31.0	D	Overall	47.3	D	Overall	25.4	D	Overall	27.1	D
5	Soquel Dr & Mission Dr	SCC	Signal	Overall	14.1	B	Overall	28.8	C	Overall	14.3	B	Overall	50.5	D
6	Soquel Dr & Thurber Ln	SCC	Signal	Overall			Overall			Overall			Overall		
7	Highway 1 NB On-Off Ramp / Commercial Way & Project Dwy #2 Worst Approach	Caltrans	SSSC	Overall			Overall			Overall			Overall		
				Overall	26.5	D	Overall	23.3	C	Overall	29.9	C	Overall	24.1	C
				Overall			Overall			Overall			Overall		
				SB			SB			SB			SB		

Notes:

1. Analysis performed using HCM 6 methodologies.
  2. Delay indicated in seconds/vehicle.
  3. SCC LOS standard is D. Caltrans LOS standard is D.
  4. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in bold.
  5. HCM and Synchro methodology is unable to estimate delays for Study Intersection #7 due to non-standard traffic control. A Sim Traffic microsimulation analysis was conducted instead, to determine average vehicle delay estimates.
- Source: Kinley Horn and Associates, 2018.

**Table 10 – Mitigated Cumulative Plus Project Conditions Intersection Level of Service**

#	Intersection	Maintaining Agency	Cumulative Plus Project Conditions						Mitigated Cumulative Plus Project Conditions					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Movement	Delay	LOS	Movement	Delay	LOS	Movement	Delay	LOS	Movement	Delay	LOS
2	Soquel Dr & Paul Sweet Rd / Commercial Way <sup>1</sup>	Caltrans	Overall			Overall			Overall	49.5	D	Overall	41.3	D
5	Soquel Dr / Mission Drive <sup>1</sup>	SCC	Overall	29.9	C	Overall			Overall	30.0	C	Overall	38.1	D
7	Highway 1 NB On-Off Ramp / Commercial Way & Project Dwy #2	Caltrans	Overall			Overall			Overall	2.3	A	Overall	2.9	A
	Worst Approach.		SB			SB			SB	3.3	A	SB	3.5	A

**Notes:**

1. Analysis performed using HCM 6 methodologies.
  2. Delay indicated in seconds/vehicle.
  3. SCC level of service (LOS) standard is D. Caltrans LOS standard is D.
  4. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in bold.
- Source: Kimley Horn and Associates, 2017.

## 7. HIGHWAY 1

The proposed Project would add trips to State Route Highway 1, which is already operating at unacceptable levels of service during both the AM and PM peak hour conditions.

### Existing Conditions

Based on morning and evening data from the Caltrans Traffic Operations Report (2012) as described in the Highway 1 Corridor Investment Program DEIR, baseline measures of effectiveness (MOEs) on Highway 1 are as follows:

**Table 11 – Highway 1 Baseline Measures of Effectiveness**

	Northbound		Southbound	
	Morning	Evening	Morning	Evening
Travel Speeds (mph)	30	39	60	26
Travel Time (minutes/vehicle)	23	15	10	27
Vehicle Hours Traveled	1,274	823	507	1,381
Vehicle Miles Traveled	38,517	32,349	30,348	35,661
Delay (minutes/vehicle)	14	6	0	15

Source: SSCRTC Traffic Operations Report, 2012.

This data shows that Highway 1 traffic volumes in the Project vicinity are directional, with high traffic volumes/delay in the northbound direction during morning hours and high traffic volumes/delay in the southbound direction during evening hours.

### CVS PROJECT TRIPS ON HIGHWAY 1

The proposed Project will generate net new trips totaling 45 AM peak hour, 62 PM peak hour, and 1,286 daily trips.

#### Highway 1 Segment North/West of Soquel Drive

Based on the trip generation and trip distribution, approximately six net new trips will travel on this segment of Highway 1 in the AM peak hour and nine net new trips will travel on this segment of Highway 1 in the PM peak hour.

#### Highway 1 Segment South/East of Soquel Drive

Based on the trip generation and trip distribution, approximately six net new trips will travel on this segment of Highway 1 in the AM peak hour and eight net new trips will travel on this segment of Highway 1 in the PM peak hour.

### Summary

The net new Project trips estimated to travel on Highway 1 segments will be relatively low in comparison to the existing and future capacity as well as the existing and future baseline volumes. Therefore, the Project is not anticipated to have a material or noticeable effect on Highway 1 operations.



## HIGHWAY 1 PLANNED IMPROVEMENTS

Currently, Caltrans has no impact fee program in place to help mitigate traffic impacts. However, Santa Cruz County Regional Transportation Commission (RTC), in cooperation with the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), is managing the Highway 1 Corridor Investment Program. The purpose of the project is to analyze alternative investments to relieve congestion on Highway 1 between San Andreas/Larkin Valley Road and Morrissey Boulevard. The goal of the Highway 1 Corridor Investment Program is to address several different needs in the existing transportation system:

- Bottlenecks along Highway 1 in both the southbound and northbound direction that cause congestion on a regular basis during peak travel periods.
- Travel time delays that are experienced by commuters, commerce, visitors, and emergency vehicles at various times of the day.
- "Cut-through" traffic, or traffic on local streets, that occurs and is increasing because drivers seek to avoid congestion on the highway in search of "short-cuts".
- Limited opportunities for pedestrians and bicyclists to cross Highway 1 within the project corridor.
- Recognize the limited funding available from state and federal sources and to be prepared to compete for discretionary funding opportunities when it periodically occurs at the state or federal level.

The environmental evaluation of the Corridor Investment Program is referred to as the Highway 1 Tier I/Tier II Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) and meets both state and federal environmental requirements. For purposes of environmental analysis, the project is divided into two components:

- Tier I – A long term, program level analysis for the future of the Highway 1 corridor between Santa Cruz and Aptos. The Tier I concept for the corridor would be built over time through a series of smaller incremental projects (referred to as Tier II projects).
- Tier II – Project level analysis of a smaller incremental project within the Tier I corridor which would move forward based on available funding. Each of the Tier II projects would have independent utility and benefit to the public and Highway 1 operations.

The Tiered approach to the project represents a significant shift from the initial approach seeking environmental approval to construct the entire project at one time. This shift was necessitated by both the lack of state and federal funding, and the cost estimates of the full project- well beyond what could be generated locally and dedicated to the highway corridor. The current plan allows for a balanced approach to address the range of needs in the county; including local street and road maintenance and repair, school traffic safety projects, bus service and elderly/disabled transportation, pedestrian, and bicycle projects, and preservation of the rail corridor.

Three scenarios are being evaluated as part of the Tier I program level environmental analysis to identify the long-term vision for the Corridor:

- The High Occupancy Vehicle (HOV) Lane Alternative – adds a bus and carpool lane in both the north and south bound direction for the nine-mile corridor; includes auxiliary lanes



(connecting on-ramps with the next off-ramps) between most interchanges and metering lights on the on-ramps

- The Transportation System Management (TSM) Alternative – includes auxiliary lanes (connecting on-ramps with the next off-ramps) between most interchanges and metering lights on the on-ramps
- The No Build Alternative

The No Build project alternative forecasts future conditions along the corridor in the event no capacity or significant operational improvements are made to the highway. The No Build baseline condition of the corridor is then compared with the two-project build (the HOV and TSM) alternatives to identify both adverse and beneficial impacts along the Highway 1 Corridor.

The Tier I project scenario chosen as the long-term corridor plan will be implemented as funding allows, through smaller Tier II projects of independent utility and benefit to the public and Highway 1 operations.

The current Tier II project under environmental review includes northbound and southbound auxiliary lanes between 41st Avenue and Soquel Drive and a bike/pedestrian overcrossing of Highway 1 at Chanticleer Avenue. This project is compatible with either Tier I project build alternative (the HOV and TSM project alternatives). Construction of this project could begin as early as Fiscal Year 2020-2021, depending on funding availability. Preliminary design and environmental analysis began on a second Tier II project in Fall 2016 for the construction of a pedestrian/bicycle overcrossing of Highway 1 at Mar Vista Drive in Aptos. This project will have a separate environmental document for public review and comment later in 2017.

Future Tier II projects will be subject to separate project level environmental analysis as part of the project development process and will be consistent with the long term (Tier I) vision chosen for the Highway 1 Corridor.

A more detailed discussion of Highway 1 improvements is included in the **Appendix**.

## **FUNDING FOR HIGHWAY 1 IMPROVEMENTS**

Measure D was a proposed ½ cent local sales tax increase included on the November 2016 ballot in Santa Cruz County. The Measure, which will focus on transportation safety upgrades, roadway repairs, traffic relief, and transit augmentation, was approved by voters via a super majority (over 67% voting “yes”).

The improvement plan will provide steady and direct funding to Santa Cruz County and all Cities within the County to improve the transportation network, including Highway 1. Transportation improvements will include improvements of local streets, road maintenance, bicycle and pedestrian projects, transit and paratransit service upgrades, as well as implementation of many other projects and programs. These improvements are voter approved and by default law, and must be implemented.

Measure D funding will provide the following improvements in the Project vicinity:

- \$97 million for auxiliary lanes between:
  - Soquel Drive and 41<sup>st</sup> Avenue
  - Bay Avenue/Porter Street and Park Avenue
  - Park Avenue and State Park Drive

- \$7 million for 2 new bicycle and pedestrian bridges over Highway 1
  - In Live Oak at Chanticleer Avenue
  - In Seacliff/Aptos at Mar Vista Drive
- \$21 million for ongoing safety and operational service

## 8. POTENTIAL IMPACTS ON PEDESTRIAN, BICYCLE, AND TRANSIT MOBILITY

The Project was evaluated to determine if it would adversely affect adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks) or generate pedestrian, bicycle, or transit travel demand that would not be accommodated by transit, bicycle, or pedestrian facilities and plans.

### PEDESTRIAN MOBILITY

Employees and patrons choosing to walk to the site would not be adversely impacted based on pedestrian mobility, accessibility, or safety at the Project site once frontage improvements are constructed. The Project will provide ADA compliant sidewalk facilities along Soquel Drive and Commercial Way Project frontages. Only a few pedestrian and/or bicycle trips, both in the weekday AM peak period and weekday PM peak period, are anticipated for the Project. Per the current site plan, ADA compliant sidewalks, driveways, and landscaping setbacks, will be constructed as shown in Figure 2.

Internal pedestrian connections will link the proposed site's entrance with the parking areas, as well as the Soquel Drive frontage.

### BICYCLE MOBILITY

Employees and patrons choosing to bike to the site from Soquel Drive would not be adversely impacted based on bicyclist mobility, accessibility, or safety. Only a few pedestrian and/or bicycle trips both in the weekday AM peak period and weekday PM peak period are anticipated for the Project. Existing Class II bicycle facilities along Soquel Drive, including the recently constructed green bike lanes at Paul Sweet Road and Commercial Way / Highway Northbound On-Off Ramps, provides bicycle access to the site.

### TRANSIT MOBILITY

Employees and patrons of the development have the option of driving, taking transit, walking, or bicycling. Those that choose to take transit have the option of three transit lines that operate along Soquel Drive with bus stops near the Project site. According to 2011-2012 California Household Travel Survey for Santa Cruz County data, approximately 3% of Santa Cruz County residents use transit to travel to work. This typically represents the highest level of transit ridership during the day, with other periods being lower. If it is conservatively assumed (from the standpoint of transit demand) that 3% percent of the employees and patrons of the development use transit during the peak hours of the day, it represents approximately two new passengers in both the weekday AM peak period and weekday PM peak period, which has negligible adverse impact on transit mobility, accessibility, or safety at any of the study intersections. Bus stops are located within 500 feet from the Project site. Service routes and stops are discussed in detail in the **Existing Transit Facilities** section of this report.

### SUMMARY OF POTENTIAL IMPACTS

Figure 2 identifies sidewalks, walkways, bicycle parking, and other amenities that will be constructed in compliance with adopted County standards; thus, the Project's impact on pedestrian, bicycle, and/or transit facilities is less than significant.

## 9. VEHICLE MILES TRAVELED EVALUATION

This section documents a Vehicle Miles Traveled (VMT) assessment for the proposed 13,100 square-foot CVS retail store. With the passage of SB 743, VMT has become an important indicator for determining if a new development will result in a "significant transportation impact", as required by the California Environmental Quality Act (CEQA). While SB 743 will not be enforced until July 1, 2020, once enforceable, jurisdictions (lead agencies) will have to adopt VMT-related thresholds of significance and fully implement the requirements of SB 743. It is increasingly becoming a best practice to provide this information prior to the enforcement date to clarify a development's potential VMT-related impact even if a jurisdiction has yet to set specific VMT significance thresholds.

### BACKGROUND

SB 743 is part of a long-standing policy effort by the California legislature to improve California's sustainability and reduce greenhouse gas emissions through denser infill development, a reduction in single occupancy vehicles, improved mass transit, and other actions. Recognizing that the current environmental analysis techniques are, at times, encouraging development that is inconsistent with this vision, the legislature has taken the extraordinary step to change the basis of environmental analysis for transportation impacts from Level of Service (LOS) to Vehicle Miles Travelled (VMT). VMT is understood to be a good proxy for evaluating air quality and other transportation related impacts that the State is actively trying to mitigate. While the use of VMT to determine significant transportation impacts has only been considered recently, it is by no means a new performance metric and has long been used as the basis for transportation system evaluations, as well as an important metric for evaluating the performance of Travel Demand Models (TDM).

While there are several ways to assess VMT, TDMs are typically considered the gold standard for VMT evaluation. TDMs are used primarily because when compared to other VMT calculation tools, they require fewer assumptions and are far more effective at evaluating land uses that are sensitive to the proximity of other land uses. In addition, TDMs consider other spatial and contextual considerations that other tools do not. Many of the sketch planning tools that are being promoted for use in evaluating VMT either rely heavily on TDM data or have broad assumptions that can result in incorrect findings if the practitioner does not fully understand those assumptions. A good discussion is provided within the most recent release of the VMT Technical Advisory<sup>1</sup> produced by the State's Office of Planning and Research (OPR) as to the importance of using tools that are sensitive to the aspects described above (adjacent land use interactions, special, and contextual considerations) when determining VMT. It is not to say, however, that TDMs are without their limitations, especially when you are evaluating a relatively small land use change in a regional context. An important, yet easy to overlook aspect of the *Technical Advisory* is that it recognizes that each land use type has a unique contribution to VMT for the region. This point is critical when evaluating the VMT performance of a local serving retail store such as the proposed CVS.

### ANALYSIS METHODOLOGY

Page 16 of the *Technical Advisory* specifically addresses some of the key issues surrounding how a local serving retail store, particularly in an urban context, should be evaluated in terms of its VMT impact. As described, the threshold for significance is "a net increase." This means that if a proposed store produces one additional VMT, it would result in a finding of significance. However, the document further explains that local retail stores in an urban context, as is the case with this CVS location, can be determined to result in an overall VMT reduction by the lead agency. This is consistent with the desire to develop more sustainable communities that have fewer transportation impacts.

Local commercial uses, particularly in urban contexts, primarily serve pre-existing needs (i.e. they do not generate new trips because they meet existing demand). Because of this, local commercial uses can be presumed to reduce trip lengths when a new store is proposed. Essentially, the assumption is that someone will travel to a newly constructed local serving store because of its proximity, rather than the proposed store fulfilling an unmet need (i.e. the person had an existing need that was met by a store located further away and is now traveling to the new store because it is closer to the person's origin location). This results in an existing trip on the roadway network becoming shorter, rather than a new trip being added to the roadway network which results in an impact to the overall transportation system. Conversely, residential and office land uses often drive new trips given that they introduce new participants to the transportation system. However, a CVS store does not truly generate new trips that are added to the transportation system. As such this means that the impact to the transportation system will be reduced by the introduction of a new retail store that is primarily local/regional in its service focus.

The *Technical Advisory* provides for a general threshold of 50,000 square-feet as an indicator as to whether a retail store can be considered local serving or not. As described above, this is an important consideration in terms of a VMT-related significant impact determination. As the proposed CVS store would be 13,100 square-feet, and based upon the typical profile of a CVS store, it is clearly local serving. The *Technical Advisory* also provides that a less than significant finding can be further substantiated by showing the proximity of other similar uses. Although a specific market study is not being provided as part of this memorandum, a map showing the proximity of other similar stores is provided as Figure 17. As shown in Figure 17, this CVS store will reduce trip lengths by "adding retail opportunities into the urban fabric further improving retail destination proximity"<sup>1</sup>. Accordingly, it is appropriate that the proposed CVS store be presumed, in accordance with the *Technical Advisory*, that it will result in a VMT reduction and support the goals of SB 743.

## FINDINGS

This analysis considered how the introduction of this store, its location, and the nature of services that it provides, would affect customers' destination choices given existing travel patterns. Based on the results of this assessment, it was determined that the proposed CVS store would result in a net VMT reduction. Accordingly, it was determined that the proposed CVS store would not result in a significant transportation impact with respect to SB 743 VMT evaluation methodologies.

---

<sup>1</sup> *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Governor's Office of Planning and Research, State of California, December 2018.





## 10. OTHER TRANSPORTATION EVALUATIONS

The following sections discuss proposed site access and circulation, on-site parking supply, Measure D relevance to the Project, and existing/future Highway 1 operations.

### ON-SITE PARKING

The Santa Cruz County Municipal Code (13.10.552) requires one vehicle space per 300 square feet of gross building floor area and 1 bicycle space per 1,000 square feet of gross building floor area. Based on the Project's gross building floor area of 13,111 square feet, 44 vehicle parking spaces are required and 13 bicycle parking spaces are required. The County requires a maximum of two ADA spaces for between 26 and 50 total spaces required. This requirement would entail typical "retail" uses for staff and customer parking.

The Project will construct 50 vehicle parking spaces on-site (including 4 ADA stalls) for employees and customers, as well as 13 bicycle rack spaces. The proposed parking supply is summarized as follows:

- Employee, customer, etc. spaces (50 total):
  - 46 – Employee / Customer Spaces
  - 4 – ADA Spaces

The Project's proposed 50 vehicle parking spaces and 13 bicycle parking spaces exceed the County requirement of 48 vehicle parking spaces and is equal to the 13-bicycle parking space requirement. Therefore, the proposed parking supply is sufficient.

### SITE ACCESS AND CIRCULATION

On site circulation was evaluated at the Project's two driveways, which will be located on Soquel Drive (Intersection #3) and Commercial Way (Intersection #7).

#### SOQUEL DRIVE / PROJECT DRIVEWAY #1 (INTERSECTION #3)

The driveway that currently exists and provides access to the existing Decor Furniture store will be demolished and a new Project driveway will be constructed and aligned with the existing Dominican Hospital stop controlled driveway on Soquel Drive (Intersection #2) to create a four-leg intersection. The Project driveway will be stop-controlled and will restrict left-turns out of the driveway through-out the day. Westbound left-turns and eastbound right-turns will be permitted for motorists entering the Project site throughout the day. It is anticipated that the north driveway, that currently provides ingress and egress to Dominican Hospital users will continue to be stop-controlled and will restrict left-turns out from 7:00am to 9:00am and 3:00pm to 6:00pm once the CVS Project is constructed. This would result in acceptable levels of service during the AM and PM peak hours.

Westbound left-turn striping improvements along Soquel Drive at the Project Driveway will be constructed by the Project.

#### HIGHWAY 1 NB ON-OFF RAMP / COMMERCIAL WAY & PROJECT DRIVEWAY #2 (INTERSECTION #7)

The driveway that currently exists and is stop controlled, provides access to the existing mini-warehouse. The existing driveway will be demolished, and a new Project driveway will be constructed on Highway 1



Northbound On-Off Ramps / Commercial Way (Intersection #7). Only right-turns in and right-turns out of this Project driveway will be permitted during Existing and Near Term Conditions. It is anticipated that the planned Caltrans ramp improvements, which will convert Commercial Way into a cul-de-sac and will no longer connect to the Highway 1 Ramp, will be constructed by future year 2035. It is expected that the Project driveway during Cumulative Conditions will be stop-controlled, will continue to have access to Commercial Way, and that right-turns in and left-turns out of the driveway will be permitted.

Concepts of the proposed intersection improvements, Project driveways, and Commercial Way cul-de-sac are shown in the Appendix.

#### QUEUE ANALYSIS AT HIGHWAY 1 NB ON-OFF RAMP / COMMERCIAL WAY

Queue lengths for the Highway 1 Northbound On-Off Ramp under Existing, Near Term, and Cumulative baseline conditions, as well as all Plus Project scenarios, are shown in Table 12. Queue length exceeding available storage lengths are highlighted. The queue length outputs are included in the Appendix.

**Table 12 – Queue Analysis (Existing, Near Term, and Cumulative Conditions)**

Scenarios		Northbound Queue Length (ft)
Existing	AM	355
	PM	360
Existing+ P	AM	366
	PM	383
Near Term	AM	380
	PM	377
Near Term+ P	AM	388
	PM	420
Cumulative	AM	542
	PM	364
Cumulative+ P	AM	553
	PM	377

As shown in the Table, it is not anticipated that queue would not spill back to Highway 1 mainline during Existing, Near Term, Cumulative, or Plus Project Conditions.

## 11. SUMMARY OF IMPACTS AND MITIGATION MEASURES

Based on the analysis above, the Project will trigger impacts at five study intersections. The following discussion describes the impacts, mitigations, and proportional fair share estimates to mitigate the impacts.

The improvements described below are currently unfunded and therefore are not included in the County Capital Improvement Program (CIP). The proportional fair share is based on the estimated Project AM and PM peak hour trips traveling through the intersection, as a percentage of the total future cumulative growth in traffic (i.e., Existing to Cumulative Plus Project conditions for the combined AM and PM traffic).

### **Soquel Drive & Paul Sweet Road / Commercial Way (Intersection #2)**

Soquel Drive & Paul Sweet Road / Commercial Way is a Caltrans District 5 intersection. The study intersection operates at unacceptable LOS during AM and PM peak hours in all study scenarios. As part of the planned Highway 1 / Soquel Drive & Soquel Avenue interchange improvements, Caltrans plans to construct the following improvements at this study intersection:

- Convert one westbound left turn lane to westbound through lane.
- Add one westbound shared through and right turn bay.
- Add one northbound left turn lane.
- Add one eastbound right turn bay

A detailed layout of this intersection is attached in **Appendix**.

Implementation of these improvements would improve intersection operations to LOS D during AM and PM peak hours. However, these improvements are currently unfunded and are not included in the County Capital Improvement Program (CIP). Caltrans does not have a fee program in place for collecting fair share impact fees and the planned interchange improvements are not under Santa Cruz County jurisdiction. Therefore, until the identified improvements are constructed, this impact would be significant and unavoidable.

### **Soquel Drive & Mission Drive (Intersection #5)**

Soquel Drive & Mission Drive is a Santa Cruz County intersection. The intersection will operate at an unacceptable LOS E during the PM peak during Cumulative and Cumulative plus Project conditions. This impact would be mitigated by implementing split phasing signal operation on the northbound and southbound approaches. The Project's proportional fair share payment for this impact is approximately 1.9%. The engineering cost estimate for this improvement is \$81,000 (included in the **Appendix**). Therefore, the Project's fair share cost would be approximately \$1,570.

### **Highway 1 NB On-Off Ramp / Commercial Way & Project Driveway #2 (Intersection #7)**

This is a Caltrans District 5 intersection. The study intersection operates at unacceptable LOS during AM and PM peak hours in Cumulative and Cumulative plus Project study scenarios. As part of the planned Highway 1 / Soquel Drive & Soquel Avenue interchange improvements, Caltrans plans to construct the improvements identified at intersection #2 above, as well as ramp realignment and a cul-de-sac at the Project driveway.

Implementation of these improvements would improve intersection operations to LOS A during AM and PM peak hours. However, these improvements are currently unfunded and are therefore not included in the County Capital Improvement Project (CIP). The Cumulative impact is thus significant and unavoidable until the improvement is constructed.

### **Traffic Improvement Area Fees**

The Project is required to pay a Transportation Improvement Area (TIA) fee to Santa Cruz County based on daily net new trips generated. The ITE Trip Generation Manual uses a daily trip rate of 6.3 trips per 1,000 square feet for the existing furniture store and Santa Cruz County Fee Schedule allows max of 40 trips per 1,000 square feet for the proposed pharmacy land use categories. Additionally, the ITE trip schedule uses a daily rate of 1.51 trips per 1,000 square feet for the existing warehouse land use category. The existing apartment land use is credited based on units, not daily trips. Daily rates identified in the ITE Trip Generation Manual and referenced in this section are used in the fee calculations only. Consistent with County policies, ITE trip generation data and methodologies are used in this study's impact and mitigation analysis.

A total fee credit of \$39,879 is estimated for the existing warehouse, apartment, and furniture land uses that will be demolished prior to construction of the proposed pharmacy. This includes Soquel Transportation Improvement fees (\$19,939.50) and Soquel Roadside Improvement fees (\$19,939.50). **The Project will be responsible to pay a total of \$268,410.60** (\$314,664 gross impact fee minus \$39,879 fee credit = \$268,410.60) in County improvement fees. These fees include Soquel Transportation Improvement fees and Soquel Roadside Improvement fees. These TIA fees are subject to change and are payable at the time the building permit is issued.

Through payment of the TIA fees and fair share payments identified above, the Project would mitigate all incremental Cumulative impacts.

### **Conclusion**

Based on the above mitigation measures, the Project will be required to pay a total of \$268,410.60 in traffic impact fees.



## APPENDIX

EXISTING CONDITIONS TRAFFIC COUNTS

EXISTING CONDITIONS SYNCHRO OUTPUT SHEETS

EXISTING PLUS PROJECT CONDITIONS SYNCHRO OUTPUT SHEETS

NEAR TERM CONDITIONS SYNCHRO OUTPUT SHEETS

NEAR TERM PLUS PROJECT CONDITIONS SYNCHRO OUTPUT SHEETS

CUMULATIVE CONDITIONS SYNCHRO OUTPUT SHEETS

CUMULATIVE PLUS PROJECT CONDITIONS SYNCHRO OUTPUT SHEETS

MITIGATED CONDITIONS SYNCHRO OUTPUT SHEETS

PROPOSED HIGHWAY 1/SOQUEL DR & SOQUEL AVE LAYOUT

METHODOLOGY, COMMENTS, AND CORRESPONDENCE WITH SCC STAFF

HIGHWAY 1 CORRIDOR INVESTMENT PROGRAM PROJECT ALTERNATIVES

IMPROVEMENT COST ESTIMATES



February 20, 2020

Leanna Swenson  
Development Project Manager  
Boos Development  
2020 L Street, Suite 245  
Sacramento, Ca. 95811

Ms. Swenson,

We are in receipt of your letter dated November 4, 2019, regarding the installation of a traffic calming sign on the Dominican property at the driveway located on Soquel Dr. The purpose of the sign is to restrict left turn motions during AM and PM peak times at the hospital driveway location on Soquel Dr. near Paul Sweet Rd. As you stated, we have agreed to allowing this sign to be installed; however, the timing of your project is independent of us and therefore your need to have this sign installed will be based on the approval of your project, which we are not a party to. We will permit, at no cost to Dominican and/or Dignity Health, the installation of this sign upon approval of your project subject to the following conditions:

1. The cost for the installation of the sign will not be the responsibility of Dominican Hospital or Dignity Health.
2. Any liability in connection with the installation of the sign shall be CVS and/or Boos Development responsibility. Dominican Hospital and Dignity Health will assume no responsibility. The site plan shall also show what, if any landscape or hardscape that is to be removed and/or replaced.
3. Construction plans shall be submitted to Dominican Hospital and Dignity Health which show sign details, location, height, dimensions, and lettering. Contractor's staging area and timeline shall also be submitted. Construction of sign cannot commence until these plans have been approved by Dominican and Dignity Health in writing.
4. All construction shall be coordinated and approved by Dominican personnel. No unauthorized construction shall be allowed.
5. Dominican and Dignity Health are in the process of obtaining approval for the remodel of the hospital campus. While we do not anticipate this sign interfering with these plans, should it become necessary to move, or relocate this sign, CVS will agree to do so at their expense.
6. CVS must submit a letter from the County of Santa Cruz indicating their approval of the sign plans. After installation, CVS will provide another letter demonstrating the County has approved the installation.
7. Any damages caused during or as a result of the installation of the sign shall be the responsibility of CVS, it's employees, consultants, contractors, and/or sub-contractors.

Thanks again. And we wish you success with your project

Sincerely,

A handwritten signature in black ink, appearing to read "Nanette", followed by a large, stylized flourish or initial.

Nanette Mickiewicz, MD  
President and CEO  
Dignity Health Dominican Hospital

**EXHIBIT A**

**ATTACHMENT 4**



# COUNTY OF SANTA CRUZ

## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123  
KATHLEEN MOLLOY, PLANNING DIRECTOR

8 January 2019

Boos Development West, LLC  
2020 L Street, Suite 245  
Sacramento, CA 95811

Subject: Review of the Geotechnical Engineering Investigation – Proposed CVS Pharmacy at 1505/1515 Commercial Way dated 15 January 2018 by Moore Twining Associates – Project No. G10838.03

Project Site: 1505/1515 Commercial Way  
APN 025-071-20  
Application No. B-181177

Dear Applicant:

The purpose of this letter is to inform you the Planning Department has accepted the subject report. The following items shall be required:

1. All project design and construction shall comply with the recommendations of the report.
2. Final plans shall reference the subject report by title, author and date. Final Plans should also include a statement that the project shall conform to the report's recommendations.
3. After plans are prepared that are acceptable to all reviewing agencies, please submit a completed Soils (Geotechnical) Engineer Plan Review Form to Environmental Planning. The author of the soils report shall sign and stamp the completed form. Please note that the plan review form must reference the final plan set by last revision date.

Electronic copies of all forms required to be completed by the Geotechnical Engineer may be found on our website: [www.sccoplanning.com](http://www.sccoplanning.com), under "Environmental", "Geology & Soils", and "Assistance & Forms".

After building permit issuance the soils engineer *must remain involved with the project* during construction. Please review the Notice to Permits Holders (attached).

**EXHIBIT A**  
**ATTACHMENT 5**

Review of the Geotechnical Engineering Investigation – Proposed CVS Pharmacy at 1505/1515 Commercial Way dated 15 January 2018 by Moore Twining Associates

APN 025-071-20

8 January 2019

Page 2 of 3

Please note that this determination may be appealed within 14 calendar days of the date of service. Additional information regarding the appeals process may be found online at: [http://www.sccoplanning.com/html/devrev/plnappeal\\_bldg.htm](http://www.sccoplanning.com/html/devrev/plnappeal_bldg.htm)

Please contact the undersigned at (831) 454-3168 or [rick.parks@santacruzcounty.us](mailto:rick.parks@santacruzcounty.us) if we can be of any further assistance.

Sincerely,



Rick Parks, GE 2603

Civil Engineer – Environmental Planning

Cc: Environmental Planning, Attn: Leah MacCarter  
Planning Department, Attn: Annette Olson  
Owner, Plymouth-Grant LLC  
MTA, Attn: Read Andersen, GE

Attachments: Notice to Permit Holders

**EXHIBIT A**  
**ATTACHMENT 5**

**NOTICE TO PERMIT HOLDERS WHEN A SOILS REPORT HAS BEEN PREPARED,  
REVIEWED AND ACCEPTED FOR THE PROJECT**

After issuance of the building permit, the County requires your soils engineer to be involved during construction. Several letters or reports are required to be submitted to the County at various times during construction. They are as follows:

1. **When a project has engineered fills and / or grading**, a letter from your soils engineer must be submitted to the Environmental Planning section of the Planning Department prior to foundations being excavated. This letter must state that the grading has been completed in conformance with the recommendations of the soils report. Compaction reports or a summary thereof must be submitted.
2. **Prior to placing concrete for foundations**, a letter from the soils engineer must be submitted to the building inspector and to Environmental Planning stating that the soils engineer has observed the foundation excavation and that it meets the recommendations of the soils report.
3. **At the completion of construction**, a *Soils (Geotechnical) Engineer Final Inspection Form* from your soils engineer is required to be submitted to Environmental Planning that includes copies of all observations and the tests the soils engineer has made during construction and is stamped and signed, certifying that the project was constructed in conformance with the recommendations of the soils report.

If the *Final Inspection Form* identifies any portions of the project that were not observed by the soils engineer, you may be required to perform destructive testing in order for your permit to obtain a final inspection. The soils engineer then must complete and initial an *Exceptions Addendum Form* that certifies that the features not observed will not pose a life safety risk to occupants.





**GEOTECHNICAL ENGINEERING INVESTIGATION**

**PROPOSED CVS PHARMACY**

**1505 and 1515 COMMERCIAL WAY**

**SANTA CRUZ, CALIFORNIA**

**Project Number: G10838.03**

**For:**

**Boos Development West, LLC  
701 Park Center Drive, Suite 200  
Santa Ana, CA 92705**

**January 15, 2018**

**EXHIBIT A**  
**ATTACHMENT 5**

[www.mooretwining.com](http://www.mooretwining.com)

© 2002-2018  
1505 and 1515  
2017  
Santa Ana, CA 92705



January 15, 2018

G10825.01

Ms. Leanna Swenson  
Boos Development West, LLC  
2020 L Street, Suite 245  
Sacramento, CA 95811

**Subject:       Geotechnical Engineering Investigation  
                  Proposed CVS Pharmacy  
                  1505 and 1515 Commercial Way  
                  Santa Cruz, California**

Dear Ms. Swenson:

We are pleased to submit this geotechnical engineering investigation report prepared for the proposed CVS Pharmacy to be located at the subject property.

The contents of this report include the purpose of the investigation, scope of services, background information, investigative procedures, our findings, evaluation, conclusions, and recommendations. It is recommended that those portions of the plans and specifications that pertain to earthwork, pavements, and foundations be reviewed by Moore Twining Associates, Inc. (Moore Twining) to determine if they are consistent with our recommendations. This service is not a part of this current contractual agreement; however, the client should provide these documents for our review prior to their issuance for construction bidding purposes.

In addition, it is recommended that Moore Twining be retained to provide inspection and testing services for the excavation, earthwork, pavement, and foundation phases of construction. These services are necessary to determine if the subsurface conditions are consistent with those used in the analyses and formulation of recommendations for this investigation, and if the construction complies with our recommendations. These services are not, however, part of this current contractual agreement. A representative with our firm will contact you in the near future regarding these services.

**EXHIBIT A**  
**ATTACHMENT 5**

[www.moortwining.com](http://www.moortwining.com)

Ph: 559.268.2021  
F: 559.268.7126  
2527 Fresno Street  
Fresno, CA 93721

**Geotechnical Engineering Investigation  
Proposed CVS Pharmacy  
1505 and 1515 Commercial Way  
Santa Cruz, California**

**G10838.03  
January 15, 2018**

**Page No. 2**

We appreciate the opportunity to be of service to Boos Development West, LLC. If you have any questions regarding this report, or if we can be of further assistance, please contact us at your convenience.

Sincerely,

**MOORE TWINING ASSOCIATES, INC.  
Geotechnical Engineering Division**



**Allen H. Harker  
Professional Geologist**

**EXHIBIT A**  
**ATTACHMENT 5**

## **EXECUTIVE SUMMARY**

This report presents the results of a geotechnical engineering investigation for a CVS Pharmacy building to be located at 1505 and 1515 Commercial Way in Santa Cruz, California.

The proposed CVS Pharmacy store will be approximately 13,111 square feet and have a second floor mezzanine that will occupy 1,712 square feet. Appurtenant construction is anticipated to include various underground utility service lines, an asphalt concrete paved parking lot, a concrete paved trash enclosure, retaining walls along the eastern and western property boundaries, a monument sign, a transformer and landscaped areas.

At the time of our field exploration, the site was occupied by a vacant lot, two commercial buildings with associated parking, and an alley. The eastern portion of the site was occupied by a Decor retail furniture building (1515 Commercial Way) and the southwestern portion of the site was occupied by a building used for storage of furniture (1505 Commercial Way).

On December 13 through 15, 2017, ten (10) borings were drilled at the subject site. The near surface soils encountered in the borings conducted for this investigation generally consisted of clayey sands extending to depths of about 2 to 10 feet BSG or lean clays, lean clays with sand or sandy lean clays that extended to depths of about 2½ to 8½ feet BSG. The near surface clayey sands were underlain by lean clays, clayey sands, silty sands extending to the maximum depth explored, about 26½ feet BSG. The near surface lean clays, lean clays with sand or sandy lean clays were underlain by silty sands and poorly graded sands extending to the maximum depth explored, about 50 feet BSG. The silty sands were generally dense to very dense below a depth of about 20 feet BSG. One of the near surface soil samples encountered exhibited weak cementation where silty sands were encountered at a depth of about 2½ feet.

Fill soils were encountered in boring B-2 drilled in the alley on the east side of the site (northeast corner of the proposed CVS Pharmacy). The fill soils consisted of loose clayey sands with brick debris and asphalt debris extending to a depth of 5 feet BSG. Fill soils are anticipated in other portions of the site due to prior site grading.

Groundwater was encountered in some of the borings during our December 2017 field exploration. Groundwater was generally encountered during drilling at depths ranging from about 14½ feet to 23¾ feet BSG. About ½ hour to 1 hour after completion of the borings that encountered groundwater, groundwater stabilized at depths ranging from about 16½ to 23¾ feet BSG. It should be noted that perched water was encountered at a depth of 4½ feet BSG in boring B-2 near the bottom of the clayey sand fill soils and top of the native clay soils encountered in this borehole.

Based on our field and laboratory investigation, the near surface soils tested possess a medium expansion potential and high compressibility characteristics.

In order to reduce the potential for excessive static settlement, over-excavation of the existing fill soils and near surface native soils is recommended to support new foundations on engineered fill. In addition, over-excavation will be required to remove soils disturbed from removal of surface and subsurface improvements and all fill soils that are encountered.

### **EXECUTIVE SUMMARY (Continued)**

Seismic settlements of about  $\frac{2}{3}$  inch total and  $\frac{1}{2}$  inch differential in 40 feet were estimated.

The potential for surface fault rupture at the site is considered low.

Chemical testing of the near surface soil samples indicated the soils exhibit a "highly corrosive" corrosion potential. Chemical analyses also indicated a "negligible" potential for sulfate attack on concrete placed in contact with the near surface soils.

This Executive Summary should not be used for design or construction and should be reviewed in conjunction with the attached report.



## TABLE OF CONTENTS

	Page
1.0 INTRODUCTION .....	1
2.0 PURPOSE AND SCOPE OF INVESTIGATION .....	1
2.1 Purpose .....	1
2.2 Scope .....	2
3.0 BACKGROUND INFORMATION .....	3
3.1 Site Description .....	3
3.2 Previous Studies and Site History .....	5
3.3 Anticipated Construction .....	5
4.0 INVESTIGATIVE PROCEDURES .....	6
4.1 Field Exploration .....	6
4.1.1 Site Reconnaissance .....	6
4.1.2 Drilling Test Borings .....	6
4.1.3 Soil Sampling .....	7
4.1.4 Percolation Testing .....	7
4.2 Laboratory Testing .....	7
5.0 FINDINGS AND RESULTS .....	7
5.1 Surface Conditions .....	7
5.2 Portland Cement Concrete Pavements .....	8
5.3 Soil Profile .....	8
5.4 Soil Engineering Properties .....	9
5.5 Groundwater Conditions .....	10
6.0 EVALUATION .....	11
6.1 Existing Surface and Subsurface Improvements .....	11
6.2 Expansive Soils .....	12
6.3 Static Settlement and Bearing Capacity of Shallow Foundations .....	12
6.4 Seismic Ground Rupture and Design Parameters .....	13
6.5 Liquefaction and Seismic Settlement .....	13
6.6 Asphalt Concrete (AC) Pavements .....	14
6.7 Portland Cement Concrete (PCC) Pavements .....	14
6.8 Soil Corrosion .....	14
6.9 Sulfate Attack of Concrete .....	16

## TABLE OF CONTENTS

	Page
7.0 CONCLUSIONS .....	16
8.0 RECOMMENDATIONS .....	18
8.1 General .....	18
8.2 Site Grades and Drainage .....	19
8.3 Site Preparation .....	20
8.4 Engineered Fill .....	23
8.5 Conventional Shallow Spread Foundations and Concrete Slabs on Grade .....	26
8.6 Frictional Coefficient and Earth Pressures .....	29
8.7 Retaining Walls .....	30
8.8 Interior Concrete Slabs on Grade and Moisture Vapor Retarder .....	31
8.9 Exterior Slabs-on-Grade .....	34
8.10 Asphaltic Concrete (AC) Pavements .....	35
8.11 Portland Cement Concrete (PCC) Pavements .....	37
8.12 Temporary Excavations and Shoring .....	39
8.13 Corrosion Protection .....	40
9.0 DESIGN CONSULTATION .....	41
10.0 CONSTRUCTION MONITORING .....	41
11.0 NOTIFICATION AND LIMITATIONS .....	42
APPENDICES	
APPENDIX A - Drawings .....	A-1
Drawing No. 1 - Site Location Map	
Drawing No. 2 - Test Boring and Percolation Test Location Map	
APPENDIX B - Logs of Borings .....	B-1
APPENDIX C - Results of Laboratory Tests .....	C-1

# **GEOTECHNICAL ENGINEERING INVESTIGATION**

## **PROPOSED CVS PHARMACY**

**1505 and 1515 COMMERCIAL WAY**

**SANTA CRUZ, CALIFORNIA**

**Project Number: G10838.03**

### **1.0 INTRODUCTION**

This report presents the results of a geotechnical engineering investigation for the proposed CVS Pharmacy and associated site improvements to be located at 1505 and 1515 Commercial Way in Santa Cruz, California. Moore Twining Associates, Inc. (Moore Twining) was authorized by Boos Development West, LLC to perform this geotechnical engineering investigation.

