

# 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 **TOM BURNS, PLANNING DIRECTOR** 

### NOTICE OF ENVIRONMENTAL REVIEW PERIOD

#### **SANTA CRUZ COUNTY**

APPLICANT:	Khosrow Haghshenas
APPLICATION NO	D.: <u>08-0480</u>
APN:	052-271-03
The Environmenta following prelimina	al Coordinator has reviewed the Initial Study for your application and made the ary determination:
	legative Declaration  Your project will not have a significant impact on the environment.)
_	XX Mitigations will be attached to the Negative Declaration.
_	No mitigations will be attached.
('	Invironmental Impact Report  Your project may have a significant effect on the environment. An EIR must e prepared to address the potential impacts.)
Act (CEQA), this finalized. Please wish to comment	vironmental review process required by the California Environmental Quality is your opportunity to respond to the preliminary determination before it is contact Matt Johnston, Environmental Coordinator at (831) 454-3201, if you on the preliminary determination. Written comments will be received until 5:00 by of the review period.
Review Period En	ds: November 26, 2009
Staff Planner:	Randall Adams
Phone:	(831) 454-3218
Date:	October 22, 2009

NAME:

Haghshenas

APPLICATION:

08-0480

A.P.N:

052-271-03

#### **NEGATIVE DECLARATION MITIGATIONS**

- 1. In order to mitigate the potential offsets of structures as a result of liquefaction-induced settlements on utilities, prior to recordation of the final map the applicant shall revise the project plans to incorporate flexible utility connections.
- 2. In order to mitigate potential hazards from flooding, prior to final map recordation the plans shall be revised to show the finished floor of the proposed structure is elevated above the base flood elevation and that all structures meet minimum FEMA flood-proofing standards (through watertight construction, or allowing water to pass through the structure in flood events).
- 3. In order to ensure that water and sewer service will be available to the proposed development, a will serve letter from the City of Watsonville for these services will be required prior to application for a building permit.

# **Environmental Review Initial Study**

Application Number: 08-0480

**Date**: 10/19/09

Staff Planner: Randall Adams

### I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

**APPLICANT**: Dee Murray

APN: 052-271-03

**OWNER**: Khosrow Haghshenas

SUPERVISORAL DISTRICT: 2nd

LOCATION: Property located on the east side of Lee Road, at the northeast corner of

Highway 1 and Highway 129, in Watsonville. (200 Lee Road) (Attachment 1)

#### SUMMARY PROJECT DESCRIPTION:

Proposal to demolish an existing gas station, to construct a replacement gas station with a convenience store, restaurant, car wash, and associated improvements, and to allow beer and wine sales. The conversion of the existing gas station from full service to self service (with fuel pump assistance) is included in this proposal.

Requires a Coastal Development Permit, Commercial Development Permit (this permit amends Commercial Development Permits 75-962-PD, 84-1019-CDP & 94-0395), Variances to decrease the required setback to adjacent CA zoned land from 30 feet to 15 feet at the car wash, to increase the maximum free standing sign height from 7 feet to about 40 feet (for the freeway monument sign), to increase the maximum sign area from 50 square feet to about 337 square feet, and to locate a sign closer than 5 feet from the edge of a vehicular right of way, an Agricultural Buffer Determination, Flood Geologic Hazards Assessment, Soils Report Review, and Preliminary Grading Review for 242 cubic yards (cut), 232 cubic yards (fill), over-excavation of 280 cubic yards, and re-compaction of 430 cubic yards of earth.

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.

X Geology/Soils	Noise
X Hydrology/Water Supply/Water Quality	Air Quality
Biological Resources	X Public Services & Utilities

County of Santa Cruz Planning Department 701 Ocean Street, 4th Floor, Santa Cruz CA 95060

Environmental Review Initial Study Page 2	
X Energy & Natural Resources	Land Use, Population & Housing
X Visual Resources & Aesthetics	Cumulative Impacts
Cultural Resources	Growth Inducement
X Hazards & Hazardous Materials	Mandatory Findings of Significance
Transportation/Traffic	
DISCRETIONARY APPROVAL(S) B	BEING CONSIDERED
General Plan Amendment	X Grading Permit
Land Division	Riparian Exception
Rezoning	Other:
X Development Permit	
X Coastal Development Permit	Print State
NON-LOCAL APPROVALS Other agencies that must issue perm	its or authorizations:
Monterey Bay Unified Air Pollution Co	ontrol District - Demolition Permit
ENVIRONMENTAL REVIEW ACTIO On the basis of this Initial Study and	* *
I find that the proposed project Cenvironment, and a NEGATIVE DEC	COULD NOT have a significant effect on the LARATION will be prepared.
environment, there will not be a signif	d project could have a significant effect on the ficant effect in this case because the attached to the project. A MITIGATED NEGATIVE
I find that the proposed project Nand an ENVIRONMENTAL IMPACT I	MAY have a significant effect on the environment REPORT is required.
Matt Johnston	10/20/09 Date

For: Claudia Slater

**Environmental Coordinator** 

# II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS Parcel Size: 1 acre Existing Land Use: Service station Vegetation: Decorative landscaping Slope in area affected by project: X Nearby Watercourse: Pajaro River Distance To: 3700 feet	0 - 30% 31 — 100%
ENVIRONMENTAL RESOURCES AND OF Groundwater Supply: N/A Water Supply Watershed: Not Mapped Groundwater Recharge: Not Mapped Timber or Mineral: Not Mapped Agricultural Resource: Ag. Resource Biologically Sensitive Habitat: Not Mapped Floodplain: Pajaro River floodplain Erosion: Not Mapped Landslide: Not Mapped	Liquefaction: Very high potential Fault Zone: Not Mapped Scenic Corridor: Highway 1 Historic: Not Mapped Archaeology: Not Mapped
SERVICES Fire Protection: CalFire School District: PVUSD Sewage Disposal: City of Watsonville	Drainage District: Zone 7 Project Access: Lee Road Water Supply: City of Watsonville
PLANNING POLICIES Zone District: CT (Tourist Commercial) General Plan: C-N (Neighborhood Commercial)	Special Designation: W (Watsonville Utilities Combining District)
Urban Services Line: Inside	
Coastal Zone: X Insid	de Outside

#### PROJECT SETTING AND BACKGROUND:

The subject property is approximately 1 acre in size and is located at the northwest corner of the intersection of Highway 1 and Highway 129. The address is 200 Lee Road, in Watsonville. An existing gas station is located on the property and the primary groundcover is asphalt or concrete with some decorative landscape plantings on the perimeter. The property is relatively level and is located within the flood plain of the Pajaro River to the east. Surrounding uses include agricultural fields to the north, west, and south, and Highway 1 is located to the east of the subject property. Although the parcel is located outside of the Urban Services Line, the existing gas station is served (water and sewer) by the City of Watsonville.

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

This application is a proposal to demolish an existing Chevron gas station and to construct a replacement gas station, convenience store, restaurant, and car wash of approximately 6,650 square feet with a fuel canopy of approximately 2,950 square feet on a 1 acre parcel. (Attachment 2) The convenience store is proposed to include beer and wine sales. The proposed station is proposed to be self service and would no longer provide mechanical services for motorists (mechanical services were discontinued an undetermined number of years ago), but an attendant would be on duty to assist with fuel pumping for individuals who require assistance in fueling their vehicles.

The access to the property is from two existing driveways to Lee Road. Signage is proposed between the two driveways, as well as on a monument sign at the east side of the property, on the building, and fuel canopy. Parking is proposed along the north and south sides of the property, in front of the convenience store/restaurant, and at the fuel islands.

Grading is proposed to prepare the site for the new structure and associated improvements. Grading volumes would be approximately 242 cubic yards (cut) and 235 cubic yards (fill), with 7 cubic yards to be exported off site. An additional 280 cubic yards is proposed to be removed from the site within the building footprint, and 430 cubic yards are proposed to be excavated and re-compacted below the proposed building. The earthwork would accommodate the proposed building without resulting in any substantial change to existing grades on the project site. Landscaping is proposed on the periphery of the project site.

Significant
Or
Potentially
Significant
Impact

Less than
Significant
with
Mitigation
Incorporation

Less than Significant Or No Impact

Not Applicable

# III. ENVIRONMENTAL REVIEW CHECKLIST

# A. Geology and Soils

Does the project have the potential to:

- Expose people or structures to potential adverse effects, including the risk of material 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 as identified by other substantial evidence?

\_\_\_\_ X

- B. Seismic ground shaking?
- C. Seismic-related ground failure, including liquefaction?

Χ \_\_\_\_\_

D. Landslides?

All of Santa Cruz County is subject to some hazard from earthquakes. However, the project site is not located within or adjacent to a county or State mapped fault zone. A geotechnical investigation for the proposed project was performed by Ali M. Oskoorouchi, dated 9/15/08 (Attachment 3). The report concluded that seismic shaking can be managed through proper foundation design, that landslides are not a potential hazard, and that the potential for liquefaction can be managed through proper foundation design. The report has been reviewed by Environmental Planning staff (Attachment 4). The implementation of the additional recommendations to conform to the requirements of the California Building Code for foundation design, as described in the review letter prepared by Environmental Planning staff, will serve to further reduce the potential risk of seismic shaking and associated liquefaction on the proposed development.

In order to mitigate the potential offsets of structures as a result of liquefaction-induced settlements on utilities, prior to recordation of the final map the applicant shall revise the project plans to incorporate flexible utility connections.

Enviror Page 6	nmental Review Initial Study	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
2.	Subject people or improvements to damage from soil instability as a result of on- or off-site landslide, lateral spreading, to subsidence, liquefaction, or structural collapse?	<del></del>	X		
See re	esponse A-1above.				
3.	Develop land with a slope exceeding 30%?				X
4.	Result in soil erosion or the substantial loss of topsoil?			X	
howev condit must h sedim	potential for erosion exists during the conver, this potential is minimal because standion of the project. Prior to approval of a grave an approved Erosion Control Plan, we entation control measures. The plan will inted with ground cover and to be maintain.  Be located on expansive soil, as defined in section 1802.3.2 of the 2009 California Building Code,	lard erosi ading or hich will s nclude pre	on controls building pe pecify deta ovisions foi	s are a req rmit, the pailed erosion disturbed ace erosion	roject on and areas to
	creating substantial risks to property?	<del></del>		<u>X</u>	
_	eotechnical report for the project did not id sive soils.	entify any	elevated r	risk associ	ated with
6.	Place sewage disposal systems in areas dependent upon soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems?			X	
Watso	ptic systems are proposed. The existing d nville sanitary sewer system and the prop City of Watsonville for sanitary sewer serv	osed dev		ected to th	
7.	Result in coastal cliff erosion?			91.	X

Environmental Review Initial Study Page 7

Significant Or Potentially Significant Impact Less than
Significant
with
Mitigation
Incorporation

Less than Significant Or No Impact

Not Applicable

<u>B.</u>	Hydrold	ogy, Wa	ter Sup	ply and	d Water	Quality
_	_		_		_	

Does the project have the potential to:

<ol> <li>Place</li> </ol>	e development within a 100-year		
floo	d hazard area?	 X	

According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated March 2, 2006, the project site is within a 100-year flood hazard area. A Flood Geologic Hazards Assessment was prepared by Planning Department staff (Attachment 5) to evaluate the potential hazards from flooding. The Flood GHA determined that the 100 year base flood elevation for the site is in the range of 1-3 feet above existing grade, with an average of 1 foot above existing grade, and identified mitigations to address hazards from potential flooding. In order to mitigate potential hazards from flooding, the finished floor of the proposed structure is required to be elevated above the base flood elevation and to meet minimum FEMA flood-proofing standards (through watertight construction, or allowing water to pass through the structure in flood events).

۷.	Place development within the floodway				
	resulting in impedance or redirection of				
	flood flows?	4	•	X	

According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated March 2, 2006, the project site is not within a mapped floodway area.

- 3. Be inundated by a seiche or tsunami?
- 4. Deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit, or a significant contribution to an existing net deficit in available supply, or a significant lowering of the local groundwater table?

Χ

The project would continue to obtain water from the City of Watsonville and would not rely on private well water. The project is not located in a mapped groundwater recharge area.

Enviror Page 8	nmental Review Initial Study	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
5.	Degrade a public or private water supply? (Including the contribution of urban contaminants, nutrient enrichments, or other agricultural chemicals or seawater intrusion).			X	
The project would replace an existing gas station and would include gasoline and diesel storage tanks below ground. The potential for leaks, spills, or overflow of gasoline or diesel from these tanks does exist and could result in the contamination of groundwater supplies. However, the use of standard engineering practices for underground storage tanks to prevent such events, and monitoring required by the County Department of Environmental Health Services (to identify any leaks or spills at an early stage) reduces the potential for such contamination to a less than significant level.					
Driveway and parking area runoff may contain urban contaminants. A silt and grease trap, and a plan for maintenance, is required as a standard condition of approval to reduce this potential impact to a less than significant level.					
6.	Degrade septic system functioning?			X	
	is no indication that any existing septic sysproject.	stems in t	he vicinity	would be	affected
7.	Alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which could result in flooding, erosion, or siltation on or off-site?			X	
Depar	roposed project would not alter the existing tment of Public Works Drainage Section stated drainage plan.				
8.	Create or contribute runoff which would exceed the capacity of existing or planned storm water drainage systems, or create additional source(s) of polluted runoff?			X	

Drainage Calculations prepared by Bowman & Williams, revised 6/15/09 (Attachment 6), have been reviewed and accepted by the Department of Public Works (DPW) Drainage Section staff (Attachment 7). The calculations show that the proposed development will result in a negligible increase in drainage flows from the existing conditions (an increase of .02 CFM for both 10 and 25 year storm events). The runoff

Environ Page 9	mental Review Initial Study	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
storage to han	ate from the property will be controlled by pervious pavement with subsurface rock storage. DPW staff have determined that existing storm water facilities are adequate a handle the increase in drainage associated with the project. Refer to response B-5 or discussion of urban contaminants and/or other polluting runoff.				
9.	Contribute to flood levels or erosion in natural water courses by discharges of newly collected runoff?			X	
See re	sponse B-8above.		·		
10.	Otherwise substantially degrade water supply or quality?			X	
	See responses B-5 & B-8above. No other potential impacts to water supply or quality have been identified.				
	blogical Resources the project have the potential to:				
1.	Have an adverse effect on any species identified as a candidate, sensitive, or special status species, in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, or U.S. Fish and Wildlife Service?			, , , , , , , , , , , , , , , , , , ,	
According to the California Natural Diversity Data Base (CNDDB), maintained by the California Department of Fish and Game, there are no known special status plant or animal species in the site vicinity, and there were no special status species observed in the project area. The lack of suitable habitat and the disturbed nature of the site make it unlikely that any special status plant or animal species occur in the area.					
2.	Have an adverse effect on a sensitive biotic community (riparian corridor), wetland, native grassland, special forests, intertidal zone, etc.)?	,		X	
There	are no mapped or designated sensitive bi	otic comm	unities on	or adjacei	nt to the

Environ Page 10	nmental Review Initial Study	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
3.	Interfere with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native or migratory wildlife nursery sites?			X	
	roposed project does not involve any activ nents or migrations of fish or wildlife, or im				
4.	Produce nighttime lighting that will illuminate animal habitats?			X	
lighting	xisting use currently generates nighttime li g would not illuminate animal habitats. Th or adjacent to the project site.				
5.	Make a significant contribution to the reduction of the number of species of plants or animals?			X	
See re	esponse C-1 & C-2above.				
6.	Conflict with any local policies or ordinances protecting biological resources (such as the Significant Tree Protection Ordinance, Sensitive Habitat Ordinance, provisions of the Design Review ordinance protecting trees with trunk sizes of 6 inch diameters or greater)?			X	
The presour	roject would not conflict with any local poli rces.	cies or or	dinances p	rotecting l	oiological
7.	Conflict with the provisions of an adopted Habitat Conservation Plan, Biotic Conservation Easement, or other approved local, regional, or state habitat conservation plan?				X

Enviro Page 1	nmental Review Initial Study 1	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
	nergy and Natural Resources the project have the potential to:				
1.	Affect or be affected by land designated as "Timber Resources" by the General Plan?	•		<b>.</b>	X
2.	Affect or be affected by lands currently utilized for agriculture, or designated in the General Plan for agricultural use?			X	
agricu Comn adjace and p agricu resou adopt propo	roject is adjacent to land used for commercultural resource. The project was evaluated nission on 5/21/09 and a reduced setback ent agricultural uses was granted. Due to roposed gas station on the project site, the ultural land use conflicts. The subject properce, but the property has been occupied by ion of the County General Plan and Agricused development would not displace or adultural uses in the project vicinity.	d by the A for the protection commerce are would erty is des a gas state	gricultural oposed devercial natured not be any signated as ation since servation o	Policy Advelopment re of the eresidentials an agriculation before the rdinance.	visory from existing al- altural e The
3.	Encourage activities that result in the use of large amounts of fuel, water, or energy, or use of these in a wasteful manner?			X	
All of energ	roposed gas station will include a convenienthese uses would comply with the requirency efficiency and the car wash will use re-cinption.	nents of th	ne Californi	ia Building	Code for
4.	Have a substantial effect on the potential use, extraction, or depletion of a natural resource (i.e., minerals or energy resources)?				X
	sual Resources and Aesthetics the project have the potential to:				
1.	Have an adverse effect on a scenic resource, including visual obstruction of that resource?			¥	

Enviror Page 1	nmental Review Initial Study 2	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable			
The subject property is located within the viewshed of the Highway One scenic corridor. The existing development includes a building, fuel canopy, two monument signs, and nighttime lighting that are all visible from Highway One. The proposed development will replace the existing building, fuel canopy, and signage with an expanded building, fuel canopy, and a single monument sign with additional sign panels. Existing trees screen views of the property from portions of Highway One, but the property is still visible from a number of points on the highway. Given the location of the property below the highway and the presence of existing trees, a monument sign and associated lighting are necessary for the gas station (which serves motorists traveling on Highway One) to be seen from the highway in time for motorists to exit. The removal of one of the two monument signs is proposed to reduce potential visual impacts to the scenic resource. The proposed structure has also been designed (through articulation, and selection of roof and siding materials and colors) to improve the architectural character of the structure and to reduce potential visual impacts to the scenic resource. Given all of these factors, and the visual impact of the existing development, the net visual impact of the proposed development on the scenic resource would be less than significant.								
2.	Substantially damage scenic resources, within a designated scenic corridor or public view shed area including, but not limited to, trees, rock outcroppings, and historic buildings?			X				
See re	See response C-1above.							
3.	Degrade the existing visual character or quality of the site and its surroundings, including substantial change in topography or ground surface relief features, and/or development on a ridge line?			x	-			

The existing gas station is located at a highway off-ramp and is adjacent to existing agricultural development. The proposed project is designed to replace the existing gas station with a building of improved architecture and additional landscaping. The proposed development would not degrade the existing visual character of the site or surroundings.

