



# COUNTY OF SANTA CRUZ

## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123  
KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR  
<http://www.sccoplanning.com/>

### MITIGATED NEGATIVE DECLARATION

**Project:** Monte Vista Christian School APN(S): 109-331-01; 109-141-20, 024, -25, -54

**Application #:** 111111

**Project Description:** This is a proposal to amend the Master Plan for the Monte Vista Christian School including the construction of new structures, relocation of existing structures, and the construction of additional athletic facilities in multiple phases. Requires an amendment to Master Plan approval 95-0034, an Agricultural Buffer Setback Reduction, Riparian Exception, Preliminary Grading Review, Soils Report Review, and Geologic Hazards Assessment.

**Project Location:** 2 School Way, Watsonville, CA

**Owner:** Monte Vista Christian School

**Applicant:** Betty Cost Land Planning

**Staff Planner:** Randall Adams

**Email:** [pln515@co.santa-cruz.ca.us](mailto:pln515@co.santa-cruz.ca.us)

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

#### California Environmental Quality Act Mitigated Negative Declaration Findings:

Find, that this Mitigated Negative Declaration reflects the decision-making body's independent judgment and analysis, and; that the decision-making body has reviewed and considered the information contained in this Mitigated Negative Declaration and the comments received during the public review period; and, that revisions in the project plans or proposals made by or agreed to by the project applicant would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and, on the basis of the whole record before the decision-making body (including this Mitigated Negative Declaration) that there is no substantial evidence that the project as revised will have a significant effect on the environment. The expected environmental impacts of the project are documented in the attached Initial Study on file with the County of Santa Cruz Planning Department located at 701 Ocean Street, 4<sup>th</sup> Floor, Santa Cruz, California.

Review Period Ends: February 19, 2013

*Note: This Document is considered Draft until it is Adopted by the Appropriate County of Santa Cruz Decision-Making Body*

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

\_\_\_\_\_  
MATT JOHNSTON, Environmental Coordinator  
(831) 454-3201



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KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

### NOTICE OF ENVIRONMENTAL REVIEW PERIOD

#### SANTA CRUZ COUNTY

APPLICANT: Betty Cost Land Planning

APPLICATION NO.: 111111

PARCEL NUMBER (APNs): 109-331-01; 109-141-20, 024, -25, -54

The Environmental Coordinator has reviewed the Initial Study for your application and made the following preliminary determination:

X Negative Declaration  
(Your project will not have a significant impact on the environment.)

X Mitigations will be attached to the Negative Declaration.

       No mitigations will be attached.

       Environmental Impact Report  
(Your project may have a significant effect on the environment. An EIR must be prepared to address the potential impacts.)

As part of the environmental review process required by the California Environmental Quality Act (CEQA), this is your opportunity to respond to the preliminary determination before it is finalized. Please contact Matt Johnston, Environmental Coordinator at (831) 454-3201, if you wish to comment on the preliminary determination. Written comments will be received until 5:00 p.m. on the last day of the review period.

Review Period Ends: February 19, 2013

Staff Planner: Randall Adams

Phone: 831-454-3218

Date: January 18, 2013



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## ENVIRONMENTAL COORDINATOR

# NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION NOTICE OF PUBLIC REVIEW AND COMMENT PERIOD

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

Public review periods are provided for these Environmental Determinations according to the requirements of the County Environmental Review Guidelines. The environmental document is available for review at the County Planning Department located at 701 Ocean Street, in Santa Cruz. You may also view the environmental document on the web at [www.sccoplanning.com](http://www.sccoplanning.com) under the Planning Department menu. If you have questions or comments about this Notice of Intent, please contact Matt Johnston of the Environmental Review staff at (831) 454-3201

The County of Santa Cruz does not discriminate on the basis of disability, and no person shall, by reason of a disability, be denied the benefits of its services, programs or activities. If you require special assistance in order to review this information, please contact Bernice Romero at (831) 454-3137 (TDD number (831) 454-2123 or (831) 763-8123) to make arrangements.