The contents of this report include the purpose of the investigation and the scope of services provided. The site history, previous studies, site description, and anticipated construction are discussed. In addition, a description of the investigative procedures used and the subsequent findings obtained are presented. Finally, the report provides an evaluation of the findings, general conclusions, and related recommendations. The report appendices contain the drawings (Appendix A), the logs of borings (Appendix B), and the results of laboratory tests (Appendix C).

The Geotechnical Engineering Division of Moore Twining, headquartered in Fresno, California, performed the investigation.

### **2.0 PURPOSE AND SCOPE OF INVESTIGATION**

**2.1 Purpose:** The intent of this investigation is to satisfy the requirements of the 2016 California Building Code (CBC), and the Boos Development West (BDW) Geotechnical Investigation Requirements, as related to geotechnical investigations. The purpose of the investigation was to conduct an exploration program, evaluate the data collected during the field investigation and laboratory testing, and provide geotechnical engineering recommendations for project design.

- 2.1.1 Evaluation of the near surface soils within the zone of influence of the proposed foundations with regard to the anticipated foundation loads;
- 2.1.2 Recommendations for 2016 California Building Code seismic coefficients and earthquake spectral response acceleration values;
- 2.1.3 Geotechnical parameters for use in design of foundations and slabs-on-grade, (e.g., soil bearing capacity, settlement, lateral resistance);

**EXHIBIT A**  
**ATTACHMENT 5**

- 2.1.4 Recommendations for site preparation including placement, moisture conditioning, and compaction of engineered fill soils;
- 2.1.5 Recommendations for temporary excavations, trench excavation, and trench backfill;
- 2.1.6 Evaluation of the potential for liquefaction and seismic settlement;
- 2.1.7 Recommendations for slab-on-grade floors and exterior concrete flatwork;
- 2.1.8 Recommendations for asphalt concrete and Portland cement concrete pavements; and
- 2.1.9 Conclusions regarding soil corrosion potential.

This report is provided specifically for the proposed improvements described in the Anticipated Construction section of this report. This investigation did not include a geologic/seismic hazards evaluation, flood plain investigation, compaction tests, percolation tests, environmental investigation, or environmental audit.

**2.2 Scope:** Our proposal, reference MTP 4417-1266, dated December 7, 2017, outlined the scope of our services. The actions undertaken during the investigation are summarized as follows.

- 2.2.1 A Site Plan (SK-1), dated March 29, 2017, prepared by Kimley-Horn and Associates, Inc., was reviewed. The plan was used for preparation of the Test Boring Location Map (Drawing No. 2 in Appendix A) and is referred to herein as the site plan.
- 2.2.2 The BDW Geotechnical Investigation Requirements included in our Agreement for Geotech Consultant Services, dated January 9, 2013, was reviewed.
- 2.2.3 A visual site reconnaissance and subsurface exploration were conducted.
- 2.2.4 Various satellite images of the site from 1993 to 2016 from online sources, were reviewed. In addition, various aerial photographs from 1931 to 2012 were reviewed from Environmental Data Resources, Inc. (EDR).
- 2.2.5 A report entitled, "Draft Phase I Environmental Site Assessment, Proposed CVS Pharmacy CS No. 105634, 1505 & 1515 Commercial Way, Santa Cruz, California," dated December 18, 2017, prepared by Moore Twining's Environmental Division, was reviewed.

EXHIBIT A 1

ATTACHMENT 5

- 2.2.6 Laboratory tests were conducted to determine selected physical and engineering properties of the subsurface soils encountered.
- 2.2.7 Ms. Leanna Swenson (Boos Development West, LLC) and Ms. Melissa Mahar (Appenrodt Commercial) were consulted prior to the investigation.
- 2.2.8 The data obtained from the investigation were evaluated to develop an understanding of the subsurface soil conditions and the engineering properties of the soils encountered.
- 2.2.9 This report was prepared to present the purpose and scope, background information, field exploration procedures, findings, evaluation, conclusions, and recommendations.

### 3.0 BACKGROUND INFORMATION

The site description, site history, previous studies, and the anticipated construction are summarized in the following subsections.

**3.1 Site Description:** The subject site is addressed as 1505 and 1515 Commercial Way in Santa Cruz, California. According to the site plan, the site comprises approximately 1.23 acres. The site is bounded by Soquel Drive to the northwest, by an existing gas station to the west, by Commercial Way to the south, and by existing commercial development to the east.

At the time of our field exploration, the site was occupied by a vacant lot which had been partially excavated, two commercial buildings with associated parking, and an alley between Commercial Way and Soquel Drive. The eastern portion of the site was occupied by a Decor Furniture building (1515 Commercial Way) and the southwestern portion of the site was occupied by a building used for storage of furniture (1505 Commercial Way). A depressed loading dock was noted near the northeast corner of the Decor Furniture building. Some bushes and a tree were noted around the exterior of the Decor Furniture building and some bushes were noted near the driveway from Soquel Drive.

Based on our review of the "Draft Phase I Environmental Site Assessment, Proposed CVS Pharmacy CS No. 105634, 1505 & 1515 Commercial Way, Santa Cruz, California," dated December 18, 2017, prepared by Moore Twining's Environmental Division: "The building located in the southwestern portion of the site comprised approximately 2,480 square feet in plan dimension and was a slab-on-grade, corrugated metal constructed warehouse structure. The building included a second story, wood constructed loft in the southwest corner of the building's interior. The building located in the eastern portion of the site comprised approximately 13,150 square feet in plan dimension and was a slab-on-grade masonry constructed commercial building. A mezzanine and covered wooden deck area were located along the western interior wall and a wooden loft was located along the northern interior wall."

EXHIBIT A  
ATTACHMENT 5



Several of the utilities for the commercial building on the eastern side of the site were noted along the western side of the building, above ground, along wood supports. Other utilities at the site were noted to be underground and their locations were painted on the ground surface. Overhead utilities were also noted on the south side of the site.

A vacant, unpaved lot was located in the northwestern portion of the site and had been recently excavated as part of recent environmental related remediation activities that removed some of the near surface soils to depths of about 2 to 3 feet below site grade (this is discussed further in the Site History and Previous Studies section of this report). The site grades in the area of the vacant lot were uneven as different areas were excavated to different depths. In addition, a broken clay pipe was noted to daylight in a vertical sidewall of an excavation which was conducted as part of soil remediation. Scattered grasses and weeds were noted on small portions of the vacant lot. The western portion of the vacant lot was covered by gravel/base material. A small diameter black drain pipe was noted protruding from the ground surface in the southern portion of the vacant lot. Some erosional gullies about 6 to 12 inches deep were noted in the western-central portion of the vacant lot.

The site is surrounded by a concrete masonry retaining wall and chain link fence on the west side of the site, a chain link fence on the north side of the vacant lot, landscaped areas and an asphalt concrete paved driveway on the north side of the Decor Furniture building, a masonry screen wall and an auto center building on the east side of the site, an asphalt concrete paved driveway on the south side of the site. In the northern half of the property, a masonry screen wall and chain link fence separates the Decor Furniture property (eastern side of the site) from the vacant lot in the western portion of the site.

The concrete masonry unit wall on the west side of the Decor Furniture building exhibited a significant crack which was offset by about 1 inch.

The asphalt concrete pavements on the south side of the Decor Furniture building (eastern side of the site), adjacent to Commercial Way, exhibited severe alligator cracking and complete deterioration of the pavement in some areas, exposing the subgrade soils. The asphalt concrete pavements on the south side of the of the smaller building in the western portion of the site generally did not exhibit any significant cracks except in the southeastern portion of the driveway entrance which exhibited alligator cracking and complete deterioration of the pavement areas in some areas, exposing the subgrade soils. The asphalt concrete pavements on the north side of the Decor Furniture building, adjacent to Soquel Drive, appeared to have been patched in some areas and exhibited alligator cracking in several areas, including previously patched areas.

Based on our review of a satellite image of the site, the elevation of the site appears to slope gently down to the west. Site grades appear to range from about 100 feet above mean sea level (AMSL) in the western part of the site to about 108 feet AMSL in the eastern part of the site. However, due to the excavation of about 2 to 3 feet of soil throughout the vacant dirt lot area on the west side of the site, some of the existing elevations may now be as low as about 97 to 98 feet AMSL.

**3.2 Previous Studies and Site History:** Site history information is noted from a report entitled, Draft Phase I Environmental Site Assessment, Proposed CVS Pharmacy CS No. 105634, 1505 & 1515 Commercial Way, Santa Cruz, California,” dated December 18, 2017, prepared by Moore Twining’s Environmental Division.

Aerial photographs were reviewed from 1931, 1940, 1943, 1956, 1968, 1974, 1982, 1993, 2005, 2009, 2010 and 2012. Based on our review of the 1931 through 1943 aerial photographs, it is difficult to tell if any structures existed at the site, but it appears that the site was vacant land until at least 1943. Based on our review of Moore Twining’s Phase I Environmental Site Assessment (ESA) report, the report indicated: “The site was developed with commercial buildings sometime around 1956. The western portion of the site was occupied by an auto wrecking yard from at least 1968 until sometime around 1992. The western portion of the site was then occupied by an equipment storage yard for Lewis Plaster Company until sometime around 2014. The eastern portion of the site was occupied by a rehabilitation facility and child development facility from 1977 until sometime in the early 1990s. The use of this portion of the site prior to 1977 was not identified. The eastern portion of the site has been occupied by a furniture store since the mid-1990s.”

No previous geotechnical engineering, geological, or compaction test reports conducted for this site were provided for review. If these reports become available, the reports should be provided for review and consideration for this project.

**3.3 Anticipated Construction:** A CVS Pharmacy is planned in the southeastern portion of the site. The CVS Pharmacy building will be approximately 13,111 square feet and will include a mezzanine that will occupy 1,712 square feet. Driveway entrances are shown on the site plan to be planned from both Soquel Drive on the north side of the site and Commercial Way on the south side of the site. Appurtenant construction is anticipated to include various underground utility service lines, an asphalt concrete paved parking lot, a concrete paved trash enclosure, retaining walls along the eastern and western property boundaries, a monument sign, a transformer and landscaped areas.

It is anticipated that the proposed CVS building construction will consist of a single-story structure with a mezzanine and with concrete slab-on-grade floors and exterior CMU walls with interior steel columns and a steel-frame supported roof system. According to the CVS Geo-technical Investigation Requirements, a minimum soil bearing pressure of 2,000 pounds per square foot is required for the foundation design and the following structure loads are anticipated: interior column loads of 120 kips, exterior column loads of 100 kips, load bearing wall loading of 3.5 kips per lineal foot and a floor slab loading of 150 pounds per square foot.

The site plan indicates that the area of the CVS Pharmacy has an existing elevation of -2.00± and a proposed elevation of 3.00±. Thus, we assume that about 5 feet of fill is planned to achieve the finished floor elevation. However, the current site grades vary across the site. Thus, it is anticipated the depth of fill will vary.

#### 4.0 INVESTIGATIVE PROCEDURES

The field exploration and laboratory testing programs conducted for this investigation are summarized in the following subsections.

**4.1 Field Exploration:** The field exploration consisted of a site reconnaissance, drilling test borings, conducting standard penetration tests, and soil sampling.

**4.1.1 Site Reconnaissance:** The site reconnaissance consisted of walking the site and noting visible surface features. The reconnaissance was conducted by Mr. Barry Smith of Moore Twining during the field exploration that took place between December 13 and 15, 2017. The features noted are described in the background information section of this report.

**4.1.2 Drilling Test Borings:** Based on the presence of the existing buildings at the site, the investigation was planned so as to drill all the borings outside the existing buildings. Thus, some of the borings had to be moved slightly due to the presence of the existing buildings. The locations of the test borings were agreed upon with Ms. Leanna Swenson (Boos Development West, LLC) and considered the location of the existing structures size of the proposed structure, and type of construction. The depths of the borings were conducted in accordance with the BDW Geotechnical Investigation Requirements, dated January 9, 2013 and considered the estimated depth of influence of the anticipated foundation loads, and the subsurface soil conditions encountered.

On December 13 through 15, 2017, ten (10) borings were drilled at the subject site. Five (5) borings (B-2, B-4, B-5, B-8 and B-9) were drilled in the proposed building footprint to depths of about 25 to 48 $\frac{2}{3}$  feet below site grade (BSG) and a sixth boring was drilled using a hand auger due to access restrictions for the drill rig to a depth of about 6 $\frac{1}{2}$  feet BSG. Two (2) borings (B-1 and B-7) were drilled about 50 feet north and west of the proposed CVS Pharmacy building to depths of about 10 to 13 feet BSG. Two (2) borings (B-3 and B-6) were drilled in the areas of the proposed driveway entrances near Soquel Drive and Commercial Way to depths of about 10 to 11 $\frac{1}{2}$  feet BSG.

The test borings were drilled using a truck-mounted CME-75 drill rig equipped with 6- $\frac{5}{8}$  inch outside diameter (O.D.) hollow-stem augers. Boring B-10 was advanced with a hand auger equipped with a 4-inch diameter auger.

During the drilling of the test borings, bulk and relatively undisturbed samples of soil were obtained for laboratory testing. The test borings were drilled under the direction of a Moore Twining staff engineer. The soils encountered in the test borings were logged during drilling by a representative of our firm. The field soil classification was in accordance with the Unified Soil Classification System consisted of particle size, color, and other distinguishing features of the soil.

EXHIBIT A

ATTACHMENT 5

The presence and elevation of free water, if any, in the borings were noted and recorded during drilling and up to an hour following completion of the borings.

Test boring locations were determined with reference to the existing site features shown on the site plan. The borings were backfilled with cuttings and topped with rapid setting concrete where borings were drilled in the Portland cement concrete pavement areas. The approximate locations of the borings are shown on Drawing No. 2 in Appendix A of this report.

**4.1.3 Soil Sampling:** Standard penetration tests were conducted in the test borings, and both disturbed and relatively undisturbed soil samples were obtained.

The standard penetration resistance, N-value, is defined as the number of blows required to drive a standard split barrel sampler into the soil. The standard split barrel sampler has a 2-inch O.D. and a 1 $\frac{3}{8}$ -inch inside diameter (I.D.). The sampler is driven by a 140-pound weight free falling 30 inches. The sampler is lowered to the bottom of the bore hole and set by driving it an initial 6 inches. It is then driven an additional 12 inches and the number of blows required to advance the sampler the additional 12 inches is recorded as the N-value.

Relatively undisturbed soil samples for laboratory tests were obtained by pushing or driving a California modified split barrel ring sampler into the soil with the drill rig or with hand sampling equipment. The soil was retained in brass rings, 2.5 inches O.D. and 1-inch in height. The lower 6-inch portion of the samples were placed in close-fitting, plastic, airtight containers which, in turn, were placed in cushioned boxes for transport to the laboratory. Soil samples obtained were taken to Moore Twining's laboratory for classification and testing.

**4.2 Laboratory Testing:** The laboratory testing was programmed to determine selected physical and engineering properties of selected samples of the soils obtained during drilling. The tests were conducted on disturbed and relatively undisturbed samples considered representative of the subsurface soils encountered.

The results of laboratory tests are summarized in Appendix C. These data, along with the field observations, were used to prepare the final test boring logs in Appendix B.

## **5.0 FINDINGS AND RESULTS**

The findings and results of the field exploration and laboratory testing are summarized in the following subsections.

**5.1 Surface Conditions:** At the time of our field exploration, the site was occupied by two buildings, asphalt and concrete pavements, and landscaped areas. Various underground utilities are located throughout the site. Additional information regarding the existing site conditions is noted in the Background Information section of this report.

**5.2 Portland Cement Concrete Pavements:** The Portland cement concrete pavement sections encountered in the borings drilled in Portland cement concrete pavement areas are summarized in Table No. 1 below.

**Table No. 1**  
**Portland Cement Concrete Pavement Section Thicknesses Encountered**

Boring Number	Portland Cement Concrete Thickness <sup>1</sup> (inches)	Aggregate Base Thickness <sup>2</sup> (inches)	Subgrade Soil
B-1	4.0	6	Clayey Sand
B-2	4.0	4	Clayey Sand Fill
B-3	7.1	2.5	Lean Clay
B-8	4.0	3	Sandy Lean Clay

<sup>1</sup> - Portland cement concrete thickness was measured on four sides to the nearest ¼ inch and averaged to the nearest tenth of an inch.

<sup>2</sup> - Aggregate base thickness was measured to the nearest ½ inch.

**5.3 Soil Profile:** Based on our review of the Geologic Map of Santa Cruz County, California, dated 1997, prepared by U.S. Geological Survey, the site is mapped as being underlain by Pleistocene-age lowest emergent coastal terrace deposits, which are described as follows: "Semiconsolidated, generally well-sorted sand with a few thin, relatively continuous layers of gravel. Deposited in nearshore high-energy marine environment."

Below the Portland cement concrete pavements or landscaped areas, the near surface soils encountered in the borings conducted for this investigation generally consisted of clayey sands extending to depths of about 2 to 10 feet BSG or lean clays, lean clays with sand or sandy lean clays that extended to depths of about 2½ to 8½ feet BSG. The near surface clayey sands were underlain by lean clays, clayey sands, and silty sands extending to the maximum depth explored, about 26½ feet BSG. The near surface lean clays, lean clays with sand or sandy lean clays were underlain by silty sands and poorly graded sands extending to the maximum depth explored, about 50 feet BSG. The silty sands were generally dense to very dense below a depth of 20 feet BSG. One of the near surface soil samples encountered exhibited weak cementation where silty sands were encountered at a depth of about 2½ feet.

Fil soils were encountered in boring B-2 drilled in the alleyway on the east side of the site (northeast corner of the proposed CVS Pharmacy). The fill soils consisted of loose clayey sands with brick debris and asphalt debris extending to a depth of 5 feet BSG.



Fill soils were also noted in the sidewalls of some of the excavated areas. In addition, a clay pipe was exposed in the sidewall of an excavation which was conducted for recent soil remediation.

The foregoing is a general summary of the soil conditions encountered in the test borings drilled for this investigation. Detailed descriptions of the soils encountered at each test boring are presented in the logs of borings in Appendix B. The stratification lines in the logs represent the approximate boundary soil types; the actual in-situ transition may be gradual.

**5.4 Soil Engineering Properties:** The following is a description of the engineering properties of the soil as determined from our field exploration and laboratory testing.

**Clayey Sands Fill Soils:** The clayey sand fill soils encountered were described as loose, as determined by a Standard Penetration Test (SPT), N-value, of 5 blows per foot. The moisture content of a sample tested was about 8 percent.

**Native Clayey Sands:** The native clayey sands encountered were described as very loose to medium dense, as determined by Standard Penetration Test (SPT), N-values, ranging from 2 to 21 blows per foot. The moisture content of the samples tested ranged from about 8 to 16 percent. The results of testing of one (1) relatively undisturbed sample indicated a dry density of 106.1 pounds per cubic foot.

**Sandy Lean Clays, Lean Clay with Sand and Lean Clays:** The sandy lean clays, lean clays with sand and lean clays encountered were described as soft to very stiff, as determined by Standard Penetration Test (SPT), N-values, ranging from 2 to 18 blows per foot, and as indicated by equivalent Standard Penetration Test (SPT), N-values, ranging from 14 to 19 blows per foot, which were estimated by driving a California Modified split barrel sampler. The moisture content of the samples tested ranged from about 8 to 13 percent. The results of testing of two (2) relatively undisturbed samples both indicated dry densities of 109.2 pounds per cubic foot. A sieve analysis conducted on a sample from boring B-2 encountered from a depth of 10 to 11.5 feet BSG indicated 45.8 percent sand and 54.2 percent fines (silt and clay). An Atterberg Limits test conducted on the same sample indicated a liquid limit of 47 and a plasticity index of 24. A sieve analysis conducted on a sample from boring B-4 encountered from a depth of 1 to 4 feet BSG indicated 48.4 percent sand and 51.6 percent fines (silt and clay). An Atterberg Limits test conducted on the same sample indicated a liquid limit of 49 and a plasticity index of 26. An expansion index test conducted on the same sample indicated an expansion index value of 73. A consolidation test conducted on a sample collected from depths of 2 to 3½ feet BSG from boring B-4 indicated high compressibility characteristics (8.8 percent consolidation under a load of 16 kips per square foot). Another consolidation test conducted on a sample collected from depths of 5 to 6½ feet BSG from boring B-5 indicated high compressibility characteristics (9.1 percent consolidation under a load of 16 kips per square foot). A direct shear test conducted on a sample collected at depths of 2 to 3½ feet BSG from boring B-4 indicated an internal angle of friction of 19 degrees and 270 pounds per square foot of cohesion.

EXHIBIT A

ATTACHMENT 5

**Silty Sands:** The silty sands encountered were described as medium dense to very dense, as indicated by Standard Penetration Test (SPT), N-values, ranging from 12 to greater than 50 blows per foot. The moisture content of two samples tested were both about 10 percent. The results of testing of one (1) relatively undisturbed sample and exhibiting weak cementation indicated a dry density of 111.7 pounds per cubic foot. A sieve analysis conducted on a sample collected from depths of about 21½ to 23 feet BSG from boring B-2 indicated 0.3 percent gravel, 71.0 percent sand and 28.7 percent fines (silt and clay). A sieve analysis conducted on a sample collected from depths of about 8½ to 10 feet BSG from boring B-4 indicated 0.5 percent gravel, 68.0 percent sand and 31.5 percent fines (silt and clay). A sieve analysis conducted on a sample collected from depths of about 15 to 16½ feet BSG from boring B-5 indicated 0.4 percent gravel, 67.0 percent sand and 32.6 percent fines (silt and clay). A consolidation test conducted on a sample collected from depths of 5 to 6½ feet BSG from boring B-5 indicated high compressibility characteristics (10.9 percent consolidation under a load of 16 kips per square foot). Upon inundation, the sample exhibited slight swell potential (1.0 percent swell when wetted under a load of 0.5 kips per square foot).

**R-value:** The result of two (2) R-value tests conducted on near surface samples of lean clay or a mixture of clayey sand and lean clay obtained from borings B-3 and B-6 both indicated a R-value of 20.

**Chemical Tests:** Chemical tests performed on near surface soil samples collected from boring B-4 and boring B-8 indicated pH values of 6.8 and 6.6; minimum resistivity values of 1,801 and 1,934 ohms-centimeter; 0.0024 and 0.0019 percent by weight concentrations of sulfate; and 0.00091 and 0.0010 percent by weight concentrations of chloride, respectively.

**5.5 Groundwater Conditions:** Groundwater was encountered in some of the borings during our December 2017 field exploration. Groundwater was generally encountered during drilling at depths ranging from about 14½ feet to 23¾ feet BSG. About ½ hour to 1 hour after completion of the borings that encountered groundwater, groundwater stabilized at depths ranging from about 16½ to 23¾ feet BSG. It should be noted that perched water was encountered at a depth of 4½ feet BSG in boring B-2 near the bottom of the clayey sand fill soils and top of the native clay soils encountered in this borehole.

Based on our review of water well data from the California Department of Water Resources website, a well located about ¼ mile east-southeast of the site indicated that groundwater ranged from about 26 to 32 feet BSG between 1980 and 1982.

A groundwater monitoring report for a site located on the west side of the subject site was reviewed from the California State Water Resources Control Board GeoTracker website. The report entitled, "Third and Fourth Quarter 2012, Groundwater Monitoring Report, 76 Service Station No. 6193, 1500 Soquel Drive, Santa Cruz, California," prepared by Stantec Consulting Services, Inc., dated December 20, 2012, indicated the depth to groundwater from data collected between the years 2010 and 2012 from multiple wells generally ranged from depths of about 15 to 16 feet BSG.

EXHIBIT A

ATTACHMENT 5

It should be recognized; however, that groundwater elevations fluctuate with time, since they are dependent upon seasonal precipitation, irrigation, land use, and climatic conditions as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered both during the construction phase and the design life of the project. The evaluation of such factors was beyond the scope of this investigation and report.

## 6.0 EVALUATION

The data and methodology used to develop conclusions and recommendations for project design and preparation of construction specifications are summarized in the following subsections. The evaluation was based upon the subsurface soil conditions encountered during this investigation and our understanding of the proposed construction. The conclusions obtained from the results of our evaluations are described in the Conclusions section of this report.

**6.1 Existing Surface and Subsurface Improvements:** At the time of our field exploration, the site included two structures, asphalt concrete and Portland cement concrete pavements, concrete flatwork, underground utilities, and a vacant area (western side of the site) that had been recently excavated to depths of about 2 to 3 feet BSG for soil remediation. Thus, the site grades in the area of the vacant lot were uneven as different areas were excavated to different depths.

As part of the site preparation, the existing surface and subsurface improvements (buildings, foundations, pavements, underground utilities) and associated fill soils will need to be removed. In addition, all soils disturbed from removal of the existing surface and subsurface improvements and all fill soils (anticipated below buildings, pavements, and associated with utility trenches) should be removed during site preparation. During our field exploration, fill soils were noted in boring B-2 that included brick and asphalt debris extending to a depth of about 5 feet BSG. Fill soils are also anticipated in other areas of the site due to grading for prior site development. As part of the site preparation, the existing fill soils will need to be removed and compacted as engineered fill. Excavations resulting from removal of surface and subsurface improvements should be backfilled with engineered fill in accordance with the recommendations of this report.

Asphalt concrete material and other debris generated during demolition at the site should not be incorporated into the soils for use as fill below the building.

In addition, we understand some environmental conditions are present which will require special procedures for excavation and grading. All earthwork activities should be conducted in accordance with the recommendations of the project environmental consultant, applicable documents such as soil management plans and the requirements of the governing agency.

**6.2 Expansive Soils:** In evaluation of the potential for expansive soils, expansion index testing was performed on a representative sample of the near surface soils encountered. The expansion index testing was performed in accordance with ASTM D4829. The sample was tested and classified by expansion potential in accordance with Table 1 of ASTM D4829 and the results are summarized in Appendix C of this report. The results of the expansion index testing indicated the near surface soils are expansive with a medium expansion potential based on an expansion index value of 73. Due to the expansive soils conditions, this report recommends that the interior slab-on-grade and all slabs attached to the building be underlain by at least 6 inches of aggregate base soils over 12 inches of imported, non-expansive granular fill soils. As an alternative, aggregate base may be substituted for the imported, non-expansive granular fill soils.

**6.3 Static Settlement and Bearing Capacity of Shallow Foundations:** The potential for excessive total and differential static settlement of foundations and slabs-on-grade is a geotechnical engineering concern that was evaluated for this project. The increases in effective stress to underlying soils which can occur from new foundations and structures, placement of fill, withdrawal of groundwater, etc. can cause vertical deformation of the soils, which can result in damage to the overlying structures and improvements. The differential component of the settlement is often the most damaging. In addition, the allowable bearing pressures of the soils supporting the foundations were evaluated for shear and punching type failure of the soils resulting from the imposed foundation loads.

Due to the compressibility of the near surface soils, the presence of undocumented fill, and the potential for disturbance of the near surface soils from demolition and removal of the existing improvements, over-excavation and compaction of the near surface soils is recommended to support the new foundations on engineered fill in order to limit the static settlement to 1 inch total and ½ inch differential. Provided the site preparation recommendations of this report are followed, a net allowable soil bearing pressure of 2,500 pounds per square foot, for dead-plus-live loads, may be used for design.

The net allowable soil bearing pressure is the additional contact pressure at the base of the foundations caused by the structure. The weight of the soil backfill and weight of the footing may be neglected.

A structural engineer experienced in foundation and slab-on-grade design should determine the thickness, reinforcement, design details and concrete specifications for the proposed building foundations and slabs-on-grade based on the anticipated settlements estimated in this report.

**6.4 Seismic Ground Rupture and Design Parameters:** The project site is not located in an Alquist-Priolo Earthquake Fault Zone. Based on our review, the San Andreas Fault is the closest active fault to the site. This fault is mapped about 9 miles northeast of the site. The potential for surface fault rupture at the site is considered low.

It is assumed that the 2016 CBC will be used for structural design, and that seismic site coefficients are needed for design.

Based on the 2016 CBC, a Site Class D represents the on-site soil conditions with standard penetration resistance, N-values averaging between 15 and 50 blows per foot in the upper 100 feet below site grade.

A table providing the recommended seismic coefficients and earthquake spectral response acceleration values for the project site is included in the Foundation Recommendations section of this report. A Maximum Considered Earthquake (geometric mean) peak ground acceleration adjusted for site effects ( $PGA_M$ ) of 0.500g was determined for the site using the Ground Motion Parameter Calculator provided by the United States Geological Survey (<http://earthquake.usgs.gov/designmaps/us/application.php>). A Maximum Considered Earthquake magnitude of 7.5 was determined for the site based on deaggregation analysis (United States Geological Survey deaggregation website (<https://earthquake.usgs.gov/hazards/interactive/>)).

**6.5 Liquefaction and Seismic Settlement:** Liquefaction and seismic settlement are conditions that can occur under seismic shaking from earthquake events. Liquefaction describes a phenomenon in which a saturated, cohesionless soil loses strength during an earthquake as a result of induced shearing strains. Lateral and vertical movement of the soil mass, combined with loss of bearing, can result. Saturated, loose, granular soils, higher intensity earthquakes, and particularly long duration of ground shaking are the requisite conditions for liquefaction. One of the most common phenomena that occurs during seismic shaking is the induced settlement of loose, unconsolidated sediments. This can occur in unsaturated and saturated granular soils; however, seismic settlements are typically largest where liquefaction occurs (saturated soils).

Groundwater was encountered as shallow as about 14½ feet BSG during the December 2017 field exploration. Based on the groundwater encountered at the site and our review of other groundwater data (see section 5.5 of this report for discussion), a groundwater depth of 14½ feet BSG was used for our liquefaction analysis.

The analysis was conducted using the computer program LiquefyPro, developed by CivilTech Software. A horizontal ground acceleration of 0.5g, a maximum considered earthquake of 7.5 and a groundwater depth of 14½ feet were used in the analysis of the soils. Soil parameters, such as wet unit weight, N-values and fines content were input from the boring data for the soil layers encountered throughout the depths explored. The analysis was conducted based on the soil conditions encountered in boring B-4 that extended to a depth of 48¾ feet BSG and B-5 that extended to a depth of 26½ feet BSG.



Based on our analyses, a medium dense silty sand layer encountered from depths of 15 to 20 feet BSG in boring B-5 is potentially liquefiable. Seismic settlements of about  $\frac{2}{3}$  inch total and  $\frac{1}{2}$  inch differential were estimated.

**6.6 Asphaltic Concrete (AC) Pavements:** Recommendations for asphaltic concrete pavement structural sections are presented in the "Recommendations" section of this report for proposed asphaltic concrete (AC) pavements. The structural sections were designed using the gravel equivalent method in accordance with the California Department of Transportation Highway Design Manual. The analysis was based on traffic index values ranging from 5.0 to 7.0. A traffic index of 6.5 appears to correspond with the CVS criteria of a maximum of 60,000 ESALs. The appropriate paving section should be determined by the project civil engineer or applicable design professional based on the actual vehicle loading (traffic index) values. If traffic loading is anticipated to be greater than assumed, the pavement sections should be re-evaluated.

It should be noted that if pavements are constructed prior to the construction of the structures, the additional construction truck traffic should be considered in the selection of the traffic index value. If more frequent or heavier traffic is anticipated and higher Traffic Index values are needed, Moore Twining should be contacted to provide additional pavement section designs.

Based on the results of the laboratory testing, an R-value of 20 was used as a basis for the pavement section thickness recommendations.

**6.7 Portland Cement Concrete (PCC) Pavements:** Recommendations for Portland cement concrete (PCC) pavement structural sections are presented in the "Recommendations" section of this report. The PCC pavement sections are based upon the amount and type of traffic loads being considered and the characteristics of the subgrade soils which will support the pavement. The measure of the amount and type of traffic loads are based upon an index of equivalent axle loads (EAL).

In accordance with the CVS Geo-Technical Investigation Requirements, the PCC pavement sections were designed for a life of 20 years, a load safety factor of 1.1, equivalent single axle loading of 18,000 pounds, and a maximum load of 60,000 ESAL. A modulus of subgrade reaction, K-value, for the pavement section, of 160 psi/in was used for the pavement design considering the R-value recommended to be used for design and considering that the pavement will be underlain by a minimum of 6 inches of aggregate base.

**6.8 Soil Corrosion:** The risk of corrosion of construction materials relates to the potential for soil-induced chemical reaction. Corrosion is a naturally occurring process whereby the surface of a metallic structure is oxidized or reduced to a corrosion product such as iron oxide (i.e., rust). The metallic surface is attacked through the migration of ions and loses its original strength by the thinning of the member.

Soils make up a complex environment for potential metallic corrosion. The corrosion potential of a soil depends on numerous factors including soil resistivity, texture, acidity, field moisture and chemical concentrations. In order to evaluate the potential for corrosion of metallic objects in contact with the onsite soils, chemical testing of soil samples was performed by Moore Twining as part of this report. The test results are included in Appendix C of this report. Conclusions regarding the corrosion potential of the soils tested are included in the Conclusions section of this report based on the National Association of Corrosion Engineers (NACE) corrosion severity ratings listed in the Table No. 2, below.

**Table No. 2**  
**Association of Corrosion Engineers (NACE) Corrosion Severity Ratings**

Soil Resistivity (ohm cm)	Corrosion Potential Rating
>20,000	Essentially non-corrosive
10,000 - 20,000	Mildly corrosive
5,000 - 10,000	Moderately corrosive
3,000 - 5,000	Corrosive
1,000 - 3,000	Highly corrosive
<1,000	Extremely corrosive

The results of soil sample analyses indicate that the near-surface soils exhibit a "highly corrosive" corrosion potential to buried metal objects. Appropriate corrosion protection should be provided for buried improvements based on the "highly corrosive" corrosion potential of the soils tested. If piping or concrete are placed in contact with imported soils, these soils should be analyzed to evaluate the corrosion potential of these soils.

If the manufacturers or suppliers cannot determine if materials are compatible with the soil corrosion conditions, a professional consultant, i.e., a corrosion engineer, with experience in corrosion protection should be consulted to provide design parameters. Moore Twining does not provide corrosion engineering services.

**6.9 Sulfate Attack of Concrete:** Degradation of concrete in contact with soils due to sulfate attack involves complex physical and chemical processes. When sulfate attack occurs, these processes can reduce the durability of concrete by altering the chemical and microstructural nature of the cement paste. Sulfate attack is dependent on a variety of conditions including concrete quality, exposure to sulfates in soil/groundwater and environmental factors. The standard practice for geotechnical engineers in evaluation of the soils anticipated to be in contact with concrete is to perform testing to determine the sulfates present in the soils. The test results are then compared with the provisions of ACI 318, section 4.3 to provide guidelines for concrete exposed to sulfate-containing solutions. Common methods used to resist the potential for degradation of concrete due to sulfate attack from soils include, but are not limited to the use of sulfate-resisting cements, air-entrainment and reduced water to cement ratios. The test results are included in Appendix C of this report. Conclusions regarding the sulfate test results are included in the Conclusions section of this report.

## **7.0 CONCLUSIONS**

Based on the data collected during the field and laboratory investigations, our geotechnical experience in the vicinity of the project site, and our understanding of the anticipated construction, the following general conclusions are presented.

- 7.1 The site is considered suitable for the proposed construction with regard to support of the proposed improvements, provided the recommendations contained in this report are followed. It should be noted that the recommended design consultation and observation of clearing, and earthwork activities by Moore Twining are integral to this conclusion.
- 7.2 Below the Portland cement concrete pavements or landscaped areas, the near surface soils encountered in the borings conducted for this investigation generally consisted of clayey sands extending to depths of about 2 to 10 feet BSG or lean clays, lean clays with sand or sandy lean clays that extended to depths of about 2½ to 8½ feet BSG. The near surface clayey sands were underlain by lean clays, clayey sands, silty sands extending to the maximum depth explored, about 26½ feet BSG. The near surface lean clays, lean clays with sand or sandy lean clays were underlain by silty sands and poorly graded sands extending to the maximum depth explored, about 50 feet BSG. The silty sands were generally dense to very dense below a depth of 20 feet BSG. One of the near surface soil samples encountered exhibited weak cementation where silty sands were encountered at a depth of about 2½ feet.

Fill soils were encountered in boring B-2 drilled in the alleyway on the east side of the site (northeast corner of the proposed CVS Pharmacy). The fill soils consisted of loose clayey sands with brick debris and asphalt debris extending to a depth of 5 feet BSG. Fill soils are anticipated in other portions of the site due to grading for prior site development.

- 7.3 Based on our field and laboratory investigation, the near native surface soils tested possess a medium expansion potential and high compressibility characteristics.
- 7.4 In order to limit the differential static settlement of new foundations to  $\frac{1}{2}$  inch, over-excavation and compaction of the near surface soils are recommended to remove and compact the existing undocumented fill soils and near surface native soils to support the proposed foundations on engineered fill.
- 7.5 Groundwater was encountered in some of the borings during our December 2017 field exploration. Groundwater was generally encountered during drilling at depths ranging from about  $14\frac{1}{2}$  feet to  $23\frac{3}{4}$  feet BSG. About  $\frac{1}{2}$  hour to 1 hour after completion of the borings that encountered groundwater, groundwater stabilized at depths ranging from about  $16\frac{1}{2}$  to  $23\frac{3}{4}$  feet BSG. It should also be noted that perched water was encountered at a depth of  $4\frac{1}{2}$  feet BSG in boring B-2 near the bottom of the fill soils and top of the native clay soils encountered in this borehole.
- 7.6 Based on our liquefaction analyses, a medium dense silty sand layer encountered from depths of 15 to 20 feet BSG from boring B-5 is susceptible to liquefaction. Seismic settlements of about  $\frac{2}{3}$  inch total and  $\frac{1}{2}$  inch differential in 40 feet were estimated.
- 7.7 Chemical testing of the near surface soil samples indicated the soils exhibit a "highly corrosive" corrosion potential.
- 7.8 Chemical analyses indicated a "negligible" potential for sulfate attack on concrete placed in contact with the near surface soils.
- 7.9 The potential for surface fault rupture at the site is considered low.

## 8.0 RECOMMENDATIONS

Based on the evaluation of the field and laboratory data and our geotechnical experience in the vicinity of the project, the following recommendations are presented for use in the project design and construction. However, this report should be considered in its entirety. When applying the recommendations for design, the background information, procedures used, findings, evaluation, and conclusions should be considered. The recommended design consultation and construction monitoring by Moore Twining are integral to the proper application of the recommendations. The Contractor is required to comply with the requirements and recommendations presented in this report.

Where the requirements of a governing agency, utility agency or pipe manufacturer differ from the recommendations of this report, the more stringent recommendations should be applied to the project.