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

X

The existing use currently generates nighttime lighting.

Enviro Page 1	nmental Review Initial Study 3	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
5.	Destroy, cover, or modify any unique geologic or physical feature?			X	
	e are no unique geological or physical featu I be destroyed, covered, or modified by the		adjacent to	the site t	hat
	the project have the potential to:				
1.	Cause an adverse change in the significance of a historical resource as defined in CEQA Guidelines 15064.5?			X	
	existing structure on the property is not des al, State or local inventory.	ignated a	s a historic	resource	on any
2.	Cause an adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines 15064.5?			X	
Countercay artifactor to excepted	cheological resources have been identified ty Code Section 16.40.040, if at any time is vating or otherwise disturbing the ground, act or other evidence of a Native American deed 100 years of age are discovered, the e and desist from all further site excavations dures given in County Code Chapter 16.40	n the prepany huma cultural sit responsit and com	paration for n remains of te which rea ble persons	or proces of any age asonably a shall imm	s of , or any appears nediately
3.	Disturb any human remains, including those interred outside of formal cemeteries?			<u> </u>	
site p huma desis Direct arche Califo signifi	uant to Section 16.40.040 of the Santa Cru reparation, excavation, or other ground dis in remains are discovered, the responsible it from all further site excavation and notify tor. If the coroner determines that the reme eological report shall be prepared and repre- partial Indian group shall be contacted. Dist icance of the archeological resource is deterve the resource on the site are established.	sturbance persons the sherif ains are r esentative urbance s ermined a	associated shall immed f-coroner a not of recens of the local hall not resented.	with this diately ceand the Plate origin, a cal Native sume until	project, ase and anning full the
4.	Directly or indirectly destroy a unique paleontological resource or site?				X

Page 14	4	Potentially Significant Impact	with Mitigation Incorporation	Significant Or No Impact	Not Applicable
	azards and Hazardous Materials				
Does	the project have the potential to:				
1.	Create a significant hazard to the public or the environment as a result of the routine transport, storage, use, or disposal of hazardous materials, not including gasoline or other motor fuels?			X	
	zardous materials other than gasoline, oth be stored or utilized on the project site.	er motor	fuels, or as	sociated r	materials
2.	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?		<b>According</b>	X	
compi existir requir of exis	roject site is included on the 9/17/09 list of iled pursuant to the specified code (Attaching and proposed use of the subject proper ements of the County Department of Envirosting underground storage tanks and clear the construction phase of the project.	ment 8) fo ty would t onmental	or gasoline be a gas sta I Health Se	and MTBI ation. All rvices for	E. The removal
3.	Create a safety hazard for people residing or working in the project area as a result of dangers from aircraft using a public or private airport located within two miles of the project site?			X	
The V	Vatsonville Airport is over two miles from th	ne project	site.		
4.	Expose people to electro-magnetic fields associated with electrical transmission lines?				X
5.	Create a potential fire hazard?			X	
	roject design incorporates all applicable fir e fire protection devices as required by the			ements ar	nd will

Significant

Environmental Review Initial Study

Environ Page 15	mental Review Initial Study	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
6.	Release bio-engineered organisms or chemicals into the air outside of project buildings?				X
H. Tra	ansportation/Traffic				
Does	the project have the potential to:				
1.	Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			X	
interse conve expan increa	roject would create a small incremental incretions due to the inclusion of the additional nience store. However, given the small nusion of the existing gas station, this increase would not cause the Level of Service and Service D.	al restaura umber of r se is less	ant use and new trips cr than signif	d expande eated by licant. Fur	d the ther, the
2.	Cause an increase in parking demand which cannot be accommodated by existing parking facilities?			X	
new us	g spaces for the proposed development w ses. Sufficient parking for the proposed us ges of the circulation areas as well as at the re fueling and purchasing products at the s	ses will be ne fuel pu	e located in mp islands	marked s	spaces at
3.	Increase hazards to motorists, bicyclists, or pedestrians?			X	
A		Las Desi	-1	ual price -	ian

Access would be from the existing driveways on Lee Road and the fuel price sign would be located between the two driveways in a manner to not obstruct vehicular sight distance at the intersection of Lee Road and Highway 129. The proposed project would not result in an increased potential hazards to motorists, bicyclists, and/or pedestrians.

Enviror Page 16	nmental Review Initial Study	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
4.	Exceed, either individually (the project alone) or cumulatively (the project combined with other development), a level of service standard established by the county congestion management agency for designated intersections, roads or highways?			X	
See re	esponse H-1 above.				
I. Noi Does	se the project have the potential to:	÷			
1.	Generate a permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	····		X	
Howe	roject would result in an incremental increater, this increase would be small, and would by the existing gas station use.		_		
2.	Expose people to noise levels in excess of standards established in the General Plan, or applicable standards of other agencies?			X	
thresh levels replac southt and/or doorw reasor of the	county policy, average hourly noise levels shall not exceed 65 db during the day or 6 ement gas station building is located appropound lane of Highway One. Additionally, dine would be located within the interior of ay openings on the opposite side of the buns, it is unlikely that people within the build specified range. Given the limited duration fueling, etc.), exposure to outdoor traffic notant.	ring the note of the space of the comulation of the comulation of the the thing will be on that cur	ighttime. In ight. The post of	mpulsive reproposed com the eople wou ilding with way. For the to noise in ould be ou	noise Id shop these n excess tdoors
3.	Generate a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	

Enviro Page 1	nmental Review Initial Study 7	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable		
Noise generated during construction would increase the ambient noise levels for adjoining areas. Construction would be temporary, however, and given the limited duration of this impact it is considered to be less than significant.							
Does (Whe estab	r Quality the project have the potential to: re available, the significance criteria lished by the MBUAPCD may be relied to make the following determinations).						
1.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			<u>X</u>			
partic emitte	lorth Central Coast Air Basin does not mee ulate matter (PM10). Therefore, the regior ed by the project are ozone precursors (Vo en oxides [NOx]), and dust.	nal polluta	nts of conc	ern that w	ould be		
Given the modest amount of new traffic that would be generated by the project there is no indication that new emissions of VOCs or NOx would exceed Monterey Bay Unified Air Pollution Control District (MBUAPCD) thresholds for these pollutants and therefore there would not be a significant contribution to an existing air quality violation.							
Project construction may result in a short-term, localized decrease in air quality due to generation of dust. However, standard dust control best management practices, such as periodic watering and covering spoils piles, will be required during construction to reduce impacts to a less than significant level.							
demo	APCD staff provided comments for this applition of the existing gas station building. A strict and all air district requirements will approximately	demolitio	n permit w	ill be requ			
2.	Conflict with or obstruct implementation of an adopted air quality plan?			X			
	roject would not conflict with or obstruct im See J-1 above.	nplementat	tion of the	regional a	ir quality		
3	Evnose sensitive recentors to						

substantial pollutant concentrations?

4.

Create objectionable odors affecting a substantial number of people?

	Environmental Review Initial Study Page 18		Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
		Services and Utilities project have the potential to:				
1.	phy con sigr orde ratio	sult in the need for new or sically altered public facilities, the struction of which could cause nificant environmental impacts, in er to maintain acceptable service os, response times, or other formance objectives for any of the dic services:				
	a.	Fire protection?		· · · · · ·	X	· .
	b.	Police protection?			X	
	c.	Schools?			X	
	d.	Parks or other recreational activities?			X	
	e.	Other public facilities; including the maintenance of roads?		***	X	
increas require fees pa	se w emer aid b	project represents an incremental cont ould be minimal. Moreover, the project onts identified by the local fire agency a by the applicant will be used to offset the recreational facilities and public roads	ct meets nd schoo he increm	all of the sta I, park, and	andards a I transport	nd ation
	new expa	rult in the need for construction of vistorm water drainage facilities or ansion of existing facilities, the struction of which could cause ifficant environmental effects?			X	

Drainage analysis of the project prepared by Bowman and Williams (Attachment 6) concluded that existing downstream facilities are adequate to serve the proposed project.

Enviror Page 19	nmental Review Initial Study	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
3.	Result in the need for construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<u>:</u>	X		
sanita Watso Watso replac service	existing gas station is connected to the City ry sewer services. The proposed project worville for water and sewer service, however proville has not indicated that these urban seement gas station (Attachment 10). In order will be available to the proposed develop tsonville for these services will be required to	vould cor er, corres ervices w der to ens oment, a v	nect to the pondence f rill be availa sure that wa will serve le	City of rom the Country the for the later and steer and the later from the country the later from the later fro	City of e ewer the City
4.	Cause a violation of wastewater treatment standards of the Regional Water Quality Control Board?		· · · · · · · · · · · · · · · · · · ·	X	
The p	roject's wastewater flows would not violate	any was	tewater trea	atment sta	andards.
5.	Create a situation in which water supplies are inadequate to serve the project or provide fire protection?			X	
suppreplans,	vater mains serving the project site provide ession. Additionally, the fire agency has reassuring conformity with fire protection statements for water supply for fire protection.	eviewed a andards t	and approve	ed the pro	ject
6.	Result in inadequate access for fire protection?	-		X	
The erreview	xisting access from Lee Road will remain uved and approved the plans including the e	unchange existing a	ed. The loc nd propose	al fire age d access	ncy has from Lee
7.	Make a significant contribution to a cumulative reduction of landfill capacity or ability to properly dispose of refuse?			X	

The project would make an incremental contribution to the reduced capacity of regional landfills. However, this contribution would be relatively small and would be of similar

Enviror Page 20	nmental Review Initial Study )	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
magni	tude to that created by existing land uses	around th	e project.		
8.	Result in a breach of federal, state, and local statutes and regulations related to solid waste management?				X
	and Use, Population, and Housing the project have the potential to:				
1.	Conflict with any policy of the County adopted for the purpose of avoiding or mitigating an environmental effect?			X	
•	roposed project does not conflict with any ng or mitigating an environmental effect.	policies a	dopted for	the purpos	se of
2.	Conflict with any County Code regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	
-	roposed project does not conflict with any ng or mitigating an environmental effect.	regulatior	ns adopted	for the pu	rpose of
3.	Physically divide an established community?			X	
The process	roject does not include any element that w unity.	ould phys	sically divid	e an estat	olished
4.	Have a potentially significant growth inducing effect, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			×	

The proposed project is designed at the density and intensity of development allowed by the General Plan and zoning designations for the parcel and will replace an existing gas station on the project site. The subject property is located within the (-W) Watsonville Utility Prohibition combining district which prohibits new connections to urban services (public water and sanitary sewer) on the coast side of Highway One in the Watsonville area. Although the subject property is not located within the Urban Services Line and is within the Watsonville Utility Prohibition combining district, the existing development is already served by public water and sanitary sewer service

Environmental Review Initial Study Page 21

Significant Or Potentially Significant Impact Less than
Significant
with
Mittgation
Incorporation

Less than
Significant
Or
No Impact

Not Applicable

from the City of Watsonville. The project does not involve extensions of utilities (e.g., water, sewer, or new road systems) into areas previously not served. No new water lines or sanitary sewer lines would be proposed as a component of the project. Consequently, the project is not expected to have a significant growth-inducing effect.

5. Displace substantial numbers of people, or amount of existing housing, necessitating the construction of replacement housing elsewhere?

Χ\_\_\_

The proposed project does not involve the removal of housing units or the displacement of any existing development.

# M. Non-Local Approvals

	s the project require approval of federal, state, egional agencies?	Yes X	No _	
	response J-1 above. A demolition permit from the Moution Control District will be required.	onterey Bay Uni	fied Air	
<u>N. I</u>	Mandatory Findings of Significance			
1.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant, animal, or natural community, or eliminate important examples of the major periods of California history or prehistory?	Yes	No _	X
2.	Does the project have the potential to achieve short term, to the disadvantage of long term environmental goals? (A short term impact on the environment is one which occurs in a relatively brief, definitive period of time while long term impacts endure well into the future)	Yes	No _	×
3.	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, and the effects of reasonably foreseeable future projects which have entered the Environmental Review stage)?	Yes	No _	X
4.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Yes	No	×

### **TECHNICAL REVIEW CHECKLIST**

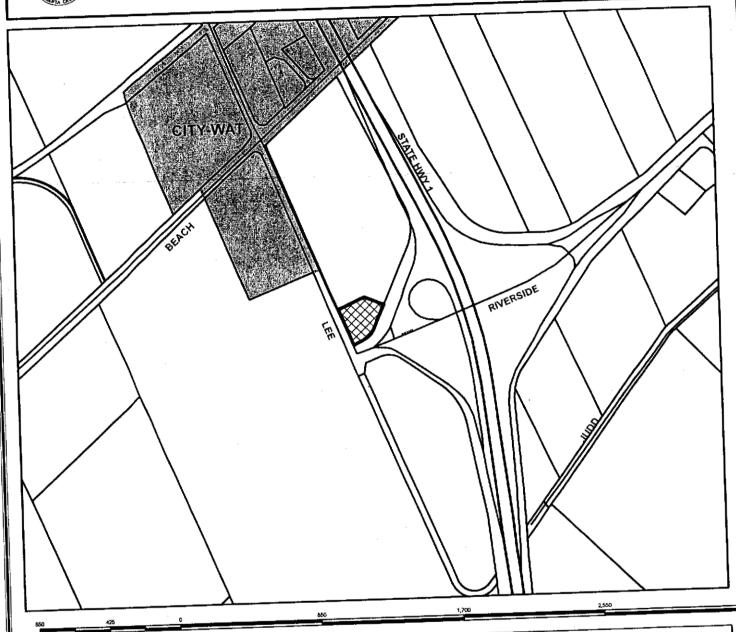
	REQUIRED	COMPLETED	<u>N/A</u>
Agricultural Policy Advisory Commission (APAC) Review		xxx	
Archaeological Review		- and the same of	
Biotic Report/Assessment			<u> </u>
Flood Geologic Hazards Assessment (GHA)		XXX	
Geologic Report			·
Geotechnical (Soils) Report	· · · · · · · · · · · · · · · · · · ·	XXX	
Riparian Pre-Site	- New St		
Septic Lot Check		- 1914 mar - 18 <sup>4</sup>	
Other:			

#### Attachments:

- 1. Location Map, Map of Zoning Districts, Map of General Plan Designations, Assessors Parcel Map
- 2. Architectural Plans prepared by Frank E. Areyano, Architect, dated 12/1/01 with revisions through 3/3/09; Preliminary Improvement Plans prepared by Bowman & Williams, revised 1/20/09; Landscape Plan prepared by Ali M. Oskoorouchi, dated 1/30/09;
- 3. Geotechnical Investigation (Conclusions and Recommendations) prepared by Ali M. Oskoorouchi, dated 9/15/08, and plan review letter, dated 6/23/09.
- 4. Geologic and Geotechnical Report Review Letter prepared by Carolyn Banti & Joe Hanna, dated 4/6/09.
- 5. Flood Geologic Hazards Assessment, prepared by Jessica Degrassi & Joe Hanna, dated 2/5/09.
- 6. Drainage calculations (Summary) prepared by Bowman & Williams, revised 6/15/09.
- 7. Discretionary Application Comments, dated 10/5/09.
- 8. Environmental Health Services Hazardous Sites List (page 19) dated 9/17/09.
- 9. Letter from Monterey Bay Unified Air Pollution Control District, dated 11/17/08.
- 10. Letter from City of Watsonville (water & sewer service), dated 9/3/08.