**APPL. #111111 MONTE VISTA CHRISTIAN SCHOOL APN(S): 109-331-01; 109-141-20, 024, -25, -54**

This is a proposal to amend the Master Plan for the Monte Vista Christian School including the construction of new structures, relocation of existing structures, and the construction of additional athletic facilities in multiple phases. Requires an amendment to Master Plan approval 95-0034, an Agricultural Buffer Setback Reduction, Riparian Exception, Preliminary Grading Review, Soils Report Review, and Geologic Hazards Assessment. Property located at 2 School Way, Watsonville, CA.

**ZONE DISTRICT:** 109-331-01: PF (Public Facilities)  
109-141-24 & -25: A (Agriculture)  
109-141-20 & -54: RA (Residential Agriculture)

**APPLICANT:** Betty Cost Planning and Permit Services

**OWNER:** Monte Vista Christian School

**PROJECT PLANNER:** Randall Adams, (831) 454-3218

**EMAIL:** [pln515@co.santa-cruz.ca.us](mailto:pln515@co.santa-cruz.ca.us)

**ACTION:** Negative Declaration with mitigations

**REVIEW PERIOD:** January 18, 2013 to February 19, 2013

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

NAME: Monte Vista Christian School  
APPLICATION: 111111  
A.P.N: 109-331-01, 109-141-20, -24, -25, -54

## **NEGATIVE DECLARATION MITIGATIONS**

- A.** In order to avoid impacts to California red-legged frogs (CRLF), the following mitigations shall be incorporated into the conditions of approval for all phases of the proposed project
1. No more than 48 hours prior to ground stripping or grading, a qualified biologist shall conduct a preconstruction survey of the building sites located in turf or non-native grassland areas to search for CRLF. If any CRLF are observed within or along the perimeter of the building site, construction shall be postponed until the frog leaves of its own accord and retreats into suitable riparian or aquatic habitat. The U.S. Fish and Wildlife Service (USFWS) shall be contacted for further guidance. In no case shall a biologist capture and relocate any CRLF without approval from the USFWS.
  2. A qualified biologist shall give a worker training session on the first morning of construction to all construction personnel. The training shall include information on identification of the species, its life history, and measures implemented for this project to avoid any harm to the species. The training may include flyers, photographs, or books with pertinent information.
  3. Prior to commencement of ground clearing or grading, the applicant shall install silt fencing along the perimeter of construction areas closest to Pond A (i.e., new gym, classrooms, and new weight room/field house) to prevent any loose sediment from entering aquatic areas, and to discourage frogs from entering construction sites. The silt fencing shall be maintained throughout the construction period.
  4. All fueling of construction equipment shall take place at least 20 meters from any aquatic habitat. The construction foreman shall inform the construction workers of plans to properly contain and clean up any accidental petroleum spills.
- B.** In order to ensure new lighting does not impact riparian habitat, all new outdoor and building lighting shall be directed downward and away from riparian areas and ponds. This measure shall be confirmed for all phases of the proposed development during the design review stage of each phase.





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## CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) ENVIRONMENTAL REVIEW INITIAL STUDY

**Date:** January 14, 2013

**Application Number:** 111111

**Staff Planner:** Randall Adams

### I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

**APPLICANT:** Betty Cost Planning and Permit Services **APN(s):** 109-331-01; 109-141-20, -24, -25, -54

**OWNER:** Monte Vista Christian School

**SUPERVISORAL DISTRICT:** 4

**PROJECT LOCATION:** Property located at the northeast corner of the intersection of Wheelock Road and School Way at 2 School Way. (Attachment 1)

**SUMMARY PROJECT DESCRIPTION:** Proposal to amend the Master Plan for the Monte Vista Christian School including the construction of new structures, relocation of existing structures, and the construction of additional athletic facilities in multiple phases.

Requires an amendment to Master Plan approval 95-0034, an Agricultural Buffer Setback Reduction, Riparian Exception, Preliminary Grading Review, Soils Report Review, and Geologic Hazards Assessment.