### 8.1 General

- 8.1.1 The CVS Geo-technical Investigation Requirements indicate maximum column loads of about 120 kips and maximum perimeter wall loads of 3.5 kips per linear foot and a floor slab load of 150 pounds per square foot for a CVS Pharmacy building. When the actual foundation loads are known, this information should be provided to Moore Twining for review to confirm the recommendations for site preparation are appropriate. In the event the foundation loads are different than assumed, the recommendations in this report may need to be revised.
- 8.1.2 All earthwork activities should be conducted in accordance with the recommendations of the project environmental consultant, applicable documents such as soil management plans and the requirements of the governing agency.
- 8.1.3 A preconstruction meeting including, as a minimum, the owner, developer, general contractor, earthwork contractor, foundation and paving subcontractors, and Moore Twining should be scheduled by the general contractor at least one week prior to the start of clearing and grubbing. The purpose of the meeting should be to discuss project requirements and scheduling.
- 8.1.4 The Contractor(s) bidding on this project should determine if the information included in the construction documents are sufficient for accurate bid purposes. If the data are not sufficient, the Contractor should conduct, or retain a qualified geotechnical engineer to conduct, supplemental studies and collect information as required to prepare accurate bids.

EXHIBIT A

ATTACHMENT 5



- 8.1.5 If wet, unstable soil conditions are experienced, methods such as aeration, mixing wet soils with drier soils, chemical (i.e., lime) treatment of the soil, or over-excavation and placement of a bridge lift of aggregate base and a geotextile stabilization fabric such as Mirafi 600X, may be required to achieve a stable soil condition. The actual method employed to stabilize the bottom of the excavation or pavement subgrade should be selected at the time of construction.
- 8.1.6 Appropriate construction methods and equipment, such as low vibration equipment, should be used adjacent to the existing improvements so as not to damage existing improvements which are to remain.

## 8.2 Site Grades and Drainage

- 8.2.1 It is critical to develop and maintain site grades which will drain surface and roof runoff away from foundations and floor slabs - both during and after construction. Adjacent exterior finished grades should be sloped a minimum of two percent for a distance of at least five feet away from the structure, or as necessary to preclude ponding of water adjacent to foundations, whichever is more stringent. Adjacent exterior grades which are paved should be sloped at least 1 percent away from the foundations for a distance of at least five feet from the building foundations.
- 8.2.2 It is recommended that landscape planted areas, etc. not be placed adjacent to the building foundations and/or interior slabs-on-grade. Trees should be setback from the proposed structure at least 10 feet or a distance equal to the anticipated drip line radius of the mature tree. For example, if a tree has an anticipated drip-line diameter of 30 feet, the tree should be planted at least 15 feet away (radius) from proposed or existing buildings.
- 8.2.3 Landscaping after construction should direct rainfall and irrigation runoff away from the structure and should establish positive drainage of water away from the structure. Care should be taken to maintain a leak-free sprinkler system.
- 8.2.4 The curbs where pavements meet irrigated landscape areas or uncovered open areas should be extended to the bottom of the aggregate base section. This should reduce subgrade moisture from irrigation and runoff from migrating into the aggregate base and reducing the life of the pavements.

- 8.2.5 Landscape and planter areas should be irrigated using low flow irrigation (such as drip, bubblers or mist type emitters). The use of plants with low water requirements are recommended.
- 8.2.6 Rain gutters and roof drains should be provided, and connected directly to the site storm drain system.
- 8.2.7 Due to the low permeability and expansive nature of the near surface soils, and the shallow groundwater conditions at the site (14½ feet BSG), infiltration of storm water at the site is not recommended for this site.

### 8.3 Site Preparation

- 8.3.1 All surface topsoil, vegetation and organics should be removed from all work areas. The general depth of stripping should be sufficiently deep to remove the root systems and organic top soils. The actual depth of stripping should be reviewed by Moore Twining at the time of construction.
- 8.3.2 The root systems of all trees and bushes to be removed should be removed in their entirety. It is anticipated that roots, root balls, and loose soils and voids resulting from tree removal operations will extend to depths of about 3 to 4 feet BSG. All roots larger than ¼ inch in diameter and any accumulation of organic matter that will result in an organic content more than 3 percent by weight should be removed and not used as engineered fill. The areas occupied by trees should be excavated to a minimum depth of 12 inches below the excavations required to remove the tree, root ball, and roots. The bottom of the excavation should be scarified to a minimum depth of 8 inches and compacted as engineered fill prior to backfilling operations.
- 8.3.3 As part of site preparation, all existing underground utilities, foundations, subsurface structures, and associated fills should be excavated and removed from the site and all soils disturbed from the demolition and removal of these improvements should be over-excavated to expose undisturbed soils. Trench backfill soils should be excavated from within a zone extending from 1 foot below the pipe at a 1H to 1V slope to the ground surface. Utilities to be removed should be completely removed and disposed of off-site. Excavations to remove existing improvements should extend to at least 12 inches below the bottom of the improvements to be removed or to the depth required to remove all soils disturbed from demolition, whichever is greater. After over-excavation, prior to backfill, the bottom of the excavation should be scarified to a depth of 8 inches, moisture conditioned, and compacted as engineered fill.

- 8.3.4 After stripping and removal of existing surface and subsurface improvements, the building area and all new foundations should be over-excavated to at least 4 feet below preconstruction site grades, to at least 12 inches below the bottom of the existing improvements to be removed, to the depth required to remove all fill soils (encountered to a depth of 5 feet BSG in boring B-2), and to at least 18 inches below the bottom of the footings, whichever is greater. The over-excavation limits should include the entire building footprint, all foundations and adjacent walkways, and a minimum of 5 feet beyond the foundations, or 5 feet beyond walkways adjacent to the building, whichever is further. After approval of the over-excavation by Moore Twining Associates, Inc., the bottom of the excavation should be scarified 8 inches in depth, moisture conditioned one (1) to four (4) percent above optimum moisture content and compacted as engineered fill.
- 8.3.5 The plans should depict the minimum limits of over-excavation for the building pad as described in section 8.3.4.
- 8.3.6 It is recommended that extra care be taken by the contractor to ensure that the horizontal and vertical extent of the over-excavation and compaction conform to the site preparation recommendations presented in this report. Moore Twining is not responsible for surveying and measuring to verify the horizontal and vertical extent of over-excavation and compaction. The contractor should verify in writing to the owner and Moore Twining that the horizontal and vertical over-excavation limits were completed in conformance with the recommendations of this report, the project plans, and the specifications (the most stringent applies). It is recommended that this verification be performed by a licensed surveyor. This verification should be provided prior to requesting pad certification from Moore Twining or excavating for foundations.
- 8.3.7 Following stripping and removal of existing surface and subsurface improvements, exterior slabs-on-grade which are not located adjacent to the building (i.e., outside the building pad preparation limits), pavements and areas to receive fill outside the building pad over-excavation limits should be prepared by over-excavation to a minimum of 12 inches below the resulting ground surface, to the depth required to remove existing fill soils, to the bottom of the aggregate base, to at least 12 inches below the bottom of improvements to be removed, and to the depth required to remove all fill soils, whichever is greater. Over-excavation should extend horizontally a minimum of 3 feet beyond exterior slabs on grade and pavements, or up to

the existing improvements to remain, whichever occurs first. After approval of the over-excavation by Moore Twining Associates, Inc., the bottom of the over-excavation should be scarified to a minimum depth of 12 inches, moisture conditioned to between one (1) and four (4) percent above optimum moisture content and compacted as engineered fill.

- 8.3.8 Structural loads for miscellaneous, lightly loaded foundations (such as retaining walls, sound walls, screen walls, monument signs, etc.) should be evaluated on a case by case basis to present supplemental recommendations for site preparation and foundation design. In lieu of a case by case evaluation, the areas of miscellaneous foundations should be over-excavated to at least 24 inches below preconstruction site grades, to at least 12 inches below subsurface structures to be removed, to the depth required to remove all existing fill soils, and to the bottom of foundations, whichever is greater. After approval of the over-excavation by Moore Twining Associates, Inc., the bottom of the over-excavation should be scarified to a depth of 8 inches, moisture conditioned to one (1) to four (4) percent above optimum moisture content and compacted as engineered fill. The over-excavation should extend a minimum of 3 feet beyond the limits of the foundations on all sides, or to property lines, or to improvements to remain, whichever occurs first.
- 8.3.9 All fill required to bring the site to final grades should be placed as engineered fill. In addition, all native soils over-excavated should be compacted as engineered fill.
- 8.3.10 The contractor should locate all on-site water wells (if any). All wells scheduled for demolition should be abandoned per state and local requirements. The contractor should obtain an abandonment permit from the local environmental health department, and issue certificates of destruction to the owner and Moore Twining upon completion. At a minimum, wells in building areas (and within 5 feet of building perimeters) should have their casings removed to a depth of at least 8 feet below preconstruction site grades or finished pad grades, whichever is deeper. In parking lot or landscape areas, the casings should be removed to a depth of at least 5 feet below site grades or finished grades. The wells should be capped with concrete and the resulting excavations should be backfilled as engineered fill.
- 8.3.11 The moisture content and density of the compacted soils should be maintained until the placement of concrete. If soft or unstable soils are encountered during excavation or compaction operations, our firm should be notified so the soils conditions can be examined and additional recommendations provided to address the pliant areas.

- 8.3.12 Final grading shall produce a building pad ready to receive a slab-on-grade which is smooth, planar, and resistant to rutting. The finished pad (before aggregate base is placed) shall not depress more than one-half ( $\frac{1}{2}$ ) inch under the wheels of a fully loaded water truck, or equivalent loading. If depressions more than one-half ( $\frac{1}{2}$ ) inch occur, the contractor shall perform remedial grading to achieve this requirement at no cost to the owner.
- 8.3.13 The Contractor should be responsible for the disposal of concrete, asphaltic concrete, soil, spoils, etc. (if any) that must be exported from the site. Individuals, facilities, agencies, etc. may require analytical testing and other assessments of these materials to determine if these materials are acceptable. The Contractor should be responsible to perform the tests, assessments, etc. to determine the appropriate method of disposal.

**8.4 Engineered Fill**

- 8.4.1 The near surface soils encountered with an expansion index of less than 80 are considered suitable for use as engineered fill below depths of 18 inches below interior concrete slabs on grade and below depths of 12 inches below exterior concrete slabs on grade and Portland cement concrete pavements, provided that the soils are free of debris, do not contain material greater than 6 inches in maximum dimension, and are moisture conditioned in accordance with the recommendations of this report. During site preparation, debris and unsuitable materials encountered should be removed from the soils to be used as engineered fill. Interior concrete slabs on grade and exterior concrete slabs on grade directly adjacent to the building should be supported on a minimum of 6 inches of non-recycled Class 2 aggregate base over 12 inches of imported, non-expansive, granular fill soils over the prepared subgrade soils. Exterior slabs-on-grade which are not located adjacent to the building and Portland cement concrete pavements should be underlain by 6 inches of Class 2 aggregate base over 6 inches of imported, non-expansive, granular fill soils over the prepared subgrade soils. As an alternative, Class 2 aggregate base may be substituted for the imported, non-expansive granular fill soils.
- 8.4.2 If soils other than those considered in this report are encountered, Moore Twining should be notified to provide alternate recommendations.
- 8.4.3 The compactability of the native soils is dependent upon the moisture contents, subgrade conditions, degree of mixing, type of equipment, as well as other factors. The evaluation of such factors was beyond the scope of this report; therefore, it is recommended that they be evaluated by the contractor during preparation of bids and construction of the project.



- 8.4.4 Import fill soil used for the building pad preparation (if any) should be non-recycled, have a very low expansion potential and be granular in nature with the following acceptance criteria recommended.

Percent Passing 3-Inch Sieve	100
Percent Passing No. 4 Sieve	85 - 100
Percent Passing No. 200 Sieve	10 - 40
Expansion Index (ASTM D4829)	Less than 15
Plasticity Index (ASTM D4318)	Less than 12
Organics	Less than 3 percent by weight
Sulfates	< 0.05 percent by weight
Resistivity	> 5,000 ohms-cm

Prior to importing fill, the import material shall be certified by the Contractor and the supplier (to the satisfaction of the Owner) that the soils do not contain any environmental contaminants regulated by local, state or federal agencies having jurisdiction. The Contractor shall pay for the environmental testing required to determine compliance with the requirements of this report. This certification shall consist of, as a minimum, recent analytical data specific to the source of the import material including proper chain-of-custody documentation. Moore Twining will sample and test the material after the environmental certification submittal is approved to verify that the proposed material complies with the geotechnical engineering recommendations of this report. The Contractor shall allow a minimum of seven (7) working days for each import source to be tested for the geotechnical properties.

- 8.4.5 Onsite soils used as engineered fill and final utility trench backfill should be placed in loose lifts approximately 8 inches thick, moisture-conditioned to at least one (1) and four (4) percent above optimum moisture content, and compacted to a dry density of at least 90 percent of the maximum dry density as determined by ASTM Test Method D1557, with exception that the upper 12 inches of subgrade below the aggregate base for pavements should be compacted to at least 95 percent of the maximum dry density as determined by ASTM Test Method D1557. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.
- 8.4.6 On-site silty sand soils and imported, granular engineered fill, bedding sand and initial utility trench backfill should be placed in loose lifts approximately 8 inches thick, moisture-conditioned to optimum to three (3)

percent above optimum moisture content, and compacted to a dry density of at least 92 percent of the maximum dry density as determined by ASTM Test Method D1557, with exception that the upper 12 inches of subgrade below the aggregate base for pavements should be compacted to at least 95 percent of the maximum dry density as determined by ASTM Test Method D1557. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

- 8.4.7 Utility trenches should be a minimum of 24 inches in width to allow for in-place density testing by traditional (nuclear density test) methods and the backfill should be compacted in accordance with the recommendations for engineered fill in Sections 8.4.5 and 8.4.6 of this report.
- 8.4.8 In-place density testing should be conducted in accordance with ASTM D 6938 (nuclear methods) at the minimum frequency listed in Table No. 3, below.

**Table No. 3**  
**Minimum In-place Density Test Frequency**

Area	Minimum Test Frequency
Mass Fills or Subgrade for Building Pad	1 test per 5,000 square feet per compacted lift, but not less than 3 tests per building pad per lift
Pavement Subgrade and Aggregate Base	1 test per 10,000 square feet per compacted lift
Utility Lines	1 test per 150 feet per compacted lift

- 8.4.9 Open graded gravel and rock material such as ¾-inch crushed rock or ½-inch crushed rock should not be used as backfill including trench backfill. In the event gravel or rock is required by a regulatory agency for use as backfill, all open graded materials shall be fully encased in a geotextile filter fabric, such as Mirafi 140N, to prevent migration of fine grained soils into the porous material. Gravel and rock cannot be used without the written approval of Moore Twining. If the contractor elects to use crushed rock (and if approved by Moore Twining), the contractor will be responsible for slurry cut off walls at the locations directed by Moore Twining. Materials such as crushed rock should be placed in thin (less than 8 inches) lifts and each lift should be compacted with a minimum of three (3) passes with a vibratory compactor.

- 8.4.10 Aggregate base below the building slab should comply with State of California Department of Transportation requirements for a non-recycled Class 2 aggregate base, with exception that the aggregate base used below the building slab should not contain recycled materials. Aggregate base should be compacted to a minimum relative compaction of 95 percent. Prior to importing the aggregate base material, the contractor should submit documentation demonstrating that the material meets all the quality requirements (i.e., gradation, R-value, sand equivalent, durability, etc.) for the applicable aggregate base. Documentation should be provided to the Owner, Architect and Moore Twining and reviewed and approved prior to delivery of the aggregate base to the site.

**8.5 Conventional Shallow Spread Foundations and Concrete Slabs on Grade**

- 8.5.1 A structural engineer experienced in foundation design should recommend the thickness, design details and concrete specifications for the foundations and slabs on grade based on the estimated settlements. The following should be anticipated for design: 1) a total static settlement and heave of 1 inch; 2) a differential static settlement and heave of ½ inch in 40 feet; 3) a total seismic settlement of ¾ inch, and 4) a differential seismic settlement of ½ inch in 40 feet.
- 8.5.2 Building foundations supported on engineered fill soils prepared as recommended in the Site Preparation section of this report may be designed for a maximum net allowable soil bearing pressure of 2,500 pounds per square foot for dead-plus-live loads. This value may be increased by one-third for short duration wind or seismic loads.
- 8.5.3 All perimeter footings for the new building should have a minimum depth of 24 inches below the lowest adjacent grade. All interior foundations should have a minimum depth of 18 inches below the bottom of the floor slab. All footings for the new building should have a minimum width of 15 inches, regardless of load.
- 8.5.4 The foundations should be continuous around the perimeter of the structure to reduce moisture migration beneath the structure. Continuous perimeter foundations should be extended through doorways and/or openings that are not needed for support of loads.
- 8.5.5 Structural loads for miscellaneous, lightly loaded non-building foundations (such as retaining walls, sound walls, screen walls, monument signs, etc.) should be supported on subgrade soils prepared as recommended in the Site Preparation section of this report. Spread and continuous footings for miscellaneous foundations extending a minimum depth of 18 inches below

grade may be designed for a maximum net allowable soil bearing pressure of 2,500 pounds per square foot for dead-plus-live loads. These values may be increased by one-third for short duration wind or seismic loads. The weight of the footing and the soil backfill may be ignored in design.

- 8.5.6 The values in Table No. 4 were developed using the Ground Motion Parameter Calculator provided by the United States Geological Survey (<http://earthquake.usgs.gov/>) in accordance with the 2016 CBC, a site latitude of 36.98777 degrees, and a longitude of -121.98381 degrees.

**Table No. 4**  
**Seismic Factors**

Seismic Factor	2016 CBC Value
Site Class	D
Maximum Considered Earthquake (geometric mean) peak ground acceleration adjusted for site effects ( $PGA_M$ )	0.5
Mapped Maximum Considered Earthquake (geometric mean) peak ground acceleration ASCE 7-10 ( $PGA$ )	0.5
Spectral Response At Short Period (0.2 Second), $S_s$	1.500
Spectral Response At 1-Second Period, $S_1$	0.600
Site Coefficient (based on Spectral Response At Short Period), $F_a$	1.0
Site Coefficient (based on spectral response at 1-second period) $F_v$	1.5
Maximum considered earthquake spectral response acceleration for short period, $S_{MS}$	1.500
Maximum considered earthquake spectral response acceleration at 1 second, $S_{M1}$	0.900
Five percent damped design spectral response accelerations for short period, $S_{DS}$	1.000
Five percent damped design spectral response accelerations at 1-second period, $S_{D1}$	0.600

- 8.5.7 The prepared soils exposed in foundation excavations should be periodically moistened to maintain the moisture content in the onsite clayey soils at a minimum of one (1) percent above optimum until concrete is placed. It should be noted that the contractor should take precautions not to allow the exposed soils to dry, including weekends and holidays.
- 8.5.8 Foundation excavations should be observed by Moore Twining prior to the placement of steel reinforcement and concrete to verify conformance with the intent of the recommendations of this report. The Contractor is responsible for proper notification to Moore Twining and receipt of written confirmation of this observation prior to placement of steel reinforcement.
- 8.5.9 The bottom surface area of concrete footings or concrete slabs in direct contact with engineered fill can be used to resist lateral loads. An allowable coefficient of friction of 0.25 can be used for design. In areas where slabs are underlain by a synthetic moisture vapor membrane, an allowable coefficient of friction of 0.10 can be used for design.
- 8.5.10 The allowable passive resistance of the native soils and engineered fill may be assumed to be equal to the pressure developed by a fluid with a density of 250 pounds per cubic foot. The upper 12 inches of subgrade in landscape areas should be neglected in determining the total passive resistance.
- 8.5.11 Site lighting and pylon signs may be supported on a drilled-cast-in-hole reinforced concrete foundation (pier). An allowable skin friction of 150 pounds per square foot may be used to resist axial loads. Lateral load resistance may be estimated using the 2016 CBC non-constrained procedure (Section 1807.3.2.1). The allowable passive resistance of the native soils may be assumed to be equal to the pressure developed by a fluid with a density of 200 pounds per cubic foot to a maximum of 2,000 pounds per square foot. The passive pressure may be assumed to act over twice the pier diameter. The upper 12 inches of subgrade soils in landscape areas should be neglected in determining the total passive resistance.



**8.6 Frictional Coefficient and Earth Pressures**

- 8.6.1 The bottom surface area of concrete footings in direct contact with engineered fill can be used to resist lateral loads. An allowable coefficient of friction of 0.25, can be used for design.
- 8.6.2 The allowable passive resistance of the engineered fill may be assumed to be equal to the pressure developed by a fluid with a density of 250 pounds per cubic foot. The upper 12 inches of subgrade in landscape areas should be neglected in determining the total passive resistance.
- 8.6.3 The active and at-rest pressures of imported, non-expansive engineered fill meeting the requirements of Section 8.9.1 of this report may be assumed to be equal to the pressures developed by a fluid with a density of 45 and 68 pounds per cubic foot, respectively. These pressures assume level ground surface and do not include the surcharge effects of construction equipment, loads imposed by nearby foundations and roadways and hydrostatic water pressure.
- 8.6.4 The at-rest pressure should be used in determining lateral earth pressures against walls which are not free to deflect. For walls which are free to deflect at least one percent of the wall height at the top, the active earth pressure may be used.
- 8.6.5 The wall designer should determine if seismic increments should be used or not. If seismic increments are required, contact Moore Twining for recommendations for seismic geotechnical design considerations for the retaining structures.
- 8.6.6 The above earth pressures assume that the backfill soils will be drained. Therefore, all retaining walls should incorporate the use of a drain, a filter fabric encased gravel section and a geo-composite system, to prevent hydrostatic pressures from acting on the walls. Recommendations for drainage of walls are included in Section 8.7 of this report. Drainage should be directed to perforated pipes running parallel to the walls which can carry drainage from behind the walls to the on-site drainage system. Clean-outs should be incorporated into the design.

## 8.7 Retaining Walls

- 8.7.1 Retaining walls should be backfilled with on-site or imported, granular backfill (See Section 8.4.4 of this report) placed within the zone extending from a distance of 1 foot laterally from the bottom of the wall footing at a 1 horizontal to 1 vertical gradient to the surface. This requirement should be detailed on the construction drawings.
- 8.7.2 All retaining wall backfill should be compacted as engineered fill.
- 8.7.3 Retaining walls may be subject to lateral loading from pressures exerted from slabs-on-grade, and pavement traffic loads, adjacent to the walls. In addition to earth pressures, lateral loads due to slabs-on-grade, footings, or traffic above the base of the walls should be included in design of the walls. The designer should take into consideration the allowable settlements for the improvements to be supported by the retaining wall.
- 8.7.4 Retaining walls should be constructed with a drain system including, as a minimum, drain pipes surrounded by at least 1 cubic foot of ¾-inch open graded rock fully encapsulated by geotextile filter fabric (140N or equivalent). Drain pipes should be located near the wall to adequately reduce the potential for hydrostatic pressures behind the wall. Drainage should be directed to pipes which gravity drain to closed pipes of the storm drain system. Drain pipe outlet invert elevations should be sufficient (a bypass should be constructed if necessary) to preclude hydrostatic surcharge to the wall in the event the storm drain system does not function properly. Clean out and inspection points should be incorporated into the drain system. Drainage should be directed to the site storm drain system. The drainage system should be detailed on the plans.
- 8.7.5 Segmented wall design (mechanically stabilized walls) should be conducted by a California licensed geotechnical engineer familiar with segmented wall design and having successfully designed at least three walls at sites with similar soil conditions. However, none of the data included in this report should be used for mechanically stabilized earth wall design. A design level geotechnical report should be conducted to provide wall design parameters. If the designer uses the data in this report for wall design, the designer assumes the sole risk for this data. The wall designer should perform sufficient observations of the wall construction to certify that the wall was constructed in accordance with the design plans and specifications.

- 8.7.6 It is recommended to use lighter hand operated or walk behind compaction equipment in the zone equal to one wall height behind the wall to reduce the potential for damage to the wall during construction. Heavier compaction equipment could cause loads in excess of design loads which could result in cracking, excessive rotation, or failure of a retaining structure. The Contractor is responsible for damage to the wall caused by improper compaction methods behind the wall.
- 8.7.7 If retaining walls are to be finished with dry wall, plaster, decorative stone, etc., waterproofing measures should be applied to walls. Waterproofing systems should be designed by a qualified professional.

**8.8 Interior Concrete Slabs on Grade and Moisture Vapor Retarder**

The recommendations provided herein are intended only for design of interior concrete slabs-on-grade, and their proposed uses, which do not include construction loading. The building contractor should assess the slab section and determine its adequacy to support any proposed construction traffic.

- 8.8.1 The concrete slabs on grade should be reinforced for the anticipated temperature and shrinkage stresses, settlement and swell. A structural engineer experienced in slab-on-grade design should recommend the thickness, design details and concrete specifications for the proposed slabs-on-grade as well as any reinforcement for temperature and shrinkage stresses based on the settlements noted in this report.
- 8.8.2 The subgrade soils should be prepared as recommended in the "Site Preparation" section of this report. Upon completion of the over-excavation and compaction of subgrade soils, the concrete slabs on grade should be supported on 6 inches of non-recycled aggregate base over 12 inches of imported, non-expansive, granular fill soils over the prepared subgrade soils. As an alternative, Class 2 aggregate base may be substituted for the imported, non-expansive granular fill soils.
- 8.8.3 The moisture content of the clay subgrade soils below the non-expansive fill should be verified to be at least one (1) percent above optimum moisture content within 48 hours of placement of the aggregate base. If necessary to achieve the recommended moisture content, the subgrade could be over-excavated, moisture conditioned as necessary and compacted as engineered fill.

- 8.8.4 ACI recommends that the interior slab-on-grade should be placed directly on a vapor retarder when the potential exists that the underlying subgrade or sand layer could be wet or saturated prior to placement of the slab-on-grade. It is recommended that Stegowrap 15 should be used where floor coverings, such as carpet and tile, are anticipated or where moisture could permeate into the interior and create problems. The vapor retarder should overlay the 6 inches of compacted aggregate base and 12 inches of imported, non-expansive, granular fill soils over the prepared subgrade soils. It should be noted that placing the PCC slab directly on the vapor barrier will increase the potential for cracking and curling; however, ACI recommends the placement of the vapor retarding membrane directly below the slab to reduce the amount vapor emission through the slab-on-grade. Based on discussions with Stego Industries, L.L.C. (telephone 949-493-5460), the Stegowrap can be placed directly on the engineered fill soils and the concrete can be placed directly on the Stegowrap. It is recommended that the design professional obtain written confirmation from Stego Industries that this product is suitable for the specific project application. It is recommended that the slab be moist cured for a minimum of 7 days to reduce the potential for excessive cracking. The underslab membrane should have a high puncture resistance (minimum of approximately 2,400 grams of puncture resistance), high abrasion resistance, rot resistant, and mildew resistant. It is recommended that the membrane be selected in accordance with the current ASTM C 755, Standard Practice For Selection of Vapor Retarder For Thermal Insulation and conform to the current ASTM E 154 Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Waters, or as Ground Cover. It is recommended that the vapor barrier selection and installation conform to the current ACI Manual of Concrete Practice, Guide for Concrete Floor and Slab Construction (302.1R), Addendum, Vapor Retarder Location and current ASTM E 1643, Standard Practice for Installation of Water Vapor Retarders Used In Contact with Earth or Granular Fill Under Concrete Slabs. In addition, it is recommended that the manufacturer of the floor covering and floor covering adhesive be consulted to determine if the manufacturers have additional recommendations regarding the design and construction of the slab-on-grade, testing of the slab-on-grade, slab preparation, application of the adhesive, installation of the floor covering and maintenance requirements. It should be noted that the recommendations presented in this report are not intended to achieve a specific vapor emission rate.
- 8.8.5 The slabs and underlying subgrade should be constructed in accordance with current American Concrete Institute (ACI) standards.

- 8.8.6 The membrane should be installed so that there are no holes or uncovered areas. All seams should be overlapped and sealed with the manufacturer approved tape continuous at the laps so they are vapor tight. All perimeter edges of the membrane, such as pipe penetrations, interior and exterior footings, joints, etc., should be caulked per manufacturer's recommendations.
- 8.8.7 Tears or punctures that may occur in the membrane should be repaired prior to placement of concrete per the manufacturer's recommendations. Once repaired, the membrane should be inspected by the contractor and the owner to verify adequate compliance with manufacture's recommendations.
- 8.8.8 The moisture retarding membrane is not required beneath exposed concrete floors, such as exposed warehouses floors, provided that moisture intrusion into the structure is permissible for the design life of the structure.
- 8.8.9 Additional measures to reduce moisture migration should be implemented for floors that will receive moisture sensitive coverings. These include: 1) constructing a less pervious concrete floor slab by maintaining a low water-cement ratio of 0.52 lb./lb. or less in the concrete for slabs-on-grade, 2) ensuring that all seams and utility protrusions are sealed with tape to create a "water tight" moisture barrier, 3) placing concrete walkways or pavements adjacent to the structure, 4) providing adequate drainage away from the structure, 5) moist cure the slabs for at least 7 days, and 6) locating lawns, irrigated landscape areas, and flower beds away from the structure.
- 8.8.10 To reduce the potential for damaging slabs during construction, the following recommendations are presented: 1) design for a differential slab movement of ½ inch relative to perimeter foundations; 2) provide an aggregate base layer below the slabs; and 3) the suitability of the loads from construction equipment which will operate on slabs or pavements should be evaluated by the contractor prior to loading the slab.
- 8.8.11 If construction traffic will be traveling over the aggregate base material, or the aggregate base will be used as a working surface, the contractor should determine an adequate aggregate base section thickness for the type and methods of construction proposed for the project. The proposed compacted subgrade can experience instability under construction traffic resulting in heaving and depressions in the subgrade. Often the aggregate base can reduce the potential for instability under the construction traffic.



- 8.8.12 The Contractor shall test the moisture vapor transmission through the slab, the pH, internal relative humidity, etc., at a frequency and method as specified by the flooring manufacturer or as required by the plans and specifications, whichever is most stringent. The results of vapor transmission tests, pH tests, internal relative humidity tests, ambient building conditions, etc. should be within floor manufacturer's and adhesive manufacturer's specifications at the time the floor is placed. It is recommended that the floor manufacturer and subcontractor review and approve the test data prior to floor covering installation.
- 8.8.13 Backfill the zone above the top of footings at interior column locations, building perimeters, and below the bottom of slabs with an approved backfill as recommended herein for the area below interior slabs-on-grade. This procedure should provide more uniform support for the slabs which may reduce the potential for cracking.

#### 8.9 Exterior Slabs-On-Grade

The recommendations for exterior slabs provided below are not intended for use for slabs subjected to vehicular traffic, rather lightly loaded sidewalks, curbs, and planters, etc.

- 8.9.1 Exterior improvements that subject the subgrade soils to a sustained load greater than 150 pounds per square foot should be prepared in accordance with the recommendations presented in this report for interior slabs-on-grade. Moore Twining can provide alternative design recommendations for exterior slabs, if requested.
- 8.9.2 Subgrade soils for exterior slabs should be prepared as recommended in the "Site Preparation" section of this report. Exterior slabs on grade directly adjacent to the building should be supported on 6 inches of aggregate base over 12 inches of imported, non-expansive, granular fill soils over the prepared subgrade soils. The exterior slabs on grade should be supported on 6 inches of aggregate base over 6 inches of imported, non-expansive, granular fill soils over the prepared subgrade soils. As an alternative, Class 2 aggregate base may be substituted for the imported, non-expansive granular fill soils.
- 8.9.3 The moisture content of the clay subgrade soils below the non-expansive fill should be verified to be at least one (1) percent above optimum moisture content within 48 hours of placement of the aggregate base. If necessary to achieve the recommended moisture content, the subgrade could be over-excavated, moisture conditioned as necessary and compacted as engineered fill.

- 8.9.4 The exterior slabs-on-grade adjacent to landscape areas should be designed with thickened edges which extend to the bottom of the aggregate base and imported, non-expansive granular fill layer.
- 8.9.5 Since exterior sidewalks, curbs, etc. are typically constructed at the end of the construction process, the moisture conditioning conducted during earthwork can revert to natural dry conditions. Placing concrete walks and finish work over dry or slightly moist subgrade should be avoided. It is recommended that the general contractor notify Moore Twining to conduct in-place moisture and density tests prior to placing concrete flatwork. Written test results indicating passing density and moisture tests (minimum of two percent over optimum for the clay subgrade soils) should be in the general contractor's possession prior to placing concrete for exterior flatwork.

#### 8.10 Asphaltic Concrete (AC) Pavements

Recommendations are provided below for new asphaltic concrete pavements planned as part of the new construction and are not for intended for pervious pavements.

- 8.10.1 The subgrade soils for asphaltic concrete pavements should be prepared as recommended in the "Site Preparation" section of the recommendations in this report.
- 8.10.2 The following pavement sections are based on an R-value of 20, a minimum asphaltic concrete thickness of 3 inches, and traffic index values ranging from 5.0 to 7.0. A traffic index of 6.5 appears to correspond with the CVS criteria of a maximum of 60,000 ESALs. The appropriate paving section should be determined by the project civil engineer or applicable design professional based on the actual vehicle loading (traffic index) values. It should be noted that if pavements are constructed prior to construction of the buildings, the traffic index value should account for construction traffic. After rough subgrade preparation, samples should be obtained and tested to confirm the design R-value and provide final pavement section thickness recommendations.

**Table No. 5**  
**Two-Layer Asphaltic Concrete Pavements**

<b>Traffic Index</b>	<b>AC thickness, inches</b>	<b>AB thickness, inches</b>	<b>Compacted Subgrade, inches</b>
5.0	3.0	7.0	12
5.5	3.0	9.0	12
6.0	3.0	10.5	12
6.5	3.5	11.0	12
7.0	4.0	12.0	12

AC - Asphaltic Concrete compacted as recommended in this report  
AB - Class II Aggregate Base with minimum R-value of 78 and compacted to at least 95 percent relative compaction (ASTM D1557)  
Subgrade - Subgrade soils compacted to at least 95 percent relative compaction (ASTM D1557)

- 8.10.3 The curbs where pavements meet irrigated landscape areas or uncovered open areas should extend at least to the bottom of the aggregate base section. This should reduce subgrade moisture from irrigation and runoff from migrating into the base section and reducing the life of the pavements.
- 8.10.4 If actual pavement subgrade materials are significantly different from those tested for this study due to unanticipated grading or soil importing, the pavement sections should be re-evaluated for the changed subgrade conditions.
- 8.10.5 If the paved areas are to be used during construction, or if the type and frequency of traffic are greater than assumed in design, the pavement sections should be re-evaluated for the anticipated traffic.
- 8.10.6 Pavement section design assumes that proper maintenance, such as sealing and repair of localized distress, will be performed on an as needed basis for longevity and safety.
- 8.10.7 Pavement materials and construction method should conform to the State of California Standard Specifications.

- 8.10.8 It is recommended that the base course of asphaltic concrete consist of a  $\frac{3}{4}$  inch maximum medium gradation. The top course or wear course should consist of a  $\frac{1}{2}$  inch maximum medium gradation.
- 8.10.9 The asphaltic concrete, including the joint density, should be compacted to an average relative compaction of 93 percent, with no single test value being below a relative compaction of 91 percent and no single test value being above a relative compaction of 97 percent of the referenced laboratory density according to ASTM D2041.
- 8.10.10 The asphalt concrete should comply with the requirements for a Type "B" asphalt concrete as described in Section 39 of the 2010 (non-revised) State of California Department of Transportation (Caltrans) Standard Specification, or the requirements of the governing agency, whichever is more stringent.

**8.11 Portland Cement Concrete (PCC) Pavements**

Recommendations for Portland Cement Concrete pavement structural sections are presented in the following subsections and are not intended for pervious pavements. The design professional should specify the pavement sections based on the anticipated type and frequency of traffic.

- 8.11.1 The subgrade soils for PCC pavements should be compacted as recommended in the "Site Preparation" section of the recommendations in this report. The concrete pavement should be underlain by a minimum of 6 inches of aggregate base over 6 inches of non-expansive fill over the prepared subgrade.
- 8.11.2 The following pavement section designs are based on a design modulus of subgrade reaction, K-value, of 160 psi/in. The design thicknesses were prepared based on the procedures outlined in the Portland Cement Association (PCA) document, "Thickness Design for Concrete Highway and Street Pavements," our review of the CVS Geo-Technical Investigation Requirements, and assuming the following: 1) minimum modulus of rupture of 500 psi for the concrete, 2) a design life of 20 years, 3) load transfer by aggregate interlock or dowels, 4) concrete shoulder, 5) a load safety factor of 1.1, and 6) truck loading consisting of 1 single axle load of 18 kips, and 7) a maximum load of 60,000 ESAL.

**Table No. 6**  
**Two-Layer Portland Cement Concrete Pavements**

Traffic Index	ADTT (Trucks/day)	PCC thickness (inches)	Aggregate Base <sup>1</sup> (inches)	Imported, Non- Expansive, Granular Fill (inches)	Compacted Subgrade <sup>2</sup> (inches)
6.5	8.0	7.0	6.0*	6.0*	12.0

ADTT - Average Daily Truck Traffic  
PCC - Portland Cement Concrete (minimum Modulus of Rupture=500 psi)  
Subgrade - Subgrade soils compacted to at least 95 percent relative compaction (ASTM D-1557)  
\* - As an alternative to the use of a 6 inch layer of non-expansive fill below the aggregate base layer, a 12 inch layer of aggregate base may be used below the PCC pavement

- 8.11.3 Concrete used for PCC pavements shall possess a minimum flexural strength (modulus of rupture) of 500 pounds per square inch. A minimum compressive strength of 3,500 pounds per square inch, or greater as required by the pavement designer, is recommended. Specifications for the concrete to reduce the effects of excessive shrinkage, such as maximum water requirements for the concrete mix, allowable shrinkage limits, contraction joint construction requirements, curing methods, etc. should be provided by the designer of the PCC slabs.
- 8.11.4 The pavement section thickness design provided above assumes the design and construction will include sufficient load transfer at construction joints. Coated dowels or keyed joints are recommended for construction joints to transfer loads.
- 8.11.5 Contraction and construction joints should include a joint filler/sealer to prevent migration of water into the subgrade soils. The type of joint filler should be specified by the pavement designer. The joint sealer and filler material should be maintained throughout the life of the pavement.
- 8.11.6 Contraction joints should have a depth of at least one-fourth the slab thickness, e.g., 1.5-inch for a 6-inch slab. Specifications for contraction joint spacing, timing and depth of sawcuts should be included in the plans and specifications.



- 8.11.7 Stresses are anticipated to be greater at the edges and construction joints of the pavement section. A thickened edge is recommended on the outside of slabs subjected to wheel loads.
- 8.11.8 Joint spacing in feet should not exceed twice the slab thickness in inches, e.g., 12 feet by 12 feet for a 6-inch slab thickness. Regardless of slab thickness, joint spacing should not exceed 15 feet. Lay out joints to form square panels. When this is not practical, rectangular panels can be used if the long dimension is no more than 1.5 times the short.
- 8.11.9 Isolation (expansion) joints should extend the full depth and should be used only to isolate fixed objects abutting or within paved areas.
- 8.11.10 Pavement section design assumes that proper maintenance such as sealing and repair of localized distress will be performed on a periodic basis.

#### **8.12 Temporary Excavations**

- 8.12.1 It is the responsibility of the Contractor to provide safe working conditions with respect to excavation slope stability. The Contractor is responsible for site slope safety, and classification of materials for excavation purposes, and maintaining slopes in a safe manner during construction. The grades classification and height recommendations presented for temporary slopes are for consideration in preparing budget estimates and evaluating construction procedures.
- 8.12.2 Temporary excavations should be constructed in accordance with CAL OSHA requirements. Temporary cut slopes should not be steeper than 1.5 to 1, horizontal to vertical, and flatter if possible. If excavations cannot meet these criteria, the temporary excavations should be supported by engineered shoring systems.
- 8.12.3 In no case should non-shored excavations extend below a 1.5H to 1V zone below existing utilities, top of foundations and/or floor slabs which are to remain after construction. Excavations which are required to be advanced below the 1.5 H to 1V envelope should be shored to support the soils, foundations, and slabs.
- 8.12.4 Shoring systems should be designed by an engineer with experience in designing shoring systems and registered in the State of California. Moore Twining should be provided with the shoring plan to assess whether the plan incorporates the recommendations in the geotechnical report.

- 8.12.5 Surface sheet flow drainage shall be directed away from the tops of all excavations. Positive drainage shall be established and maintained throughout the construction process.
- 8.12.6 Excavation and shoring stability should be monitored by the Contractor. Slope gradient estimates provided in this report do not relieve the Contractor of the responsibility for excavation safety. In the event that tension cracks or distress to the structure occurs, during or after excavation, the owners and Moore Twining should be notified immediately and the Contractor should take appropriate actions to minimize further damage or injury.