# Location Map



LEGEND

 $\times\!\!\times\!\!\times$ 

APN: 052-271-03

Assessors Parcels

\_\_\_

Streets

\_\_\_\_

State Highways

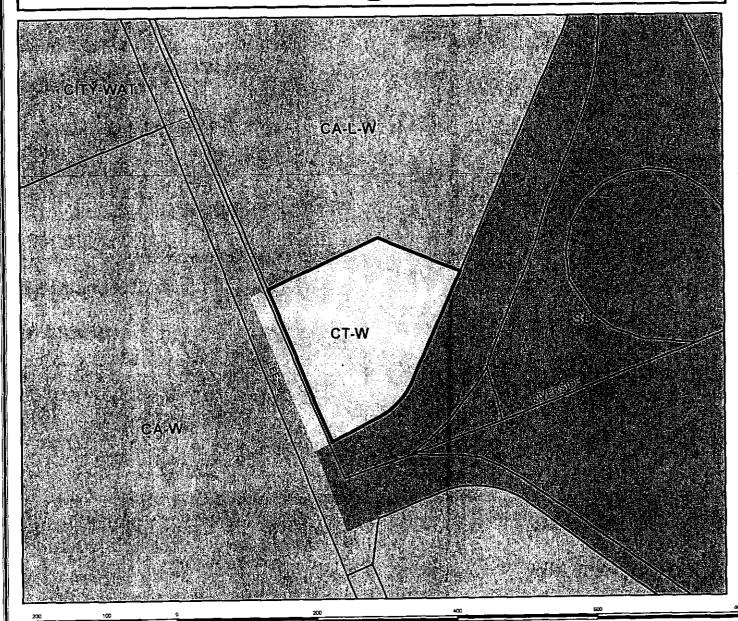
WATSONVILLE

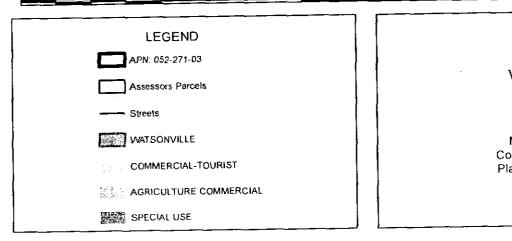


Map Created by County of Santa Cruz Planning Department March 2009



# Zoning Map



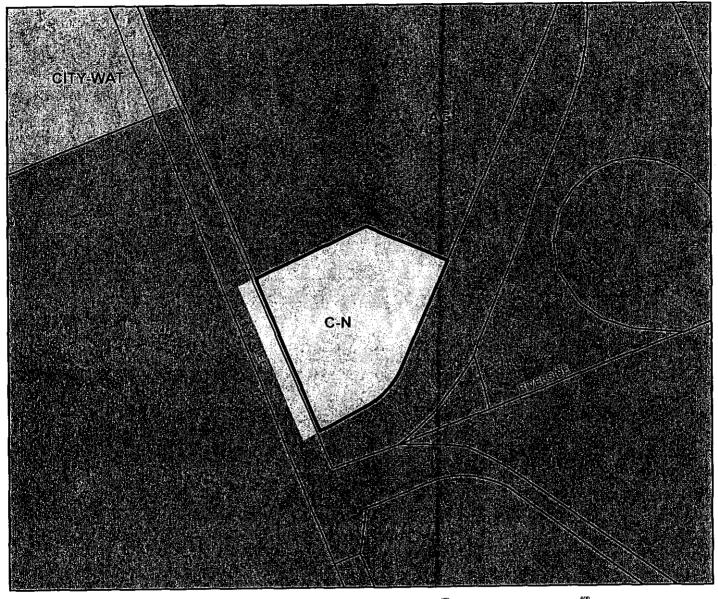


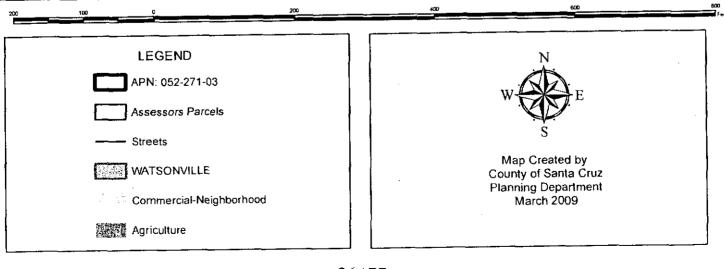


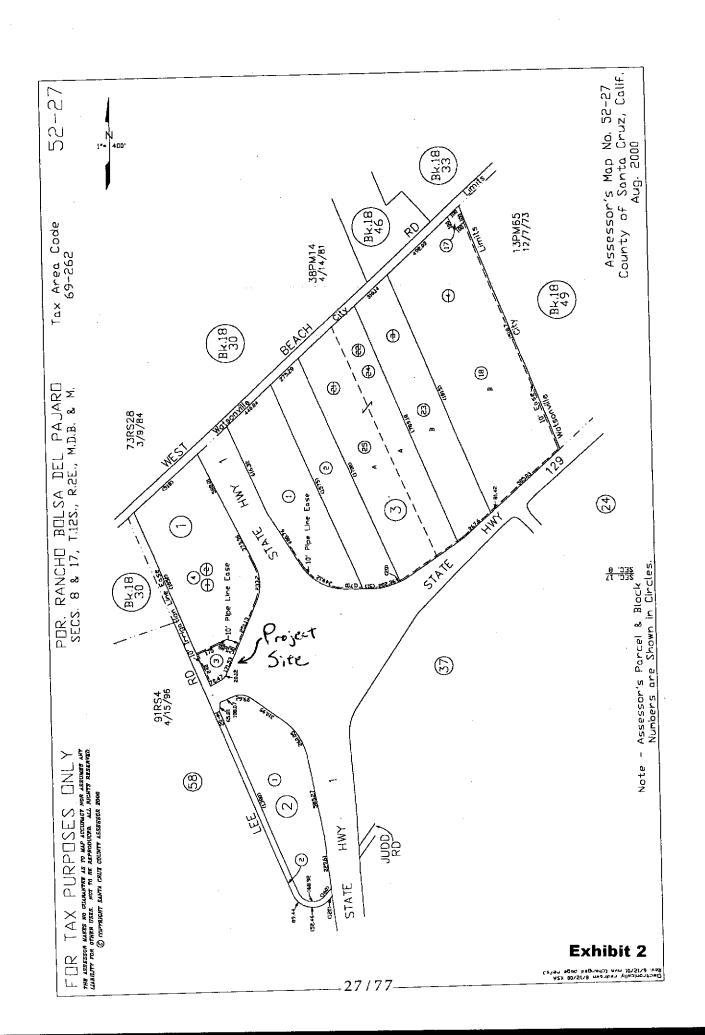
Map Created by County of Santa Cruz Planning Department March 2009