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

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Geology/Soils                      | <input type="checkbox"/> Noise                              |
| <input type="checkbox"/> Hydrology/Water Supply/Water Quality          | <input type="checkbox"/> Air Quality                        |
| <input checked="" type="checkbox"/> Biological Resources               | <input type="checkbox"/> Greenhouse Gas Emissions           |
| <input checked="" type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Public Services                    |
| <input type="checkbox"/> Mineral Resources                             | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Visual Resources & Aesthetics                 | <input type="checkbox"/> Utilities & Service Systems        |
| <input type="checkbox"/> Cultural Resources                            | <input type="checkbox"/> Land Use and Planning              |
| <input type="checkbox"/> Hazards & Hazardous Materials                 | <input type="checkbox"/> Population and Housing             |
| <input type="checkbox"/> Transportation/Traffic                        | <input type="checkbox"/> Mandatory Findings of Significance |

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

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

**NON-LOCAL APPROVALS**

Other agencies that must issue permits or authorizations:

**DETERMINATION:** (To be completed by the lead agency)

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Matthew Johnston  
Environmental Coordinator

\_\_\_\_\_  
Date

## **II. BACKGROUND INFORMATION**

### **EXISTING SITE CONDITIONS**

Parcel Size: 87.4 acres (including all school parcels)

Existing Land Use: Private school & associated facilities

Vegetation: Ornamental landscaping, with areas of natural woodland/riparian vegetation

Slope in area affected by project: ☒ 0 - 30% ☐ 31 - 100%

Nearby Watercourse: Unnamed tributary of Green Valley Creek and water treatment ponds on site

### **ENVIRONMENTAL RESOURCES AND CONSTRAINTS**

Water Supply Watershed: Not mapped

Groundwater Recharge: Not mapped

Timber or Mineral: Not mapped

Agricultural Resource: Adjacent

Fault Zone: County fault zone

Scenic Corridor: Not mapped

Historic: Not mapped

Archaeology: Prior site assessment -  
Negative

Biologically Sensitive Habitat: Riparian

Fire Hazard: Portion of site mapped

Floodplain: Outside

Erosion: Not applicable

Landslide: Low potential

Liquefaction: Low potential

Noise Constraint: Not applicable

Electric Power Lines: Not applicable

Solar Access: Available

Solar Orientation: Various

Hazardous Materials: Not applicable

### **SERVICES**

Fire Protection: Pajaro Fire Protection District

School District: Pajaro Valley USD

Sewage Disposal: Septic & Private Treatment  
System

Drainage District: Zone 7

Project Access: School Way

Water Supply: Well

### **PLANNING POLICIES**

Zone District: 109-331-01: PF (Public Facilities)

109-141-24 & -25: A (Agriculture)

109-141-20 & -54: RA (Residential Agriculture)

General Plan: 109-331-01: P (Public Facilities)

109-141-20, 24, -25, -54: R-R (Rural Residential)

Urban Services Line: ☐ Inside

Coastal Zone: ☐ Inside

Special Designation: None

☒ Outside

☒ Outside

## **ENVIRONMENTAL SETTING AND SURROUNDING LAND USES:**

The Monte Vista Christian School is located in a rural agricultural and residential area. The area is characterized by gently rolling hills and level areas, crossed by small drainages and streams. The subject property is approximately 87 acres (in 5 parcels) and is developed with an existing private school with outdoor athletic fields, an equestrian program, and on-site residential facilities for students and faculty. Ongoing agricultural uses are located to the immediate west and northwest of the subject property, and rural residential land uses are located to the south and northeast. The Spring Hills Golf Course is located to the east.

## **PROJECT BACKGROUND:**

The Monte Vista Christian School is a private school that has been in operation since 1926. The school program includes a middle school and high school (grades 6-12), with on-site boarding for students in residential dormitories in addition to students from the surrounding community.

Early approvals were issued for the school in the 1960s, with the school's first Master Plan approved under Use Permit 4639-U in 1973. This first Master Plan recognized the existing school use and included a conceptual plan for additional educational buildings, and residential buildings for staff, with a total student population of 300. The Master Plan was updated in 1980 (08-1173-U) and 1982 (82-532-U) which included the approval of playing fields, a gymnasium, auditorium, chapel, and classrooms, with a total student population of 450 (100 boarding students and 350 day students).