### 8.13 Corrosion Protection

- 8.13.1 Buried metal objects should be protected in accordance with the manufacturer's recommendations based on a "highly corrosive" corrosion potential. The evaluation was limited to the effects of soils to metal objects; corrosion due to other potential sources, such as stray currents and groundwater, was not evaluated. If piping or concrete are placed in contact with deeper soils or engineered fill, these soils should be analyzed to evaluate the corrosion potential of these soils.
- 8.13.2 Corrosion of concrete due to sulfate attack is not anticipated based on the concentration of sulfates determined for the near-surface soils (0.024 and 0.0019 percent by dry weight concentration of sulfate). According to provisions of ACI 318, section 4.3, the sulfate concentration falls in the negligible classification (0.00 to 0.10 percent by weight) for concrete. Therefore, no restrictions are required regarding the type, water-to-cement ratio, or strength of the concrete used for foundation and slabs due to the sulfate content. However, a low water to cement ratio is recommended for slabs on grade as recommended in section 8.8.8 of this report.
- 8.13.3 These soil corrosion data should be provided to the manufacturers or suppliers of materials that will be in contact with soils (pipes or ferrous metal objects, etc.) to provide assistance in selecting the protection and materials for the proposed products or materials. If the manufacturers or suppliers cannot determine if materials are compatible with the soil corrosion conditions, a professional consultant, i.e., a corrosion engineer, with experience in corrosion protection should be consulted to design parameters. Moore Twining is not a corrosion engineer; thus, cannot provide recommendations for mitigation of corrosive soil conditions. It is recommended that a corrosion engineer be consulted for the site specific conditions.

EXHIBIT A

ATTACHMENT 5

**9.0 DESIGN CONSULTATION**

- 9.1 Moore Twining should be provided the opportunity to review those portions of the contract drawings and specifications that pertain to earthwork operations and foundations prior to finalization to determine whether they are consistent with our recommendations. This service is not part of this current contractual agreement.
- 9.2 It is the client's responsibility to provide plans and specification documents for our review prior to their issuance for construction bidding purposes.
- 9.3 If Moore Twining is not afforded the opportunity for review, we assume no liability for the misinterpretation of our conclusions and recommendations. This review is documented by a formal plan/specification review report provided by Moore Twining.

**10.0 CONSTRUCTION MONITORING**

- 10.1 It is recommended that Moore Twining be retained to observe the excavation, earthwork, and foundation phases of work to determine that the subsurface conditions are compatible with those used in the analysis and design. In the event Moore Twining does not conduct the observations and testing of the building pad preparation, reports signed by a registered geotechnical engineer documenting the earthwork inspections, in-place density testing and certification of the pad as meeting the project requirements should be provided to our firm for review.
- 10.2 Moore Twining can conduct the necessary observation and field testing to provide results so that action necessary to remedy indicated deficiencies can be taken in accordance with the plans and specifications. Upon completion of the work, a written summary of our observations, field testing and conclusions will be provided regarding the conformance of the completed work to the intent of the plans and specifications. This service is not, however, part of this current contractual agreement.
- 10.3 In the event that the earthwork operations for this project are conducted such that the construction sequence is not continuous, (or if construction operations disturb the surface soils) it is recommended that the exposed subgrade that will receive floor slabs be tested to verify adequate compaction and/or moisture conditioning. If adequate compaction or moisture contents are not verified, the fill soils should be over-excavated, scarified, moisture conditioned and compacted as recommended in the Recommendations of this report.

- 10.4 The construction monitoring is an integral part of this investigation. This phase of the work provides Moore Twining the opportunity to verify the subsurface conditions interpolated from the soil borings and make alternative recommendations if the conditions differ from those anticipated.
- 10.5 If Moore Twining is not afforded the opportunity to provide engineering observation and field-testing services during construction activities related to earthwork, foundations, pavements and trenches; then, Moore Twining will not be responsible for compliance of the earthwork preparation with our recommendations or performance of the structures or improvements if the recommendations of this report are not followed. It is recommended that if a firm other than Moore Twining is selected to conduct these services that they provide evidence of professional liability insurance satisfactory to the owner and review this report. After their review, the firm should, in writing, state that they agree to conduct sufficient observations and testing to ensure the construction complies with this report's recommendations. Moore Twining should be notified, in writing, if another firm is selected to conduct observations and field-testing services prior to construction.
- 10.6 Upon the completion of work, a final report should be prepared by Moore Twining. This report is essential to ensure that the recommendations presented are incorporated into the project construction, and to note any deviations from the project plans and specifications. The client should notify Moore Twining upon the completion of work to prepare a final report summarizing the observations during site preparation activities relative to the recommendations of this report. This service is not, however, part of this current contractual agreement.

#### **11.0 NOTIFICATION AND LIMITATIONS**

- 11.1 The conclusions and recommendations presented in this report are based on the information provided regarding the proposed construction, and the results of the field and laboratory investigation, combined with interpolation of the subsurface conditions between boring locations. The nature and extent of subsurface variations between borings may not become evident until construction.
- 11.2 If variations or undesirable conditions are encountered during construction, Moore Twining should be notified promptly so that these conditions can be reviewed and our recommendations reconsidered where necessary. It should be noted that unexpected conditions frequently require additional expenditures for proper construction of the project.

- 11.3 If the proposed construction is relocated or redesigned, or if there is a substantial lapse of time between the submission of our report and the start of work (over 12 months) at the site, or if conditions have changed due to natural cause or construction operations at or adjacent to the site, the conclusions and recommendations contained in this report should be considered invalid unless the changes are reviewed and our conclusions and recommendations modified or approved in writing.
- 11.4 Changed site conditions, or relocation of proposed structures, may require additional field and laboratory investigations to determine if our conclusions and recommendations are applicable considering the changed conditions or time lapse.
- 11.5 The conclusions and recommendations contained in this report are valid only for the project discussed in the Anticipated Construction section of this report. The use of the information and recommendations contained in this report for structures on this site not discussed herein or for structures on other sites not discussed in this report is not recommended. The entity or entities that use or cause to use this report or any portion thereof for other structures or site not covered by this report shall hold Moore Twining, its officers and employees harmless from any and all claims and provide Moore Twining's defense in the event of a claim.
- 11.6 This report is issued with the understanding that it is the responsibility of the client to transmit the information and recommendations of this report to developers, owners, buyers, architects, engineers, designers, contractors, subcontractors, and other parties having interest in the project so that the steps necessary to carry out these recommendations in the design, construction and maintenance of the project are taken by the appropriate party.
- 11.7 This report presents the results of a geotechnical engineering investigation only and should not be construed as an environmental audit or study.
- 11.8 Our professional services were performed, our findings obtained, and our recommendations prepared in accordance with generally-accepted engineering principles and practices. This warranty is in lieu of all other warranties either expressed or implied.
- 11.9 Reliance on this report by a third party (i.e., that is not a party to our written agreement) is at the party's sole risk. If the project and/or site are purchased by another party, the purchaser must obtain written authorization and sign an agreement with Moore Twining in order to rely upon the information provided in this report for design or construction of the project.



Geotechnical Engineering Investigation  
Proposed CVS Pharmacy  
1505 and 1515 Commercial Way  
Santa Cruz, California

G10838.03  
January 15, 2018

Page No. 44

We appreciate the opportunity to be of service to Boos Development West, LLC. If you have any questions regarding this report, or if we can be of further assistance, please contact us at your convenience.

Sincerely,

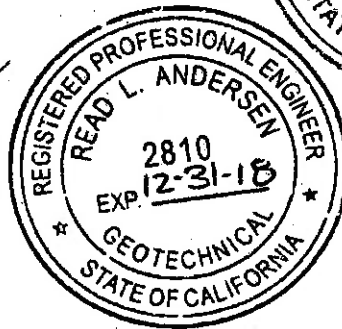
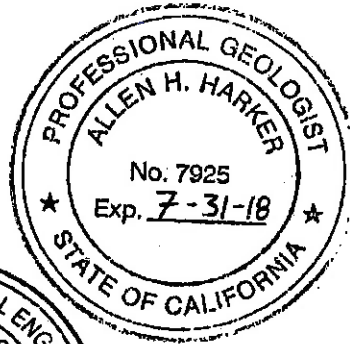
MOORE TWINING ASSOCIATES, INC.  
Geotechnical Engineering Division

*Allen H. Harker*

Allen H. Harker, PG  
Professional Geologist

*Read L. Andersen*

Read L. Andersen, RGE  
Manager



**EXHIBIT A**  
**ATTACHMENT 5**



W A T E R   D E P A R T M E N T

212 Locust Street, Suite C Santa Cruz CA 95060 Phone (831) 420-5200 Fax (831) 420-5201

November 27, 2017

Amelia Beltran  
555 Capitol Mall, Suite 300  
Sacramento, CA 95814

Re: PROPOSED RETAIL/PHARMACY/COMMERCIAL DEVELOPMENT AT 1515 COMMERCIAL WAY; APN 025-071-05 & 025-071-20.

Dear Ms. Beltran:

This letter is to advise you that the subject parcels are located within the service area of the Santa Cruz Water Department and potable water is currently available for normal domestic use and fire protection. Service will be provided to each and every lot of the development upon payment of the fees and charges in effect at the time of service application and upon completion of the installation, at developer expense, of any water mains, service connections, fire hydrants and other facilities required for the development under the rules and regulations of the Santa Cruz Water Department. The development will also be subject to the City's Landscape Water Conservation requirements.

At the present time:

the required water system improvements are not complete; and  
financial arrangements have not been made to the satisfaction of the City to guarantee  
payment of all unpaid claims.

This letter will remain in effect for a period of two years from the above date. It should be noted, however, that the City Council may elect to declare a moratorium on new service connections due to drought conditions or other water emergency. Such a declaration would supersede this statement of water availability.

If you have any questions regarding service requirements, please call the Engineering Division at (831) 420-5210. If you have questions regarding landscape water conservation requirements, please contact the Water Conservation Office at (831) 420-5230.

Sincerely,

Rosemary Menard  
Water Director

RM/bjd  
Cc: SCWD Engineering

**EXHIBIT A**  
**ATTACHMENT 6**

**Preliminary Stormwater Control Plan**

for



**Soquel Dr. & Commercial Way**

**Santa Cruz County, CA**

Revised: March 2019

November 2018

Prepared for:

Boos Development West, LLC

2020 L Street, Suite 245

Sacramento, Ca 95811

Leanna Swenson

(916) 346-4797

Prepared By:

Kimley-Horn and Associates

5555 Capitol Mall, Suite 300

Sacramento, CA 95814

Contact: Sheetal K. Bhatt

(916) 859 - 3609

## I. Project Data

Table 1. Project Data

Project Name/Number	CVS Santa Cruz
Application Submittal Date	3/11/2019
Project Location	1515 Commercial Way, Santa Cruz, CA
Project Phase No.	N/A
Project Type and Description	The project proposes to improve two existing commercial properties at 1515 Commercial Way into a CVS pharmacy. Project scope includes construction of a CVS Pharmacy store and associated improvements such as paving, landscaping and utilities.
Total Project Site Area (acres)	1.29 acres (51,904 S.F. On-Site & 4,278 S.F Off-Site)
Total New Impervious Surface Area	0.30 acres
Total Replaced Impervious Surface Area	0.74 acres
Total Pre-Project Impervious Surface Area	0.74 acres
Total Post-Project Impervious Surface Area	1.04 acres
Watershed Management Zone(s)	1
Design Storm Frequency and Depth	95 <sup>th</sup> Percentile 24-hr rainfall event (2")
Urban Sustainability Area	N/A

## II. Setting

### II.A. Project Location and Description

The CVS Santa Cruz project (Project) site comprises approximately 1.19 acres (onsite) and 0.1 ac (offsite) and is located at 1515 Commercial Way, in Santa Cruz County, California. The site is bounded by Mid County Auto Center to the east, Soquel Drive to the north, Commercial Way to the south and a 76 Gas Station to the west. The project site is located approximately 2 miles north of the Pacific Ocean and Woods Lagoon, 0.1 east of Highway 1. The project is located at Lat 36.98784 Lon 121.984. The site is located in Watershed Management Zone 1.

The project includes the construction of a new 13,111 S.F. CVS Pharmacy Building with 1,712 S.F. Mezzanine and associated on-site improvements such as landscaping, utilities and paving. To address stormwater quality, the project proposes constructing three (3) biofiltration treatment systems/basins - two (2) along Soquel Drive and one (1) along Commercial Way (Appendix B - C4.0).

## II.B. Opportunities and Constraints for Stormwater Control

The site is adjacent to two public streets. There is a 10' setback required on street frontages. These required buffers create an area that can be vegetated and can contain the required stormwater quality facility.

According to the "Geotechnical Investigation Proposed CVS Pharmacy 1505 and 1515 Commercial Way by Moore Twining Associates, Inc dated January 15, 2018, the project site is characterized with clayey sands extending 2 to 10 feet below the surface or lean clays, lean clays with sand or sandy lean clays extending to depths of 2.5' to 8.5'. The near surface clayey sands were underlain by lean clays, clayey sands, silty sands extending to the maximum depth explored, 26.5' clay within the upper 15 to 35 feet of the surface. The site is characterized by soil type D with low infiltration rates. During their field investigation, Moore Twining Associates, Inc stated that they encountered groundwater in their test bore holes at depths between 14.5 feet to 23.75 feet below ground surface. Additionally, per Hydrologic Soil Group from the Central Coast Stormwater Management Requirements GIS Soil Data, the project has soil Type D, reference Appendix A. The report states that on-site retention is not recommended for this project site due to low infiltration rates. For water quality treatment design, it is assumed that there is no infiltration potential on-site. Hence, the project proposes installing underdrains at the bottom of the gravel layer in the proposed biofiltration treatment basins.

## III. Low Impact Development Design Strategies

### III.A. Optimization of Site Layout

The existing project site consists of two parcels. The parcel on the west side of the site contains an existing building and open space. The parcel on the east side of the site contains an existing building and paved parking areas. Since project replaces a partially developed site, there is little increase in impervious area, and drainage patterns remain relatively similar.

#### III.A.1. Limitation of development envelope

A portion of the site is developed in the existing conditions. See Appendix A for Figures 1 and 2 for the existing and proposed conditions drainage maps.

#### III.A.2. Preservation of natural drainage features

A portion of the site is currently developed. The proposed drainage features will tie into the existing City of Santa Cruz Municipal Storm Drain System located in both Soquel Drive and Commercial Way.

#### III.A.3. Setbacks from creeks, wetlands, and riparian habitats

There are no creeks, wetlands and riparian habitats on the site.

#### III.A.4. Minimization of imperviousness

The project proposes using vegetation and parking spaces in the areas of the site not encompassed by the building and paving. The minimum number of required parking spaces and necessary drive aisles are provided to minimize the impervious area.



## III.A.5. Use of drainage as a design element

The proposed project directs runoff from the parking areas and building onto vegetated areas. These areas are located on the north and south edges of the site.

## III.B. Use of Permeable Pavements

Permeable pavement is not used on this project. Low site infiltration rates make it infeasible to use permeable pavement on the project site.

## III.C. Dispersal of Runoff to Pervious Areas

The proposed project directs runoff from the parking areas onto vegetated areas. These areas are located on the north and south edges of the site. The runoff conveyed in roof drains are collected by storm drain inlets and conveyed to the biofiltration treatment areas through storm drain pipes and bubble-up structure.

## III.D. Stormwater Control Measures

Three stormwater control measures are proposed as part of this project. The locations of these Best Management Practices (BMPs) are provided as shown in Appendix A - Figure 2 and Appendix B - C4.0. Two BMPs are located on the north edges of the property and one BMP is located on the south edge of the property. Runoff from the adjacent parking areas is directed via sheet flow through curb cuts and storm drain system to the BMPs. The BMPs have a surface area that is a minimum of 5% of the tributary impervious area.

## IV. Documentation of Drainage Design

Proposed pervious and impervious areas are summarized in Appendix B – C4.0. The total proposed impervious area at project completion is approximately 1.04 acres, compared to 0.74 acres of existing impervious area.

Per the County's Standards, the project is required to conduct site design measures and runoff reduction (Performance Requirement #1), treat the 85<sup>th</sup> percentile 24-hour storm event (Performance Requirement #2), retain the 95<sup>th</sup> percentile 24-hour storm event (Performance Requirement #3), and apply peak flow management for the 2-year and 10-year design flow events (Performance Requirement #4).

The water quality flow and runoff retention for the project site were determined following Santa Cruz County Design Criteria and the Central Coast Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region.

To meet Performance Requirement # 1, the proposed project will direct runoff from sidewalks, parking lots, and buildings into adjacent biofiltration treatment areas. The project proposes construction of three (3) biofiltration treatment areas. The two biofiltration treatment areas along the north side of the property will act 1 basin by using an equalizer pipe.

To comply with Performance Requirement #2, the project must treat runoff produced by a rain event equal to 0.2 inches per hour intensity. The project is proposing to use biofiltration treatment systems with a maximum surface loading rate equal to 5 inches per hour and using the flow of runoff produced by a rain event equal to 0.2 inches per hour intensity using the "4 percent method" (0.2 in/hour divided by 5 in/hour = 0.04). The project's biofiltration treatment areas were sized so that the footprint provided for stormwater treatment is minimum 0.05 times the effective impervious area. The effective impervious area was determined by taking the sum of the total proposed impervious area and 0.1 times the total proposed pervious area.

Table 2. Water Quality Treatment

BMP	Effective Impervious Area (SF)	4% Required Treatment Area (SF)	Provided Treatment Area (SF)	Provided Treatment Area (SF)
1	15,337	613	687	4.5%
2	22,396	896	2,237	10.0%
3	8,550	342	6859	7.7%

The proposed biofiltration treatment areas will provide six (6) inches of surface ponding, 24 inches of planting media, and 12 inches of gravel. The effective depth of storage to the top of the ponded area in the biofiltration treatment area is 1.5 feet, providing a total volume of 5,375 cubic feet. From the geotechnical report, infiltration is not feasible on the site. The proposed biofiltration treatment areas will have underdrains to convey the treated stormwater into the existing County of Santa Cruz storm drain system.

To comply with Performance Requirement #3, the project must retain the 95<sup>th</sup> percentile event from impervious areas. The project replaces an existing development and qualifies for a 50% reduction for being a redevelopment project.

Table 3a. Runoff Retention

BMP	Total Area (SF) A	Pervious Area (SF) P	New Impervious (SF) In	Replaced Impervious Area (SF) Ir	Retention Tributary Area (SF) RTA = In+0.5Ir
1	17,185	2,053	13,234	1,898	14,183
2	26,259	4,292	0	21,967	10,984
3	12,667	4,574	0	8,093	4,047

Table 3b. Runoff Retention

BMP	Retention Tributary Area (SF) RTA	i (fraction Impervious Area) (In+Ir)/A	C**	95 <sup>th</sup> Percentile Rainfall depth (in) I	Retention Volume Required (CF) C*I*RTA	Retention Volume Provided (CF)
1*	14,183	0.88	0.70	2	1,661	1,031
2*	10,984	0.84	0.64	2	1,179	3,356
3	4,047	0.64	0.44	2	297	989

\*BMP 1 and BMP 2 will be connected by an equalizer pipe and will act as one basin.

\*\* C =  $0.858 \cdot i^3 - 0.78i^2 + 0.774i + 0.04$

Table 3b. shows that the proposed project meets the required volume for the 95<sup>th</sup> Percentile Rainfall. Due to the unsuitability of existing soil for infiltration, the majority of volume on-site will be detained in the biofiltration systems.

To comply with Performance Requirement #4, the proposed project is required to manage post-development peak flows such that the discharges from the site do not exceed the pre-project peak flows for the 2- through 10-year storm events. Since the project replaces a partially developed site, there is some increase in impervious area, and drainage patterns remain relatively similar, there is a small increase in peak flows due to the development (Table 4 & 5).

Table 4. Existing and Proposed Peak Flows

DMA	Runoff Coefficient	Area (SF)		Peak Flow (CFS)	
		Pervious	Impervious	2-Year	10-Year
Existing Conditions					
Area A1	0.53	0.50	0.57	0.69	1.07
Area A2	0.84	0.02	0.19	0.21	0.33
Total		0.52	0.76	0.90	1.41
Proposed Conditions					
Area B1	0.80	0.05	0.35	0.39	0.60
Area B2	0.79	0.08	0.50	0.56	0.87
Area B3	0.77	0.03	0.19	0.21	0.32
Area B4	0.21	0.02	0.00	0.01	0.01
Area B5	0.10	0.01	0.00	0.00	0.00
Area B6	0.10	0.06	0.00	0.01	0.01
Area B7	0.90	0.00	0.00	0.00	0.00
Total		0.25	1.04	1.17	1.82

Table 5. Existing and Proposed Peak Flows

Area Tributary To	Runoff Coefficient	Area (SF)		Peak Flow (CFS)	
		Pervious	Impervious	2-Year	10-Year
Undeveloped Conditions					
A1	0.53	0.50	0.57	0.69	1.07
A2	0.84	0.02	0.19	0.21	0.33
Total		0.52	0.76	0.90	1.41
Proposed Conditions					
BMP 1	0.80	0.05	0.35	0.39	0.60
BMP 2	0.77	0.10	0.50	0.56	0.88
BMP 3	0.61	0.11	0.19	0.22	0.34
Total		0.25	1.03	1.17	1.82

Detention volumes were determined using the County of Santa Cruz's Runoff Detention by the Modified Rational Method. The SWM-17 spreadsheet was utilized and are attached in Appendix C. The detention volumes were calculated to limit the 25-year post-development flow to 10-year pre-development flow. See Table 8 below. The table below shows the total required detention (SWM-17) and required Retention: 3,919 CF. The table below shows the total provided volume: 5,375 CF. Therefore, there is enough storage for both the retention and detention.

Table 6. 25 Year Post Development Detention Storage Volume

Area Tributary To	Required per SWM-17 Volume (CF)	Required Retention Volume (CF)	Provided Volume (CF)
BMP 1*	320	1,661	1,031
BMP 2*	428	1,179	3,356
BMP 3	35	279	989
<b>Total</b>	<b>783</b>	<b>3,136</b>	<b>5,375</b>

Self Treating areas are included in the peak flow calculation. To mitigate the proposed peak flow to the undeveloped peak flow, the project includes caps on the underdrains of each of the three biofiltration treatment basins with a circular orifice drilled into the plate capping the underdrain to meter flow out to the pre-developed condition. The overflow weir height of the outflow structure is the height between the underdrain and the overflow riser. Reference Appendix A - Figure 3 for Orifice Sizing.

Table 7. Peak Flows Mitigation

Area Tributary To	Orifice Diameter (in)	Orifice Area (cfs)	Orifice Flow (cfs)
BMP 1*	5	0.14	0.8
BMP 2*			
BMP 3	2.5	0.03	0.21

\*BMP 1 and 2 will act as one basin, therefore only 1 orifice is designed for the two basins.



## Descriptions of each Drainage Management Area

### IV.A.1. Table of Drainage Management Areas

See C4.0 Appendix B.

### IV.B.

### IV.B. Tabulation and Sizing Calculations

#### IV.B.1. Information Summary for LID Facility Design

Total Project Area (Acres)	1.29 acres
Design Storm Depth	2" (Per 95 <sup>th</sup> Percentile Rainfall Data, see Appendix for Reference)
Applicable Requirements	Performance Requirement No. 4: Peak Management

### IV.C. Self-Treating Areas

Table 8, Self-Treating Areas

DMA	Description	Size (SF)
1A	Landscape Island	1,843
1B	Landscape Island	210
2A	Landscape Island	3,518
3A	Landscape Island	1,499
4A	Landscape Island	744
5	Landscape Island	2,600
6	Landscape Island	475

## Areas Draining to Biofiltration treatment Facilities

Table 11. Areas Draining to Biofiltration treatment Facilities

DMA	Description	Type	Size (SF)	C Factor	Sizing Factor	Treatment Area Required
1A	Parking NW & Sidewalk	Impervious	10,854	1	0.05	543
1B	Parking N	Impervious	4,278	1	0.05	214
Total Required - BMP 1						757
Total Provided - BMP 1						687
2A	Parking Lot NE & Building & Drive Thru	Impervious	12,739	1	0.05	637
2B	Building & Drive-Thru	Impervious	9,035	1	0.05	452
Total Required - BMP 2						1,089
Total Provided - BMP 2						2,237
3A	Building & Parking SW	Impervious	6,890	1	0.05	345
3B	South Driveway (Off-Site)	Impervious	1,203	1	0.05	60
Total Required - BMP 3						405
Total Provided - BMP 3						659

Note: BMP 1 and BMP 2 will act as one biofiltration treatment basin

### Source Control Measures

IV.D. Site activities and potential sources of pollutants

IV.E. Source Control Table

Table 12. Source Control Table

Potential source of runoff pollutants	Permanent source control BMPs	Operational source control BMPs
On-site storm drain inlets (unauthorized non-stormwater discharges and accidental spills or leaks)	<ul style="list-style-type: none"> <li>Mark all inlets with the words "No Dumping! Flows to Bay" or similar.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain and periodically repaint or replace inlet markings.</li> <li>Provide stormwater pollution prevention information to new site owners, lessees, or operators.</li> <li>See applicable operational BMPs in</li> </ul>

		<p>Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at <a href="http://www.cabmphandbooks.com">www.cabmphandbooks.com</a></p> <ul style="list-style-type: none"> <li>• Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."</li> </ul>
Landscape/ Outdoor Pesticide Use/Building and Grounds Maintenance	<ul style="list-style-type: none"> <li>• State that final landscape plans will accomplish all of the following.</li> <li>• Preserve existing native trees, shrubs, and ground cover to the maximum extent possible.</li> <li>• Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution.</li> <li>• Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions.</li> <li>• Consider using pest-resistant plants, especially adjacent to hardscape.</li> <li>• To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain landscaping using minimum or no pesticides.</li> <li>• See applicable operational BMPs in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at <a href="http://www.cabmphandbooks.com">www.cabmphandbooks.com</a></li> <li>• Provide IPM information to new owners, lessees and operators.</li> </ul>
Refuse areas	<ul style="list-style-type: none"> <li>• State how site refuse will be handled and provide supporting detail to what is shown on plans.</li> <li>• State that signs will be posted on or near dumpsters with the</li> </ul>	<ul style="list-style-type: none"> <li>• State how the following will be implemented: Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or</li> </ul>

	words "Do not dump hazardous materials here" or similar.	hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at <a href="http://www.cabmphandbooks.com">www.cabmphandbooks.com</a>
Fire Sprinkler Test Water	<ul style="list-style-type: none"> <li>Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system.</li> <li>Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system.</li> <li>Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment.</li> <li>Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water.</li> <li>Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff.</li> <li>Include controls for other sources as specified by local reviewer.</li> </ul>	
Sidewalks, and parking lots.		<ul style="list-style-type: none"> <li>Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.</li> </ul>

Truck Loading Area		<ul style="list-style-type: none"> <li>• Install "No idling" signs near the loading area. No maintenance or repair of the trucks at the loading area will be allowed.</li> <li>• Sweep loading area regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.</li> </ul>
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#### IV.F. Features, Materials, and Methods of Construction of Source Control BMPs

See the improvement plans for the CVS Santa Cruz Project for the materials and methods of construction of the Source Control BMPs.

#### Additional Design and Construction Considerations for Biofiltration treatment Basins

- Sediment controls and fencing should be installed to prevent clogging and compaction of engineered and existing site soils during construction.
- Whenever possible, avoid the use of heavy equipment during construction on areas where biofiltration treatment systems are to be installed. If soils are compacted, additional ripping may be necessary to re-establish soil permeability.
- After basin excavation, do not compact the native underlying soils.
- When installing the engineered soil mix, drop it from the bucket and do not compact it.

#### V. Stormwater Facility Maintenance

##### V.A. Ownership and Responsibility for Maintenance in Perpetuity

This Stormwater Control will provide the Ownership and Responsibility for Maintenance in Perpetuity at a later date.

##### V.B. Summary of Maintenance Requirements for Each Stormwater Facility

###### Biofiltration treatment Basins

###### Inspection and Maintenance

Primary maintenance activities include vegetation management and sediment removal. Mosquito control is also a concern in extended detention basins that are designed to include pools of standing water. The typical maintenance requirements include:

- Conduct semi-annual inspection as follows:
  - Evaluate the health of the vegetation and remove and replace any dead or dying plants.



- Remove any trash and debris.
- Inspect the outlet, embankments, dikes, berms, and side slopes for structural integrity and signs of erosion or rodent burrows. Fill in any holes detected in the side slopes.
- Examine outlets and overflow structures and remove any debris plugging the outlets.
- Identify and minimize any sources of sediment and debris. Check rocks or other erosion control and replace, if necessary.
- Check inlets to make sure piping is intact and not plugged. Remove accumulated sediment and debris near the inlet. Ensure that engineered energy dissipation is functioning adequately by checking for evidence of local scour around the inlet.
- Inspect for standing water and correct any problems that prevent the extended detention basin from draining as designed.
- Confirm that any fences around the facility are secure.
- Maintenance activities at the bottom of the basin shall NOT be performed with heavy equipment, which would compact the soil and limit infiltration.
- Harvest vegetation annually, during the summer.
- Trim vegetation at beginning and end of the wet season and inspect monthly to prevent establishment of woody vegetation and for aesthetic and mosquito control reasons.
- Invasive vegetation contributing up to 25% of vegetation of all species shall be removed and replaced.
- Dead vegetation shall be removed to maintain less than 10% of area coverage or when vegetative filter strip function is impaired. Vegetation shall be replaced immediately to control erosion where soils are exposed and within 3 months to maintain cover density.
- Avoid the use of pesticides and quick release synthetic fertilizers, and follow the principles of integrated pest management (IPM). Check with the local jurisdiction for any local policies regarding the use of pesticides and fertilizers.
- Remove sediment from the forebay when the sediment level reaches the level shown on the fixed vertical sediment marker.
- Remove accumulated sediment and regrade about every 10 years or when the accumulated sediment volume exceeds 10 % of the basin volume.

Storm drain clean out structures and pipe layout can be found in the plan set. Storm drain facilities should be cleaned out once a year.

**VI. Construction Checklist**

Table 13. Construction Plan C.3 Checklist

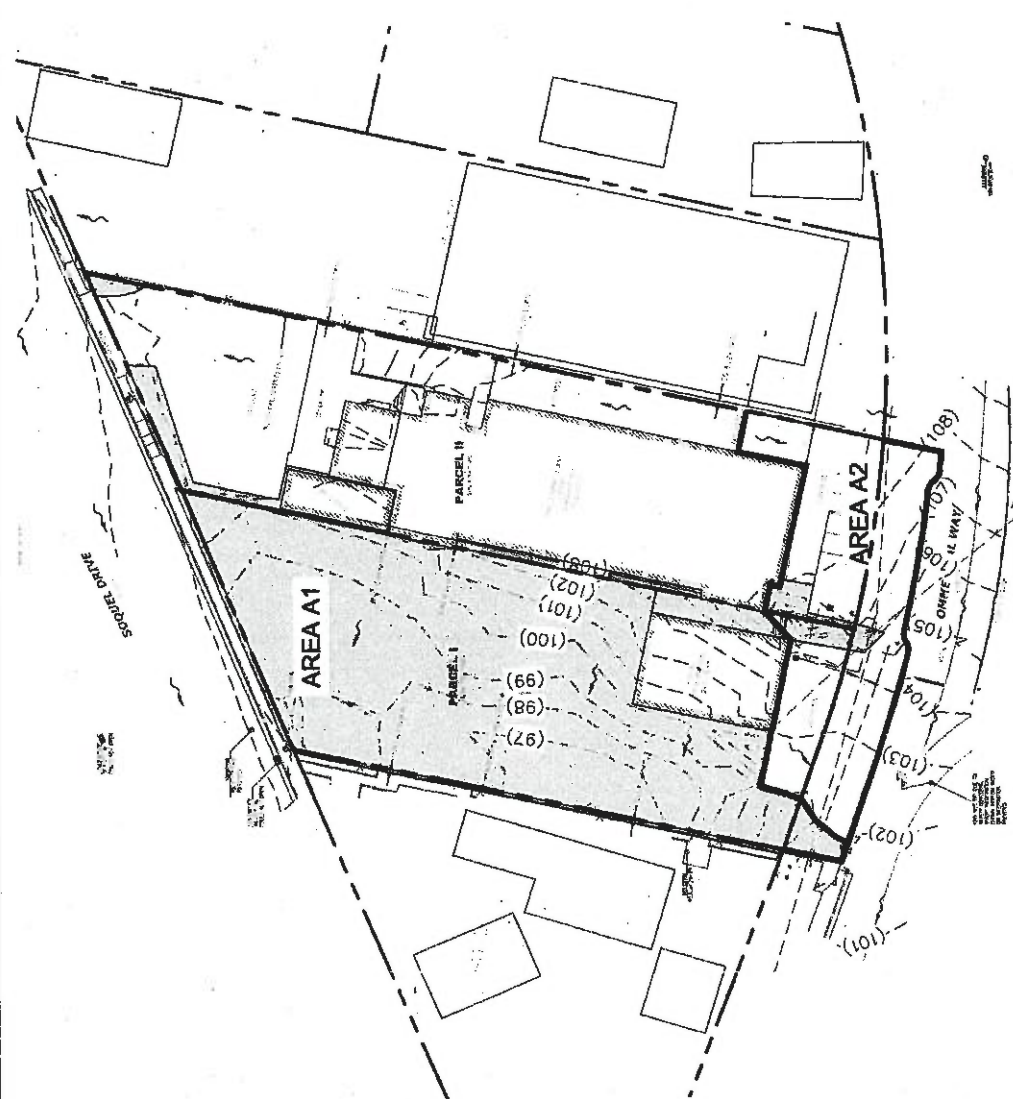
Stormwater Control Plan Page #	BMP Description	See Plan Sheet #s
C4.0	Biofiltration treatment Area 1	C4.0
C4.0	Biofiltration treatment Area 2	C4.0
C4.0	Biofiltration treatment Area 3	C4.0

Plan Sheet C4.0 is shown in Appendix B.

**VII. Certifications**

The preliminary design of stormwater treatment facilities and other stormwater pollution control measures in this plan are in accordance with the current edition of the Santa Cruz County Design Criteria.

## Appendix A. Figures



- LEGEND**
- PROJECT BOUNDARY
  - EXISTING FLOW ARROW
  - EXISTING CONDITIONS
  - PERVIOUS AREA
  - (108) EXISTING CONTOUR



VICINITY MAP  
NTS

**FIGURE 1 - EXISTING DRAINAGE**  
CVS SANTA CRUZ

**Kimley»Horn** © 2019



**EXHIBIT A**





Calculated by AMB

Date 3/11/2019

Checked by SKB

Date 3/11/2019

**CVS Santa Cruz Development Project**

**PR#4 Peak Management**

Post- development peak flows, discharged from the site, shall not exceed pre-project

\*Assuming Pre-Project Conditions

**BMP 1 & BMP 2**

Orifice Diameter (in)	Orifice Diameter (ft)	Orifice Area (ft <sup>2</sup> )	Effective Depth of Ponding/H eight to Overflow (ft)	Existing 2- Year Peak Flow
5.0	0.42	0.14	1.5	0.7

Orifice

$Q = C_d A (2gh)^{0.5}$	0.8 cfs
-------------------------	---------

**BMP 3**

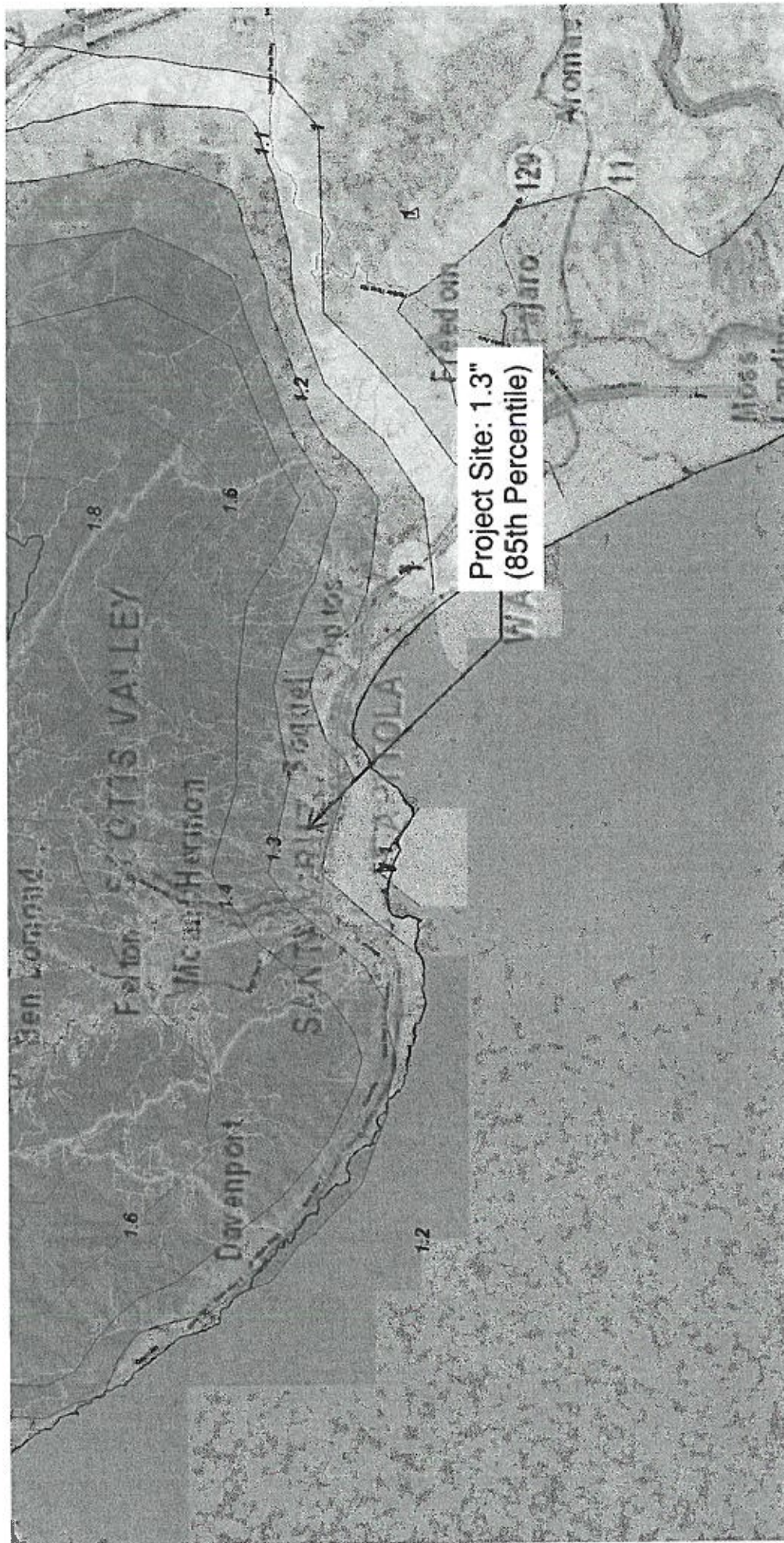
Orifice Diameter (in)	Orifice Diameter (ft)	Orifice Area (ft <sup>2</sup> )	Effective Depth of Ponding/H eight to Overflow (ft)	Existing 2- Year Peak Flow
2.5	0.21	0.03	1.5	0.21