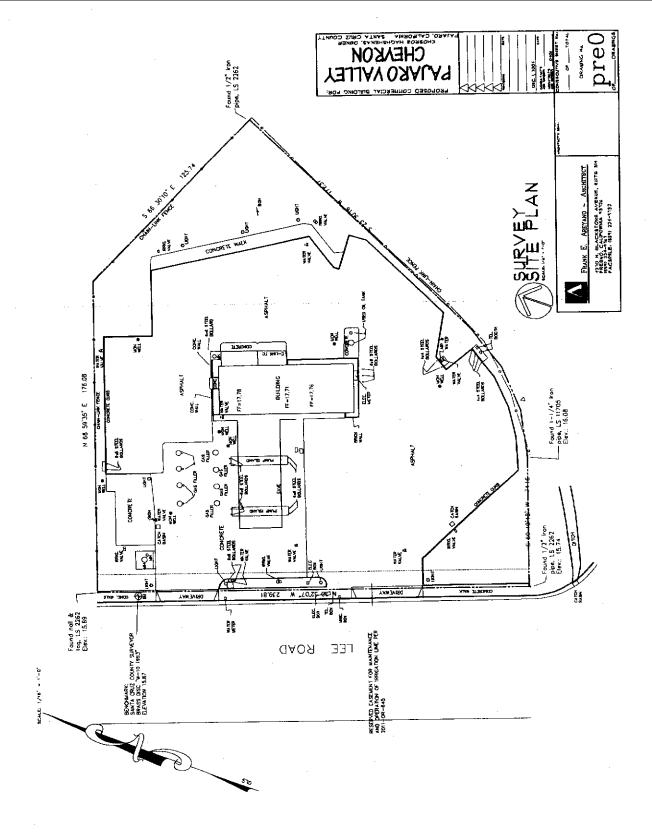


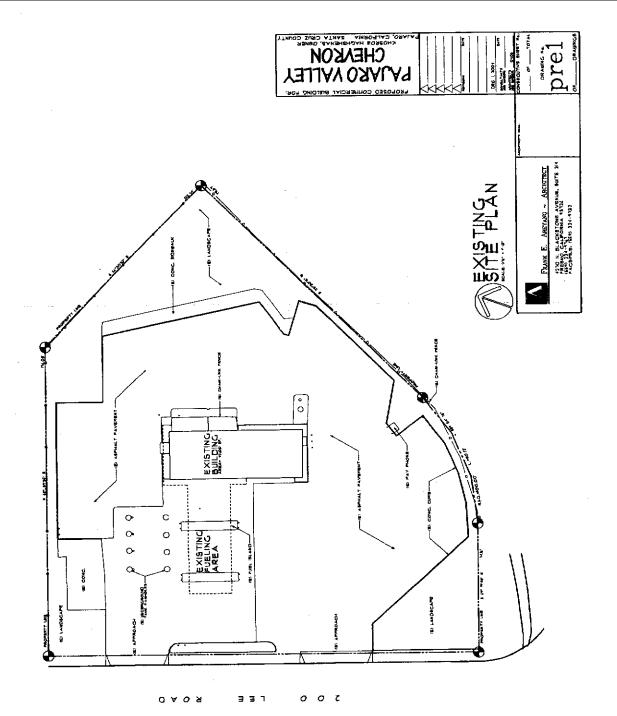
# General Plan Designation Map



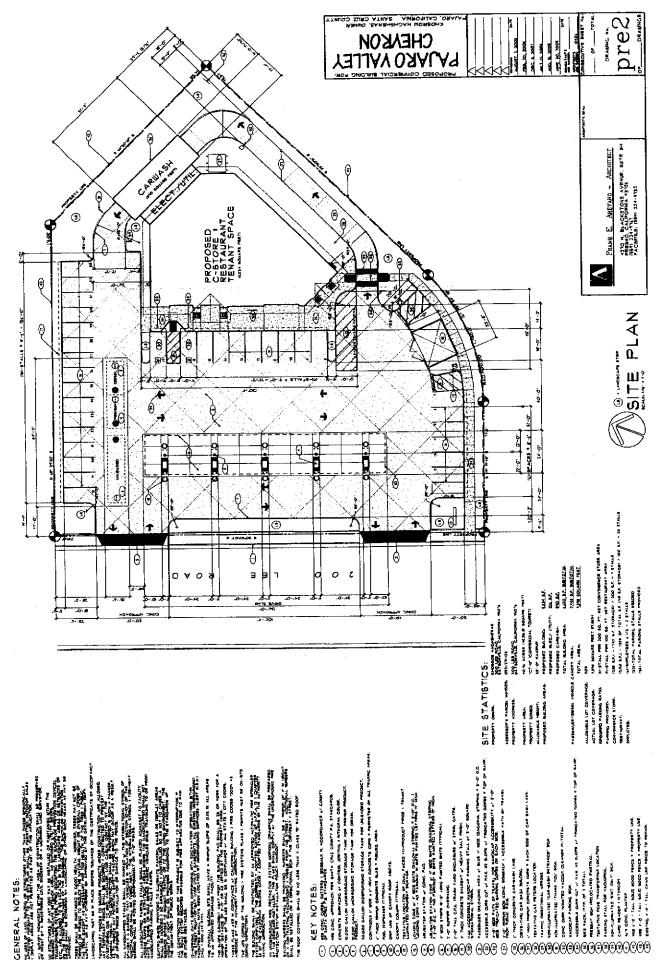


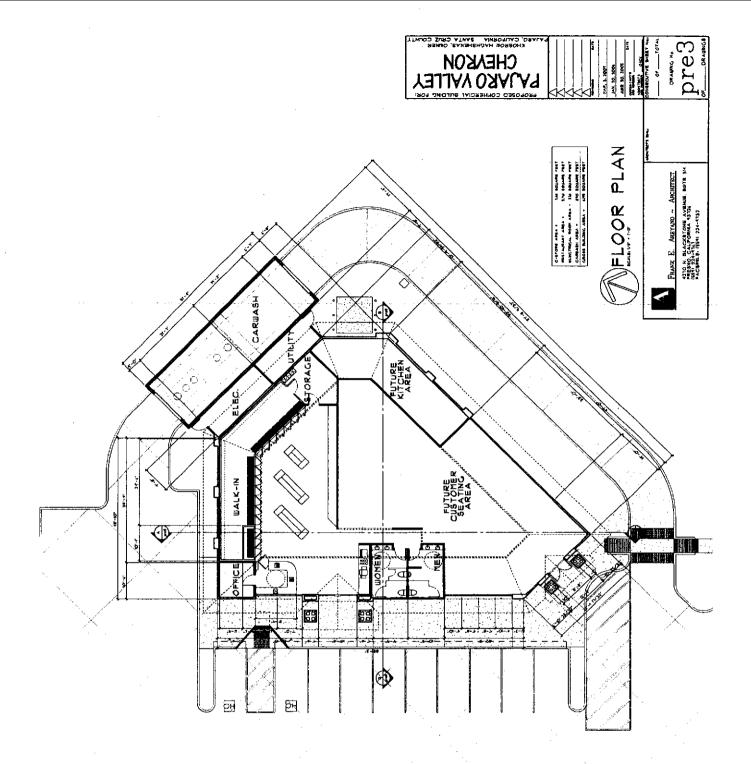


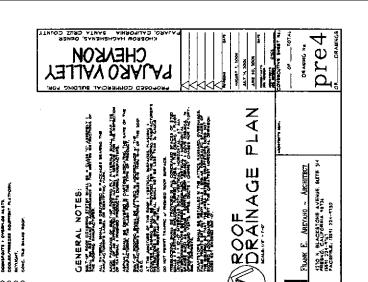


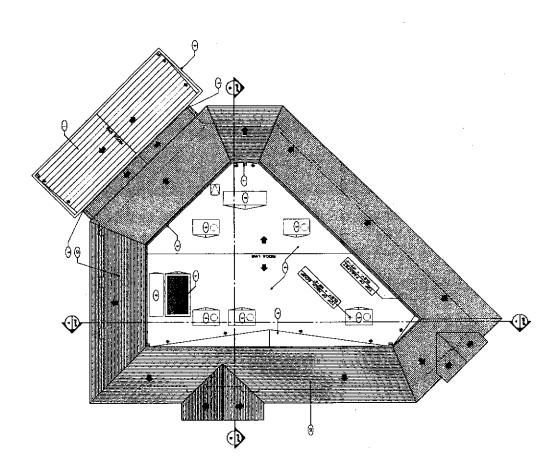


29/77

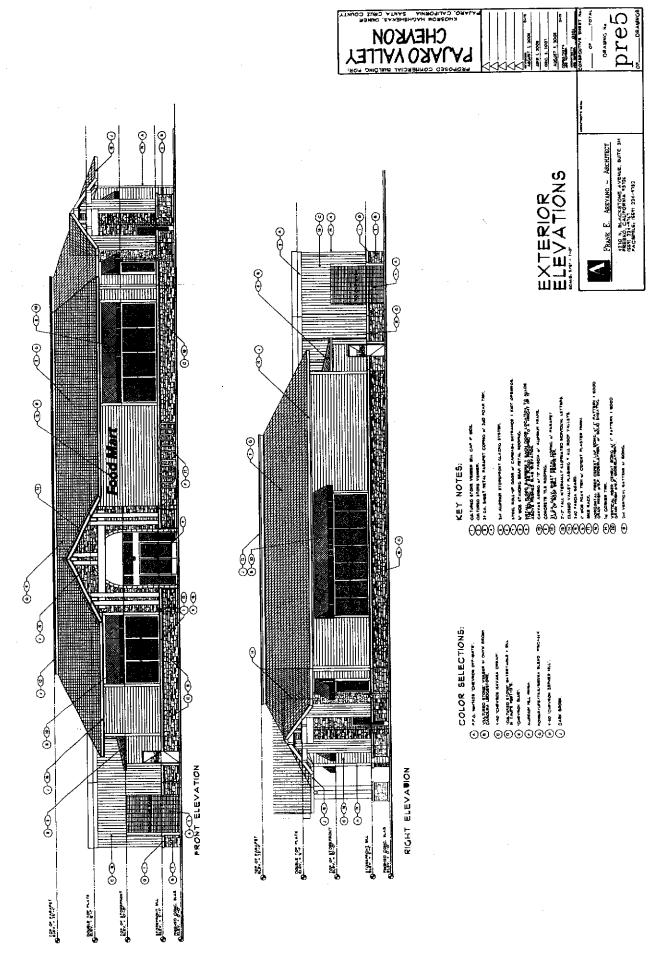


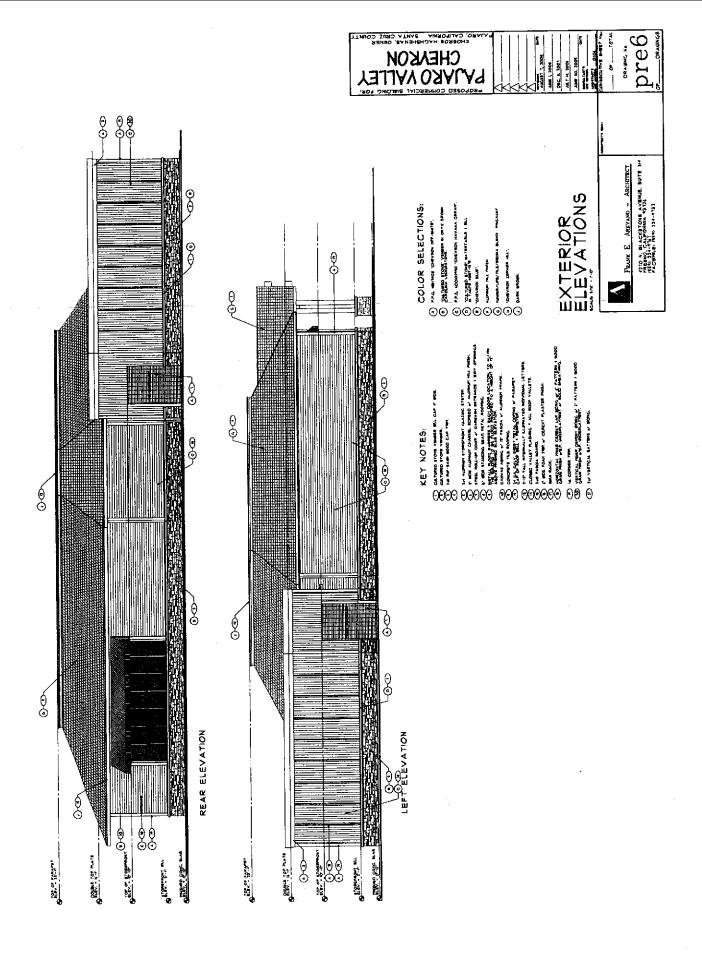


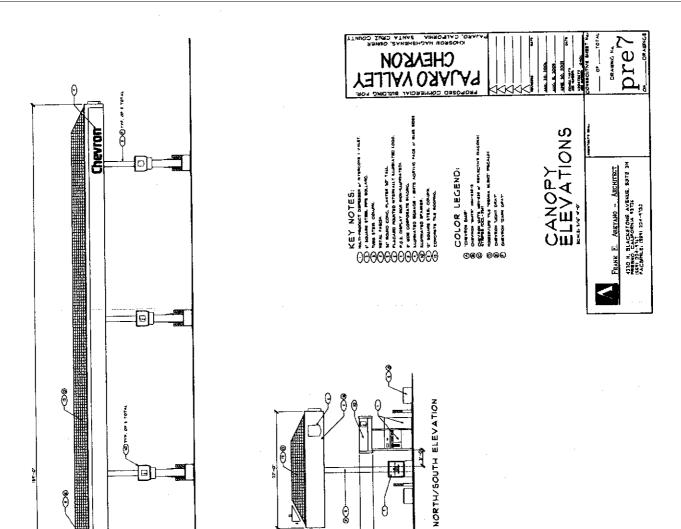




999<del>999</del> 9999







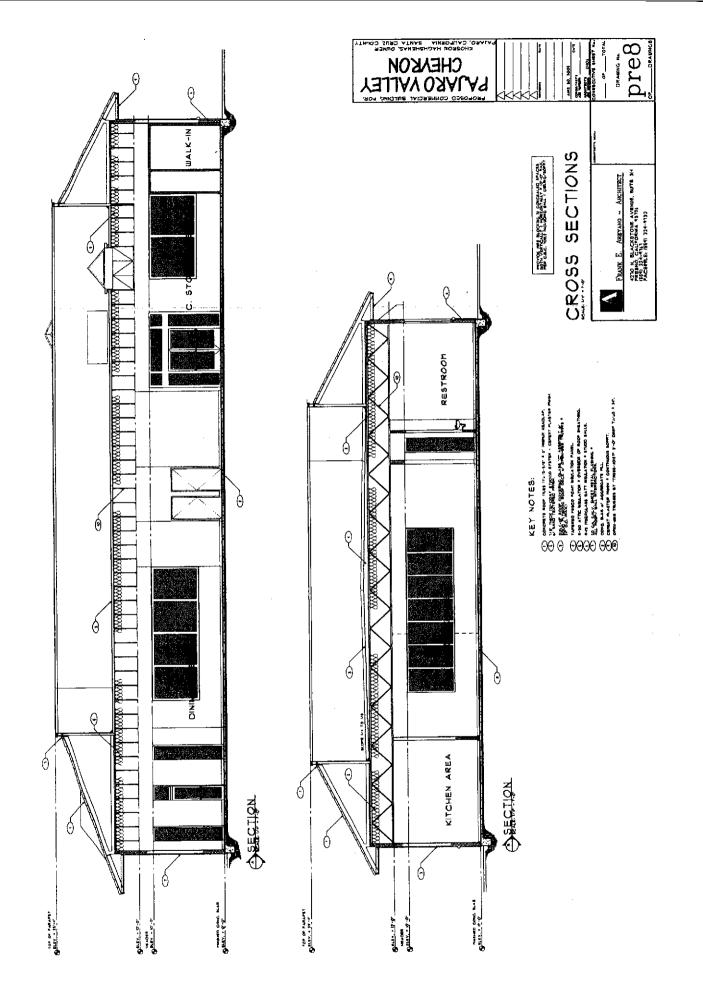
Ó

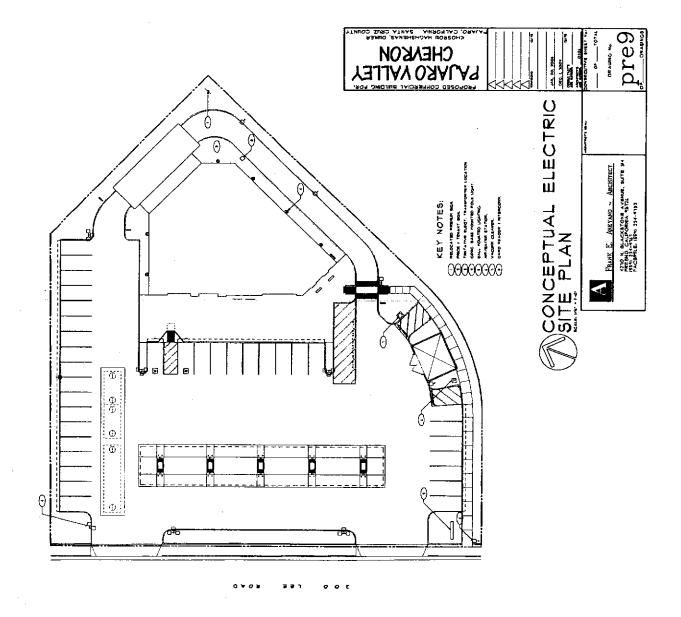
9

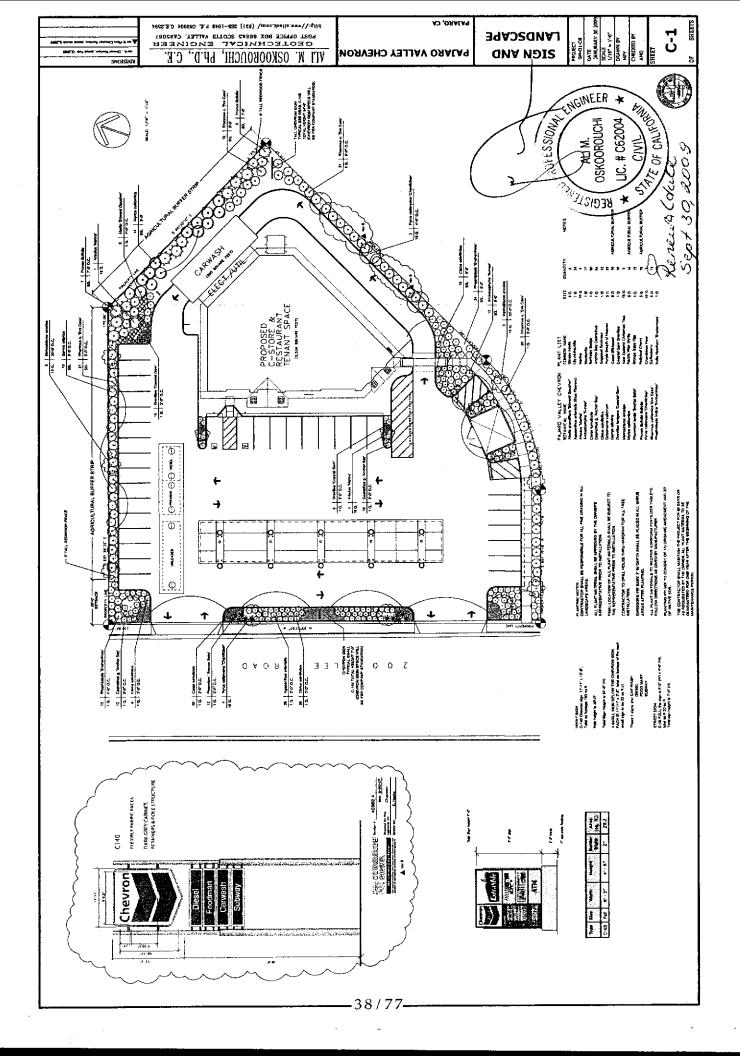
8

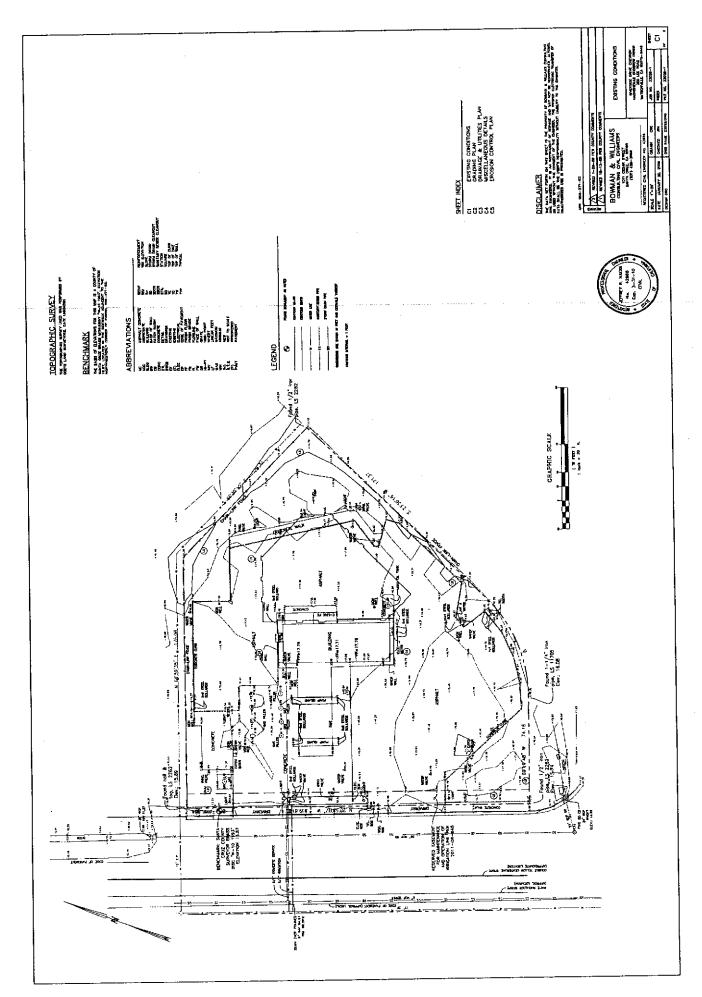
9

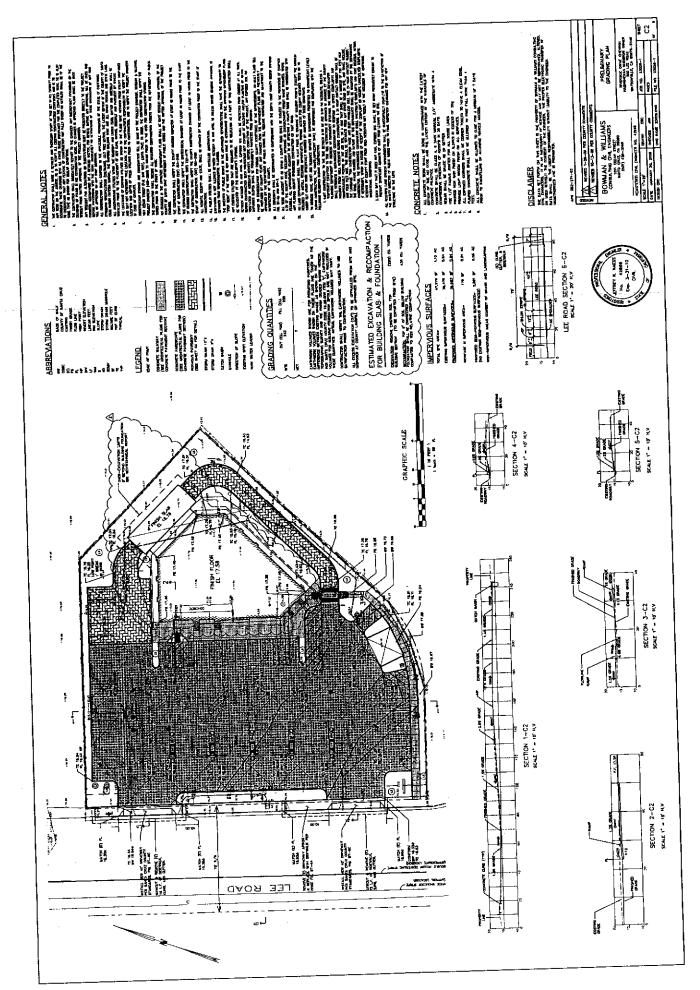
EAST/WEST ELEVATION (LEE ROAD)