The Master Plan was updated again, under Commercial Development Permit 95-0034. This most recent Master Plan amended and replaced all prior Master Plans and allowed additional facilities and the replacement of existing school buildings, and recognized the existing residential density on the site. Per the analysis performed under 95-0034, the school (with 100 boarding students and 21 residential units for faculty and staff) exceeds the maximum amount of residential density that would be allowed under current regulations. The total number of students allowed was increased to 1000 (including 100 boarding students). The review and approval of 95-0034 included the preparation of a Mitigated Negative Declaration under the California Environmental Quality Act (CEQA), which reviewed and addressed the following issues: water supply, geologic hazards (fault zone), on-site erosion and manure management, sanitation and waste water disposal (with on-site treatment facilities), riparian resources, traffic and parking, residential density, archaeological resources, and commercial agricultural activities on adjacent parcels. Additional permits have been issued for minor modifications to existing school facilities. An application made in 2002 (02-0478) for an auditorium and an increase in student population (from 1000-1200) was abandoned after several years. A grading permit (03-0187) for approximately 5000 cubic yards was approved to recognize grading performed for baseball and practice fields in 2003.

## **DETAILED PROJECT DESCRIPTION:**

The current application proposes the phased construction of additional school facilities (Attachment 2) without an increase in student capacity or residential units (all improvements are proposed on APN 109-331-04 unless otherwise specified). The first phase would include the construction of a water tank (40 foot diameter, 192,000 gallon capacity) at the northwest edge of the property, tennis courts on the west side of the project site (on APN 109-141-25), a new gymnasium building (approximately 14,250 square feet) on the north side of central campus where the current junior varsity softball field is located, and new classrooms (approximately 3,600 square feet) to the east of the new gymnasium, and grading for the future junior varsity softball field on the north side of the property (south of the proposed water tank). The second phase would include the demolition of the middle school gymnasium and the construction of a new chapel (approximately 16,500 square feet) to the northeast of the central campus courtyard. The third phase would include the construction of a new choir and instrumental room (approximately 3,150 square feet) in the area of the former middle school gymnasium and the construction of a replacement weight room (approximately 7,300 square feet) between the existing ball fields to the north of central campus. The fourth phase would include the removal of the existing swimming pool within the central campus and construction of a competition swimming pool and bathrooms to the west of central campus (on APN 109-141-20 & -54). The fifth phase would include the construction of an expanded café and covered seating area (approximately 11,200 square feet) in the southeast portion of central campus and construction of the junior varsity softball field on the north site of the property.

As this is a long term Master Plan with phasing, detailed construction plans have not yet been prepared for all phases. Detailed plans for the first phase have been provided with the current application and all future construction would be subject to additional review (for design and building approvals). Building square footages are considered estimates at this time and grading is estimated to be as follows: Phase 1: 4900 (cut) 6500 (fill), Phase 2: 850 (cut) 200 (fill), Phase 3: 250 (cut) 100 (fill), Phase 4: 620 (cut) 500 (fill), Phase 5: 120 (cut) 100 (fill). A Riparian Exception is required for the proposed gymnasium and classroom buildings (proposed to be located within 100 feet of an existing drainage pond), and Agricultural Buffer Setback Reductions are required for the construction of the proposed tennis courts and the junior varsity softball field. The request for Agricultural Buffer Setback Reductions was heard by the Agricultural Policy Advisory Commission on 11/15/12, and was approved with conditions at the public hearing.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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### III. ENVIRONMENTAL REVIEW CHECKLIST

#### A. GEOLOGY AND SOILS

Would the project:

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:   |                          |                          |                                     |                          |
| A. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| B. Strong seismic ground shaking?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| C. Seismic-related ground failure, including liquefaction?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| D. Landslides?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

The project site is located outside of the limits of the State Alquist-Priolo Special Studies Zone (County of Santa Cruz GIS Mapping, California Division of Mines and Geology, 2001). However, the project site is located within the Corralitos Fault Complex and in an area of moderate to high seismic activity (mapped County Fault Zone). A geologic report was completed for the property in 1978, with an update in 1996, as documented in the Initial Study from application 95-0034. A review of these reports, a fault delineation study, and further geotechnical analysis was performed by Haro, Kasunich, and Associates, dated 4/11 & 11/11 (Attachments 3, 4 & 5). A fault trace that has been identified passing through the Spring Hills Golf Course to the east, continuing through the subject property in line with the former drainage course (now a pond) to the north of the proposed gymnasium and classroom buildings proposed in Phase 1 of the Master Plan.