Orifice

$Q = C_d A (2gh)^{0.5}$	0.21 cfs
-------------------------	----------

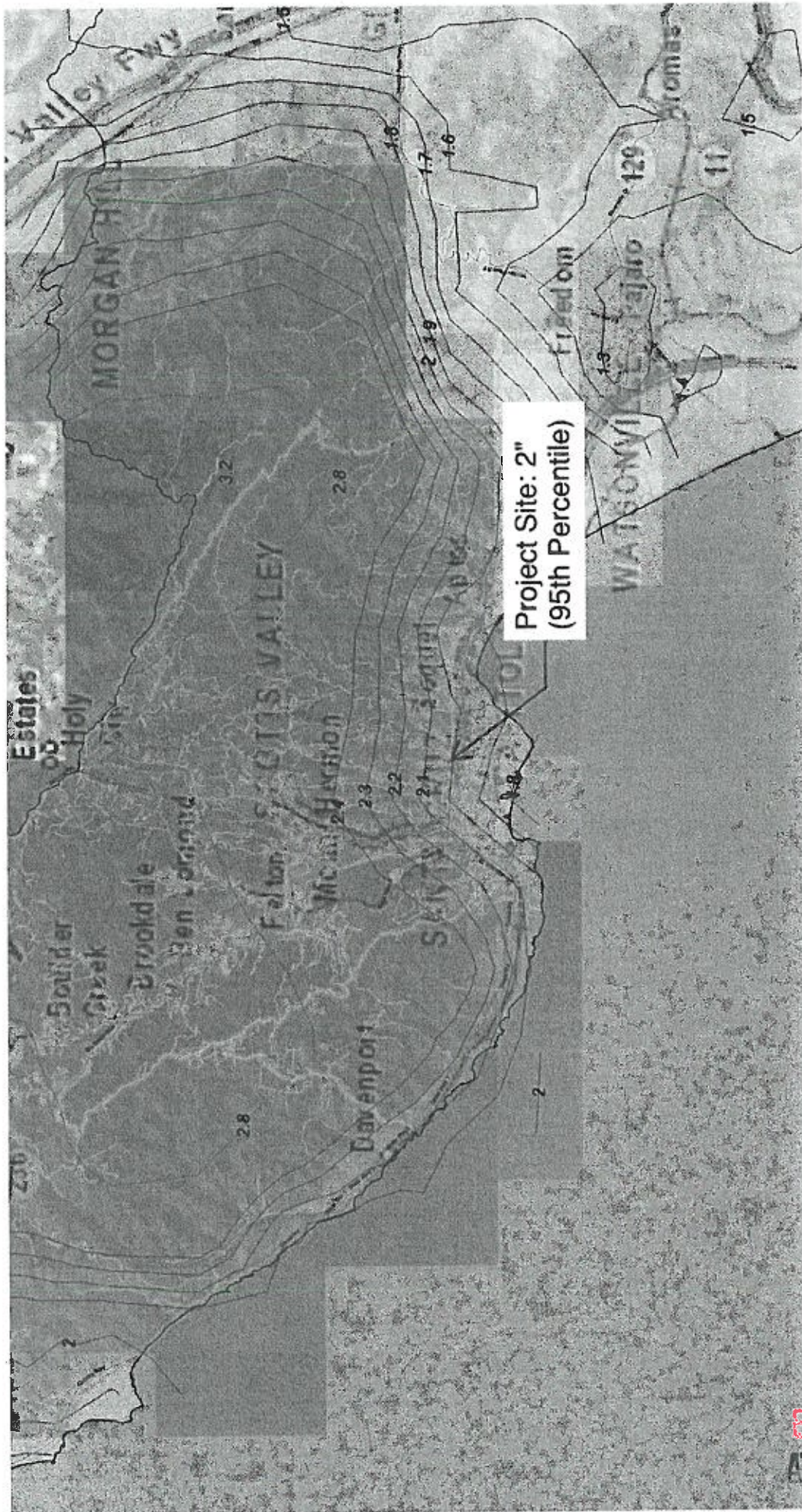
**EXHIBIT A**

**ATTACHMENT 7**



**EXHIBIT A**  
ATTACHMENT





**EXHIBIT A**  
ATTACHMENT



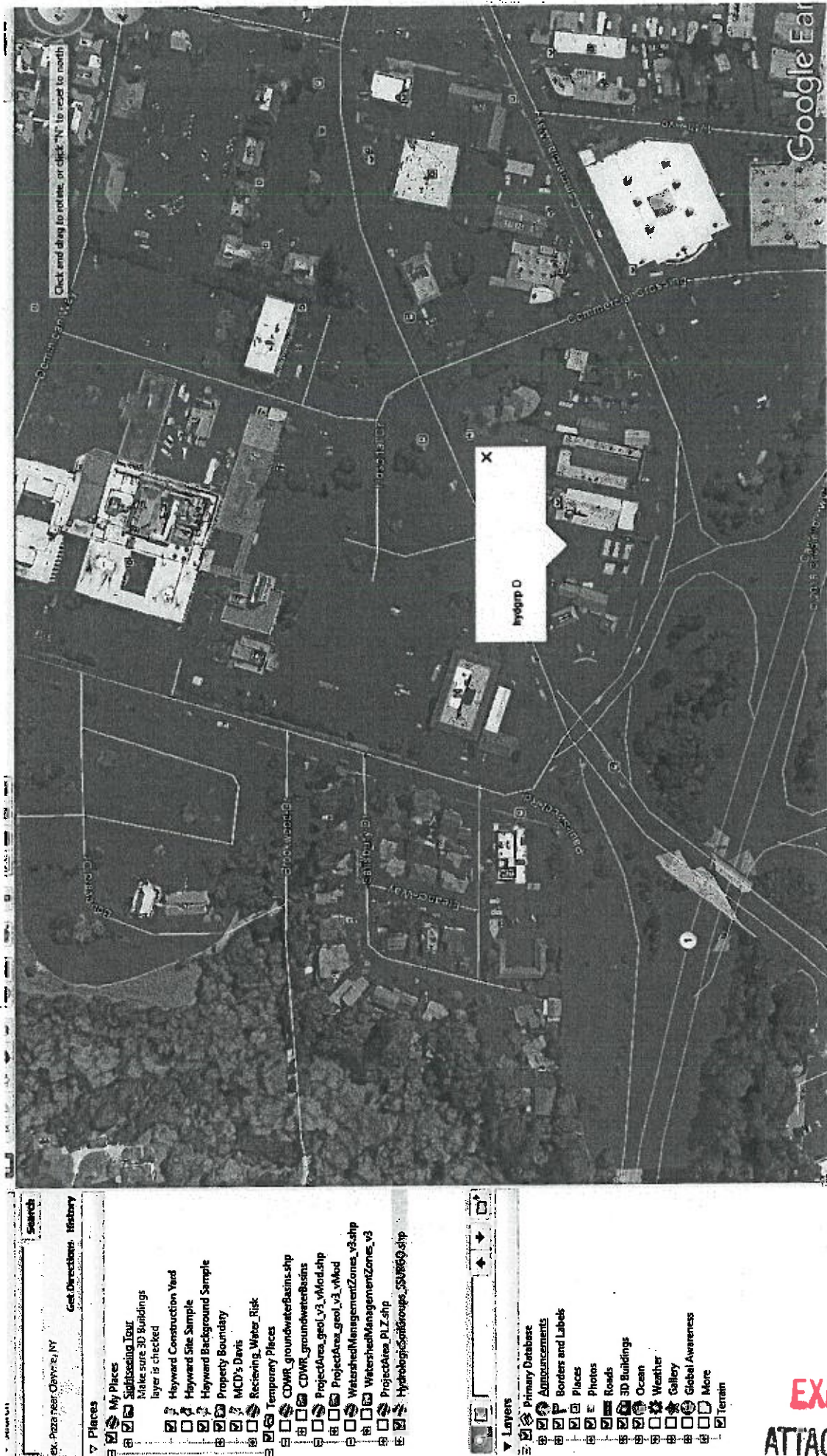
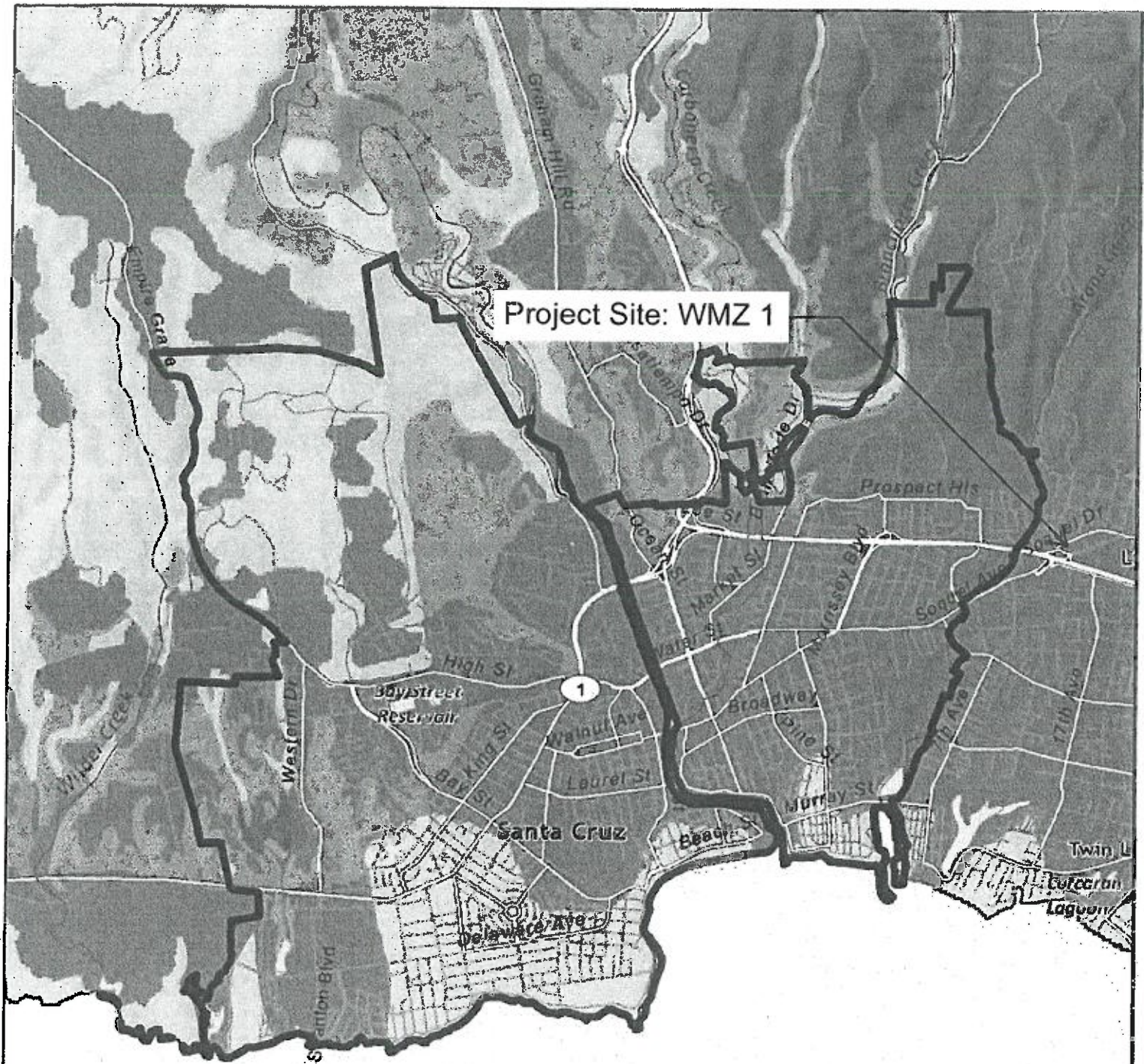


EXHIBIT A  
ATTACHMENT 7





# EXHIBIT A

CENTRAL COAST JOINT EFFORT Santa Cruz, California

**Watershed management zones**

1	5	9
2	6	10
3	7	
4	8	

Urban area boundary

Data sources  
Watershed management zones: Stillwater Sciences, 2012  
Base data: ESRI 2010

**ATTACHMENT**

**Stillwater Sciences**  
[www.stillwatersci.com](http://www.stillwatersci.com)

0 0.25 0.5 1 2 Miles  
0 0.5 1 2 km



COUNTY OF SANTA CRUZ  
DEPARTMENT OF PUBLIC WORKS  
P 60\* ISOPLETHS

Project Site: P60 - 1.6

PACIFIC OCEAN

MONTEREY BAY

SANTA CRUZ

SCOTT'S VALLEY

APOTOS

CORRALITOS

WATSONVILLE

MONTEREY CO.

LA SECA BEACH

FREEDOM

1.2

1.4

1.6

1.8

2.0

2.2

2.4

BIG BASIN

BOULDER CREEK

BEN LOMOND

FELTON

DAVENPORT

CAPITOLA

SANTA CRUZ

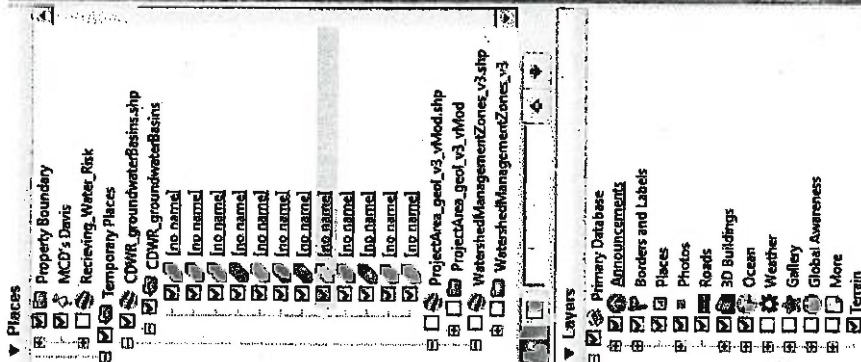
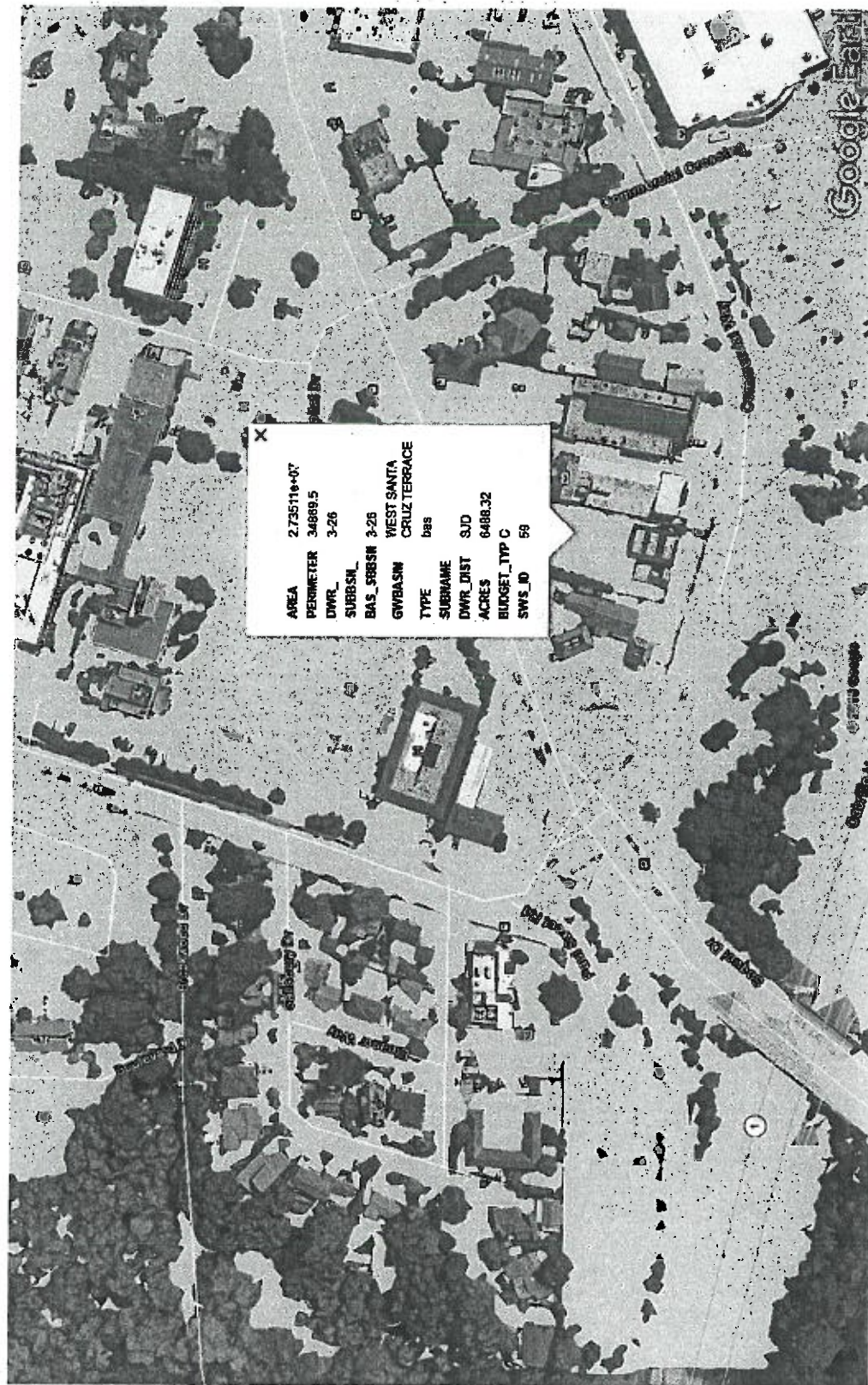
SAN MATEO CO.

SANTA CLARA CO.

FIGURE 3-10

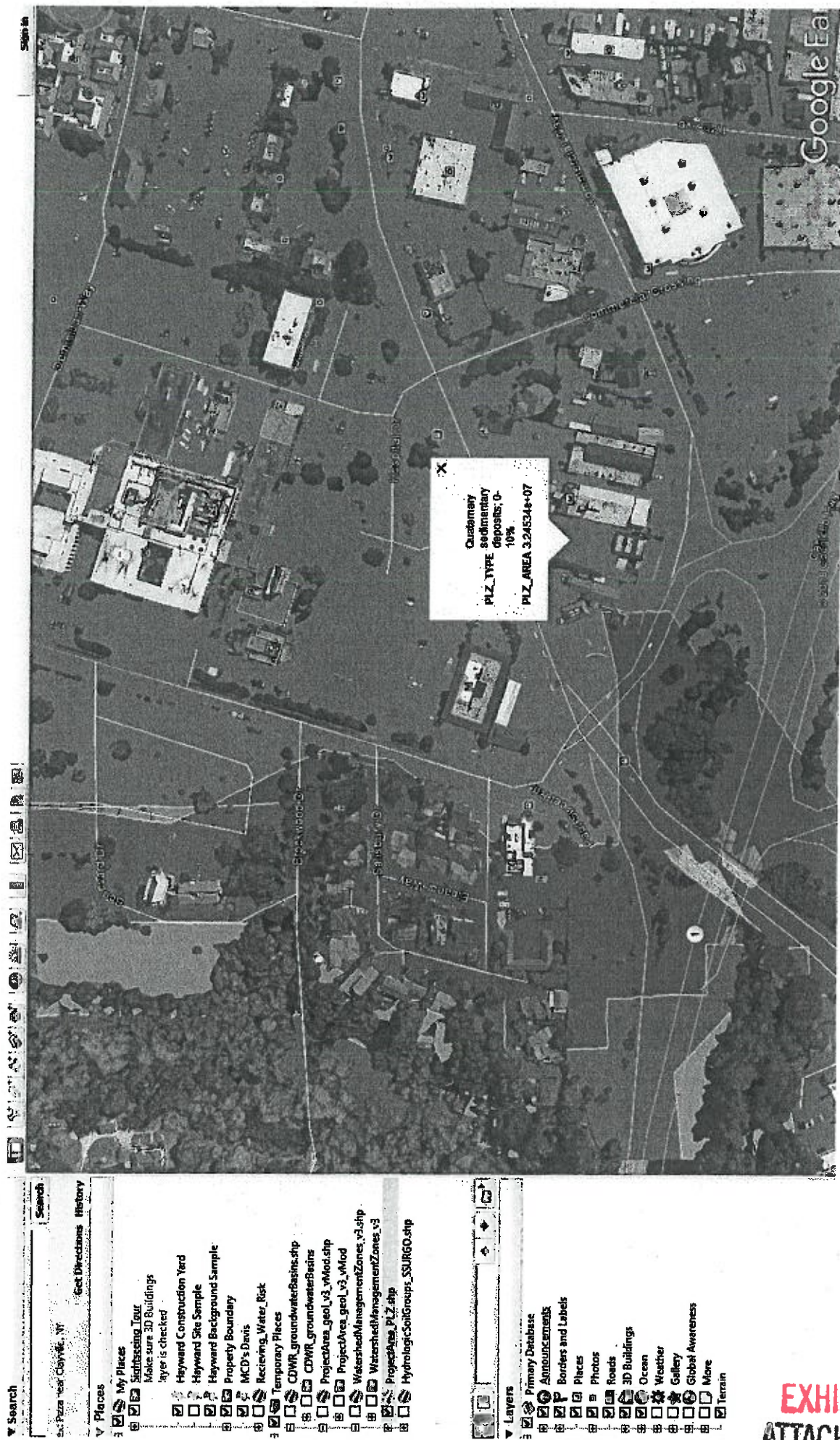
\*P60 DENOTES RAINFALL INTENSITY IN INCHES/HR FOR 60 MINUTE DURATION AND A 100 YEAR STORM. SELECT PROPER INTENSITY DURATION CURVE FROM FIGURE 3-10 AFTER DETERMINING P60 VALUE.

**FIG. SWM-2**



**EXHIBIT A**  
**ATTACHMENT 7**





Google Ea



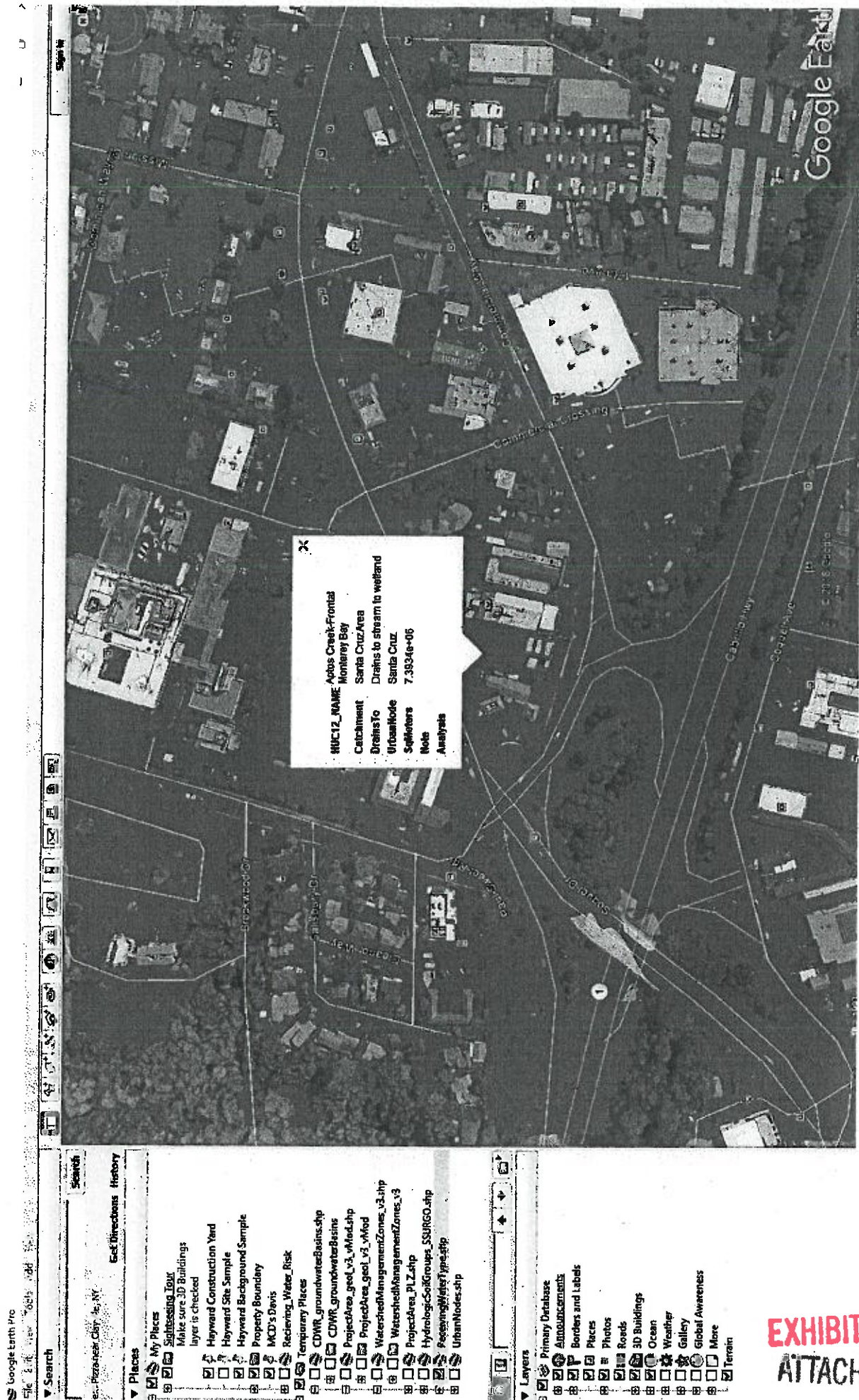
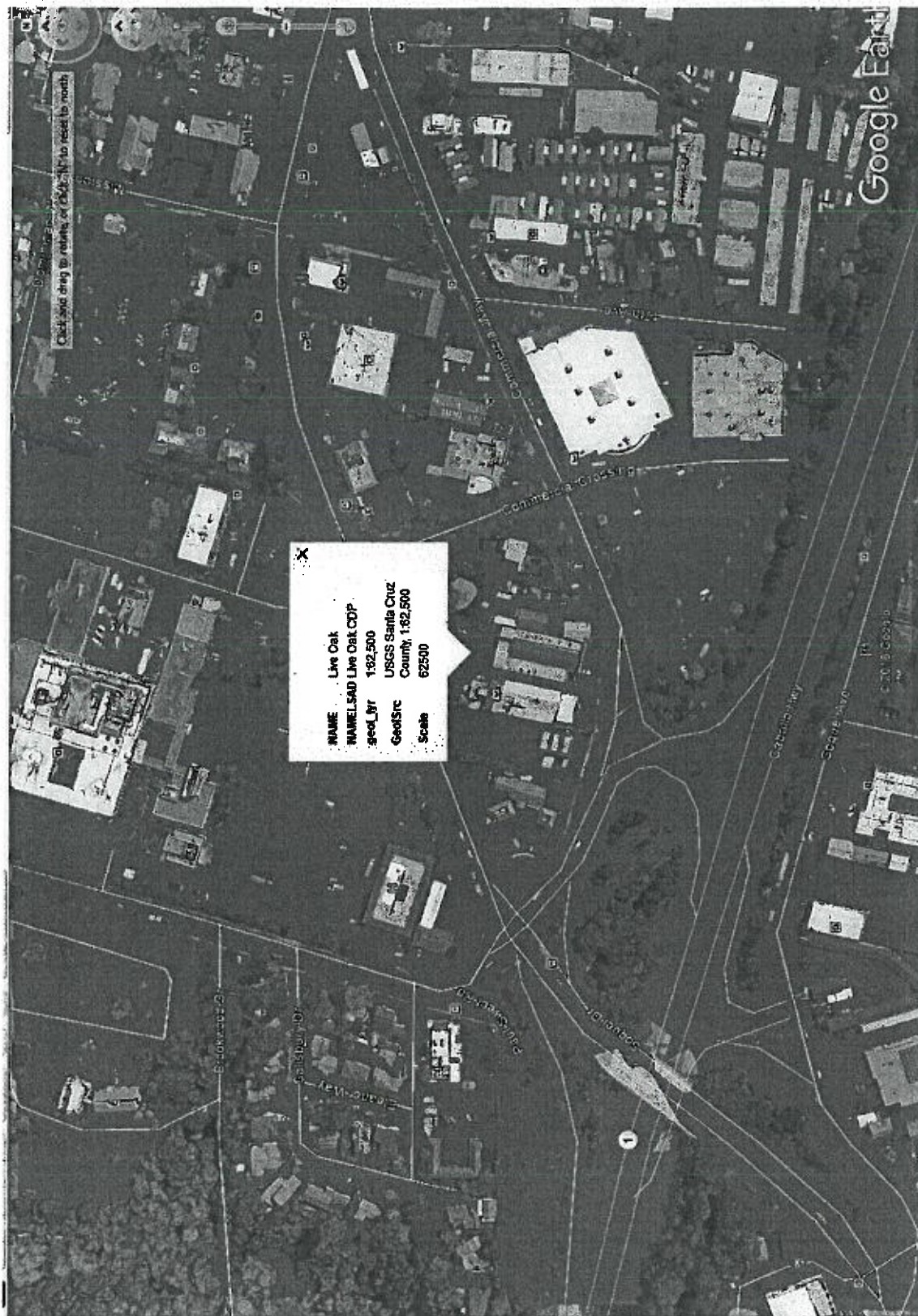


EXHIBIT A  
ATTACHMENT 7





Search

Get Directions History

Places

My Places

Scheduling Tour

Make sure 3D Buildings layer is checked

Hayward Construction Yard

Hayward Site Sample

Hayward Background Sample

Property Boundary

MCD's Davis

Reclining Water Risk

Temporary Places

CDMR groundwaterBasins.shp

CDMR groundwaterBasins

ProjectArea\_geoL\_v3\_vMod.shp

ProjectArea\_geoL\_v3\_vMod

WaterShedManagementZones\_v3.shp

WaterShedManagementZones\_v3

ProjectArea\_PLZ.shp

HydrologicSoilGroups\_SSURGO.shp

ReceivingWaterType.shp

UrbanNodes.shp

Layers

Primary Database

Announcements

Borders and Labels

Places

Photos

Roads

3D Buildings

Ocean

Weather

Gelley

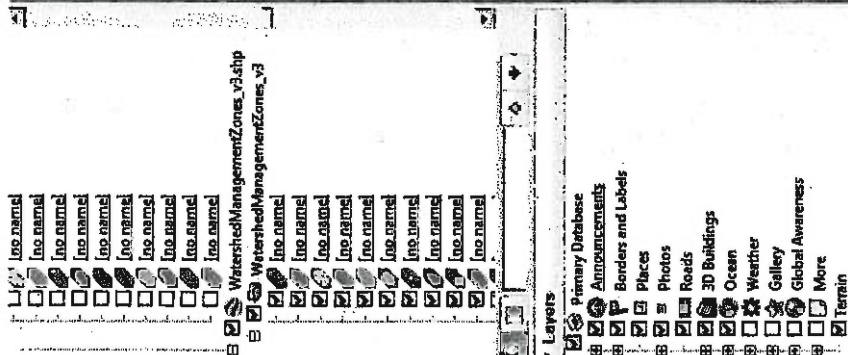
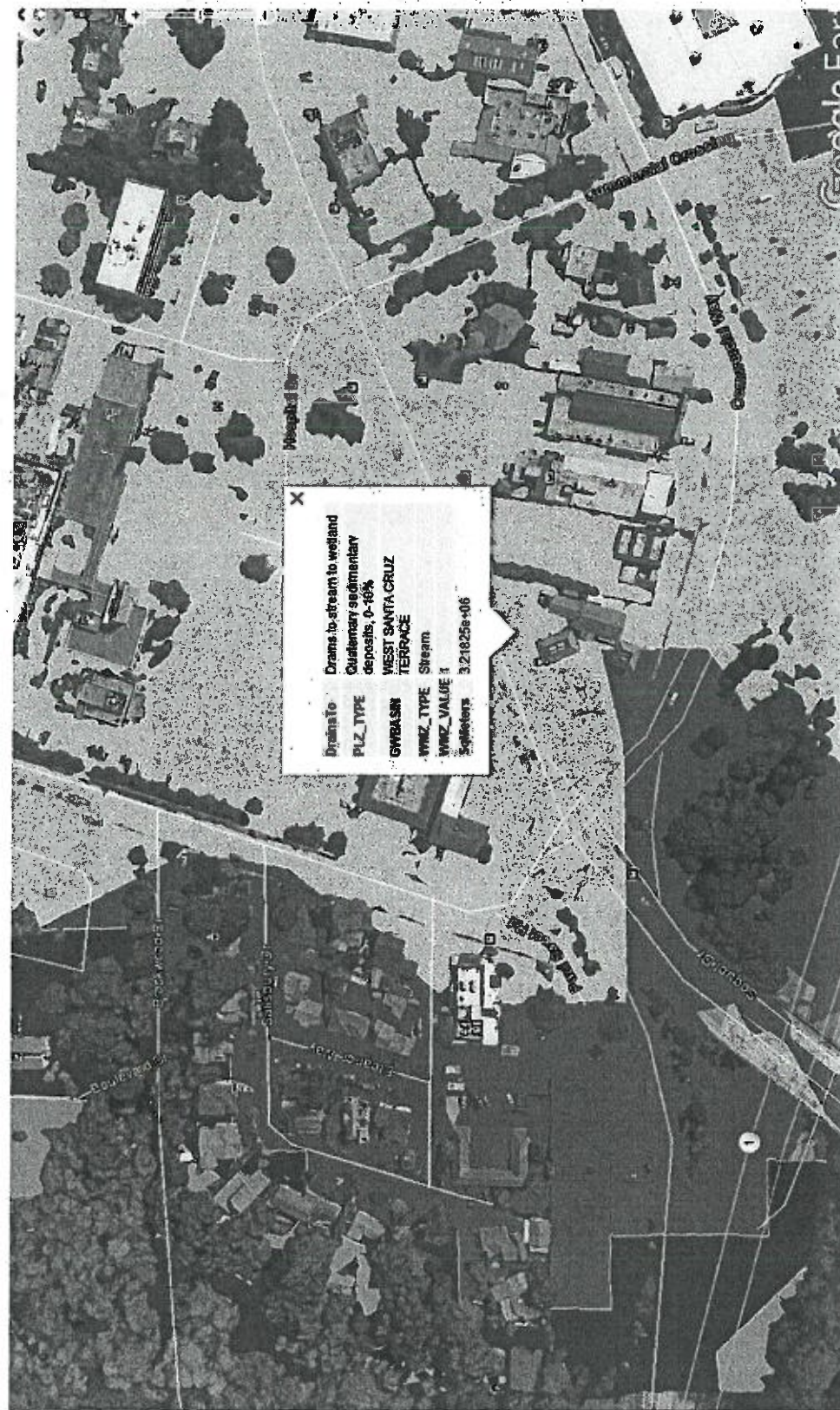
Global Awareness

More

Terrain

EXHIBIT A  
ATTACHMENT





**Appendix B. Stormwater Control Plan**



**Appendix C. Runoff Detention By Modified Rational Method**



**RUNOFF DETENTION BY THE MODIFIED RATIONAL METHOD**

Data Entry: PRESS TAB &amp; ENTER DESIGN VALUES SS Ver. 1.0

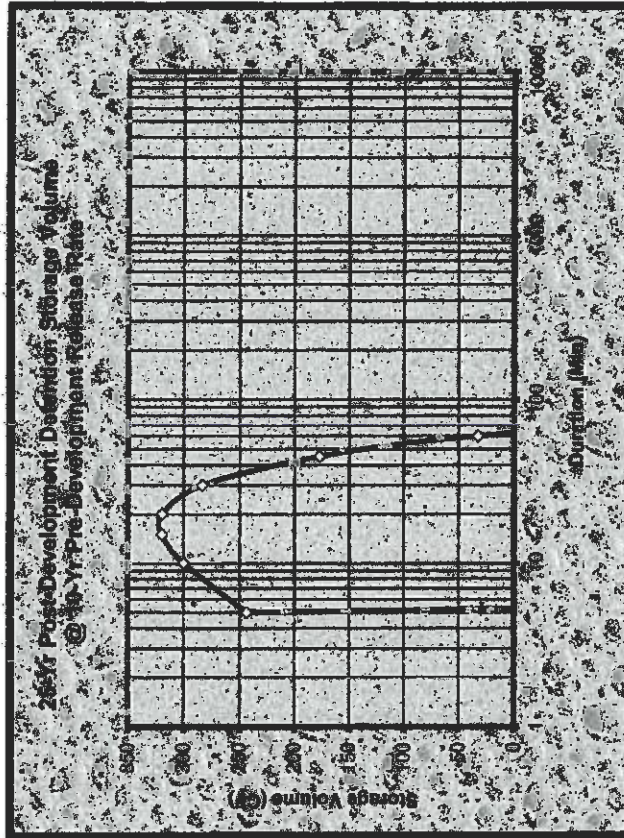
Site Location P60 Isoleth: 1.60 Fig. SWM-2 in County Design Criteria  
 Rational Coefficients Cpre: 0.53 See note # 2  
 Cpost: 0.80 See note # 2  
 Impervious Area: 15337 ft<sup>2</sup> See note # 2 and # 4

**STRUCTURE DIMENSIONS FOR DETENTION**

320	ft <sup>3</sup> storage volume calculated		
100	% void space assumed		
320	ft <sup>3</sup> excavated volume needed		
Structure Ratios	Length	Width*	Depth*
	100.00	10.00	5.00
Dimen. (ft)	39.99	4.00	2.00

\*For pipe, use the square root of the sectional area

25 - YEAR DESIGN STORM				DETENTION @ 15 MIN.	
Storm Duration (min)	25 - Year Intensity (in/hr)	10 - Yr. Release Qpre (cfs)	25 - Year Qpost (cfs)	Detention Rate To Storage (cfs)	Specified Storage Volume (cf)
1440	0.34	0.053	0.096	-0.254	-27461
1200	0.36	0.057	0.103	-0.247	-22207
960	0.40	0.063	0.113	-0.237	-17045
720	0.45	0.071	0.128	-0.222	-12009
480	0.53	0.083	0.151	-0.199	-7165
360	0.60	0.094	0.170	-0.180	-4858
240	0.71	0.111	0.201	-0.149	-2679
180	0.80	0.125	0.227	-0.123	-1665
120	0.94	0.148	0.268	-0.082	-737
90	1.06	0.167	0.302	-0.048	-324
60	1.26	0.197	0.357	0.007	33
45	1.42	0.222	0.403	0.052	177
30	1.68	0.263	0.476	0.126	283
20	1.98	0.311	0.563	0.213	319
15	2.23	<b>0.350</b>	0.634	0.284	320
10	2.64	0.414	0.750	0.400	300
5	3.52	0.552	0.999	0.649	243

**Notes & Limitations on Use:**

- 1) The modified rational method, and therefore the standard calculations are applicable in watersheds up to 20 acres in size.
- 2) Required detention volume determinations shall be based on all net new impervious areas both on and off-site, resulting from the proposed project. Pervious areas shall not be included in detention volume sizing; an exception may be made for incidental pervious areas less than 10% of the total area.
- 3) Gravel packed detention chambers shall specify on the plans, aggregate that is washed, angular, and uniformly graded (of single size), assuring void space not less than 35%.
- 4) A map showing boundaries of both regulated impervious areas and actual drainage areas routed to the hydraulic control structure of the detention facility is to be provided, clearly distinguishing between the two areas, and noting the square footage.
- 5) The EPA defines a class V injection well as any bored, drilled, or driven shaft, or dug hole that is deeper than its widest surface dimension, or an improved sinkhole, or a subsurface fluid distribution system. Such storm water drainage wells are "authorized by rule". For more information on these rules, contact the EPA. A web site link is provided from the County DPW Stormwater Management web page.
- 6) Refer to the County of Santa Cruz Design Criteria, for complete method criteria.