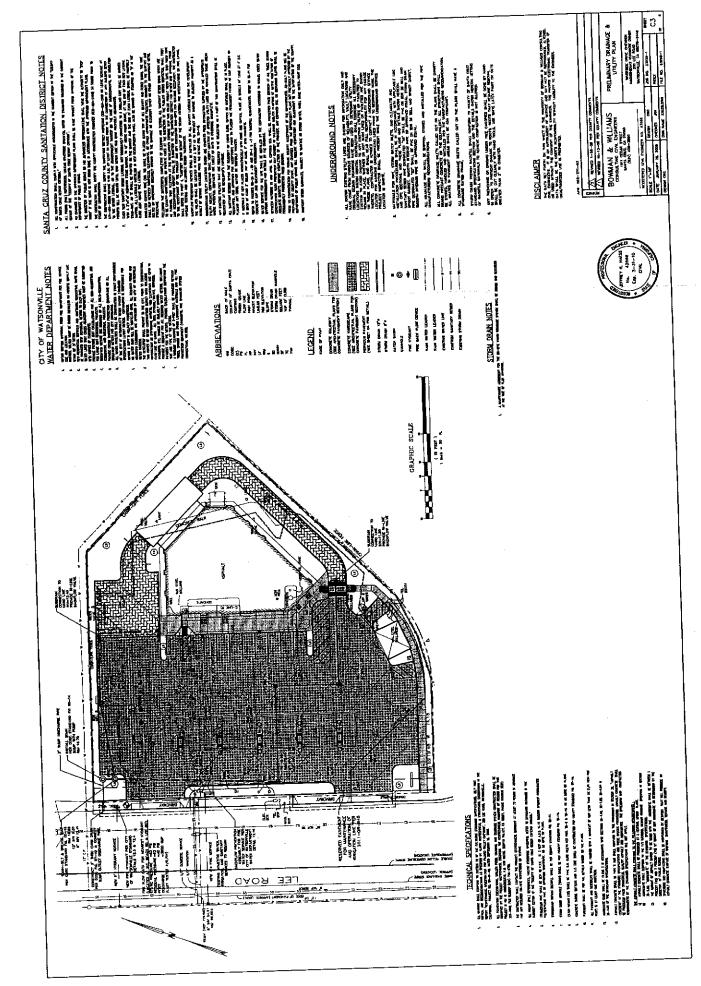


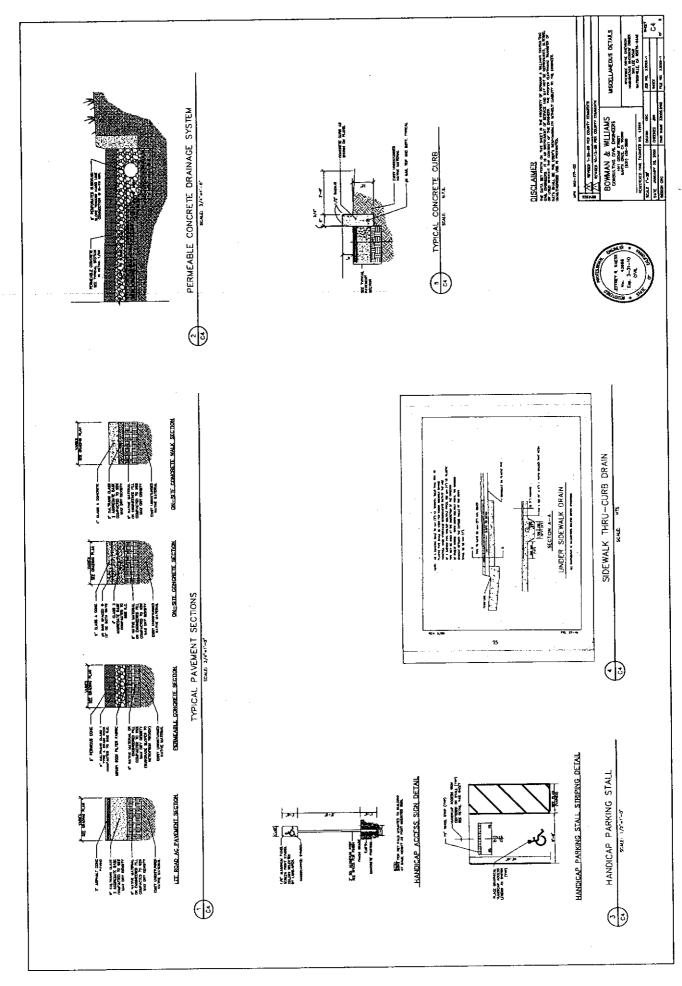


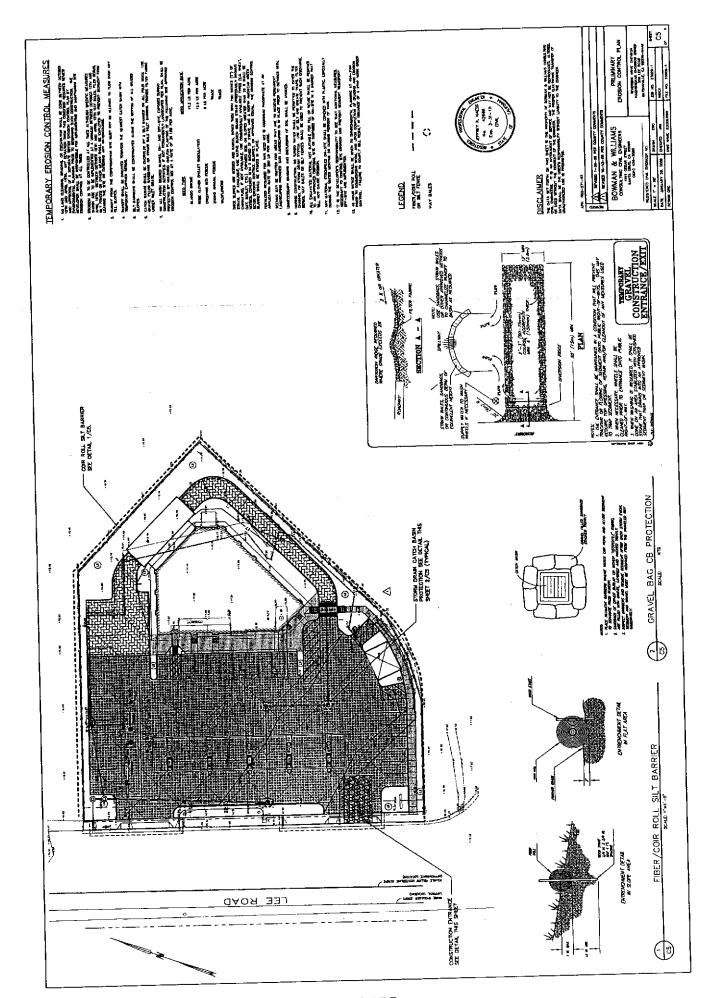












# FOUNDATION & SOIL INVESTIGATIONS (CBC 2007)

Proposed Remodeling and Addition(s) to the Existing Facility at 200 Lee Road, Watsonville, CA 95076

September 15, 2008

Prepared for:

Mr. Khosrow Haghshenas Pajaro Valley Chevron 200 Lee Road Watsonville, CA 95076

Prepared By:

Ali M. Oskoorouchi, Ph.D., P.E., G.E. P.O. Box 66245 Scotts Valley, CA, 95067 Ph: (831) 325-1048 FAX: (866)716-4785 www.aliosk.com

Project KH-01-08

Geotechnical Investigation Page 1

### INTRODUCTION

We are pleased to present this report summarizing the results of our geotechnical investigation for the proposed remodeling and addition(s) to the existing facility. The property is located at 200 Lee Road, Watsonville, California. The purpose of this Geotechnical Investigation is to provide soil data based on California Building Code, CBC 2007, for Project Architect and Structural Engineer of the project to better locate the proposed new buildings & facilities and to provide soil data to design their foundation system. In addition, the proposed geotechnical report will provide soil data for possible retaining walls, or any slabs-on-grade, and driveway pavement design within the same subject site.

The site is a rather flat terrain, and is approximately 1.0 acre in area, the footprint area of the existing single-story building at the site (to be demolished) is approximately 2,061 sq ft. with an existing Fueling area to be demolished and remodeled. The proposed new C-Store & Restaurant include an approximately 5,534 sq ft (single-story) building, and an attached car wash facility of approximately 890 sq ft in area. Please refer to the Vicinity Map (Figure 1) within the Appendix "A" for the general location of the site.

### **INFORMATION PROVIDED**

Existing and proposed site plans of the subject site were provided to us by the Owner. (See Figure 2, Appendix "A").

### **SCOPE OF WORK**

Our scope of work is limited to the following:

Under the responsible charge of a California Licensed Geotechnical Engineer:

- 1. Review of available geologic and geotechnical information pertaining to the site.
- 2. Exploration, sampling, and classification of soils by excavating three (3) exploratory boreholes to the required depth per CBC 2007, one to depth of 40 feet, to address liquefaction potential. Soil samples were obtained at the expected depth of the footings, followed by one sample for every 5 feet of drilling.
- 3. Laboratory testing of selected soil samples to determine their relevant engineering properties.
- 4. Compilation and analysis of collected field and laboratory data, and comparison of the collected laboratory data with other (available to us) projects in the area.
- 5. Preparation of Four (4) wet-stamped soil reports presenting our findings and recommendations for the appropriate type of foundation for the new construction, recommendations, providing soil data for design of possible retaining wall, utility trenches, slabs-on-grade and pavement design. The final report includes the results of lab tests indicating the soil profile encountered and a site plan showing the boreholes locations.

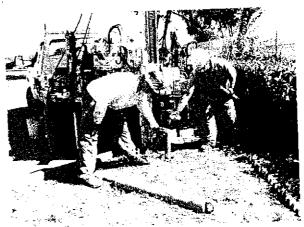
Geotechnical Investigation Page 2

### FINDINGS

<u>Existing Site Conditions</u>
The site is a rather flat terrain (see Pictures 1 to 3 for existing site conditions and location of boreholes).



Picture 1: Location of Borehole B-1 at the subject site





Pictures 2 & 3: Location of Borehole B-2 at the subject site

probability.

Geotechnical Investigation Page 3

Laboratory Investigation

A limited number of field and laboratory classification tests were chosen and performed on samples obtained from boreholes 1, 2, and 3, to assist in classifying the surface and subsurface soils, which could then be related to allowable bearing capacities, compressibility and other geotechnical design criteria. Laboratory tests performed during our investigations included the following: Dry Density, Moisture Density, Percent Passing #200 Sieves, Gradation tests, and Atterberg Limits.

Surface Soil Conditions

Based on our present soil investigations, the project site has a surface stratum of gray to dark gray-Lean Clay with Sand soft to medium, with traces of organic materials at very shallow depths. The plasticity index of the surface soil indicates a low expansion potential. This layer extend to up to 12 feet

The description of these soils and their approximate depths could be found on the Boring Logs in Appendix "A". The logs depict soil conditions at the locations and on the date the holes were drilled.

Subsurface Soil Conditions

Based on the present soil investigation, underlying the surface soils, up to a depth of 27 feet, are soft gray, olive to light brown Lean Clay. Underlying this stratum of soil, up to a depth of plus 42 feet are dark gray to blue Sandy Lean Clay, and Clayey Sand and poorly graded Sand. Ground water table was encountered at 5 feet 8 inches below ground at borehole #1, and 6 feet 4 inches below ground at borehole #2, during present investigation.

Materials encountered during the present subsurface exploration are described on the appended Test Boring Logs. The logs depict subsurface conditions at the locations and on the date the borings were drilled. Subsurface conditions at other locations might be different. Stratification lines shown on the logs represent the approximate boundaries between soil types; the actual transitions from one soil type to another may be gradual.

### Seismic Considerations

- a. The parcel is located within the seismically active Bay Area Region and has been classified by CBC 2007 as Seismic Region 1. It might be subject to severe ground shaking.
- b. Known active or potentially active faults nearest to the site include: the Zayante-Vergeles Fault, 5.3 km, the San Andreas (1906) Fault, 9.6 km, the Sargent Fault, 15.6 km, and the Monterey Bay Tularcitos Fault, 22.4 km.
- c. The site is likely to be shaken by earthquakes of approximate magnitude 8.0 (similar to the "San Francisco: earthquake of 1906), with an average recurrence interval between 138 to 188 years along the North coast segment of the San Andreas Fault. Also, earthquakes of magnitude 6 to 7 are likely along many of the faults within the Bay area.
- d. The potential for liquefaction or lateral spreading to occur on the property is considered low to moderate due to the soil type, ground water conditions, and fine grain (binder) contents within depths affected by foundation system.

Geotechnical Investigation Page 4

Seismic hazards can be divided into two general categories: hazards due to a ground rupture and hazards due to a ground shaking. Since no known active or potentially active faults cross the site, the risk of earthquake-induced ground rupture occurring across the property is considered low.

Should a major earthquake occur with an epicentral location close to the site, ground shaking at the site will be severe. The effects of the ground shaking on the proposed additions, future planned structures and other improvements can be reduced by earthquake resistant design in accordance with the latest edition of the California Building Code (CBC). If the 2007 version of the CBC is utilized for seismic design, the recommendations of the "2007" CBC Design Considerations" section of this report should be followed.

### **CONCLUSIONS AND RECOMMENDATIONS**

From a geotechnical engineering viewpoint, the site we studied is suitable for the proposed development provided the recommendations in this report are closely followed.

Our recommendations are presented as guidelines to be used by project planners and designers for the project. These recommendations have been prepared assuming that we will be commissioned to review project grading and design, and to observe and test during earthwork operations on-site. This additional opportunity to examine the site will allow us to compare subsurface conditions exposed during construction with those encountered during this investigation.

### Site Preparation, Grading and Compaction

Prior to grading, the site should be cleared of obstructions and deleterious material such as abandoned utility lines (if present). Debris and materials arising from clearing and removal operations should be properly disposed of off-site.

Surface vegetation at the site should be stripped, and removed. Soil containing more than 2% organic matter by weight, should be considered organic. For planning purposes, assume a depth of 2 inches for stripping of surface vegetation and organic material. The actual stripping depth should be determined by the Geotechnical Engineer in the field at the time of stripping.

Structural fill should be placed on firm native material that has been approved by the Geotechnical Engineer, Loose material should be removed before placement of structural fill. The depth of fill should be determined by the Geotechnical Engineer at the time of construction.

For fills (if any) with the vertical height in excess of 5 feet, intermediate **benches** must be provided. Any man-made new cut and fill slopes should have gradients no steeper than 2:1 (horizontal to vertical) for slopes up to twelve (12) feet high. Slope stability analysis will be required for slopes and cuts with more than twelve (12) feet in height. Finished cut and fill slope areas should be protected from erosion as soon as possible after construction. Please refer to the section "Surface Drainage" for additional recommendations.

Prior to placement of fill, the soil surface must be scarified a minimum of 8 inches, moisture-conditioned, and re-compacted to a minimum 92 percent relative compaction based on ASTM D1557-00 Test Procedure.

Structural fill should be placed and water-conditioned in lifts not exceeding 8 inches in thickness (before compaction). Structural fill should be compacted to at least 95 percent relative compaction, based on the ASTM D1557-00 Test Procedure.

Geotechnical Investigation Page 5

Sub-excavation of at least 24 inches below the proposed footings and 18 inches below the slabs-on-grade, and backfilling with Caltrans Class II, or non-plastic materials approved by the Geotechnical Engineer of the project, is required to avoid differential movements of the soil.

### Payement Section Recommendations

We have provided pavement section recommendations for Traffic Indexes of 4.0, and 6.0, for the subject site. The actual traffic index should be specified by the design professional; alternative pavement sections can be developed on request.

Based on our past experience with similar sites (for pavement design), we recommend minimum pavement sections as described below in Table 1. The native subgrade soil must be scarified a minimum of 12 inches, moisture-conditioned to approximately +3% on the wet side of the optimum, and re-compacted to a minimum 92 percent relative compaction based on ASTM D1557-00 Test Procedure, prior to placement of base rock materials.

Table 1. Recommended Pavement Sections

TRAFFIC INDEX	ASPHALTIC CONCRETE (INCHES)	CLASS 2 AGGREGATE BASE (INCHES)	TOTAL THICKNESS (INCHES)
4.0	2.5	12.5	15.0
6.0	3.0	17.0	20.0

All aggregate bases should be compacted to a relative compaction of at least 95 percent, based on the ASTM D1557-00 Test Procedure.

### CBC 2007 Site Characterization

Based on CBC 2007, we classify the site of proposed improvements as follows:

Site Class

D-defined as a stiff soil profile with shear velocities between 600 to 1200

ft/sec or SPT 15 < N < 50 or 1000 < Su < 2000 psf in the top 100 feet.

Seismic Source

San Andreas (1906) Fault (Type A)

Seismic region

Region 1 (Zone 4)

Based on above, the seismic hazard spectra is as showed in appendix A.

### Conventional Shallow Footings

The following recommendations apply to buildings of wood, steel or concrete construction limited to a height of no more than two stories. Should planned development differ from these assumed conditions, we should be notified to determine if additional investigation is warranted.

The proposed new addition to the existing structures may be supported by perimeter conventional continuous strip footings and structural grade beams or slabs as outlined herein. In addition, a minimum of 24 inches of local soil underneath the footings must be sub-excavated and backfilled with Caltrans Class II, AB. The engineered fill should be compacted to at least 95 percent relative compaction, based on the ASTM D1557-00 Test Procedure. The perimeter footings should have a minimum depth of 18 inches below the lowest adjacent grade, or the depth of existing footings, whichever is larger, with a minimum width of 15 inches. The footings may be designed to impose pressures up to 2000 pounds per square foot on foundation soils, from dead plus normal live loading. This value may be increased by one-third for wind or seismic loading. Using these criteria, total and differential settlements are expected to be less than 1.0 and 0.75 inches respectively. To improve the foundation capabilities to resist possible differential settlement and

Geotechnical Investigation Page 6

minimize potential damages due to liquefaction (during and after earthquake), it is strongly recommended interconnecting the strip footings (Grid System) approximately every 12 feet (or less). The Grid System should have the same section as the strip footings.

Concrete should be placed in footing excavations that have been kept moist, prior to concrete pour. They also should be kept free from water, loose or soft soil or debris.

The Geotechnical Engineer of the Project must be present on site to observe foundation excavation and the minimum required depth of the footings, prior to placing steel reinforcing.

### **Drilled Piers**

The following recommendations apply to buildings of wood, steel or concrete construction limited to a height of no more than two stories. Should planned development differ from these assumed conditions, we should be notified to determine if additional investigation is warranted.

The proposed new addition structures may be supported by drilled pier and grade beam system. Drilled piers should be at least 15" in diameter, and must be a minimum of 12 feet deep, or 3 feet into firm native material. We recommend a minimum spacing of 3.0 times diameters of the piers, center to center, and the maximum to be determined by the Structural Engineer of the Project.

Caissons (pier excavations) should not vary more than 1 percent from vertical. Passive soil pressure against the sides of drilled piers may be taken as equivalent to the pressure exerted by a fluid weighing 200 pounds per cubic foot (ultimate).