## RUNOFF DETENTION BY THE MODIFIED RATIONAL METHOD

Data Entry:	PRESS TAB & ENTER DESIGN VALUES	SS Ver. 1.0
Site Location P80 Isoleth:	1.60	Fig. SWM-2 in County Design Criteria
Rational Coefficients Cpre:	0.53	See note # 2
Cpost:	0.77	See note # 2
Impervious Area:	22396 ft <sup>2</sup>	See note # 2 and # 4

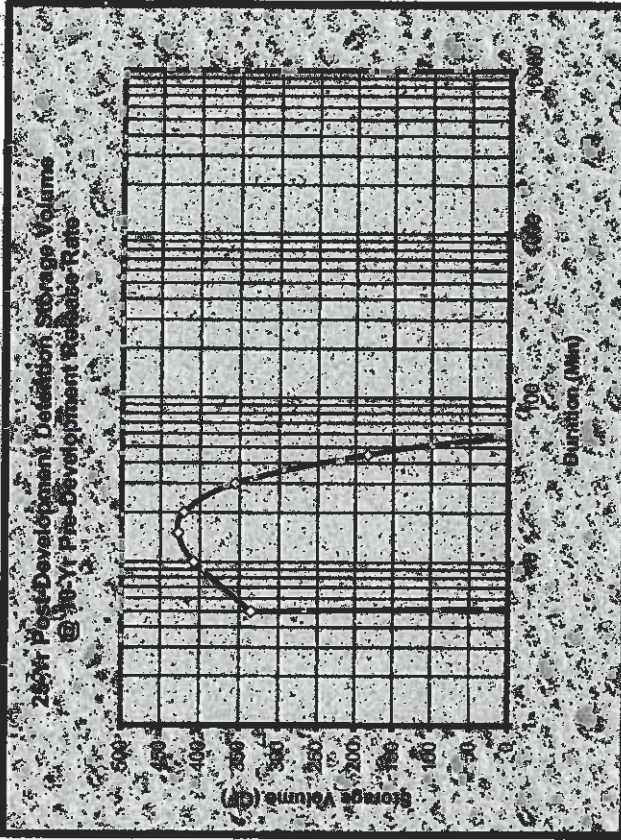
## STRUCTURE DIMENSIONS FOR DETENTION

428	ft <sup>3</sup> storage volume calculated		
100	% void space assumed		
428	ft <sup>3</sup> excavated volume needed		
Structure	Length	Width*	Depth*
Ratios	25.00	2.00	2.00
Dimen. (ft)	40.58	3.25	3.25

\*For pipe, use the square root of the sectional area

\*For pipe, use the square root of the sectional area

25 - YEAR DESIGN STORM				DETENTION @ 15 MIN.	
Storm Duration (min)	10 - Yr.		25 - Year	Detention Rate To Storage (cfs)	Specified Storage Volume (cf)
	Intensity (in/hr)	Release Qpre (cfs)	Qpost (cfs)		
1440	0.34	0.077	0.135	-0.377	-40688
1200	0.36	0.083	0.145	-0.366	-32938
960	0.40	0.091	0.160	-0.352	-25338
720	0.45	0.103	0.180	-0.332	-17914
480	0.53	0.122	0.213	-0.299	-10761
360	0.60	0.137	0.239	-0.272	-7346
240	0.71	0.162	0.283	-0.228	-4110
180	0.80	0.183	0.319	-0.193	-2599
120	0.94	0.216	0.377	-0.134	-1209
90	1.06	0.244	0.425	-0.087	-585
60	1.26	0.288	0.502	-0.009	-41
45	1.42	0.325	0.566	0.054	184
30	1.68	0.384	0.669	0.158	355
20	1.98	0.454	0.792	0.280	420
15	2.23	<b>0.511</b>	0.892	0.380	<b>428</b>
10	2.64	0.605	1.055	0.543	407
5	3.52	0.806	1.405	0.893	335



## Notes & Limitations on Use:

- 1) The modified rational method, and therefore the standard calculations are applicable in watersheds up to 20 acres in size.
- 2) Required detention volume determinations shall be based on all net new impervious areas both on and off-site, resulting from the proposed project. Pervious areas shall not be included in detention volume sizing; an exception may be made for incidental pervious areas less than 10% of the total area.
- 3) Gravel packed detention chambers shall specify on the plans, aggregate that is washed, angular, and uniformly graded (of single size), assuring void space not less than 35%.
- 4) A map showing boundaries of both regulated impervious areas and actual drainage areas routed to the hydraulic control structure of the detention facility is to be provided, clearly distinguishing between the two areas, and noting the square footage.
- 5) The EPA defines a class V injection well as any bored, drilled, or driven shaft, or dug hole that is deeper than its widest surface dimension, or an improved sinkhole, or a subsurface fluid distribution system. Such storm water drainage wells are "authorized by rule". For more information on these rules, contact the EPA. A web site link is provided from the County DPW Stormwater Management web page.
- 6) Refer to the County of Santa Cruz Design Criteria, for complete method criteria.

## RUNOFF DETENTION BY THE MODIFIED RATIONAL METHOD

Data Entry:	PRESS TAB & ENTER DESIGN VALUES	SS Ver. 1.0
Site Location P60 Isopleth:	1.60	Fig. SWM-2 in County Design Criteria
Rational Coefficients Cpre:	0.90	See note # 2
Cpost:	0.61	See note # 2
Impervious Area:	8550 ft <sup>2</sup>	See note # 2 and # 4

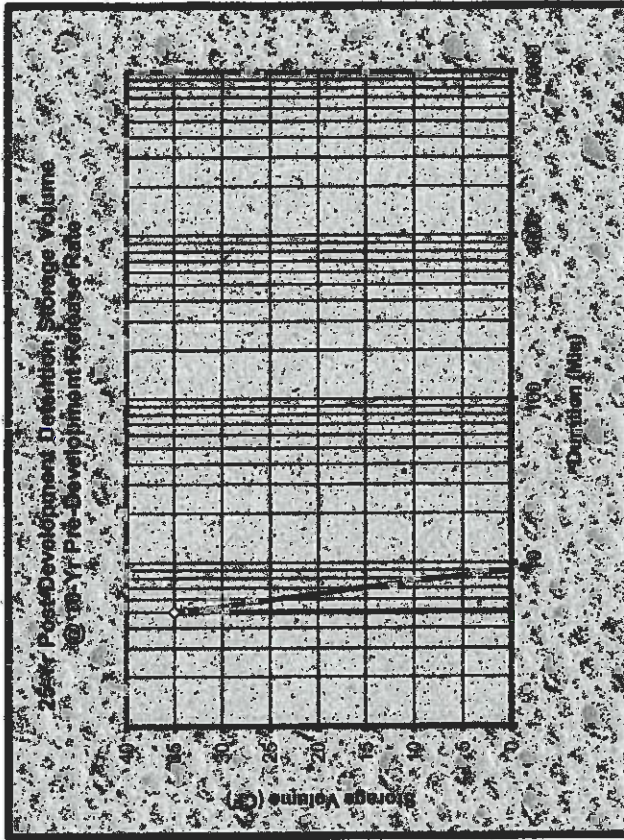
### STRUCTURE DIMENSIONS FOR DETENTION

35	ft <sup>3</sup> storage volume calculated		
100	% void space assumed		
35	ft <sup>3</sup> excavated volume needed		
Structure Ratios	Length	Width*	Depth*
	100.00	2.00	2.00
Dimen. (ft)	44.39	0.89	0.89

\*For pipe, use the square root of the sectional area

\*For pipe, use the square root of the sectional area

25 - YEAR DESIGN STORM				DETENTION @ 15 MIN.	
Storm Duration (min)	25 - Year Intensity (in/hr)	10 - Yr. Release Qpre (cfs)	25 - Year Qpost (cfs)	Detention Rate To Storage (cfs)	Specified Storage Volume (cf)
1440	0.34	0.050	0.041	-0.291	-31402
1200	0.36	0.054	0.044	-0.288	-25881
960	0.40	0.059	0.048	-0.283	-20398
720	0.45	0.067	0.054	-0.277	-14969
480	0.53	0.079	0.064	-0.267	-9622
360	0.60	0.089	0.072	-0.259	-6997
240	0.71	0.105	0.086	-0.246	-4427
180	0.80	0.119	0.096	-0.235	-3174
120	0.94	0.140	0.114	-0.217	-1957
90	1.06	0.158	0.128	-0.203	-1371
60	1.26	0.187	0.152	-0.180	-808
45	1.42	0.210	0.171	-0.160	-541
30	1.68	0.249	0.202	-0.129	-291
20	1.98	0.294	0.239	-0.092	-138
15	2.23	<b>0.332</b>	0.270	-0.062	-70
10	2.64	0.392	0.319	-0.013	-9
5	3.52	0.522	0.425	0.093	35



### Notes & Limitations on Use:

- 1) The modified rational method, and therefore the standard calculations are applicable in watersheds up to 20 acres in size.
- 2) Required detention volume determinations shall be based on all net new impervious areas both on and off-site, resulting from the proposed project. Pervious areas shall not be included in detention volume sizing; an exception may be made for incidental pervious areas less than 10% of the total area.
- 3) Gravel packed detention chambers shall specify on the plans, aggregate that is washed, angular, and uniformly graded (of single size), assuring void space not less than 35%.
- 4) A map showing boundaries of both regulated impervious areas and actual drainage areas routed to the hydraulic control structure of the detention facility is to be provided, clearly distinguishing between the two areas, and noting the square footage.
- 5) The EPA defines a class V injection well as any bored, drilled, or driven shaft, or dug hole that is deeper than its widest surface dimension, or an improved sinkhole, or a subsurface fluid distribution system. Such storm water drainage wells are "authorized by rule". For more information on these rules, contact the EPA. A web site link is provided from the County DPW Stormwater Management web page.
- 6) Refer to the County of Santa Cruz Design Criteria, for complete method criteria.

# Exhibit A

## **Attachment 8:**

Comment letters received on MND and responses to comments

## **Attachment 9: Minor revisions to the TIA**



## Annette Olson

---

**From:** Justin Le <Justin.Le@OPR.CA.GOV>  
**Sent:** Tuesday, April 28, 2020 2:14 PM  
**To:** Annette Olson  
**Subject:** SCH# 2020039078

\*\*\*\***CAUTION:**This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email.\*\*\*\*

The State Clearinghouse would like to inform you that our office will be transitioning from providing a hard copy of acknowledging the close of review period on your project to electronic mail system.

**Please visit:** <https://ceganet.opr.ca.gov/2020039078/2> for full details about your project and if any state agencies submitted comments by close of review period (note: any state agencies in **bold**, submitted comments and are available).

This email acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please email the State Clearinghouse at [state.clearinghouse@opr.ca.gov](mailto:state.clearinghouse@opr.ca.gov) for any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Justin Le | Student Assistant  
**Governor's Office of Planning and Research**  
**State Clearinghouse Unit**  
1400 10th Street, Room 113  
Sacramento, CA 95814  
(916) 445-0613



## NATIVE AMERICAN HERITAGE COMMISSION

April 15, 2020

CHAIRPERSON  
**Laura Miranda**  
Luiseño

Annette Olson  
County of Santa Cruz

Via Email to: [Annette.olson@santacruzcounty.us](mailto:Annette.olson@santacruzcounty.us)

VICE CHAIRPERSON  
**Reginald Pagaling**  
Chumash

**Re: SCH#2020039078, CVS Project, Santa Cruz County, California**

SECRETARY  
**Merri Lopez-Keller**  
Luiseño

Dear Ms. Olson:

PARLIAMENTARIAN  
**Russell Attebery**  
Karuk

The Native American Heritage Commission (NAHC) has reviewed the Draft Environmental Impact Report (DEIR)/Mitigated Negative Declaration (MND) or Negative Declaration prepared for the project referenced above. The review may have included the Cultural Resources Section, Archaeological Report, Appendices for Cultural Resources Compliance, as well as other informational materials. We have the following concerns:

COMMISSIONER  
**Marshall McKay**  
Wintun

- There is no information in the documents of any contact or consultation with all traditionally, culturally affiliated California Native American Tribes from the NAHC's contact list.
- There does not appear to be evidence of a Sacred Lands File request was submitted for the project.
- There does not appear to be evidence that possible mitigation measures were developed in consultation with the traditionally, culturally affiliated California Native American Tribes, for example when resources are found, avoidance or conservation easements.

COMMISSIONER  
**William Mungary**  
Paiute/White Mountain  
Apache

COMMISSIONER  
**Julie Tumamall-Stenslie**  
Chumash

COMMISSIONER  
[Vacant]

COMMISSIONER  
[Vacant]

EXECUTIVE SECRETARY  
**Christina Snider**  
Pomo

The California Environmental Quality Act (CEQA)<sup>1</sup>, specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.<sup>2</sup> If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared.<sup>3</sup> In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended in 2014 by Assembly Bill 52 (AB 52).<sup>4</sup> **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** AB 52 created a separate category for "tribal cultural resources"<sup>5</sup>, that now includes "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment."<sup>6</sup> Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.<sup>7</sup> Your project may also be subject to **Senate Bill 18 (SB 18)** (Burton, Chapter

**NAHC HEADQUARTERS**  
1550 Harbor Boulevard  
Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
[NAHC.ca.gov](http://NAHC.ca.gov)

<sup>1</sup> Pub. Resources Code § 21000 et seq.

<sup>2</sup> Pub. Resources Code § 21084.1; Cal. Code Regs., tit. 14, § 15064.5 (b); CEQA Guidelines Section 15064.5 (b)

<sup>3</sup> Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1); CEQA Guidelines § 15064 (a)(1)



905, Statutes of 2004), Government Code 65352.3, if it also involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space. **Both SB 18 and AB 52 have tribal consultation requirements.** Additionally, if your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966<sup>8</sup> may also apply.

**Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

Agencies should be aware that AB 52 does not preclude agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52. For that reason, we urge you to continue to request Native American Tribal Contact Lists and Sacred Lands File searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>. Additional information regarding AB 52 can be found online at [http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation\\_CALEPAPDF.pdf](http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CALEPAPDF.pdf), entitled "Tribal Consultation Under AB 52: Requirements and Best Practices".

The NAHC recommends lead agencies consult with all California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources.

A brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments is also attached.

If you have any questions or need additional information, please contact me at my email address:  
[Sarah.Fonseca@nahc.ca.gov](mailto:Sarah.Fonseca@nahc.ca.gov).

Sincerely,



Sarah Fonseca  
Cultural Resources Analyst

Attachment

cc: State Clearinghouse

## Pertinent Statutory Information:

### **Under AB 52:**

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice. A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.<sup>4</sup> and **prior to the release of a negative declaration, mitigated negative declaration or environmental impact report.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18).<sup>5</sup>

The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a. Alternatives to the project.
- b. Recommended mitigation measures.
- c. Significant effects.<sup>6</sup>

1. The following topics are discretionary topics of consultation:

- a. Type of environmental review necessary.
- b. Significance of the tribal cultural resources.
- c. Significance of the project's impacts on tribal cultural resources.

If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency.<sup>7</sup>

With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process **shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10.** Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.<sup>8</sup>

If a project may have a significant impact on a tribal cultural resource, **the lead agency's environmental document shall discuss** both of the following:

- a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource.<sup>9</sup>

Consultation with a tribe shall be considered concluded when either of the following occurs:

- a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
- b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.<sup>10</sup>

Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 **shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program**, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable.<sup>11</sup>

If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, **the lead agency shall consider feasible mitigation** pursuant to Public Resources Code section 21084.3 (b).<sup>12</sup>

An environmental impact report **may not be certified**, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

<sup>4</sup> Pub. Resources Code § 21080.3.1, subds. (d) and (e)

<sup>5</sup> Pub. Resources Code § 21080.3.1 (b)

<sup>6</sup> Pub. Resources Code § 21080.3.2 (a)

<sup>7</sup> Pub. Resources Code § 21080.3.2 (a)

<sup>8</sup> Pub. Resources Code § 21082.3 (c)(1)

<sup>9</sup> Pub. Resources Code § 21082.3 (b)

<sup>10</sup> Pub. Resources Code § 21080.3.2 (b)

<sup>11</sup> Pub. Resources Code § 21082.3 (a)

<sup>12</sup> Pub. Resources Code § 21082.3 (e)

- a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
- b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
- c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days.<sup>13</sup>

***This process should be documented in the Tribal Cultural Resources section of your environmental document.***

#### **Under SB 18:**

Government Code § 65352.3 (a) (1) requires consultation with Native Americans on general plan proposals for the purposes of "preserving or mitigating impacts to places, features, and objects described § 5097.9 and § 5091.993 of the Public Resources Code that are located within the city or county's jurisdiction. Government Code § 65560 (a), (b), and (c) provides for consultation with Native American tribes on the open-space element of a county or city general plan for the purposes of protecting places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

- SB 18 applies to **local governments** and requires them to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: [https://www.opr.ca.gov/docs/09\\_14\\_05\\_Updated\\_Guidelines\\_922.pdf](https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf)
- **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.**<sup>14</sup>
- **There is no Statutory Time Limit on Tribal Consultation under the law.**
- **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research,<sup>15</sup> the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction.<sup>16</sup>
- **Conclusion Tribal Consultation:** Consultation should be concluded at the point in which:
  - o The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - o Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation.<sup>17</sup>

#### **NAHC Recommendations for Cultural Resources Assessments:**

- Contact the NAHC for:
  - o A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - o A Native American Tribal Contact List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
    - The request form can be found at <http://nahc.ca.gov/resources/forms/>.
- Contact the appropriate regional California Historical Research Information System (CHRIS) Center ([http://ohp.parks.ca.gov/?page\\_id=1068](http://ohp.parks.ca.gov/?page_id=1068)) for an archaeological records search. The records search will determine:
  - o If part or the entire APE has been previously surveyed for cultural resources.
  - o If any known cultural resources have been already been recorded on or adjacent to the APE.
  - o If the probability is low, moderate, or high that cultural resources are located in the APE.
  - o If a survey is required to determine whether previously unrecorded cultural resources are present.

<sup>13</sup> Pub. Resources Code § 21082.3 (d)

<sup>14</sup> (Gov. Code § 65352.3 (a)(2)).

<sup>15</sup> pursuant to Gov. Code section 65040.2,

<sup>16</sup> (Gov. Code § 65352.3 (b)).

<sup>17</sup> (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

- If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

**Examples of Mitigation Measures That May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**

- Avoidance and preservation of the resources in place, including, but not limited to:
  - Planning and construction to avoid the resources and protect the cultural and natural context.
  - Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - Protecting the cultural character and integrity of the resource.
  - Protecting the traditional use of the resource.
  - Protecting the confidentiality of the resource.
- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed.<sup>18</sup>
- Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.<sup>19</sup>

The lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

- Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources.<sup>20</sup> In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

<sup>18</sup> (Civ. Code § 815.3 (c)).

<sup>19</sup> (Pub. Resources Code § 5097.991).

<sup>20</sup> per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)).

## Annette Olson

---

**From:** Annette Olson  
**Sent:** Thursday, April 16, 2020 4:07 PM  
**To:** Fonseca, Sarah@NAHC  
**Subject:** RE: SCH#2020039078, CVS Project

Hi Sarah.

Thank you again for commenting on the CVS initial study. In reviewing your comments, I consulted with Matt Johnston, our Environmental Coordinator. In this case, because there is no General Plan amendment proposed and no dedication of open space, we have concluded that SB-18 is not applicable to this particular project.

In addition, it is our understanding that AB-52 comes into play when a tribe has requested notification. We do not have a record of receiving such a request. If you have not yet provided each California Native American tribe that might be affiliated with the geographic boundaries of Santa Cruz County with the contact information of our agency, and information on how tribes may request that we notify a tribe of projects within our jurisdiction for the purposes of requesting consultation, please do so. If you need that information from us, we are happy to provide it.

Beyond the two bills and our responses to your comments above, we did determine there are no mapped resources on site, and any development is required to stop and consult should they come across historic or prehistoric artifacts or skeletons. With these measures, we don't foresee any significant impacts to historic or cultural resources. We are happy to discuss this issue further if you like.

Thanks very much,  
Annette

---

**From:** Fonseca, Sarah@NAHC <Sarah.Fonseca@nahc.ca.gov>  
**Sent:** Thursday, April 16, 2020 8:16 AM  
**To:** Annette Olson <Annette.Olson@santacruzcounty.us>  
**Subject:** RE: SCH#2020039078, CVS Project

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You're very welcome.

Have a wonderful Thursday and let me know if you have any questions.

*Sarah Fonseca*

Cultural Resources Analyst

**Native American Heritage Commission**  
(916) 373-3714  
[Sarah.Fonseca@nahc.ca.gov](mailto:Sarah.Fonseca@nahc.ca.gov)



**DEPARTMENT OF TRANSPORTATION**

CALTRANS DISTRICT 5

50 HIGUERA STREET

SAN LUIS OBISPO, CA 93401-5415

PHONE (805) 549-3101

FAX (805) 549-3329

TTY 711

[www.dot.ca.gov/dist05/](http://www.dot.ca.gov/dist05/)Making Conservation  
a California Way of Life.

April 27, 2020

SCr-1-14.741  
SCH#2020039078

Annette Olson  
County of Santa Cruz Planning Department  
701 Ocean Street, 4<sup>th</sup> Floor  
Santa Cruz, CA 95060

Dear Ms. Olson:

**COMMENTS FOR THE MITIGATED NEGATIVE DECLARATION (MND) – CVS, SANTA CRUZ COUNTY, CA**

The California Department of Transportation (Caltrans), District 5, Development Review, has reviewed the MND for the CVS to be located at the southeast corner of Soquel Drive and Commercial Way. Caltrans offers the following comments in response to the MND:

1. Caltrans encourages the County and the applicant to work together on an improvement to delineate the parking area off the Commercial Way and State Route (SR) 1 right of way. This will help direct traffic and avoid operational conflicts until completion of the future project at the intersection.
2. Please be aware that if any work is completed in the State's right-of-way it will require an encroachment permit from Caltrans, and must be done to our engineering and environmental standards, and at no cost to the State. The conditions of approval and the requirements for the encroachment permit are issued at the sole discretion of the Permits Office, and nothing in this letter shall be implied as limiting those future conditioned and requirements. For more information regarding the encroachment permit process, please visit our Encroachment Permit Website at:  
<http://www.dot.ca.gov/trafficops/ep/index.html>.

Annette Olson  
April 27, 2020  
Page 2

Thank you for the opportunity to review and comment on the proposed project. If you have any questions, or need further clarification on items discussed above, please contact me at Christopher.Bjornstad@dot.ca.gov.

Sincerely,



Chris Bjornstad  
Associate Transportation Planner  
District 5 Development Review

*"Provide a safe, sustainable, integrated and efficient transportation system  
to enhance California's economy and livability"*

## Annette Olson

---

**From:** Annette Olson  
**Sent:** Saturday, May 23, 2020 11:06 AM  
**To:** Annette Olson  
**Subject:** FW: CVS Comment Letter

**From:** Bjornstad, Christopher@DOT <[Christopher.Bjornstad@dot.ca.gov](mailto:Christopher.Bjornstad@dot.ca.gov)>  
**Sent:** Friday, May 1, 2020 9:57 AM  
**To:** Annette Olson <[Annette.Olson@santacruzcounty.us](mailto:Annette.Olson@santacruzcounty.us)>  
**Subject:** RE: CVS Comment Letter

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Hi Annette,  
Congrats on your new job. I just got feedback from Pete Hendrix in Permits and they would like the driveways to follow Caltrans Standard Plan A87A for the driveway detail. Let me know if you need anything else.  
Thanks,  
Chris

**From:** Bjornstad, Christopher@DOT <[Christopher.Bjornstad@dot.ca.gov](mailto:Christopher.Bjornstad@dot.ca.gov)>  
**Sent:** Monday, April 27, 2020 3:34 PM  
**To:** Annette Olson <[Annette.Olson@santacruzcounty.us](mailto:Annette.Olson@santacruzcounty.us)>  
**Subject:** RE: CVS Comment Letter

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Hi Annette,  
I just forwarded this to John for his opinion. He had talked with Traffic Ops about it. I think they just wanted a raised curb for the new sidewalks surrounding the new driveway on Commerce Way. I will let you know when I here back. SIP hasn't been too bad so far other than the days seem longer. I hope everything is well up north too.  
Thanks,  
Chris

**From:** Annette Olson <[Annette.Olson@santacruzcounty.us](mailto:Annette.Olson@santacruzcounty.us)>  
**Sent:** Monday, April 27, 2020 2:33 PM  
**To:** Bjornstad, Christopher@DOT <[Christopher.Bjornstad@dot.ca.gov](mailto:Christopher.Bjornstad@dot.ca.gov)>  
**Subject:** RE: CVS Comment Letter

EXTERNAL EMAIL. Links/attachments may not be safe.

Hi Chris.

Thanks for commenting. Did you have anything specifically in mind for the following comment? I'm working on the staff report now, so if you have something I could add as a condition of approval, I'm happy to review it.

1. Caltrans encourages the County and the applicant to work together on an improvement to delineate the parking area off the Commercial Way and State Route (SR) 1 right of way. This will help direct traffic and avoid operational conflicts until completion of the future project at the intersection.

I hope you are doing well and the SIP order is not too much of challenge.

Thanks for commenting,  
Annette.

**From:** Bjornstad, Christopher@DOT <[Christopher.Bjornstad@dot.ca.gov](mailto:Christopher.Bjornstad@dot.ca.gov)>  
**Sent:** Monday, April 27, 2020 2:30 PM  
**To:** Annette Olson <[Annette.Olson@santacruzcounty.us](mailto:Annette.Olson@santacruzcounty.us)>  
**Subject:** CVS Comment Letter

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Hi Annette,

Please see the attached comment letter for the CVS MND. A hard copy has been sent for your records. Let me know if you have any questions.

Thanks,

Chris Bjornstad

Caltrans, District 5

Associate Transportation Planner

(805) 549-3157



## Annette Olson

**From:** Linda Wilshusen <l-j-w@pacbell.net>  
**Sent:** Monday, April 27, 2020 3:08 PM  
**To:** Annette Olson  
**Cc:** John Leopold; Regional Transportation Commission  
**Subject:** Proposed Project: CVS, Mitigated Negative Declaration, Application #181576

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

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Dear Ms. Olson -

Thank you for the opportunity to comment on the Mitigated Negative Declaration for the proposed new CVS store located at the northbound Highway 1 ramps and Soquel Drive across from Dominican Hospital. My comments pertain to the Transportation section and the associated traffic study.

1. The traffic study concludes that nearly all the intersections analyzed for the MND "will operate at an unacceptable LOS during Cumulative conditions" (p. 36). It also concludes that the "Cumulative impact is thus significant and unavoidable..." (p. 41). Nevertheless, the Findings described on the project MND cover sheet say "there is no substantial evidence that the project will have a significant effect on the environment." Please provide detailed and specific information to reconcile these conflicting statements.
2. According to Figure 1 of the traffic study, approximately 24% of trips generated by this project will traverse the Highway 1 southbound on/off ramps at Soquel Avenue, but this intersection is not analyzed in the study. What's the rationale for leaving out analysis of this key intersection?
3. In numerous places in the traffic study, as well as in the MND, there are statements to the effect that "Caltrans plans to reconstruct the Highway 1/Soquel Drive interchange" (p. 48, MND). It also notes that "the project is not yet funded." In fact, this fantasy project is not on any public list to compete for funding, including the County's own list, anytime in the foreseeable (25 years) future and probably never. The County should not allow prospective developers to even reference these "plans" as part of their project traffic analysis.
4. The primary project justification for allowing the (partially) documented/estimated project traffic impacts to not be listed as "significant" are that the project will better serve the local community, thereby tending "to shorten trips and reduce VMT." I agree that commercial services in local neighborhoods have the benefit of reducing VMT. Unfortunately, in this case, if Figure 1 is to be believed, over 40% of trips generated by the project will access the new store from south of the freeway via the already congested Highway 1/Soquel Avenue on/off ramps/intersection and the Soquel Drive/Soquel Ave. intersection. This will significantly reduce local access to the site and calls into question the statement that "the project would reduce the County's VMT...[and] will result in a beneficial impact."
5. In light of 3 and 4 above, the County and the Regional Transportation Commission should consider requiring that this developer, together with others that are proposing new significant development in the area adjacent to Highway 1, commission a study of a new freeway overcrossing at 17th Avenue. Unlike in the City of Santa Cruz and Capitola (with three each), the Highway 1 segment between the Soquel Drive and 41st Avenue interchanges has zero underpasses or overcrossings for local traffic. While there is now-outdated logic to the 70-year history of this gap, it's time to think about how the mid-County would be best served by operational improvements that reduce the barrier to local trips posed by the freeway, both in Live Oak and in the Aptos area.



6. On the upside, there is a new, funded bicycle and pedestrian bridge over Highway 1 at Chanticleer Ave., currently in the design phase, but it's not even mentioned in the MND or traffic study. Both of these documents should reference the bridge and discuss what improvements between the bridge and the site can enhance access for bicyclists and pedestrians, whose trips, after all, are supposedly part of the VMT reduction claimed by the project.

7. The restrictions to left turns onto Soquel Drive from both the new CVS and Dominican Hospital are labeled as "traffic calming" measures in a letter from the latter included in the traffic study. Please explain how these restrictions will be consistently enforced.

Thank you very much for considering my comments. I'd like to add that this proposed project has apparently been successful in flying under the radar - I only found out about it yesterday because I was researching the other big one in the area, Kaiser Permanente.

Linda Wilshusen  
1115 Live Oak Ave.  
Santa Cruz CA 95062

## **Response to Linda Wilshusen's Comments**

Comment 1: The traffic study concludes that nearly all the intersections analyzed for the MND "will operate at an unacceptable LOS during Cumulative conditions" (p. 36). It also concludes that the "Cumulative impact is thus significant and unavoidable..." (p. 41). Nevertheless, the Findings described on the project MND cover sheet say "there is no substantial evidence that the project will have a significant effect on the environment." Please provide detailed and specific information to reconcile these conflicting statements.

Response: CEQA no longer uses LOS for significance determinations. SB 743 requires VMT to be used in CEQA for determining transportation impacts.

Comment 2: According to Figure 1 of the traffic study, approximately 24% of trips generated by this project will traverse the Highway 1 southbound on/off ramps at Soquel Avenue, but this intersection is not analyzed in the study. What's the rationale for leaving out analysis of this key intersection?

Response: Figure 6 (Intersection 1, northbound right and westbound left movements) shows that roughly 8 net new AM trips and 9 net new PM trips are anticipated to travel towards through the signalized Soquel Ave & Highway 1 on/off ramps intersection. This small number of trips does not justify studying the additional intersection.

Comment 3: In numerous places in the traffic study, as well as in the MND, there are statements to the effect that "Caltrans plans to reconstruct the Highway 1/Soquel Drive interchange" (p. 48, MND). It also notes that "the project is not yet funded." In fact, this fantasy project is not on any public list to compete for funding, including the County's own list, anytime in the foreseeable (25 years) future and probably never. The County should not allow prospective developers to even reference these "plans" as part of their project traffic analysis.

Response: The intersection is not on the County Capital Improvement Program because it is a State controlled intersection; the intersection improvements are included in the Highway 1 EIR.

Comment 4: The primary project justification for allowing the (partially) documented/estimated project traffic impacts to not be listed as "significant" are that the project will better serve the local community, thereby tending "to shorten trips and reduce VMT." I agree that commercial services in local neighborhoods have the benefit of reducing VMT. Unfortunately, in this case, if Figure 1 is to be believed, over 40% of trips generated by the project will access the new store from south of the freeway via the already congested Highway 1/Soquel Avenue on/off ramps/intersection and the Soquel Drive/Soquel Ave. intersection. This will significantly reduce local access to the site and calls into question the statement that "the project would reduce the County's VMT...[and] will result in a beneficial impact."

Response: VMT is a measure of trip lengths and is now the CEQA impact criteria. VMT should not be confused with LOS, which is a measure of delay. The CVS would serve the local community by increasing the density of retail pharmacies, which reduces trip lengths. The project is located in the Medical District/Flea Market focus area of the Sustainable Santa Cruz County and will serve patients of Dominican Hospital and the other medical and dental providers in the area thereby shortening trip lengths.

In addition, residents in Live Oak and Santa Cruz can also visit the store and exit and enter at the close-by interchanges, i.e. Morrissey, 41<sup>st</sup>, Bay.

Comment 5: In light of 3 and 4 above, the County and the Regional Transportation Commission should consider requiring that this developer, together with others that are proposing new significant development in the area adjacent to Highway 1, commission a study of a new freeway overcrossing at 17th Avenue. Unlike in the City of Santa Cruz and Capitola (with three each), the Highway 1 segment between the Soquel Drive and 41st Avenue interchanges has zero underpasses or overcrossings for local traffic. While there is now-outdated logic to the 70-year history of this gap, it's time to think about how the mid-County would be best served by operational improvements that reduce the barrier to local trips posed by the freeway, both in Live Oak and in the Aptos area.

Response: Overcrossings were recommended at a high level in the Sustainable Santa Cruz County Plan. However, further detailed and extensive study would be needed to be conducted to determine the feasibility, costs, benefits, etc., of overcrossings which is well beyond the scope of this small proposed Project.

Comment 6: On the upside, there is a new, funded bicycle and pedestrian bridge over Highway 1 at Chanticleer Ave., currently in the design phase, but it's not even mentioned in the MND or traffic study. Both of these documents should reference the bridge and discuss what improvements between the bridge and the site can enhance access for bicyclists and pedestrians, whose trips, after all, are supposedly part of the VMT reduction claimed by the project.

Response: The traffic study, on page 49, identifies the pedestrian bridge. Yes, the initial study could have discussed the benefits of the pedestrian bridge especially in reducing the car trips from the beach side of highway 1. This omission does not trigger recirculation or require new mitigations.

Comment 7: The restrictions to left turns onto Soquel Drive from both the new CVS and Dominican Hospital are labeled as "traffic calming" measures in a letter from the latter included in the traffic study. Please explain how these restrictions will be consistently enforced.

Response: The left turns out of both the CVS and the Dominican Hospital driveways will be restricted during weekday peak traffic periods from 7AM-9AM and 4PM-6PM, and will be accomplished via signage. Law enforcement will be responsible for ticketing violators.

## Annette Olson

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**Subject:** FW: CVS Santa Cruz - Revised Traffic Study  
**Attachments:** Final\_TIA\_CVS Santa Cruz\_05-04-2020\_Turn times revised.pdf

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**From:** Leanna Swenson <[lswenson@boosdevelopment.com](mailto:lswenson@boosdevelopment.com)>  
**Sent:** Tuesday, May 26, 2020 5:28 PM  
**To:** Annette Olson <[Annette.Olson@santacruzcounty.us](mailto:Annette.Olson@santacruzcounty.us)>  
**Subject:** RE: CVS Santa Cruz - Revised Traffic Study

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Hi Annette –

The following edits were made:

- TIA fee language. No change to total fee. Just fixed typo for credits. Pages 4 and 57
- Page 5 “The pharmacy drive through window ~~will~~ **is anticipated** to be open from 8:00am to 12:00am Monday through Sunday”
- Each page where the LT restriction is mentioned. Pages 1, 17, 19, & 54.

Please reach out on any questions.

Thanks,

Leanna Swenson | *Development Project Manager*  
BOOS DEVELOPMENT WEST, LLC  
O: (916) 346-4797 | C: (530) 781-3372  
Email: [lswenson@boosdevelopment.com](mailto:lswenson@boosdevelopment.com)

**\*\*\* Due to COVID 19, the Boos Development West office will be working from home until further notice. Please feel free to reach out to me directly at 530-781-3372**

---

**From:** Annette Olson [<mailto:Annette.Olson@santacruzcounty.us>]  
**Sent:** Tuesday, May 26, 2020 5:45 AM  
**To:** Leanna Swenson <[lswenson@boosdevelopment.com](mailto:lswenson@boosdevelopment.com)>  
**Subject:** RE: CVS Santa Cruz - Revised Traffic Study

Leanna.

Could you tell me the portions that were revised. I’m not seeing an easy way to tell. Is the only change the description in the executive summary about the sign. If so, I will just add that page. I can’t pull the original TIA out of the initial study; that’s part of the record now.

Thanks,  
Annette

**From:** Leanna Swenson <[lswenson@boosdevelopment.com](mailto:lswenson@boosdevelopment.com)>  
**Sent:** Monday, May 4, 2020 12:47 PM  
**To:** Annette Olson <[Annette.Olson@santacruzcounty.us](mailto:Annette.Olson@santacruzcounty.us)>  
**Cc:** JOE APPENRODT <[appenrodt1@aol.com](mailto:appenrodt1@aol.com)>; Mike Mallard <[mmallard@boosdevelopment.com](mailto:mmallard@boosdevelopment.com)>  
**Subject:** CVS Santa Cruz - Revised Traffic Study

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Good afternoon Annette – KH has updated the Traffic Study based on the approval of the County for the CVS Left-turn restrictions weekdays between 7am-9am and 4pm-6pm (attached). Please let me know if there are any comments.

Thanks,

Leanna Swenson | *Development Project Manager*  
BOOS DEVELOPMENT WEST, LLC  
2020 L Street, Suite 245  
Sacramento, CA 95811  
O: (916) 346-4797 | C: (530) 781-3372  
Email: [lswenson@boosdevelopment.com](mailto:lswenson@boosdevelopment.com)  
Web: [www.boosdevelopment.com](http://www.boosdevelopment.com)



**\*\*\* Due to COVID 19, the Boos Development West office will be working from home until further notice. Please feel free to reach out to me directly at 530-781-3372**



## EXECUTIVE SUMMARY

This report presents the results of the Transportation Impact Analysis (TIA) for the proposed Santa Cruz CVS (Project) located in Santa Cruz County, California (County).

### PROJECT DESCRIPTION

The Project proposes to construct a new CVS located south of the intersection of Soquel Drive and Hospital Drive. Project site land uses includes one multifamily residential unit and a furniture store.

The Project is anticipated to be open to customers seven days a week from 8:00 AM to 12:00 AM. It will include 13,111 square feet of gross floor area and drive-through pharmacy window. The pharmacy drive through window is anticipated to be open from 8:00am to 12:00am Monday through Sunday. Additionally, the CVS could include a minute clinic that would provide flu shots and similar services. The Project will accommodate on-site parking for bicycles and passenger vehicles and will construct one driveway along Soquel Drive and one driveway along Commercial Way.

The Project will be accessed via a full access driveway on Soquel Drive with exceptions that left-turn out movement from the main CVS driveway will be restricted during the AM and PM peak periods (from 7:00am to 9:00am and 4:00pm-6:00pm). The left-turn out movement from the Hospital driveway will also be restricted during the AM and PM peak periods.

### ANALYSIS METHODOLOGY

Impacts associated with the Project were evaluated for the weekday AM and PM peak one-hour periods, consistent with accepted County and Caltrans guidelines and criteria. Typically, peak periods extend over more than just the one hour analyzed, but this analysis presents the busiest one hour during each AM and PM peak period. Peak road network traffic in the study area was observed between 7:00am-9:00am in the AM and between 4:00pm-6:00pm in the PM. The TIA analysis was conducted for the one hour AM and one hour PM peaks for the following analysis scenarios:

- **Scenario 1: Existing (2018) Conditions**  
Based upon current traffic counts collected in March 2018 and existing roadway geometry and traffic control.
- **Scenario 2: Existing (2018) Plus Project Conditions**  
Based upon existing traffic volumes, existing roadway geometry, and traffic control and traffic generated by the Project.
- **Scenario 3: Near Term (2020) Conditions**  
Based upon future year traffic forecasts estimated for developments anticipated to occur at the time the Project is constructed in approximately the year 2020. These forecasts were determined by applying a historic average annual percent growth rate for two years after 2018, using Santa Cruz County Regional Transportation Commission (SCCRTC) ADT data.
- **Scenario 4: Near Term (2020) Plus Project Conditions**  
Based upon Project traffic added to the Near Term (2020) Conditions.
- **Scenario 5: Cumulative (2035) Conditions**  
Based upon future traffic forecasted for developments anticipated to occur through 2035. These forecasts were calculated by applying an average annual percent growth rate from year 2018 through year 2035, utilizing historic growth rates on Soquel Drive.
- **Scenario 6: Cumulative (2035) Plus Project Conditions**

## 1. INTRODUCTION

This TIA presents the findings of the traffic analysis for the proposed construction of a new Santa Cruz CVS (the Project), which will be located south of the intersection of Soquel Drive and Hospital Drive, in unincorporated Santa Cruz County. The site currently contains one multifamily residential unit and a furniture store. The Project is anticipated to be open to customers seven days a week from 8:00 AM to 12:00 AM. It will include 13,111 square feet of gross floor area and pharmacy drive-through. The pharmacy drive through window is anticipated to be open from 8:00am to 12:00am Monday through Sunday. Additionally, the CVS could include a minute clinic that would provide flu shots and similar services. The Project will accommodate on-site parking for 13 bicycles and 50 passenger vehicles (including 4 ADA spaces) and will construct one driveway along Soquel Drive and one driveway along Commercial Way.

**Figure 1** shows the location of the Project site, study intersections, and the surrounding study area. **Figure 2** illustrates the Project site plan.

Based upon discussions with California Department of Transportation (Caltrans) Traffic Operation Staff at a meeting on January 4, 2018, it is anticipated that the existing Commercial Way connection to the Highway 1 northbound on and off ramp will be realigned once the interchange is improved. The new alignment will convert Commercial Way just west of the Project driveway into a cul-de-sac. The southern Project driveway onto Commercial way will then operate as a right-in, left-out only. This traffic analysis assumes these improvements will be constructed as part of the cumulative traffic modeling scenarios. This study complies with traffic impact analysis guidelines and criteria set forth by Santa Cruz County, the California Department of Transportation, and CEQA.

## ANALYSIS METHODOLOGY

### DEVELOPMENT CONDITIONS

This transportation impact analysis was based on the following development conditions:

- **Scenario 1: Existing (2018) Conditions**  
Based upon current traffic counts collected in March 2018 and existing roadway geometry and traffic control.
- **Scenario 2: Existing (2018) Plus Project Conditions**  
Based upon existing traffic volumes, existing roadway geometry, and traffic control and traffic generated by the Project.
- **Scenario 3: Near Term (2020) Conditions**  
Based upon future year traffic forecasts estimated for developments anticipated to occur at the time the Project is constructed in approximately the year 2020. These forecasts were determined by applying a historic average annual percent growth rate for two years after 2018, using Santa Cruz County Regional Transportation Commission (SCCRTC) ADT data.
- **Scenario 4: Near Term (2020) Plus Project Conditions**  
Based upon Project traffic added to the Near Term (2020) Conditions.
- **Scenario 5: Cumulative (2035) Conditions**  
Based upon future traffic forecasted for developments anticipated to occur through 2035. These forecasts were calculated by applying an average annual percent growth rate from year 2018 through year 2035, utilizing historic growth rates on Soquel Drive.
- **Scenario 6: Cumulative (2035) Plus Project Conditions**  
Based upon Project traffic added to the Cumulative year traffic volumes and 2035 Conditions.

### 3. PROPOSED PROJECT

#### PROJECT TRANSPORTATION IMPROVEMENTS

##### PROJECT SITE ACCESS AND PARKING

As part of the Project, new sidewalk, curb, and gutter frontage improvements will be constructed along Soquel Drive and Commercial Way. The Project proposes to construct one driveway onto Soquel Drive at the northwest corner of the site (Study Intersection #2) and one driveway onto Commercial Way at the south end of the site (Study Intersection #7). Both Project driveways will be side-street stop controlled (SSSC). Left-turns out of the Project driveway onto Soquel Drive will be restricted during the AM and PM peak periods (7:00am to 9:00am and 4:00pm to 6:00pm, respectively). Likewise, left-turns out of the Hospital driveway onto Soquel Drive will be restricted during the AM and PM peak periods (7:00am to 9:00am and 4:00pm to 6:00pm, respectively).

The Project will provide 50 vehicle parking stalls on-site (including 4 Americans with Disabilities Act (ADA) spaces) and 13 bicycle rack spaces. Vehicular parking will be allocated as follows:

- Employee, Customer, Etc. Spaces (50 total):
  - 46 – Employee / Customer Spaces
  - 4 – ADA Spaces

Project frontage improvements will be constructed consistent with ADA requirements. The Project site plan is illustrated shown in **Figure 2**.

##### SOQUEL DRIVE / PROJECT DRIVEWAY #1 (INTERSECTION #3)

The driveway that currently exists and provides access to the existing Decor Furniture store will be demolished and a new Project driveway will be constructed and aligned with the existing Dominican Hospital stop controlled driveway on Soquel Drive (Intersection #2) to create a four-leg intersection. The Project driveway will be stop-controlled and will restrict left-turns out of the driveway during the AM and PM peak periods as described above. Westbound left-turns and eastbound right-turns will be permitted for motorists entering the Project site throughout the day. The north driveway, which currently provides ingress and egress to Dominican Hospital users, will continue to be stop-controlled and in addition, will restrict left-turns out during the AM and PM peak periods once the CVS Project is constructed. This would result in acceptable levels of service during the AM and PM peak hours.

Westbound left-turn striping improvements along Soquel Drive at the Project Driveway will be constructed by the Project.

##### HIGHWAY 1 NB ON-OFF RAMP / COMMERCIAL WAY & PROJECT DRIVEWAY #2 (INTERSECTION #7)

The driveway that currently exists and is stop controlled, provides access to the existing mini-warehouse. The existing driveway will be demolished and a new Project driveway will be constructed on Highway 1 Northbound On-Off Ramps / Commercial Way (Intersection #7). Only right-turns in and right-turns out of this Project driveway will be permitted during Existing and Near Term Conditions. It is anticipated that the planned Caltrans ramp improvements, which will convert Commercial Way into a cul-de-sac and will no longer connect to the Highway 1 Ramp, will be constructed by future year 2035. It is expected that the

**Table 3 – Project Trip Generation Estimates**

Land Use	Size	Units	Daily Trip Rate	Daily Trips	AM Peak Hour Rate	AM Peak Hour Trips (IN/OUT)	PM Peak Hour Rate	PM Peak Hour Trips (IN/OUT)
<b>Existing Conditions<sup>1</sup></b>								
Mini-Warehousing (LU 151)	2,400	KSF <sup>3</sup>	1.51	4	0.10	1 (1/0)	0.17	1 (0/1)
Apartment (LU 220)	1	DU	7.32	8	0.46	1 (0/1)	0.56	1 (1/0)
Furniture Store (LU 890)	10,550	KSF <sup>3</sup>	6.30	68	0.26	3 (2/1)	0.52	5 (2/3)
<b>Total Existing Trip Credit</b>	-	-	-	<b>-80</b>	-	<b>-5 (-3/-2)</b>	-	<b>-7 (-3/-4)</b>
<b>Proposed Conditions<sup>1</sup></b>								
Pharmacy with Drive-Through Window (LU 881)	13,111	KSF <sup>3</sup>	109.16	1,432	3.84	50 (27/23)	10.29	135 (68/67)
<b>Pass-By Reduction<sup>1</sup></b>								
<b>Retail Pass-By Reduction (PM: 49%)<sup>2</sup></b>	-	-	-	<b>-66</b>	-	<b>0 (0/0)</b>	-	<b>-66 (-33/-33)</b>
<b>Net Trip Generation</b>	-	-	-	<b>1,286</b>	-	<b>45 (24/21)</b>	-	<b>62 (32/30)</b>

Source: *Institute of Transportation Engineers (ITE) Trip Generation Manual, 10<sup>th</sup> Edition (2017)*

1. Trip generation estimates based on ITE average rates.
2. Pass-by trip reduction based on ITE data. Diverted link trip reductions were conservatively not assumed in this trip generation estimate.
3. KSF = 1,000 Square Feet

## TRIP DISTRIBUTION AND ASSIGNMENT

The Project trip distribution was developed based on consultation with Santa Cruz County staff, traffic patterns in the study area, the local travel demand model, and knowledge of the study area.

Due to the existing and proposed land use types, the same trip distribution was used for Project trips and existing use trip credits. Trips are expected to travel to and from the site via Highway 1, with 14% of Project trips traveling on North Highway 1 and 13% of Project trips traveling south on Highway 1. 17% of Project trips are expected travel to and from Soquel Avenue west of the site. 26% of Project trips are expected to travel to and from Soquel Drive east of the site and 10% of trips are expected to travel to and from Soquel Avenue south of the site. Approximately, 5% of Project trips are anticipated to travel to and from Paul Sweet Road, Mission Drive, Thurber Lane, and Chanticleer Avenue. **Figure 5** graphically illustrates the assumed distribution in relation to the Project site and study intersections.

Left-turns out of the Project Driveway #1 and Hospital driveway (Intersection #3) will be restricted during the AM and PM peak periods (7:00am to 9:00am and 4:00pm to 6:00pm). All left-turn restrictions will be accomplished using signage. Consequently, motorists that wish to travel west on Soquel Drive during Existing and Near Term Conditions will to either:

- Make a right-turn out of Project Driveway #1 and then make a u-turn at the signal controlled Soquel Drive & Commercial Crossing / Hospital Drive (Intersection #4); or
- Make a right-turn out of Project Driveway #2 onto Highway 1 Northbound On-Off Ramps / Commercial Way.



## 10. OTHER TRANSPORTATION EVALUATIONS

The following sections discuss proposed site access and circulation, on-site parking supply, Measure D relevance to the Project, and existing/future Highway 1 operations.

### ON-SITE PARKING

The Santa Cruz County Municipal Code (13.10.552) requires one vehicle space per 300 square feet of gross building floor area and 1 bicycle space per 1,000 square feet of gross building floor area. Based on the Project's gross building floor area of 13,111 square feet, 44 vehicle parking spaces are required and 13 bicycle parking spaces are required. The County requires a maximum of two ADA spaces for between 26 and 50 total spaces required. This requirement would entail typical "retail" uses for staff and customer parking.

The Project will construct 50 vehicle parking spaces on-site (including 4 ADA stalls) for employees and customers, as well as 13 bicycle rack spaces. The proposed parking supply is summarized as follows:

- Employee, customer, etc. spaces (50 total):
  - 46 – Employee / Customer Spaces
  - 4 – ADA Spaces

The Project's proposed 50 vehicle parking spaces and 13 bicycle parking spaces exceed the County requirement of 48 vehicle parking spaces and is equal to the 13-bicycle parking space requirement. Therefore, the proposed parking supply is sufficient.

### SITE ACCESS AND CIRCULATION

On site circulation was evaluated at the Project's two driveways, which will be located on Soquel Drive (Intersection #3) and Commercial Way (Intersection #7).

#### SOQUEL DRIVE / PROJECT DRIVEWAY #1 (INTERSECTION #3)

The driveway that currently exists and provides access to the existing Decor Furniture store will be demolished and a new Project driveway will be constructed and aligned with the existing Dominican Hospital stop controlled driveway on Soquel Drive (Intersection #2) to create a four-leg intersection. The Project driveway will be stop-controlled and will restrict left-turns out of the driveway during the AM and PM peak periods. Westbound left-turns and eastbound right-turns will be permitted for motorists entering the Project site throughout the day. The north driveway, which currently provides ingress and egress to Dominican Hospital users, will continue to be stop-controlled and in addition, will restrict left-turns out during the AM and PM peak periods once the CVS Project is constructed. This would result in acceptable levels of service during the AM and PM peak hours.

Westbound left-turn striping improvements along Soquel Drive at the Project Driveway will be constructed by the Project.

#### HIGHWAY 1 NB ON-OFF RAMP / COMMERCIAL WAY & PROJECT DRIVEWAY #2 (INTERSECTION #7)

The driveway that currently exists and is stop controlled, provides access to the existing mini-warehouse. The existing driveway will be demolished, and a new Project driveway will be constructed on Highway 1



Implementation of these improvements would improve intersection operations to LOS A during AM and PM peak hours. However, these improvements are currently unfunded and are therefore not included in the County Capital Improvement Project (CIP). The Cumulative impact is thus significant and unavoidable until the improvement is constructed.

### **Traffic improvement Area Fees**

The Project is required to pay a Transportation Improvement Area (TIA) fee to Santa Cruz County based on daily net new trips generated. The ITE Trip Generation Manual uses a daily trip rate of 6.3 trips per 1,000 square feet for the existing furniture store and Santa Cruz County Fee Schedule allows max of 40 trips per 1,000 square feet for the proposed pharmacy land use categories. Additionally, the ITE trip schedule uses a daily rate of 1.51 trips per 1,000 square feet for the existing warehouse land use category. The existing apartment land use is credited based on units, not daily trips. Daily rates identified in the ITE Trip Generation Manual and referenced in this section are used in the fee calculations only. Consistent with County policies, ITE trip generation data and methodologies are used in this study's impact and mitigation analysis.

**A total fee credit of \$46,253.40** is estimated for the existing warehouse, apartment, and furniture land uses that will be demolished prior to construction of the proposed pharmacy. This includes Soquel Transportation Improvement fees (\$23,126.70) and Soquel Roadside Improvement fees (\$23,126.70). **The Project will be responsible to pay a total of \$268,410.60** (\$314,664 gross impact fee minus \$46,253.40 fee credit = \$268,410.60) in County improvement fees. These fees include Soquel Transportation Improvement fees and Soquel Roadside Improvement fees. These TIA fees are subject to change and are payable at the time the building permit is issued.

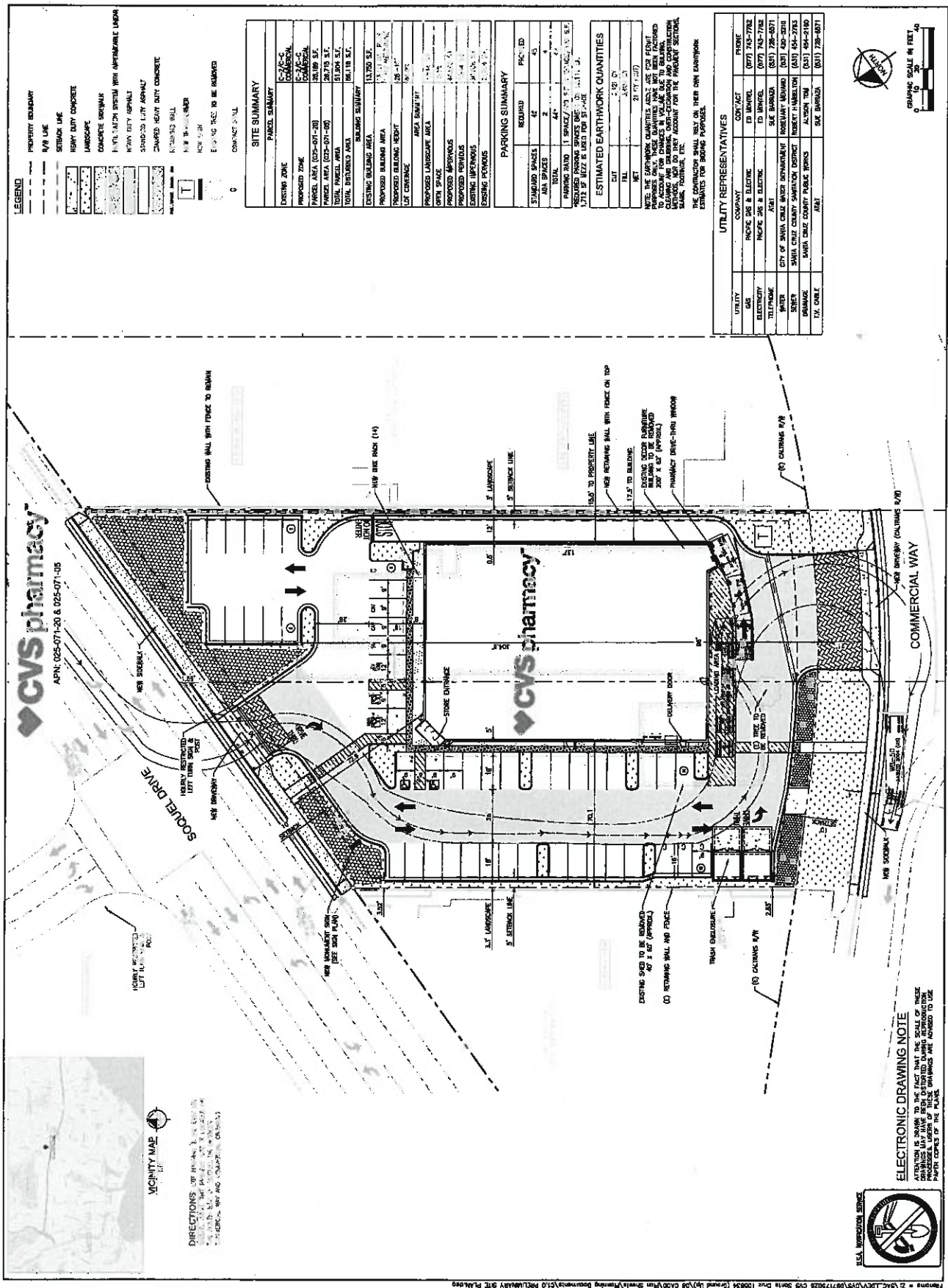
Through payment of the TIA fees and fair share payments identified above, the Project would mitigate all incremental Cumulative impacts.

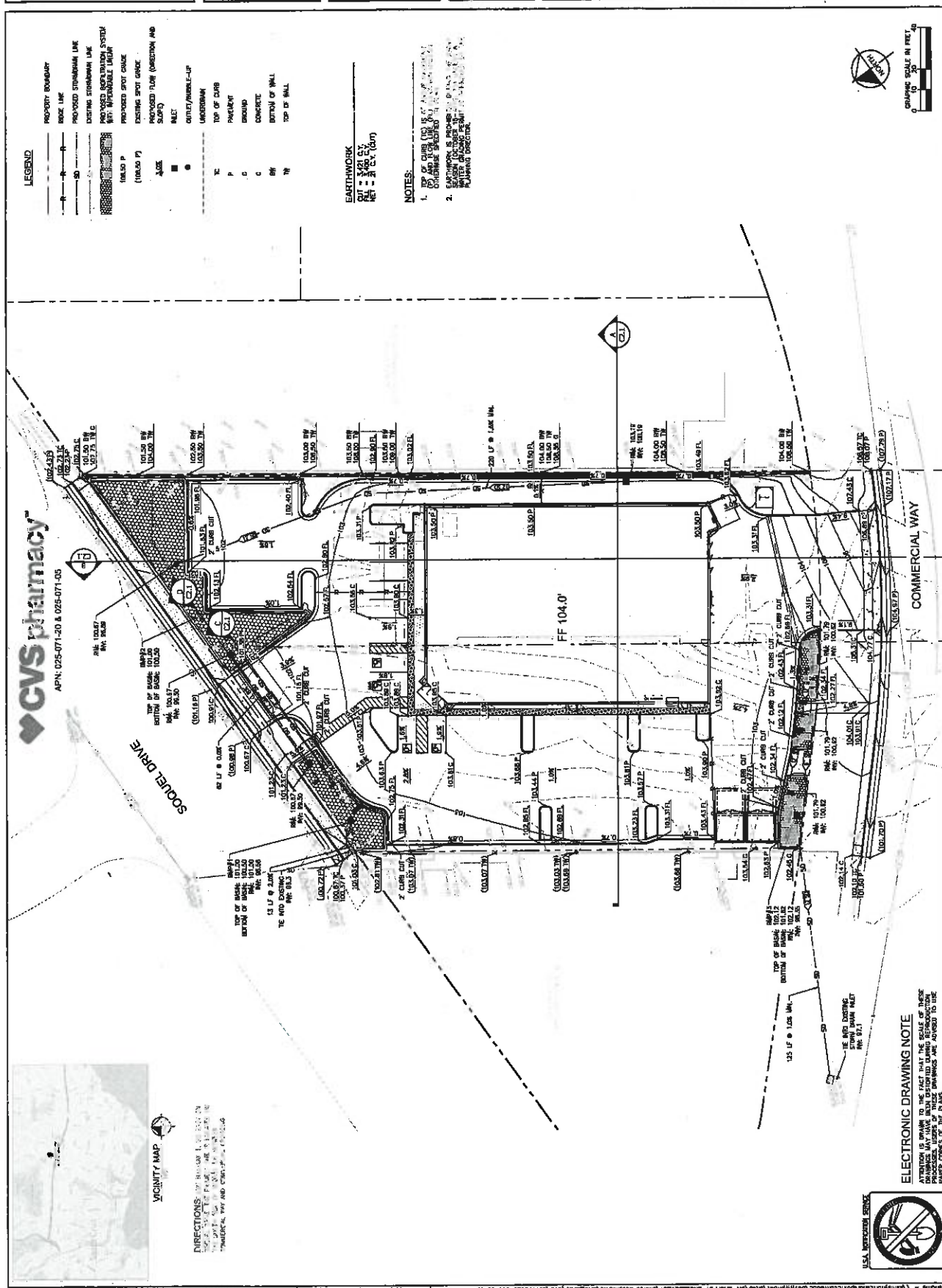
### **Conclusion**

Based on the above mitigation measures, the Project will be required to pay a total of \$268,410.60 in traffic impact fees.

# Exhibit D

## Project Plans

[illegible]



APN: 025-071-20 & 025-071-05



133.111 - RIGHT CORNER  
 BUMPOUT  
 STORE NUMBER: NEW STORE  
 MAPIN: 025-071-20 & 025-071-25  
 (SEE) COMMERCIAL WAY & BOQUEL DRIVE  
 SANTA CRUZ, CA  
 NEW CONSTRUCTION  
 PER FOR BEMCO  
 PROJECT TYPE  
 DEAL TYPE  
 CS PROJECT NUMBER: 105534

**ARCHITECT:**

**w+d**

19100 VON KARMAN AVE.  
SUITE 500  
IRVINE, CA 92612  
949.753.7070 T  
w+darchitect@aol.com

**ENGINEER**  
**Kimley»Horn**  
© 2010 KIMLEY-HORN AND ASSOCIATES, INC.  
455 CAPITOL Mall, SUITE 300  
SACRAMENTO, CA 95814  
PHONE: 916-456-1800  
FAX: 916-456-5005  
WWW.KH.COM

**DEVELOPER:**  
**BOOS**  
DEVELOPMENT WEST  
4110 344-4792  
7800 L STREET, SUITE 245



<b>REVISIONS:</b>	
1	10/29/2016 Revise (Revised)
2	11/08/2016 Revised (Revised)

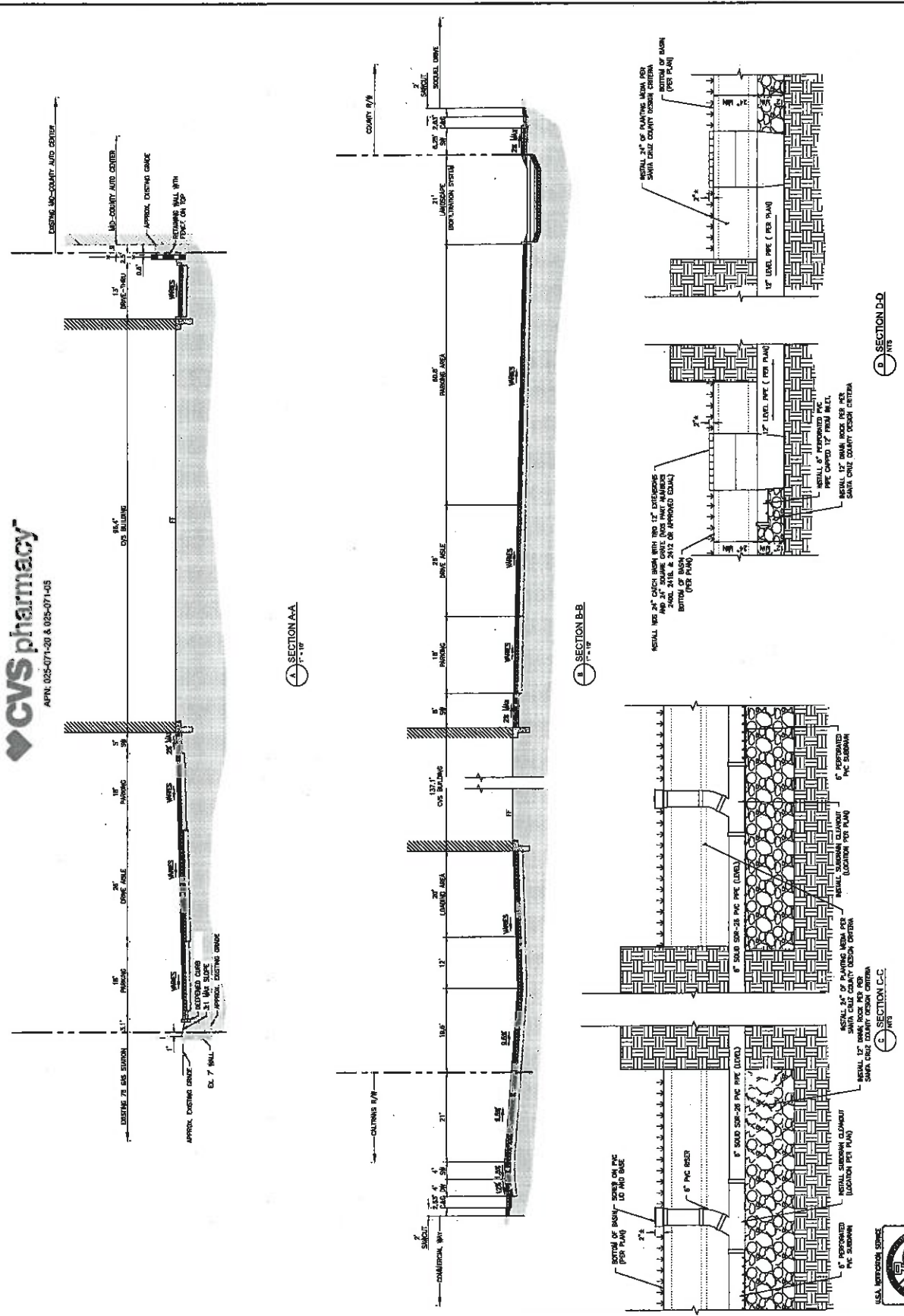
  

<b>PRELIMINARY GRADING SECTIONS</b>	
SHEET NUMBER	

## C2.1

COMMENTS.

NOT BEI EASED FOR CONSTRUCTION



**ELECTRONIC DRAWING NOTE**

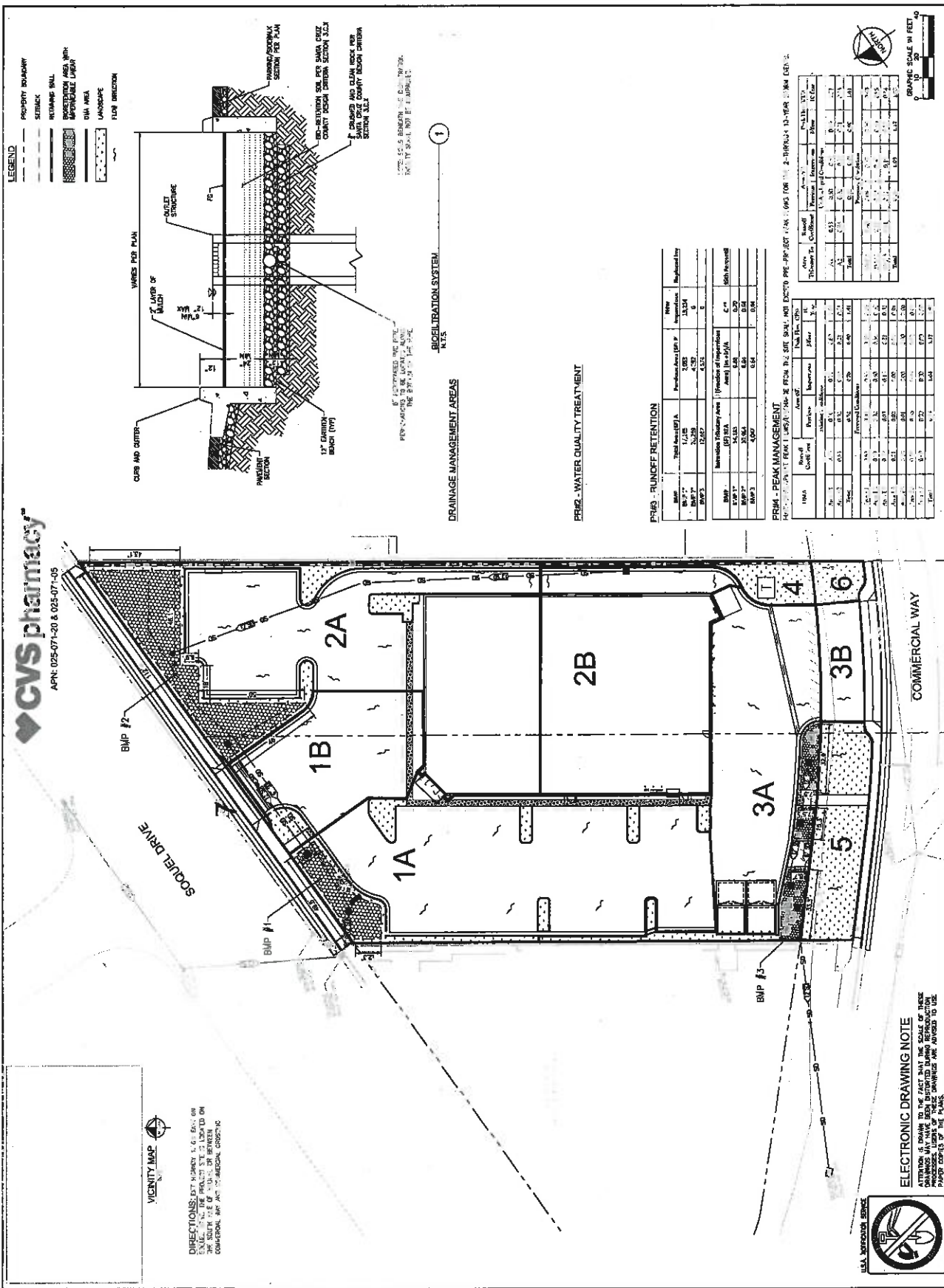


ATTENTION IS DRAWN TO THE FACT THAT THE SCALE OF THESE DRAWINGS MAY HAVE BEEN DISTORTED DURING REPRODUCTION PROCESSES. USERS OF THESE DRAWINGS ARE ADVISED TO USE PAPER COPIES OF THE PLANS.

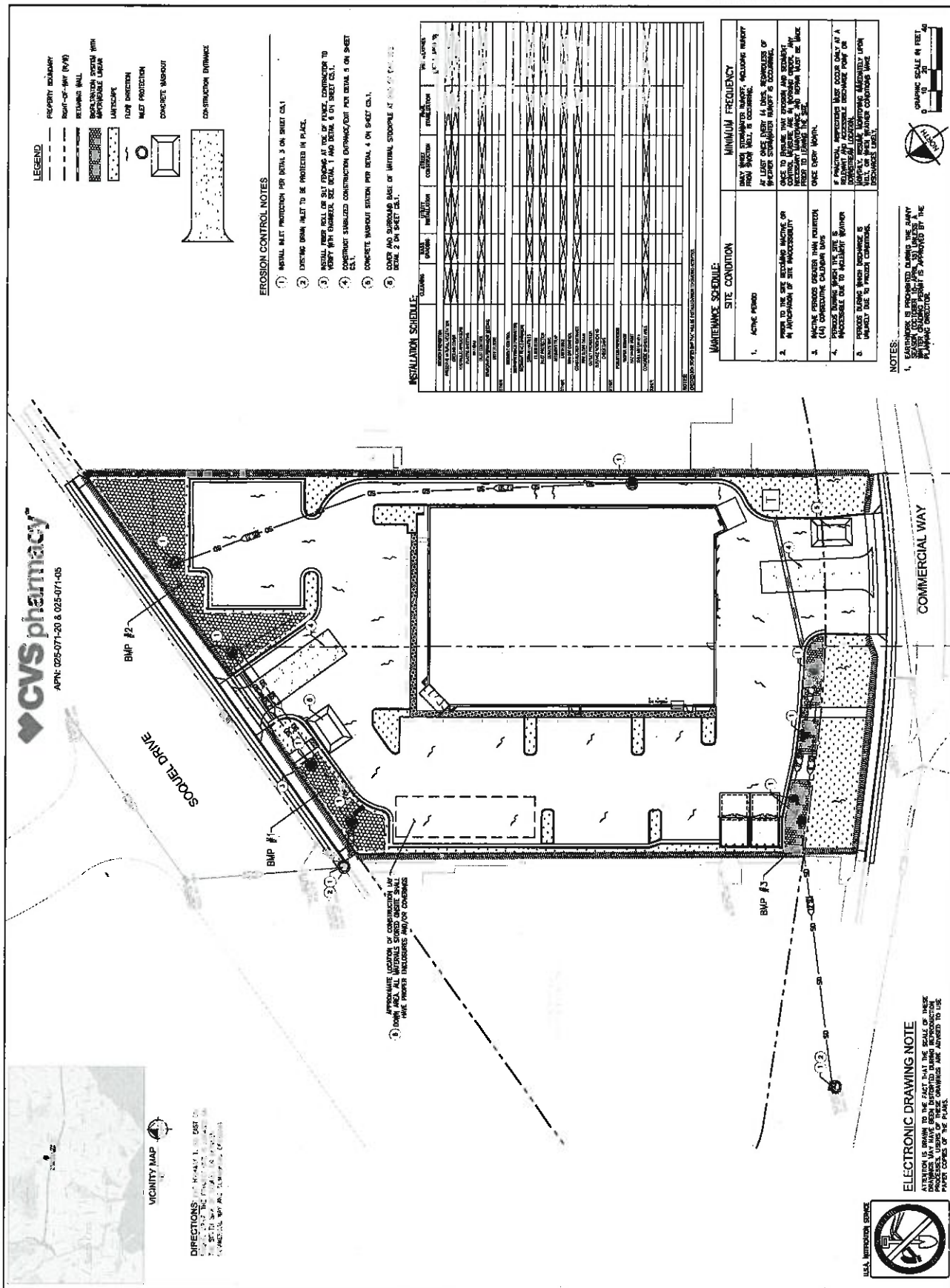


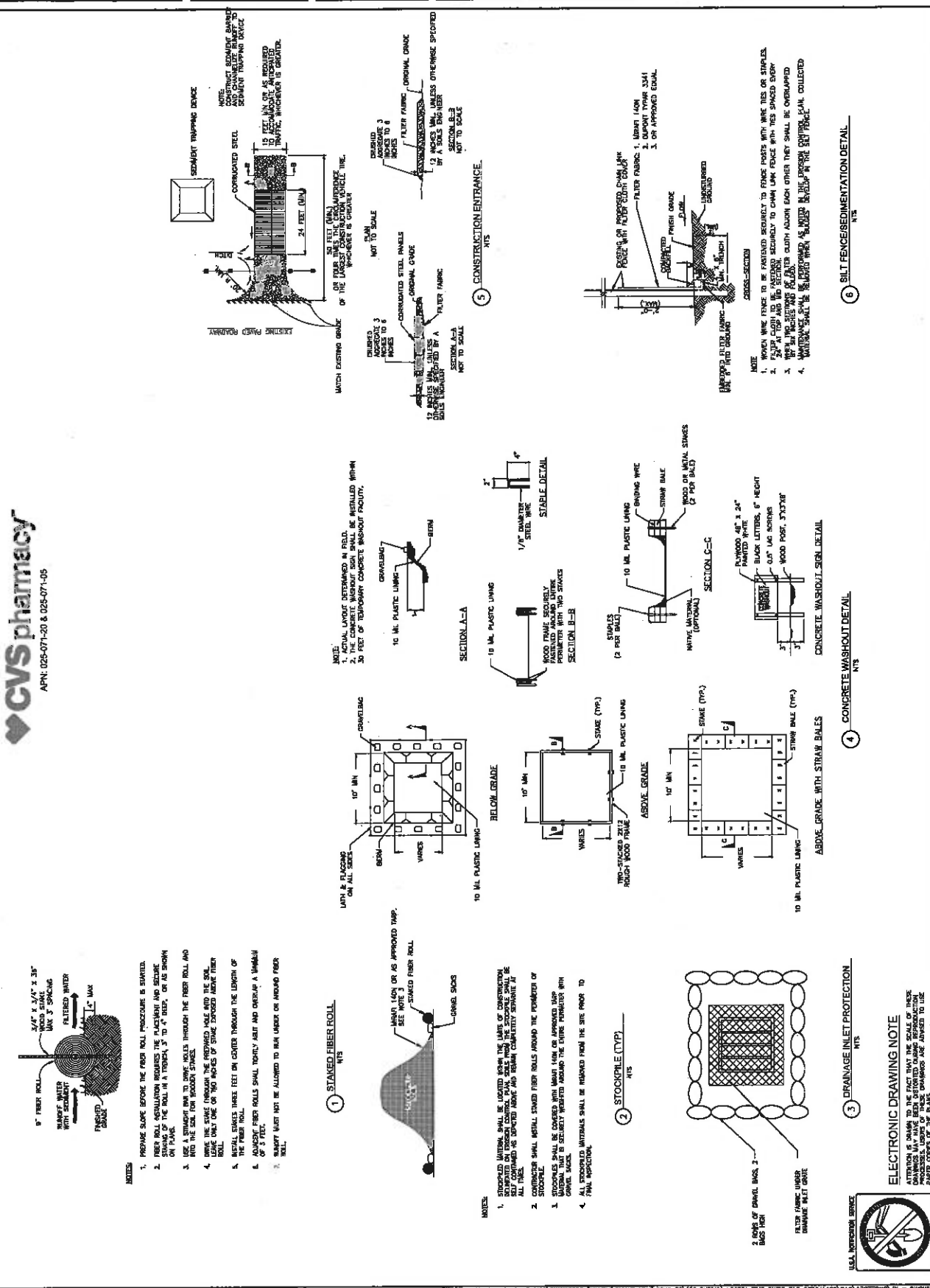


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DATE:	11/18/2016
DRAWN BY:	BWT/PSD
CHECKED BY:	
SHEET NUMBER:	STORMWATER CONTROL PLAN  C4.0
COMMENTS:	NOT RELEASED FOR CONSTRUCTION



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1064M (Export Up)\08 CASD\Plan Sheet\Planning Documents\080 07081717028 CONFORM PLK\CHS







1311 - RIGHT CORNER  
BLANFORD

STORE NUMBER: NEW STORE  
ADDRESS: 1311 BLANFORD AVE  
SANTA CLAY, CA 94568  
PROJECT TYPE: NEW CONSTRUCTION  
SHEET NUMBER: 1311-1  
CS PROJECT NUMBER: 1311-1

ARCHITECT

1800 10TH AVENUE  
SUITE 100  
SACRAMENTO, CA 95811  
916.441.1000  
WWW.WDARCHITECT.COM

ENGINEER

6015 KIMLEY-HORN AND  
ASSOCIATES, INC.  
2000 KIMLEY-HORN BLVD., SUITE 200  
SACRAMENTO, CA 95811  
916.441.1000  
WWW.KIMLEY-HORN.COM

DEVELOPER

DAYLORMENT WEST  
1311 BLANFORD AVE  
SACRAMENTO, CA 94568

SEAL

REVISIONS:

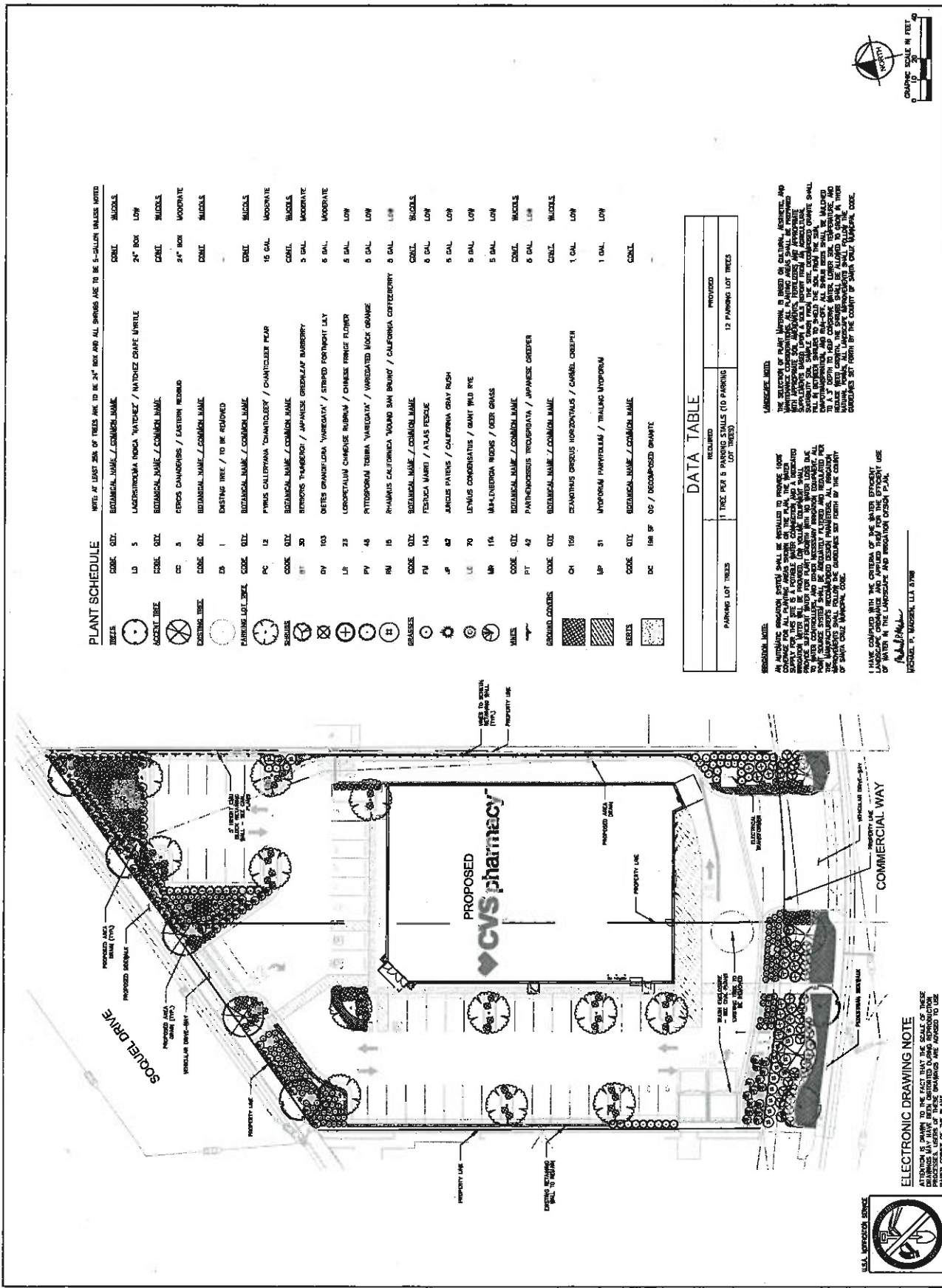
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2	01/10/17	Issued for Permit