Based on our limited field and laboratory testing during this investigation, it is our engineering judgment that the piers may be designed to impose an allowable skin friction value of 250 pounds per square foot (psf), assuming that the upper two feet of skin friction is disregarded and an allowable end bearing capacity of 500 psf from dead plus normal live loading. This value may be increased by one-third for wind or seismic loading. To improve side friction, we recommend removal of the casings (if used) in place, and to improve end bearing, we recommend removal of at least 12 inches of native soil from the bottom and backfilling with Caltrans Class II, AB. Also a geotechnical engineer prior to placing formwork and steel reinforcing should observe all drilled piers.

We recommend; Grade beams to be a minimum of 15" wide, and should be reinforced per ACI most current Code; at each drilled pier-grade beam connection, a minimum of two of the drilled pier rebars to be bent into the grade beam for a minimum of 15". Excavation of the proposed drilled piers, where located next to existing footing, shall take place after safe and appropriate shoring of the existing building (to be designed by others).

Concrete should be placed in drilled excavations that have been kept moist by capping the holes after drilling, and spray of water, if needed, prior to concrete pour. They also should be kept free from water, loose or soft soil or debris.

The Geotechnical Engineer of the Project must be present on site to observe drilling and the minimum required depth of the drilled holes, prior to placing steel reinforcing.

### Concrete Slabs-on Grade

Slab-on-grade areas should have the top 18 inches sub-excavated, backfilled with Caltrans Class II AB, or non-plastic materials approved by the Geotechnical Engineer of Record, and recompacted per following specifications. To improve bearing capacity, and reduce possible floor dampness, the following steps must be taken:

Geotechnical Investigation Page 7

- A minimum 18 inch section of Caltrans Class II Aggregate Base should be placed immediately over the compacted soil sub-grade
- Next, a minimum 4 inch section of capillary break material should be placed on top of the Caltrans Class II Aggregate Base. Capillary break material should be free-draining, clean 3/4-inch crushed gravel (or Drain Rock).
- Next a vapor barrier is recommended to further reduce floor dampness. The type of vapor barrier should be specified by the design engineer, but if visqueen or similar material is to be utilized, it should have a minimum thickness of 10 mils.
- Finally, the vapor barrier should be covered by a 2-inch sand cushion to protect the membrane and to aid in curing of the concrete.

If joints exist between the footings and slabs, we recommend 30 pound felt to be used as a separator between the edges of slabs-on-grade and footing areas.

### Retaining Walls

Retaining walls should be designed using the following geotechnical design parameters presented below:

Coefficient of Friction = 0.25

Table 1 - Active, Passive, and At-rest Retaining Wall Equivalent Fluid Pressure

Back slope Gradient	Active	Passive	At-rest
(H:V)	Equivalent Fluid	Equivalent Fluid	Equivalent Fluid
1	Pressure (pcf)	Pressure (pcf)	Pressure (pcf)
Level	39	250	47
3:1	47		
2:1	55	`	
1.7:1	60		

These values are for non-seismic conditions and are based on the assumption that the wall backfill will be adequately drained. Active pressure should be used for walls where horizontal movement at the top of the wall is not restricted. At-rest pressure should be used to design walls with movement restricted at the top, such as basement walls and walls structurally connected at the top. Passive pressure is ultimate value, and minimum wall displacement is assumed.

A zone of drainage material at least 12 inches wide should be placed on the backfill side of the retaining wall. The drainage material should be extending from the bottom of the wall (minimum of 18" below lowest adjacent finished grade) to within 12" of the top of the wall. The upper 12" of the backfill above the drainage material should consist of clayey soils. The drainage material should be Class 1 Permeable material complying with Section 68 of Caltrans Standard Specification, latest edition, or ¾ " to 1-½", clean, durable coarse aggregate. The drainage material should be encapsulated by a high quality filter fabric such as Mirafi Filter weave 700 (or equivalent). Refer to Figure 6 within Appendix "A" for a typical retaining wall drain detail.

To account for seismic loading, a horizontal load equal to 15 H² pounds/horizontal foot, should be applied at 0.6 H above wall base (where H is the height of the wall). If the retaining wall is to support fill rather than a native cut slope, compaction surcharges should be incorporated into the wall design. We need to be contacted for additional lateral pressure loads due to compaction equipment.

Geotechnical Investigation Page 8

Water should be collected by Schedule 40 perforated PVC pipe placed 4 inches from the bottom of the drainage material. Perforations (3/8 inch diameter) should be made in two rows at the end of a 120 degree arc, at 3 inches center, placed downward. The pipe should be sloped behind the wall at approximately 2%. Water collected in the retaining wall drain system should be carried in closed conduit and discharged away from the residence at the end of the closed conduit.

**Utility Trenches** 

The sidewalls of trenches constructed in these materials will be prone to sudden collapse (for trenches deeper than 4 feet) unless they are properly shored and braced or laid back at an appropriate angle. Project designers should make a clear note of this fact in the project specifications and on the project plans and should draw attention to contractors and particularly the underground contractor, to the need to properly shore and brace or lay back the side walls of trenches.

All work should comply with the State of California Construction Safety Orders for "Excavations, Trenches, and Earthwork".

For the purpose of this section of the report, backfill is defined as material placed in a trench starting 1 foot above the pipe, and bedding is all material placed in a trench below the backfill.

Unless concrete bedding is required around utility pipes, free draining sand should be used as bedding. Sand bedding should be compacted to at least 90 percent relative compaction based on ASTM Test Procedure D1557-00, or to the degree of compaction specified by the utility designer.

Approved import sand should be used as utility trench backfill. Backfill in trenches located under and adjacent to structural fill, foundations, concrete slabs and pavements should be placed in horizontal layers no more than 8 inches thick. Each layer of imported trench backfill should be water conditioned and compacted to at least 95 percent relative compaction, if it is underneath the pavement area. Compaction of backfill by water jetting should not be permitted.

We recommend that within three feet of the structure foundation, a clayey material or control density fill (CDF) be used for the trench backfill and bedding, to seal the trench and prevent a conduit for water to enter beneath the structure foundation.

Surface Drainage

Surface drainage gradients should be planned to prevent ponding and to promote drainage of surface water away from structure foundations, slabs, edges of pavements and sidewalks, toward suitable collection and discharge facilities. We recommend that within 10 feet of the perimeter foundations, the ground surface be sloped at least 5 percent away from the structure.

Building roof eaves should have rain gutters, with outlets from the down spouts provided with adequate capacity to carry the storm water away from the structure to reduce the possibility of soil saturation and erosion by cobble blankets or other suitable measures.

Post-Report Geotechnical Services

We recommend our company be commissioned to provide the following services:

1) Review project grading and foundation plans during project design.

2) Observe, test and advise during site preparation, grading and compaction.

 Observe foundation excavation for drilled piers (continuously, per CBC 2007) and conventional shallow footings.

Geotechnical Investigation Page 9

- 4) Observe, test and advise during backfilling and compaction of on-site utility trenches.
- 5) Observe, test and advise during slab-on-grade pavement sub-base and aggregate base construction.

### LIMITATIONS

Changes in project design will render our recommendations invalid unless our staff reviews such changes and our specific recommendations are modified accordingly.

Our recommendations have been made in accordance with the principles and practices generally employed by the geotechnical engineering profession. This is in lieu of all other warranties, express or implied.

Subsurface exploration of any site is necessarily confined to selected locations and conditions may, and often do vary between and around these locations. If varied conditions are encountered during construction, additional exploration, testing and construction modification may be required. To compare the generalized site conditions assumed in this report with those found on the site at the time of construction, all earthwork and associated operations should be observed and tested by our field representative.

This report is issued with the understanding that it is the responsibility of the Owner, or his representative, to ensure that the information and recommendations contained within this report are called to the attention of the Architects and Engineers for the project and incorporated into the plans, and that the necessary steps are taken to ensure that the Contractors and Subcontractors carry out such recommendations in the field.

The findings of this report are valid as of the present date. However, changes in the conditions of the property could occur with the passage of time, whether they are due to natural processes or the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or partially, by changes outside our control. This report should be reviewed in light of future planned construction and then current applicable codes.

Any person concerned with this project who observes conditions or features of the site or the surrounding areas that are different from those described in this report should report them immediately to us and the owner for evaluation.

If you should have any questions, or if we can be of any further assistance, please do not hesitate to contact us at (831) 325-1048.

Sincerely,

Ali M. Oskoorouchi, Ph.D., P.E., G.E. Geotechnical Engineer of Project C62004

GE 2594

Renewal Date 9/30/2009

ALI M.
OSKOOROUCHI
LIC. # GE2594

ATE OF CALIFORNIA



Ali M. Oskoorouchi Ph.D., P.E., G.E. P.O. Box 66245 Scotts Valley, CA, 95067 Ph: (831) 325-1048 Fax: (866) 716-4785 aliosk@aliosk.com

June 23, 2009

Mr. Khosrow Haghshenas Pajaro Valley Chevron 200 Lee Road Watsonville, CA 95076

Subject:

**Plan Review Letter** 

Proposed Remodeling and Addition(s)

Located at 200 Lee Road Watsonville, California APN 052-271-03

### Dear Mr. Khosrow Haghshenas:

In response to your inquiry and authorization, we have completed our plan review of the plans provided by Bowman & Williams Consulting Civil Engineers. The purpose of our review was to determine if the plans and designs were in substantial conformance with the recommendations of the Geotechnical Investigation for Pajaro Valley Chevron dated September 15, 2008 (Soil Report # KH-01-08).

A total of 5 sheets were provided and reviewed. These are C1, Existing Conditions; C2, Preliminary Grading Plan; C3, Preliminary Drainage and Utility Plan; C4, Miscellaneous Details; C5, Preliminary Erosion Control Plan; dated 1/20/06, all revision 6/15/09 except C2 that has been revised on 6/23/09.

Based on this review, it is our professional opinion that the drawings, plans and designs that we have reviewed and as stated above, are in substantial conformance with the recommendations of the Geotechnical Investigation for this project as stated above. Please let us know if we can be of any further assistance.

PROFESSIONAL

OSKOOROUCH) LIC. # GE2594 PROFESSION

Sincerely Yours,

Ali M. Oskoorouchi, Ph.D., P.E., G.E.

State of California Licensed Civil and Geotechnical Engineer

C62004 GE2594

Renewal Date: 9/30/2009



# COUNTY OF SANTA CRUZ

### PLANNING DEPARTMENT

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

April 6, 2009

Geoff Scurfield 144 Cutter Dr. Watsonville, CA 95076

Subject:

Review of Foundation and Soils Investigation by

Ali M. Oskoorouchi, dated September 15, 2008;

"Response to Review of Geotechnical Investigation", dated March 6, 2009

Project #: KH-01-08, APN: 052-271-03, Application #: 08-0480

Dear Mr. Scurfield.

The purpose of this letter is to inform you that the Planning Department has found the subject report acceptable for the discretionary review of Application 08-0480. Although the report is sufficient to determine the feasibility of the proposed project, additional information will be required prior to building permit issuance to more accurately define foundation design parameters. With regard to liquefaction, our assessment of the site is as follows:

This site is in an area mapped as having a high potential for liquefaction, and is characterized by strata of alluvial deposits of varying susceptibility to liquefaction-induced settlement. The subsurface information presented in the subject report is based on boring samples taken every five feet, while it has been demonstrated that potentially liquefiable strata may be present in thicknesses less than five feet, and may have been missed using this sampling technique.

As a condition of approval for Application 08-0480, the applicant must provide a quantitative assessment of liquefaction-induced settlement at the site based on continuous subsurface data derived from Cone Penetration Testing prior to building permit approval. Please contact the undersigned at (831)454-5121 (Carolyn Banti) or (831)454-3175 (Joe Hanna) to discuss the number and location tests required prior to performing the work.

Sincerely,

Carolyn Banti, PE

Associate Civil Engineer

cc: Randall Adams, Project Planner

Khosrow Haghshenas, Owner

Ali M. Oskoorouchi

Exhibit 4

Joe Hanna, CEG 1313

County Geologist



# COUNTY OF SANTA CRUZ

### PLANNING DEPARTMENT

701 OCEAN STREET, SUITE 310, SANTA CRUZ, CA 95060 (831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123 TOM BURNS, DIRECTOR

February 5, 2009

Geoff Scurfield 144 Cutter Drive Watsonville, CA 95076

Subject:

GEOLOGIC HAZARDS ASSESSMENT

APN: 052-271-03

LOCATION: 200 Lee Road

PERMIT APPLICATION NUMBER: 08-0480

**OWNER: Khosrow Haghshenas** 

Dear Mr. Scurfield,

We have recently conducted a site inspection of the parcel referenced above where you propose to demolish an existing gas station and construct a replacement gas station with a convience store, restaurant, car wash, and associated improvements (figure 1). This inspection was completed to assess the property for possible flood hazards due to its proximity to the Watsonville Slough and Pajaro River. The purpose of this letter is to briefly describe our site observations, outline permit conditions with respect to geologic planning issues and to complete the hazards assessment for this property.

The subject parcel is located near the Watsonville Slough and the Pajaro River. Published maps on file with the Planning Department indicate that the parcel is within this stream's federally-designated 100-year flood zone AO. Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined to be one foot above grade (figure 2).

Enclosed copies of the federal flood maps indicate the flood hazard boundaries in this area and the approximate parcel location (figures 2 and 3). The flood hazard maps delineate the extent of flooding which is anticipated during a 100-year flood, an event with a one percent chance of occurring in any given year. Flooding to an approximate level of one foot above grade is anticipated to occur once every hundred years on the basis of this mapping. However, this does not preclude flooding from occurring due to events smaller in magnitude than the 100-year flood or for the "100-year flood" from occurring two years in a row. For your information, no historic flooding event, including the record events of 1955, 1982 and 1998 has resulted in 100-year flood levels for any of the streams monitored in Santa Cruz County.

The flood hazard maps for the County were recently revised by the federal government due to the County's participation in the National Flood Insurance Program. This

Exhibit 5

Geoff Scurfield January 29, 2009

program enables property owners to obtain insurance coverage for flood damage to residential and commercial structures and their contents. In return for making flood insurance available, the federal government requires that the County's land use regulations be consistent with federal standards for construction activities in areas where potential flood hazards are identified on the maps.

Therefore, to comply with federal floodplain management requirements as well as section 16.10 of the County Code (Geologic Hazards Ordinance) and to receive approval for the proposed project with respect to geologic planning issues, the following conditions must be met:

- 1. No development activity may occur within the floodway.
- 2. The entire structure must be elevated or floodproofed above the level of flooding anticipated during the 100-year flood event. At this site elevation or floodproofing to an elevation of at least one foot above grade must occur.
- 3. The following items must be completed to meet elevation requirements for non-habitable (commercial) structures:
  - The building plans must indicate the elevation of the lowest finished floor relative to mean sea level and native grade prior to issuance of a development permit; and
  - b. Compliance with the elevation requirement must be certified in writing on an Elevation Certificate by a registered professional engineer, architect or surveyor prior to the final inspection of the structure.
- 4. For all new construction and substantial improvements, the fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters.
- 5. Designs for meeting this requirement must either be certified by a registered professional engineer or architect; or meet or exceed the following minimum criteria:
  - a. EITHER a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. The openings may be equipped with screens, louvers, valves or other covenings or devices, provided that they permit the automatic entry and exit of floodwaters; OR
  - b. Be certified to comply with a local floodproofing standard approved by the Federal Insurance Administration (see below for floodproofing option).

- Non-residential structures shall be floodproofed if elevation above the 100-year flood plain is not feasible. Floodproofed structures shall meet the following criteria:
  - a. The structure and elements that function as apart of the structure such as a furnace or hot water heater must be floodproofed so that below the level indicated above, the structure is watertight with walls substantially impermeable to the passage of water.
  - The structure must be capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
  - c. The building plans must indicate the specific floodproofing measures which have been designed for the structure and the elevation relative to mean sea level and native grade to which these floodproofing measures will be constructed before the building permit can be approved by the Environmental and Technical Review Section of the Planning Department. The plans must be certified by a registered professional architect or engineer.
- 7. After the building plans are approved, an Elevation/Floodproofing Certificate will be mailed to the property owner. A state-registered engineer or licensed architect must complete this certificate by indicating the elevation to which floodproofing was achieved before a final building inspection of the structure can occur.
- 8. New septic systems and leachfields shall not be located within the 100-year floodplain. No expansion of existing septic systems or leachfields shall be allowed within the 100-year floodplain.
- 9. The placement of fill shall be allowed only when necessary. The amount allowed will not exceed 50 cubic yards and only as part of a permitted development and only if it can be demonstrated through environmental review that the fill will not have cumulative adverse impacts.
- 10. The enclosed Declaration form acknowledging a possible flood hazard to the parcel must be completed prior to issuance of a building permit.

It is important to note that if your project cannot meet these minimum federal requirements, or if the project has already been constructed and an "as built" permit has or will be applied for to correct a violation, a permit may not be able to be approved.