PRELIMINARY  
LANDSCAPE PLAN

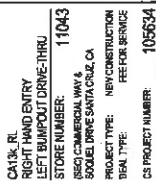
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SCALE: L1.0

COMMENTS: NOT RELEASED FOR CONSTRUCTION







**ARCHITECT OF  
RECORD:**



**CONSULTANT:**

DEVELOPER:



**SFAL:**

**SINONIMI**

CVS SPK	
DRAWING BY:	Author
DATE:	11/15/2018
JOB NUMBER:	C9000000
TITLE: CODE INFORMATION & EXIT PLANS	
SHEET NUMBER:	

## A0.1

COMMENTS:

NOT FOR CIRCULATION

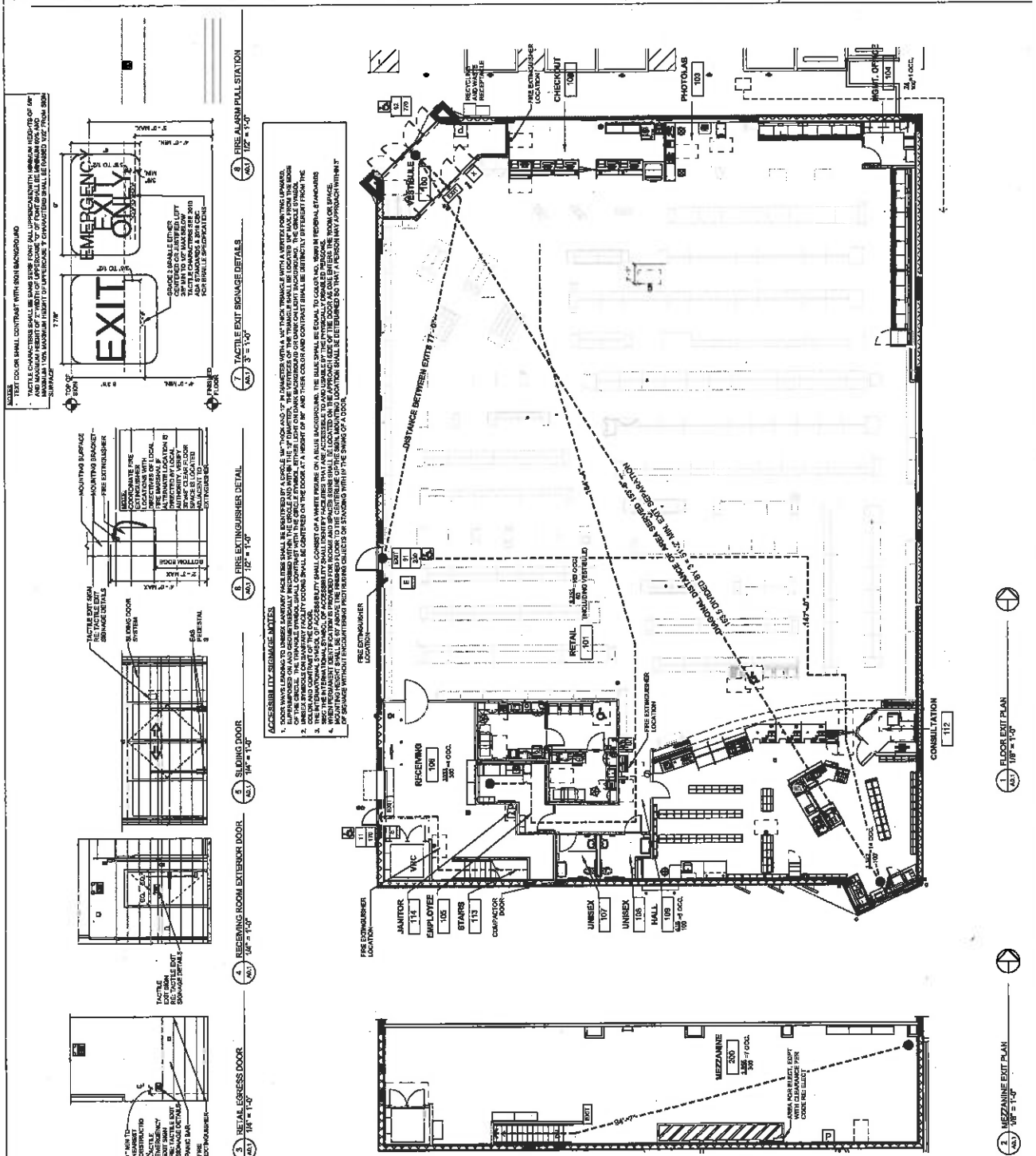
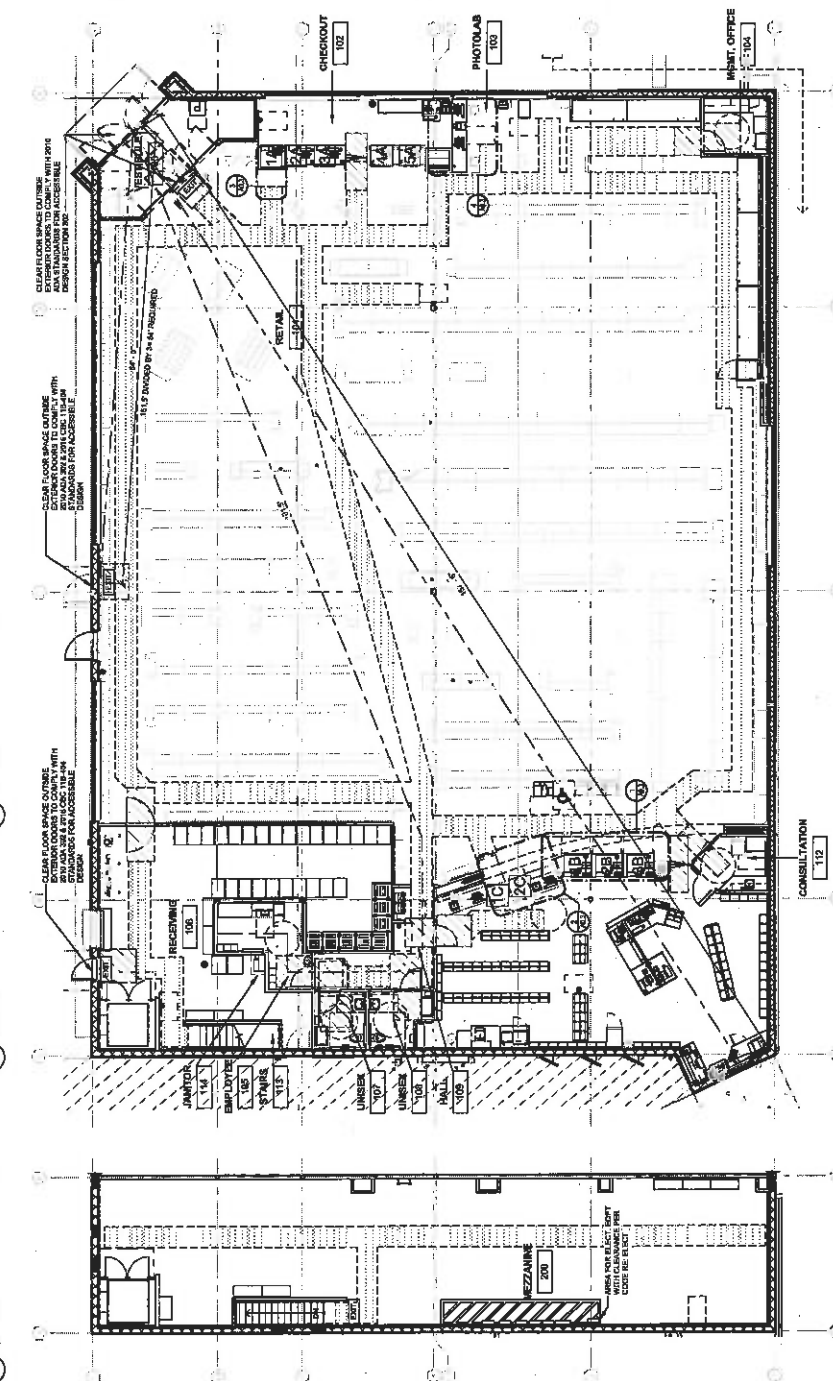
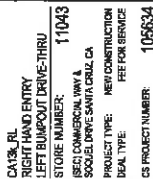
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EXHIBIT D



ARCHITECT OF  
RECORD:

P. 848 ZA 98677  
 BBA 73-208. 1  
 "TOASTED" 25 0001

**CONSULTANT:**

**DEVELOPER:**



**SEAL:**

[illegible]

ISSUED BY:	AUTHOR:
DATE:	11/15/2015
ISSUE NUMBER:	C500000
TITLE:	

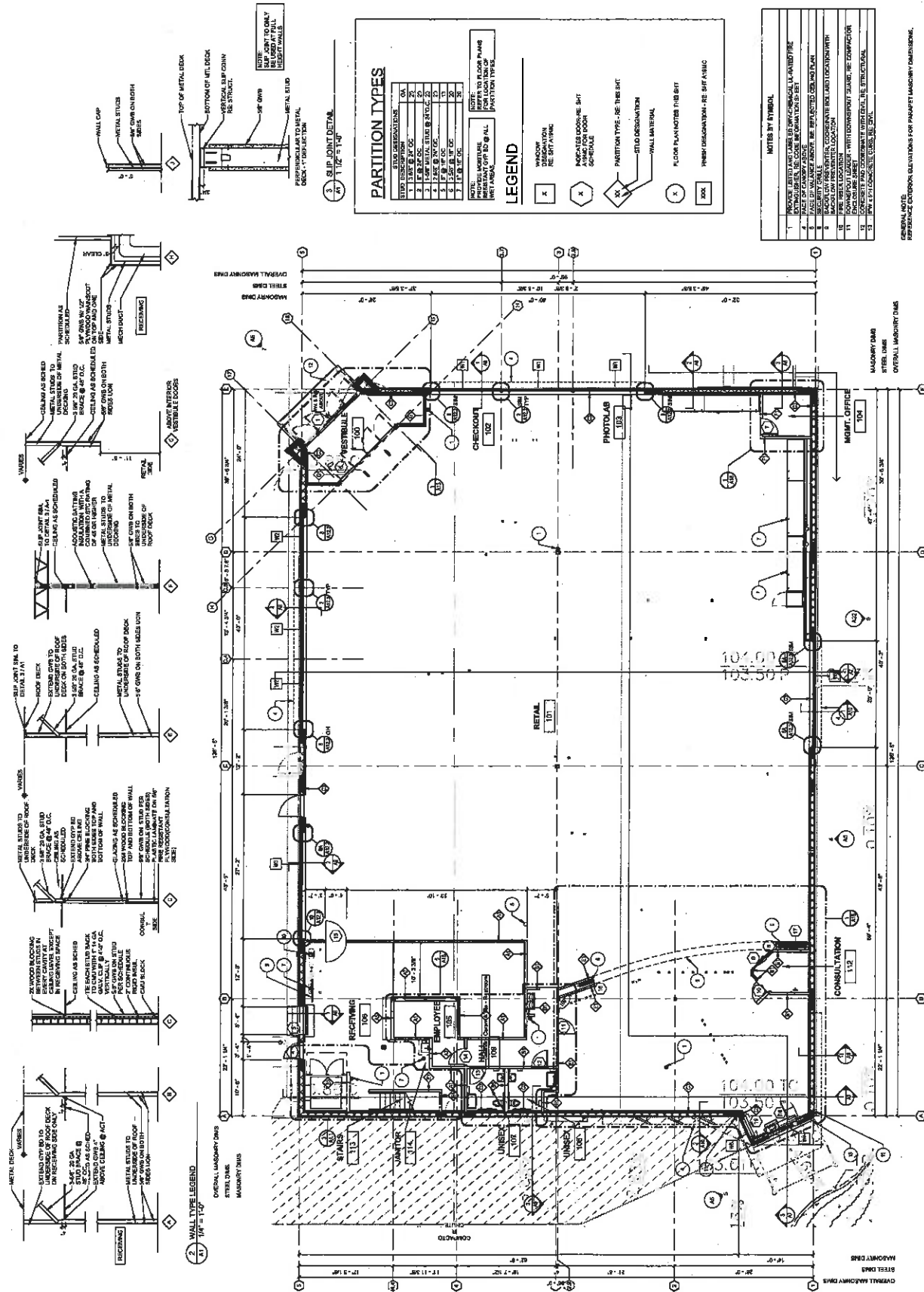
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**SHEET NUMBER:**

A

COMMENTS:

NOT FOR CONSTRUCTION



GENERAL NOTE:  
REFERENCE ENTERING IS EXCLUSIONS FOR BAPADIST LABORERS AND ENGINEERS

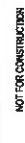
1 FLOOR PLAN  
1/8" = 1'-0"











**RESEARCH DESIGN**





CVS, RL  
RIGHT HAND ENTRY  
LEFT BUMP OUT DRIVE THRU  
STORE NUMBER: 11043  
(RED) COMMERCIAL WAY &  
SIOUX DRIVE SANTA CRUZ, CA  
PROJECT TYPE: NEW CONSTRUCTION  
DEAL TYPE: FEE FOR SERVICE  
CS PROJECT NUMBER: 105534

ARCHITECT OF  
RECORD:



CONSULTANT:

DEVELOPER:

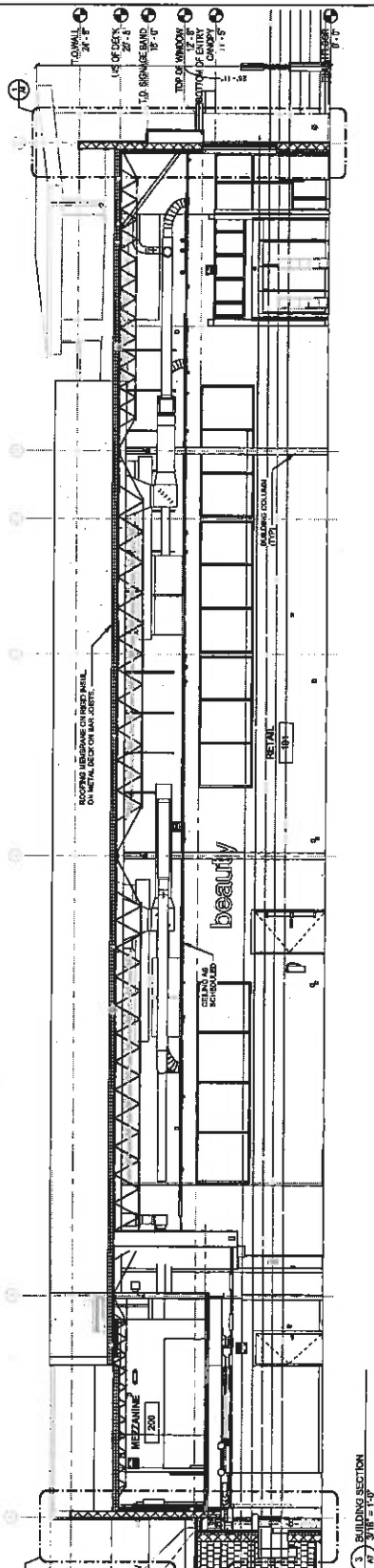
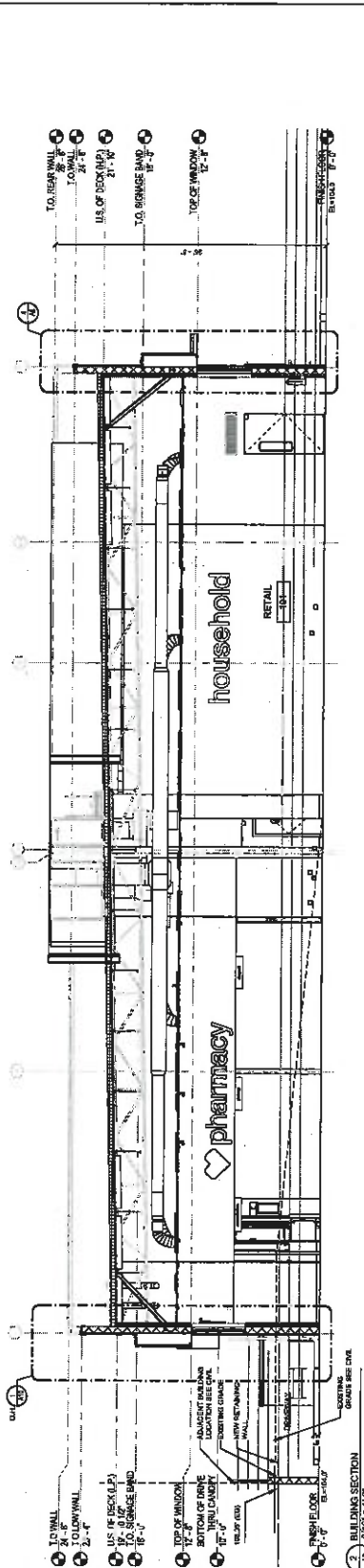
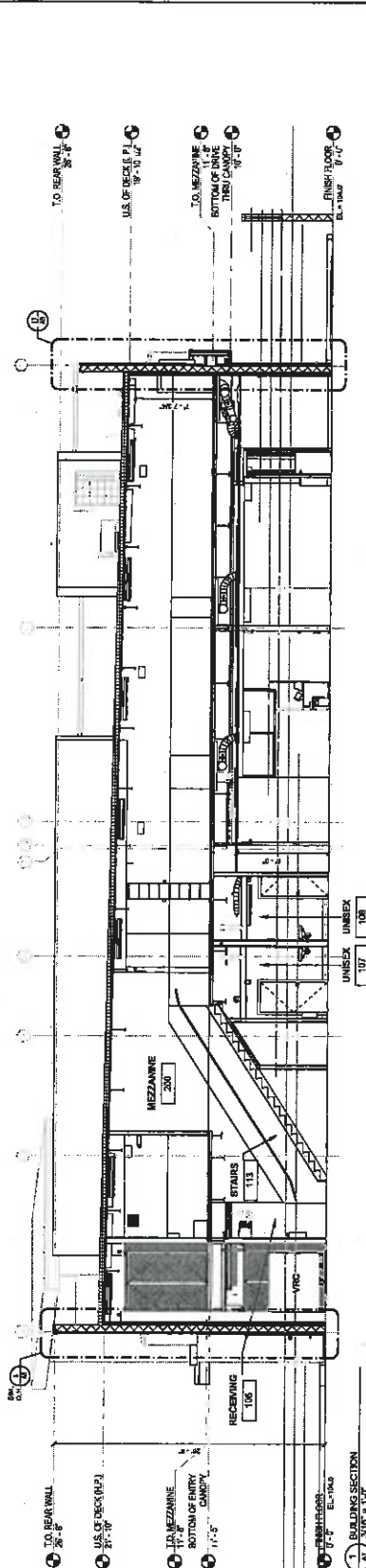


SEAL:

REVISIONS

CVS SILE  
DRAWING BY: AEM  
DATE: 11/15/2016  
JOB NUMBER: C55000  
TITLE: BUILDING SECTIONS  
SHEET NUMBER: A7

COMMENTS:  
NOT FOR CONSTRUCTION



# Exhibit E

## **Assessor's, Location, Zoning & General Plan Maps**

Tax Area Code

96-103

POR. OF SEC. 8 & 9, T.11S., R.1W., M.D.B. & M.

FOR TAX PURPOSES ONLY

THE ASSESSOR MAKES NO GUARANTEE AS TO MAP ACCURACY NOR ASSUMES ANY LIABILITY FOR OTHER USES. NOT TO BE REPRODUCED. ALL RIGHTS RESERVED.

© COPYRIGHT SANTA CRUZ COUNTY ASSESSOR 1998

E.A. LEE'S SUB.  
Unfiled

SALISBURY CT.

PAUL SWEET RD.

3942-OR-127  
2/13/86

46PM8  
11/22/85

92RS10  
2/10/97

COMMERCIAL CROSSING

SAQUEL

CONFIDENTIAL

47MB6  
3/15/67.

47MB14  
10/30/67

Assessor's Map No. 25-07  
County of Santa Cruz, Calif.  
July, 1998

Note - Assessor's Parcel & Block Numbers Shown in Circles.

16-Continued  
Rev. 7/16/98 (Cor. to pg. 48) W  
Rev. 3/22/01 W (changed page refs.)  
Rev. 8/6/02 W (ST, name)

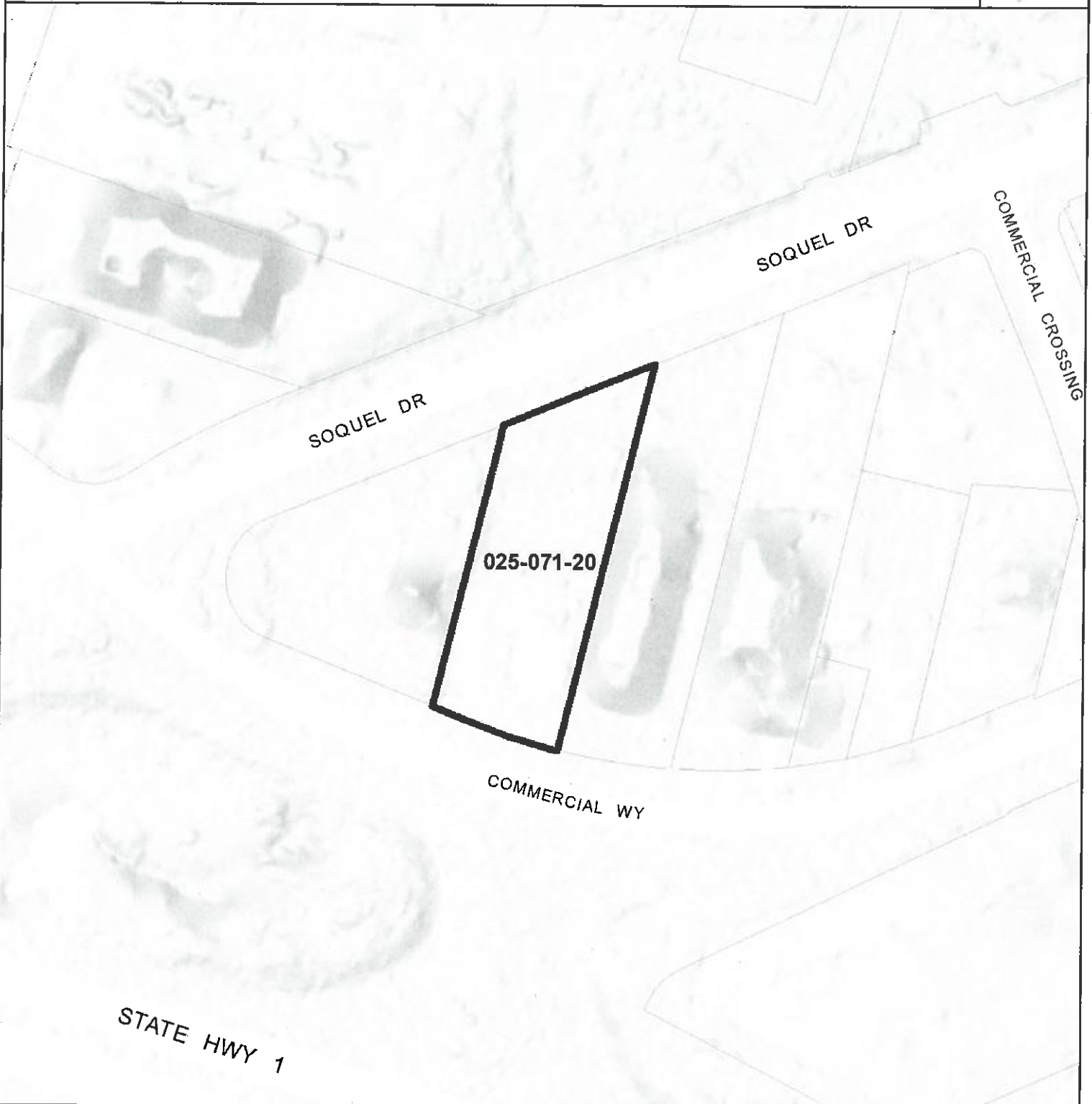


SANTA CRUZ COUNTY PLANNING DEPARTMENT

Parcel Location Map



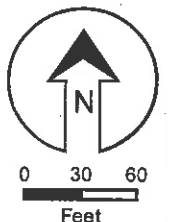
Mapped  
Area



Parcel: 02507120

- Study Parcel
- Assessor Parcel Boundary

Map printed: 27 May, 2020







SANTA CRUZ COUNTY PLANNING DEPARTMENT

Parcel Location Map



Mapped  
Area

SOQUEL DR

SOQUEL DR

COMMERCIAL CROSSING

025-071-05

COMMERCIAL WY

COMMERCIAL WY

STATE HWY 1

Parcel: 02507105

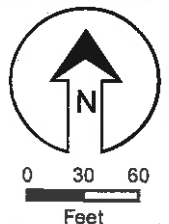


Study Parcel



Assessor Parcel Boundary

Map printed: 27 May, 2020





SANTA CRUZ COUNTY PLANNING DEPARTMENT  
**Parcel General Plan Map**



C-O  
R-UM





P

C-O

025-071-20  
(C-C)

C-C

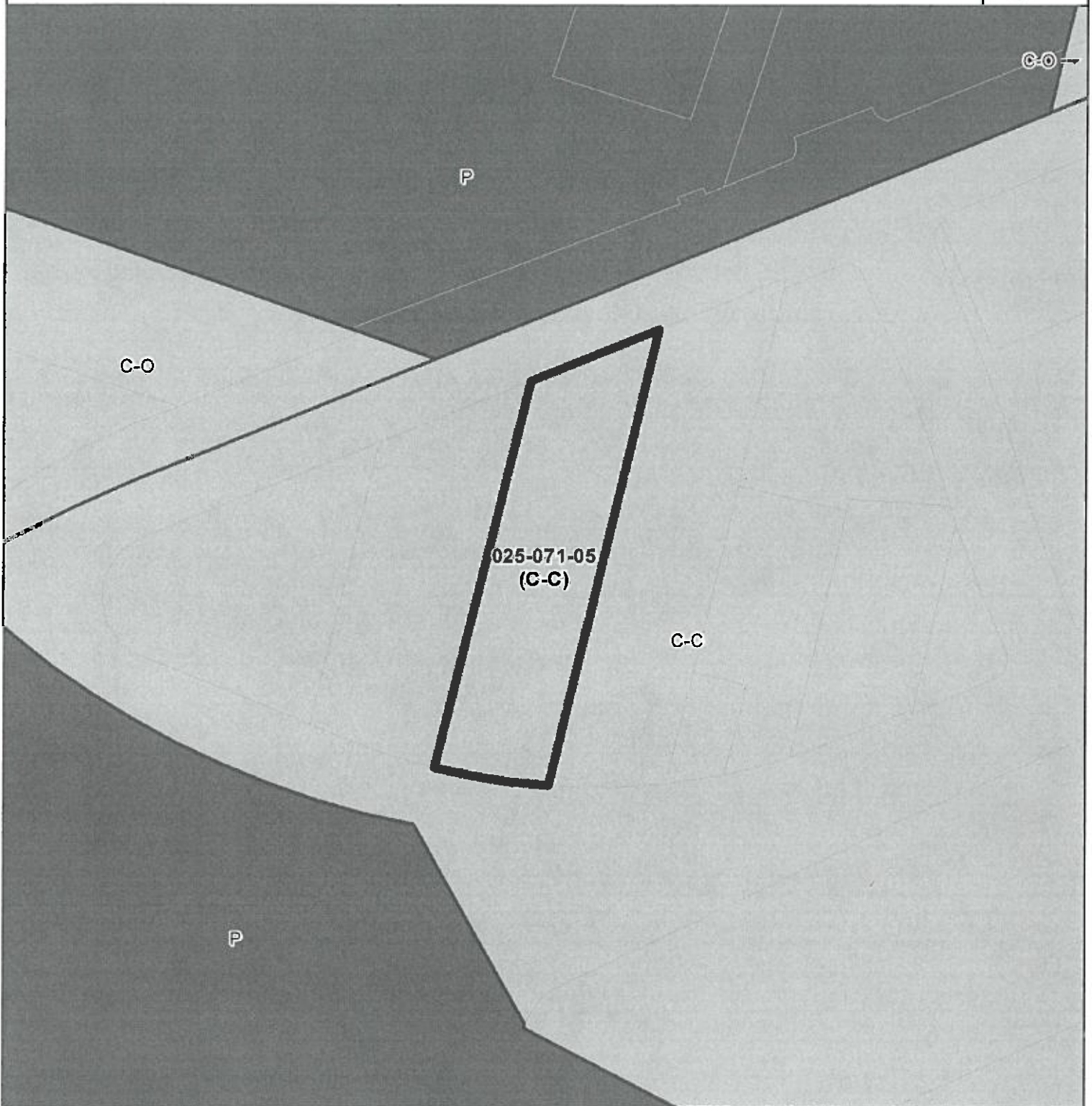
P




-  C-C *Commercial Community*
-  C-O *Commercial Office*
-  P *Public Facilities*
-  R-UM *Res. Urban Medium Density*

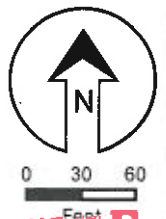




SANTA CRUZ COUNTY PLANNING DEPARTMENT  
**Parcel General Plan Map**



-  C-C *Commercial Community*
-  C-O *Commercial Office*
-  P *Public Facilities*



**EXHIBIT E**





SANTA CRUZ COUNTY PLANNING DEPARTMENT

**Parcel Zoning Map**



Mapped  
Area

PA  
R-1-5





PF

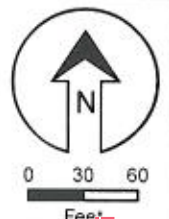
PA

025-071-20  
(C-2)

C-2

PF

-  C-2 Community Commercial
-  PA Professional/Admin Office
-  PF Public/Community Facilities
-  R-1 Single-Family Residential



**EXHIBIT E**

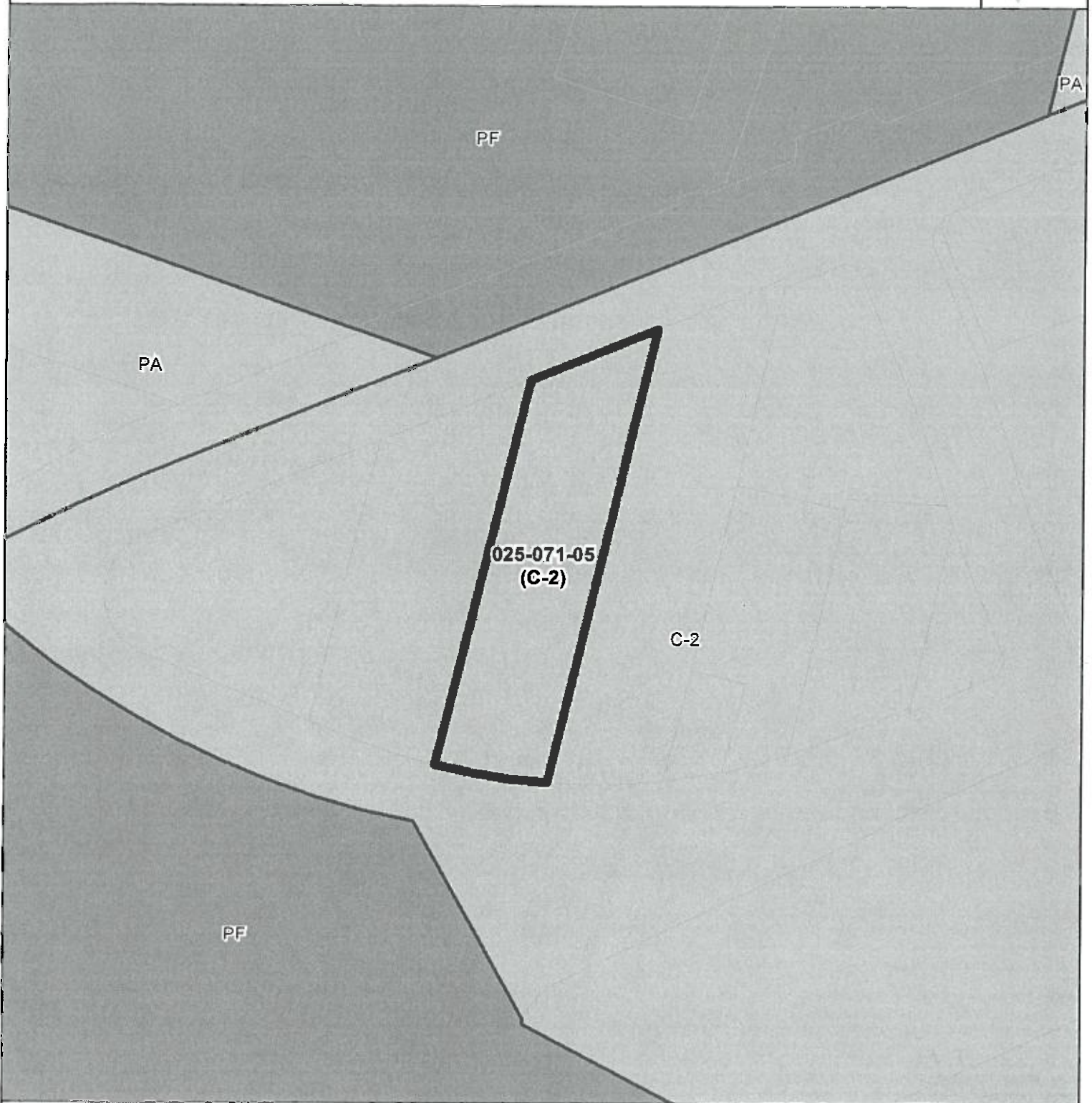





SANTA CRUZ COUNTY PLANNING DEPARTMENT

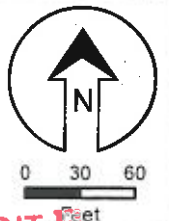
**Parcel Zoning Map**



Mapped  
Area



-  C-2 Community Commercial
-  PA Professional/Admin Office
-  PF Public/Community Facilities



**EXHIBIT E**



## Parcel Information

### Services Information

Urban/Rural Services Line: ☒ Inside ☐ Outside  
Water Supply: City of Santa Cruz  
Sewage Disposal: County of Santa Cruz  
Fire District: Central Fire  
Drainage District: Zone 5

### Parcel Information

Parcel Size: Approximately 1.2 acres  
Existing Land Use - Parcel: Commercial  
Existing Land Use - Surrounding: Commercial / Institutional  
Project Access: Soquel Drive and Commercial Way  
Planning Area: Live Oak  
Land Use Designation: C-C (Community Commercial)  
Zone District: C-2 (Community Commercial)  
Coastal Zone: ☐ Inside ☒ Outside  
Appealable to Calif. Coastal ☐ Yes ☒ No  
Comm.

**Technical Reviews:** Soils Report

### Environmental Information

An Initial Study has been prepared (Exhibit A) that addresses the environmental review associated with this application.

# Exhibit G

## Program Statement

**CVS / Pharmacy**  
**Soquel Drive and Commercial Way**  
**Santa Cruz County, CA**

**PROJECT STATEMENT**

Boos Development West on behalf of CVS Pharmacy is proposing to construct a CVS pharmacy with drive-thru at the southeast corner of Soquel Drive and Commercial Way in Santa Cruz County, California. The project site comprises of two parcels (APN: 025-071-20 and 025-071-05) and will require a lot merger. The project proposes to demolish two existing buildings (approx.13,750 SF total) currently being utilized as a shed on the western parcel and a furniture store on the eastern parcel.

The CVS pharmacy, a 13,111 SF building with 1,712 SF of mezzanine is proposed to be constructed with it's primary entrance facing the Soquel Drive and, with pharmacy drive-thru facing Commercial Way to the south. The on-site improvements will include 49 parking spaces, sidewalk, landscaping and utilities. The project scope will also include construction of a new driveway on Soquel Drive to align with the Hospital driveway across Soquel Drive per the County Standards and, construction of a new driveway on Commercial Way per Caltrans Standards.

The project meets the parking requirements of the County of Santa Cruz Zoning code. Below is a table summarizing the parking calculations. Please note that parking reduction for drive-thru is not applied in the calculation of total required parking. Also, a parking requirement was not applied to the mezzanine area since it will be used for storage. A minute clinic is not currently proposed at this store however, a separate calculation for future conditions is included should CVS decide to add one in the future by replacing existing sales/pharmacy area.

<b><u>Proposed Conditions</u></b>				
	<b>AREA</b>	<b>REQUIREMENTS</b>	<b>PARKING REQUIRED</b>	<b>PARKING PROVIDED</b>
CVS Building	13,111 SF	1 space per 300 SF	44	49
Mezzanine	1,712 SF	1 space per 300 SF	0	0
Minute Clinic	0	1 space per 225 SF	0	0
Drive-thru reductions		None applied	0	0
<b>TOTAL</b>			<b>44*</b>	<b>49</b>

\*Required parking spaces based on 13,111 SF. 1,712 SF Mezz is used for storage.

<b><u>Potential Future Conditions</u></b>				
	<b>AREA</b>	<b>REQUIREMENTS</b>	<b>PARKING REQUIRED</b>	<b>PARKING PROVIDED</b>
CVS Building	12,911 SF	1 space per 300 SF	43.0	48
Mezzanine	1,712 SF	1 space per 300 SF	0	0
Minute Clinic	200 SF	1 space per 225 SF	0.9	1
Drive-thru reductions		None applied	0	0
<b>TOTAL</b>			<b>44*</b>	<b>49</b>

A typical high-volume store tends to have 10-15 number of employees during the maximum shift. CVS pharmacy is requesting rights to operate 24 hours a day and 7 days a week. The pharmacy window would not operate 24 hours in this scenario. Typical hours of operations for the store are 7 am to midnight seven days a week and, for the pharmacy are 8 am to 10 pm (Monday through Friday) and 9 am to 7 pm (Saturday and Sunday)..

Most stores receive one WB-50 delivery per week from the CVS distribution center. Higher volume stores receive two deliveries. Outside vendors, such as soft drink vendors, deliver to the store without a set schedule and only when required. Delivery trucks will enter the site by making a left hand turn into the CVS driveway on Soquel Drive from westbound Soquel Drive. The delivery truck will maneuver through the site to the southern portion of the building where the at-grade

loading area is located. The truck will exit the site by making a right hand turn from the CVS driveway on Commercial Way. The WB-50 unloading hours would be restricted to when the pharmacy window is not open. Current business data reflects an anticipated maximum stacking of 6 cars at the drive thru window. The proposed orientation of the drive thru window provides greatest visibility from street view for security concerns while accommodating the internal pharmacy layout.

# Exhibit H

## Water Will-Serve





W A T E R   D E P A R T M E N T

212 Locust Street, Suite C Santa Cruz CA 95060 Phone (831) 420-5200 Fax (831) 420-5201

November 27, 2017

Amelia Beltran  
555 Capitol Mall, Suite 300  
Sacramento, CA 95814

Re: PROPOSED RETAIL/PHARMACY/COMMERCIAL DEVELOPMENT AT 1515 COMMERCIAL WAY; APN 025-071-05 & 025-071-20.

Dear Ms. Beltran:

This letter is to advise you that the subject parcels are located within the service area of the Santa Cruz Water Department and potable water is currently available for normal domestic use and fire protection. Service will be provided to each and every lot of the development upon payment of the fees and charges in effect at the time of service application and upon completion of the installation, at developer expense, of any water mains, service connections, fire hydrants and other facilities required for the development under the rules and regulations of the Santa Cruz Water Department. The development will also be subject to the City's Landscape Water Conservation requirements.

At the present time:

the required water system improvements are not complete; and  
financial arrangements have not been made to the satisfaction of the City to guarantee payment of all unpaid claims.

This letter will remain in effect for a period of two years from the above date. It should be noted, however, that the City Council may elect to declare a moratorium on new service connections due to drought conditions or other water emergency. Such a declaration would supersede this statement of water availability.

If you have any questions regarding service requirements, please call the Engineering Division at (831) 420-5210. If you have questions regarding landscape water conservation requirements, please contact the Water Conservation Office at (831) 420-5230.

Sincerely,

Rosemary Menard  
Water Director

RM/bjd  
Cc: SCWD Engineering