Geoff Scurfield January 29, 2009

We have also reviewed the soils report submitted with this application ("Proposed Remodeling and Addition(s) to the Existing Facility at 200 Lee Road", Oskoorouchi, 9/15/08). The report has not been accepted; comments regarding report deficiencies are described below:

- The subsurface conditions shown in the investigation differ significantly from those reported in the environmental assessment prepared for this parcel ("Additional Site Assessment Report and Third Quarter 2008 Groundwater Monitoring and Sampling Results", SAIC, 10/8/08). The conditions reported in the report show potentially liquefiable soils at more shallow depths. Additional investigation is required to substantiate the determination that liquefaction will not impact the proposed development. Due to potential stratification of soils, Cone Penetration Testing is strongly recommended. (Please note that the conventional foundation recommendations on page 6 of the report provide mitigations to minimize potential damages due to liquefaction, which does not appear to be consistent with other sections of the report.)
- The Standard Penetration Test (SPT) blow counts for this site do not appear to be consistent with the reported "Site Class D" designation. Please provide additional data to justify this designation or revise the site class.
- Pier recommendations provided in the report state that piers should be embedded a minimum of 12-feet, or 3-feet into "firm native material". Please provide an estimated depth to firm material or revise the recommendation.

If you have any questions concerning the assessment of this property for flood hazards or the permit conditions described above, please call me at 454-3162. If you have questions regarding the soils report review, please call Carolyn Banti at 454-5121. Questions regarding insurance coverage under the National Flood Insurance Program should be directed to an insurance agent.

Sincerely,

JESSICA DEGRASSI

Resource Planner

**Environmental Planning** 

CAROLYN BANTI

Associate Civil Engineer Environmental Planning DE HANNA

 $ot\!\!\!/$ ounty Geologist

<sup>U</sup>CEG #1313

Geoff Scurfield January 29, 2009

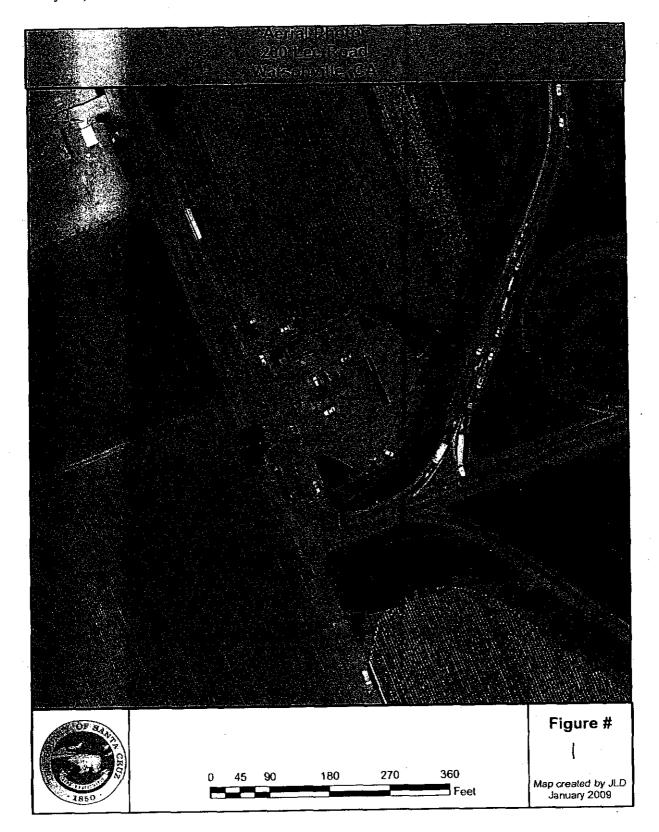
 $\frac{2/5/09}{\text{Date}}$ 

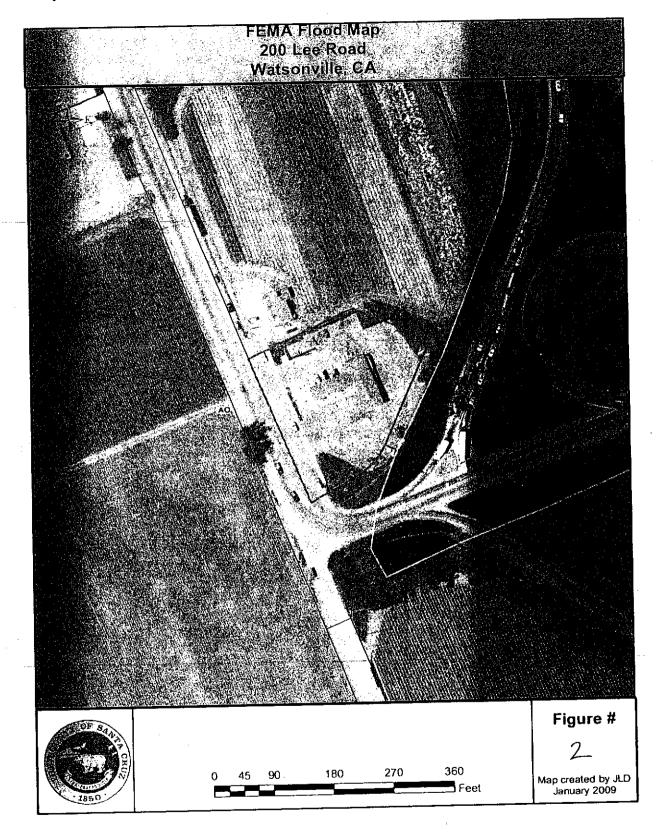
FOR: CLAUDIA SLATER
Principal Planner
Environmental Planning

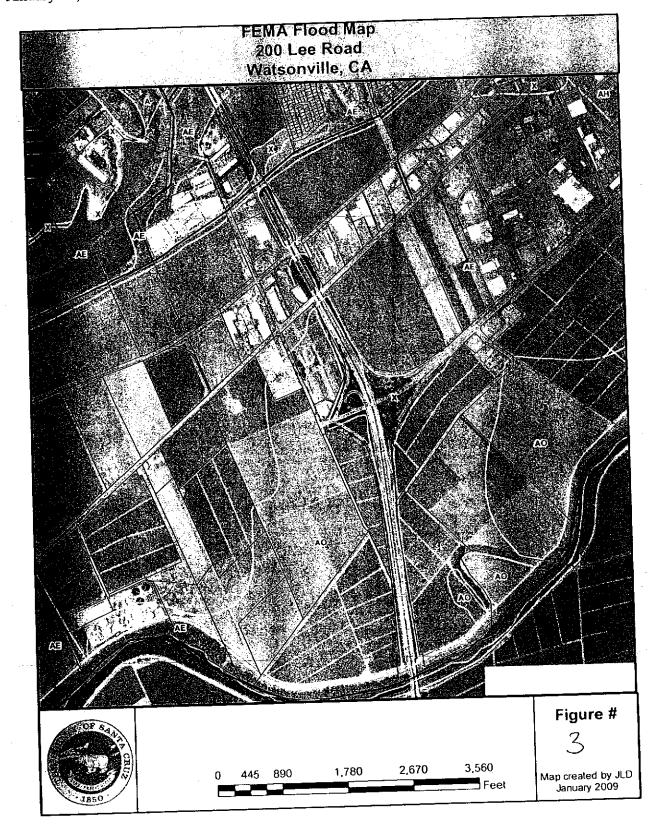
Enclosure(s)

cc: GHA File

Randall Adams, Planner









## **BOWMAN & WILLIAMS** CONSULTING CIVIL ENGINEERS

1011 CEDAR • PO BOX 1621 • SANTA CRUZ, CA 95061-1621 PHONE (831) 426-3560 FAX (831) 426-9182 www.bowmanandwilliams.com

### HYDROLOGY AND STORMWATER DETENTION CALCULATIONS

FOR

### RIVERSIDE DRIVE CHEVRON ADDITION & SITE IMPROVEMENTS

LOCATED IN

### WATSONVILLE COUNTY OF SANTA CRUZ CALIFORNIA



**JANUARY 20, 2006** REVISED: OCTOBER 10, 2008 **REVISED: JANUARY 29, 2009** REVISED: June 15, 2009

### **BASIS OF DESIGN:**

- County of Santa Cruz Design Criteria.
- **ASCE Manual of Engineering Practice No. 37** 2.
- City of Watsonville Storm Drainage Master Plan 3.
- **Project Drawings** 4.

### 1.0 INTRODUCTION

The proposed project will improve the existing Riverside Drive Chevron, parcel number 052-271-03. The scope of the project will include expanding and modifying the paved parking and driveway areas, increasing the size of the main building – allowing for multiple occupants, the addition of a carwash, and the relocation of pump islands. Project improvements encompass an area of approximately 1.10 acres. The project site is shown on the vicinity map attached to this report.

### 2.0 METHOD OF ANALYSIS

• The Rational Formula (shown below) is used to estimate peak runoff rates.

$$Q = C_a Ci_a iA$$

Where:

Q= Estimated Peak Runoff from site (cfs)

C<sub>a</sub>= Antecedent Moisture Factor (Unitless)

C= Runoff Coefficient (Unitless)

i<sub>2</sub>= Rainfall Intensity Adjustment Factor (Unitless)

i= Rainfall Intensity (in/hr)

A= Area of Site (Acres)

 Precipitation data/runoff coefficients are obtained from the Santa Cruz County Design Criteria Manual. Precipitation intensity is based upon the P60 Isopleth for Santa Cruz County (see attached map).

### 3.0 SYSTEM EVALUATION

- Included in this report are spreadsheets for the 10 year return period showing the estimated peak runoff rates from the site for current and post development conditions.
- The runoff values shown in the spreadsheets are calculated using the Rational Formula.
   Values for C are found in The County of Santa Cruz Design Criteria, a copy of these values is attached to this report.
- Antecedent Moisture factors (C<sub>a</sub>) for the Rational formula are found in The County of Santa Cruz Design Criteria, a copy of these values is attached to this report. C<sub>a</sub> is 1.0 for the 2, 5, and 10-year events, and C<sub>a</sub> is 1.1 for the 25-year event.
- The rainfall intensities are taken from the IDF curve, which is attached to this report. These intensities are for the 10-year event. The value for Ia is 1.0 for the 2, 5, & 10 year events, and 1.2 for the 25 year event.

### 4.0 SUMMARY

The table below shows the estimated peak flows and detention for the site drainage system.

DRAINAGE AND DETENTION SUMMARY	
DRAINAGE ITEM	QUANTITY
10-YEAR PRE DEVELOPMENT FLOW (CFS)	1.62
10-YEAR POST DEVELOPMENT FLOW (CFS)	1.64
25-YEAR PRE DEVELOPMENT FLOW (CFS)	2.14
25-YEAR POST DEVELOPMENT FLOW (CFS)	2.16
DETENTION STORAGE REQUIRED (CF)	71
DETENTION STORAGE PROVIDED (CF)	453

### 5.0 DESCRIPTION OF DOWNSTREAM DRAINAGE

The site drains primarily west towards Lee Road. The gutter in Lee Road running along the project frontage is directed into a channel running North Along Lee Road. The channel (trapezoidal, approximately 6' wide by 3' deep) carries all of the drainage for the site north along Lee Road. The swale in Lee Road is directed to a 24" HDPE culvert with a concrete headwall labeled SDH1297 on the City of Watsonville drainage inventory, located at the southeast corner of the intersection of Lee Road and Beach Street. The 24" culvert directs stormwater North into the City of Watsonville Storm Drainage System, starting at manhole SDM 5025. From there a 36" RCP storm drain conveys City Drainage north, then at SDI 1028 the 36" RCP turns west, running parallel to the Union Pacific Railroad Right-of-Way. The City system outlets through culvert SDH 1294 into an agricultural drainage swale (Trapezoidal, approximately 20' wide by 6' deep). The swale runs west along the railroad right-of way, connecting to Watsonville Slough. From said connection point, Watsonville Slough runs southwest and empties to the Pajaro Lagoon at the mouth of the Pajaro River. The Pajaro Lagoon connects to the Monterey Bay.

Some small vegetated areas around the south and east perimeter of the site currently drain southeast to the existing drainage channel adjacent to the Highway 1 Riverside Drive Exit. The drainage channel connects to an existing GO storm drain inlet. This inlet drains through an 24" RCP to a manhole in Lee Road and from there to a 33" RCP which outlets to the existing swale in Lee Road described in the previous paragraph.

In response to drainage comments dated March 26, 2009 the site drainage outlet will be reconfigured from a pumped thru-curb drain in the existing condition to a pumped direct connection to a new manhole located on Lee road. Per the drainage comments, the existing 33" RCP pipe was analyzed for capacity, the calculations are now included in the report. The existing swale along Lee Road has a flowline elevation higher than the outlet of the 33" RCP, (the 33" system must back up before outleting at a higher level), the system has been modeled using a 24" diameter (effective area) pipe in order to accurately reflect this condition. The calculations show that all inlets and manholes in the street will maintain 8" minimum freeboard per Drainage Criteria Section D Note 8, and that overall this proposed connection will have a minimal impact on the existing system.

This paragraph cites the City of Watsonville Storm Drainage Master Plan, prepared by James M. Montgomery Consulting Engineers, Dated July 1980. The Master Plan includes the project site area in its analysis, the project site is located within the Watsonville Slough Drainage Basin. The Master Plan notes no capacity problems associated with the Swale in Lee Road or the culvert connecting to the City drainage system. The Master Plan did note surface drainage issues at the intersection of Lee Road and West Beach Street, however these issues appear to have been since resolved with street and drainage improvements to the intersection. The Master Plan identifies the existing 36" RCP storm drain running north on Lee Road and west along the Railroad Right of Way as having sufficient capacity. The slough itself is identified as having sufficient capacity for a 25-year storm. It is noted in the report that there are some areas where the slough overtops certain roadways when the 25-year event is exceeded, and states that this is the normal function of the slough.

### 6.0 CONCLUSIONS

The proposed improvements will not significantly change the existing drainage patterns. Some unpaved areas currently draining southeast will be directed directly to Lee road bypassing the Riverside Drive Exit drainage channel. These areas will be paved with semi-pervious pavement to store excess storm water and allow for delay time as would be provided in pre-development by the Riverside Drive Exit Swale.

The proposed improvements to the site constitute a slight increase to the site imperviousness. This increase will be mitigated through the use of pervious pavement drainage systems, sized to detain the excess runoff created by the new impervious surfaces, (the calculations assume the semi-pervious surfaces to be impervious for the purposes of detention sizing). The rock storage layer beneath the proposed semi-pervious surfaces will provide more than 6 times the required detention storage volume based on a 10-year storm event. The proposed pervious pavement drainage systems will be located in the east portion of the

site away from the underground gas tanks, and will have backflow valves attached at the connection points to the hard lines to prevent any accidental spills into the on-site catch basins from contaminating the pervious pavement drainage system.

It is our opinion that the proposed improvements will not cause adverse downstream effects.

### COUNTY OF SANTA CRUZ Discretionary Application Comments

Project Planner: Randall Adams

Application No.: 08-0480

**APN:** 052-271-03

Date: October 5, 2009

Time: 11:30:29

Page: 1

### **Environmental Planning Completeness Comments**

===== REVIEW ON NOVEMBER 24, 2008 BY ROBERT S LOVELAND ======

- 1. A "Flood Geological Hazards Assessment" needs to be completed for this project. Please pay for this assessment at the Zoning Counter of the Planning Department and have it added to this application.
- 2. The soils report submitted has been received and is currently under review. NOTE: The soils report can not be completely approved until the "Flood Geological Hazards Assessment" has been completed.
- 3. The soils report identifies that the over-excavation/recompaction earthwork will need to be completed as part of this project. Please provide this volume of earthwork seperately under "Grading Quantities" on Sheet C2. NOTE: Please submit all grading calculations from Bowman & Williams for verification. ======= UPDATED ON MARCH 26, 2009 BY ROBERT S LOVELAND ========

Items 1 & 3 above have been addressed.

NOTE TO PLANNER: My understanding is that Item 2 above will be addressed by Carolyn. ====== UPDATED ON MARCH 27, 2009 BY CAROLYN I BANTI ========

++ Completeness ++ Soils and Grading ++ Second Review ++

We have received a copy of the "Response to Review of Geotechnical Investigation" by Ali Askoorouchi, dated March 6, 2009. We have reviewed this document and a response letter is in process. County issued comments outlined in our forthcoming response letter must be addressed prior to building permit issuance. Acceptance of the soils report has been moved to "Miscellaneous Comments/Conditions of Approval" section.

### Environmental Planning Miscellaneous Comments

===== REVIEW ON NOVEMBER 24, 2008 BY ROBERT S LOVELAND ===	
------------------------------------------------------------	--

Conditions of Approval:

- 1. Submit a "Plan Review Letter" from the project geotechnical engineer prior to building permit issuance.
- 2. The project architect or civil engineer must complete the following federal Emergency Management Agency (FEMA) document prior to building permit approval: "Flood Proofing Certificate for Non-Residential Structures (FEMA Form 81-65)" and submit to Environmental Planning for review.
- 3. Submit the "Declaration of Geologic Hazards Document" that was provided in the "Geologic Hazards Assessment" (Permit Application Number: 08-0480). Must be submitted prior to building permit issuance.
- 4. All non-residential structures shall be floodproofed so that below an elevation

Project Planner: Randall Adams

Application No.: 08-0480

APN: 052-271-03

Date: October 5, 2009

Time: 11:30:29

Page: 2

one foot higher than the one-hundred year flood level, the structure is watertight with walls substantially impermeable to the passage of water based on structural designs, specifications and plans developed or reviewed by a registered professional engineer or architect (Section 16.10.070 (vii) (A)).

- 5. All non-residential structures be capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy (Section 16.10.070 (vii) (B)).
- 6. All non-residential structures shall be certified by a registered professional engineer or architect that floodproofing standards and requirements have been complied with; the certification shall indicate the elevation to which floodproofing was achieved prior to a final building inspection (Section 16.10.070 (vii) (C)).
- 7. Please address all soils report review comments and incorporate final mitigations into the project design.
- 8. Submit two copies of the soils report and addendum(s) along with the building permit application.

### Dpw Drainage Completeness Comments

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

====== REVIEW ON NOVEMBER 22, 2008 BY LOUISE B DION =======

Application with civil plans revised October 13, 2008 and Storm Drain System Analysis Report & Calculations revised October 10, 2008 by Bowman and Williams, and correspondence from Architect Frank E. Areyano, dated July 24, 2006 have been received.

This application was previously submitted as application #05-0629. The following completeness comments outstanding from that application are:

1) This development is within the Pajaro River floodplain. Please show that the finish floor elevations have provided 300 mm freeboard from the Q100 or flood of record flow for the convenience store / restaurant. In addition to FEMA and County Code regulations, this development is subject to the County of Santa Cruz Design Criteria (latest edition was approved by the County Board of Supervisors in June 2006). See Section D of Stormwater Management for reference of previous comments. Furthermore, elevation of non-residential structures above the 100-year flood level is also required by County Code, Section 16.10.070. Per the Code, floodproofing is only allowed when elevation is not feasible.

In addition to comments made under discretionary application #05-0629 we have the following additional comments:

- 1) Please provide a letter of approval from the geotechnical engineer addressing the feasibility of using permeable pavement at the site.
- 2) How much runoff is received onsite from upslope properties and how is this runoff

Project Planner: Randall Adams

Application No.: 08-0480

APN: 052-271-03

Date: October 5, 2009

Time: 11:30:29

Page: 3

to be controlled? Show (quantitatively, if necessary) that the proposed drainage plan is adequate in this respect.

- 3) Provide the flow rate for the propose 3- flow thru curb drain. What is the capacity of the existing gutter for 10 and 25 year storm?
- 4) Please provide a complete assessment of downstream impacts identifying capacity restrictions downstream system receiving site runoff and identify the ultimate water body receiving this flow. While the system in the vicinity has been partially described in the report, restrictions and the complete flow path have not been completely assessed.
- 5) While complete review of drainage calculations will be performed during building permit review please conceptually describe the mechanism proposed to control release to predevelopment rates. Calculations supporting the method of control must be submitted during the building permit application stage.

Because this application is incomplete in addressing County requirements, resulting revisions and additions will necessitate further review comment and possibly different or additional requirements.

All resubmittals shall be made through the Planning Department. Materials left with Public Works will not be processed or returned.

The Dept. of Public Works, Stormwater Management Section, is available to answer any questions in person from 8:00 am to 12:00 noon.

If you have questions, please contact me at 831-233-8083.

Application with civil plans dated 1/29/09, correspondence dates 1/30/2009 and Hydrology and Storm Detention Calculations by Bowman and Williams have been received.

Please address the following:

Prior item 1) Incomplete. Will the "Flood Geological Hazards Assessment" be completed during the discretionary permit application? If not review of this item will be deferred until the building permit application stage. However doing so may lead to design changes as a resultof additional drainage review comments. It is preferable that we review this information as part of the discretionary permit application.

Prior item 2) Incomplete. Correspondence from geotechnical engineer was not included in the submittal.

Prior item 3) Incomplete. It is our understanding that the existing site topography

Project Planner: Randall Adams

Application No.: 08-0480

**APN:** 052-271-03

Date: October 5, 2009

Time: 11:30:29

Page: 4

requires pumping off storm runoff. If pumping is the only solution for the proposed drainage design then the drainage water should not be discharged through the curb drain but should be connected directly to storm drain pipe. It must also be demonstrated that the capacity of the existing 36- RCP can accommodate this additional runoff. Please describe the overflow path in the event of larger storm events. Since water does not drain from the site without pumping, will runoff from larger storm events requiring pumping as well? Does the existing 36 inch pipe have sufficient capacity for this?

Prior item 4) Incomplete. The 1980 City of Watsonville Storm Drainage Masterplan Table 3-1 indicates RCP pipe diameters which are less than the 36- RCP shown on the plans. Did the Masterplan recommend upsizing pipe sections 181-184? The excerpts provided are for existing conditions. What build out conditions were assumed in the Masterplan which indicated that th current system has sufficient capacity for 25 year storms? Do the build out assumptions correspond to actual present day build out for the drainage system downstream of the project site? Does the Masterplan indicate flooding occurs for all storm events greater than 25 years?

Because this application is incomplete in addressing County requirements, resulting revisions and additions will necessitate further review comment and possibly different or additional requirements.

All resubmittals shall be made through the Planning Department. Materials left with Public Works will not be processed or returned.

The Dept of Public Works, Stormwater Management Section, is available to answer any questions in person from 8:00 am to 12:00 noon.

If you have questions, please contact me at 831-233-8083.

===== UPDATED ON AUGUST 15, 2009 BY LOUISE B DION =======

Application with revised civil plans, Hydrology and Stormater Detention Calculations, and corrrespondence from Bowman and Williams, Consulting Civil Engineers, dates 6/15/09 have been received.

Our concerns regarding feasibility for proposed drainage system have been addressed and the application is deemed complete with respect to the discretionary permit application stage. Detailed review of drainage system design and calculations will occur during the building permit application stage.

Please see miscellaneous comments for additional guidance.

Project Planner: Randall Adams

Application No.: 08-0480

APN: 052-271-03

Date: October 5, 2009

Time: 11:30:29

Page: 5

### Dpw Drainage Miscellaneous Comments

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

Miscellaneous comments to be addressed during building permit application:

- 1. Provide recorded maintenance agreement for the the permeable pavement. Include maintenance recommendations and identify who is responsible for maintenance on the final plans. The agreement shall also provide wording to the effect that future resurfacing of pervious with impermeable material is not permissible.
- 2. Please provide measures for preventing debris from entering the detention facilities in order to minimize future clogging and maintenance.
- 3. Describe how all trash and storage areas are designed to prevent storm water pollution. Please note on the plans a provision for permanent bold markings at each inlet that reads: "NO DUMPING DRAINS TO BAY".
- 4. A drainage impact fee will be assessed on the net increase in impervious area. The fees are currently \$1.00 per square foot, and are assessed upon permit issuance. Reduced fees are assessed for semi-pervious surfacing to offset costs and encourage more extensive use of these materials.

### Dpw Road Engineering Completeness Comments

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

No comment on discretionary. Additional details required for building permit. Greg Martin 831-454-2811 Building permit: ADA sidewalk behind ramp ======== UPDATED ON NOVEMBER 21, 2008 BY GREG J MARTIN ========

### Dpw Road Engineering Miscellaneous Comments

LATEST	COMMENTS	HAVE	NOT	YET	BEEN	SENT	TO	PLANNER	FOR	ZIHT	AGENCY	

REVIEW ON NOVEMBER 14, 2008 BY GREG J MARTIN -----UPDATED ON NOVEMBER 21, 2008 BY GREG J MARTIN -----

Project Planner: Randall Adams

Application No.: 08-0480

**APN:** 052-271-03

Date: October 5, 2009

Time: 11:30:29

Page: 6

### Environmental Health Completeness Comments

====== REVIEW ON NOVEMBER 17, 2008 BY JIM G SAFRANEK ======== NO COMMENT

### **Environmental Health Miscellaneous Comments**

====== REVIEW ON NOVEMBER 17, 2008 BY JIM G SAFRANEK ======== Hazardous materials or hazardous waste are to be used, stored or generated on site, contact the appropriate Hazardous Material Inspector in Environmental Health at 454-2022 to determine if a permit is required. Complete before Building Permit approval.

Applicant must obtain approval for an Environmental Health Plan Review prior to submittal of building plans. Applicant must obtain Environ- mental Health Plan Check approval, a construction inspection final and a Food Establishment Health Permit prior to opening. Contact A. Strader a Food Establishment Health Permit prior to opening. Contact A. Strader of Environmental Health at 454-2741. Complete before Building Permi t approval.

### Cal Dept of Forestry/County Fire Completeness Comm

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

REVIEW ON DECEMBER 2, 2008 BY COLLEEN L BAXTER =======

DEPARTMENT NAME: CALFIRE/SANTA CRUZ COUNTY FIRE

Have the DESIGNER add the appropriate NOTES and DETAILS showing this information on the plans and RESUBMIT, with an annotated copy of this letter:

Note on the plans that these plans are in compliance with California Building and Fire Codes (2007) as amended by the authority having jurisdiction.

The job copies of the building and fire systems plans and permits must be onsite

during inspections.

NOTE on the plans the OCCUPANCY CLASSIFICATION, BUILDING CONSTRUCTION TYPE/FIRE RATING and SPRINKERED or NONSPRINKERED as determined by the building offical and outlined in Part IV of the California Building Code, e.g. R-3, Type V-N, Sprinklered.

Note on these plans the occupancy load of each area. Show where the occupancy load

signs will be posted.

FIRE FLOW requirements for the subject property are 1500GPM. Note on the plans the REQUIRED and AVAILABLE FIRE FLOW. The AVAILABLE FIRE FLOW information can be ob-

tained from the water company. SHOW on the plans a public fire hydrant, meeting the minimum required fire flow for the building, within 150 feet of any portion of the building. This information can

be obtained from the water company.

Fire hydrant shall be painted in accordance with the state of California Health and

Safety Code. See authority having jurisdiction.

A minimum fire flow 1500 GPM is required from 1 hydrant located within 200 NOTE on the plans that the building shall be protected by an approved automatic fire sprinkler system complying with the currently adopted edition of NFPA 13 Chapter 35 of California Building Code and adopted standards of the authority having jurisdiction.

NOTE that the designer/installer shall submit three (3) sets of plans and calcula-

Project Planner: Randall Adams

Application No.: 08-0480

**APN:** 052-271-03

Date: October 5, 2009

Time: 11:30:29

Page: 7

tions for the underground and overhead Residential Automatic Fire Sprinkler System to this agency for approval. Installation shall follow our guide sheet.

NOTE on the plans that an UNDERGROUND FIRE PROTECTION SYSTEM WORKING DRAWING must be prepared by the designer/installer. The plans shall comply with the UNDERGROUND FIRE PROTECTION SYSTEM INSTALLATION POLICY HANDOUT.

Building numbers shall be provided. Numbers shall be a minimum of 4 inches in height on a contrasting background and visible from the street, additional numbers shall be installed on a directional sign at the property driveway and street.

Plan check is based upon plans submitted to this office. Any changes or alterations

shall be re-submitted for review prior to construction.

Note: As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply with the applicable Specifications, Standards, Codes and Ordinances, agree that they are solely responsible for compliance with applicable Specifications, Standards, Codes and Ordinances, and further agree to correct any deficiencies noted by this review, subsequent review, inspection or other source, and, to hold harmless and without prejudice, the reviewing agency.

The automatic fire sprinkler system shall be monitored by a remote or central sta-

tion monitoring company. Separate plans and permits are required.

The fire sprinkler system shall be installed in the store as well as the car wash and fueling canopy. Separate plans and permits are required.

The fire department connection (FDC) shall be within 40 feet of a fire hydrant meeting the water flow requirements. The FDC is to be a minimum of 50 feet and no more than 200' from the building.

### Cal Dept of Forestry/County Fire Miscellaneous Com

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGE
----------------------------------------------------------------

====== REVIEW ON DECEMBER 2, 2008 BY COLLEEN L BAXTER =======

# Santa Cruz County Site Mitigation List

9/17/2009			-		S	Study
40 West Lake Ave, 550 Rodriguez St	WAT	WAT Radcliff School Expansion				
-	14/8	Western Farm Service/Crop Prod	œ		2	Nitrate
5 Lakeview Rd.	-					
475 Lakeview Rd.	WAT	WAT Shikuma Bros., Inc.			0	Gasoline
	ā	Inhr. & Hilda Gallaghan				Chemicals
320 Larita Dr.	4	5				
Larkin Valley Rd	WAT	Xanthus Landfill/Granite Const	EK			HC/WO/M
1141 Laurel Ave.	FEL	County Bank & Trust	_			Orug Lab
	008	Casalegno's Market	3 L		12/5/2000 C	Gasoline
3 Laurel Glen Kd.	3					Geoline
16925 Laurel Rd.	၅	Rick Sharp Residence	-			0450
Laurel St.	ပ္ပ	Laurel Street Bridge Project	2			Organic
	(	Chall Station	2 L	5/3/1995	12/19/1994 Gasoline	Gasoline
100 Laurel St.	٥					
CJ 7 21 Laurel St at Blackburn St	SC	Salvation Army Project	2 L	6/28/2000	9/4/2002	lio
77	WAT	Former Chevron #1001267	8			Gas/D/MtBE
101 Lee Rd.		_				
103 Lee Rd,	WAT	r Coast Oil	ۍ ۲			Gasoline
	VAV	WAT ON Benn/TOSCO Bulk Plant	32 R			D/MtBE
103 Lee Rd.	\$					
104 Lee Rd.	WAT	T G.W. Davis, Inc.	5 1			НС
120   ao Rd	WAT	T Berman Steel	2			Gasoline
			4			Gas/MtBE
200 Lee Rd. & Hwy 1	WAT	T Chevron Station #9-1927				
110 Lindberg St.	SC	Wilson Bro./Lindberg St Prop	2 L			PNA's
	\ <u>\</u>	David Hunter			1/20/1995	Gasoline
			_			Poison
240 Locust St. Refer to 135 Walker ST.	WAT	T Cal Spray				
2750 l ode St.	SC	East Cliff Trans Pump Station	2			D/MtBE

Page 19 of 34



DISTRICT

MEMBERS

San Benito County

VICE CHAIR:

Simon Salines

Lou Calcagno Monterey County

Tony Campos Santa Cruz County

Dennis Donohue City of Salines Doug Emerson

San Benito

County Cities

Gary Wilmot Monterey Peninsula Cities Ellen Pine

Santa Cruz

McCutchon Monterey County Sam Storey

County Cities

George Worthy
South Monterey
County Cities

County

Monterey County

BOARD

CHAIR: Reb Monaco

# MONTEREY BAY Unified Air Pollution Control District

Unified Air Pollution Control District serving Monterey, San Benklo, and Santa Cruz counties

AIR POLLUTION CONTROL OFFICER
Douglas Quetin

24580 Silver Cloud Court • Monterey, California 93940 • 831/647-9411 • FAX 831/647-8501

November 17, 2008

Mr. Randall Adams County of Santa Cruz Planning Department 701 Ocean Street, 4<sup>th</sup> Floor Santa Cruz, CA 95060 Sent Electronically To:
<a href="mailto:pln515@co.santa-eruz.ca.us">pln515@co.santa-eruz.ca.us</a>
Original Sent By First Class Mail

SUBJECT:

COMMENT – DEMOLITION OF GAS STATION AT 200 LEE ROAD, WATSONVILLE; AND CONSTRUCTION OF REPLACEMENT GAS STATION CONVENIENCE STORE, RESTAURANT, CAR WASH, ETC.

Dear Mr. Adams:

The Air District submits the following comments for your consideration:

Demolition of Gas Station

The demolition of the gas station will require a demolition permit from the Air District. Please contact Mike Sheehan in the District's Compliance Division to discuss requirements.

Air District Rule 439, Building Removals

The demolition is also subject to Rule 439, Building Removals. I have attached a copy for your reference.

Thank you for the opportunity to review the document.

Sincerely,

lean Getchell

Supervising Planner

Planning and Air Monitoring Division

cc: Mike Sheehan, Compliance Division

Attachment: Rule 439

September 3, 2008

Geoff Scurfield Scurfield Construction 144 Cutter Drive Watsonville, CA 95076

SUBJECT: WATER AND SEWER AVAILABILITY AT 200 LEE ROAD

Dear Mr. Scurfield:

Please be advised that the City of Watsonville currently provides water and sewer service to the existing gas station at 200 Lee Road. Changes or upgrades to the current water service would require completion and submittal of a water service application to the City of Watsonville, and payment of any applicable connection, and construction fees. In addition, sewer connection fees will be required or evidence that they have been paid for the connection to the City's sewer collection system located in Lee Road.

This letter is not a guarantee of water or sewer availability. The provision of water and sewer service is determined by the Watsonville City Council. Please contact me at (831) 768-3076 if you have any questions or concerns.

Sincerely,

Tom Sharp
Senior Engineering Associate
Community Development Department