These reports have been reviewed and accepted by the Environmental Planning Section of the Planning Department (Attachment 6). The reports conclude that the identified fault traces do not pass through either of the proposed building sites for the gymnasium or classroom, that fault rupture does not pose a significant threat to the proposed development, and that seismic shaking can be managed by following the recommendations in the geologic and geotechnical reports referenced above (including over-excavation and re-compaction of soil beneath building foundations) and the requirements of the California Building Code.

- |   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                |
|---|--------------------------------------|--|-------------------------------------|--------------------------|
| 2. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

The geotechnical reports cited above did not identify a significant potential for damage caused by any of these hazards.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Develop land with a slope exceeding 30%? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

No improvements are proposed on slopes in excess of 30%.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 4. Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Some potential for erosion exists during the construction phase of the project, however, this potential is minimal because proposed development areas are level or gently sloped and standard erosion controls are a required condition of the project. Prior to approval of a grading or building permit, the project must have an approved Erosion Control Plan, which will specify detailed erosion and sedimentation control measures. The plan will include provisions for disturbed areas to be planted with ground cover and to be maintained to minimize surface erosion.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 5. Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

The geotechnical reports for the project did not identify any elevated risk associated with expansive soils.

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 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 where sewers are not available? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

The proposed project would continue to use the existing an onsite sewage disposal system with no increase in student enrollment or residential capacity on the project site. County Environmental Health Services has reviewed and approved the existing on-site sewage treatment system and no changes to the on-site treatment system are proposed as a component of this project.

- |                                     |                          |                          |                          |                                     |
|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. Result in coastal cliff erosion? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

The proposed project is not located in the vicinity of a coastal cliff or bluff; and

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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therefore, would not contribute to coastal cliff erosion.

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

Would the project:

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. | Place development within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated March 2, 2006, no portion of the project site lies within a 100-year flood hazard area.

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. | Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated March 2, 2006, no portion of the project site lies within a 100-year flood hazard area.

- |    |  |                          |                          |                                     |                                     |
|----|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 3. | Be inundated by a seiche, tsunami, or mudflow?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. | Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

The project would rely on a private water system for water supply and no increase in student enrollment or residential capacity on the project site. The project is located in a mapped groundwater recharge area and includes a system of on-site drainage retention ponds and waste water treatment ponds. The private water system and on-site septic treatment system have been reviewed and approved by County Environmental Health Services as a component of the 1995 Master Plan. No changes to the existing water system or sewage treatment system are proposed as a part of this project.

- |    |  |                          |                          |                                     |                          |
|----|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 5. | Substantially degrade a public or private water supply? (Including the contribution of urban contaminants, | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|----|--|--------------------------|--------------------------|-------------------------------------|--------------------------|



Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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nutrient enrichments, or other agricultural chemicals or seawater intrusion).

See response B-4 above. The project would not discharge runoff either directly or indirectly into a public or private water supply. No commercial or industrial activities are proposed that would generate a substantial amount of contaminants. An existing manure management plan has been reviewed and approved by County Environmental Health Services as a component of the 1995 Master Plan, and no changes are proposed to the equestrian or manure management facilities. The impervious areas associated with the project would incrementally contribute urban pollutants to the environment; however, the contribution would be minimal given the size of the driveway and parking area. Potential siltation from the proposed project will be addressed through implementation of erosion control measures.

6. Degrade septic system functioning? ☐ ☐ ☒ ☐

There is no indication that existing septic systems in the vicinity would be affected by the project.

7. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding, on- or off-site? ☐ ☐ ☒ ☐

The proposed project would not alter the existing overall drainage pattern of the site. Department of Public Works Drainage Section staff has reviewed and approved the proposed drainage for the Master Plan. Department of Public Works Drainage Section staff will review detailed drainage plans for each individual stage as they are initiated.

8. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems, or provide substantial additional sources of polluted runoff? ☐ ☐ ☒ ☐

Drainage Calculations prepared by C2G, dated 5/12, have been reviewed for potential drainage impacts and accepted by the Department of Public Works (DPW) Drainage Section staff. The runoff rate from the property would be controlled by existing and proposed on-site drainage facilities and sufficient area exists for the construction of new drainage facilities to treat the structures and improvements proposed in each phase. For the first phase of the Master Plan, a stormwater detention basin is proposed to handle runoff from the proposed gymnasium and classroom and a rock filled trench is proposed to handle runoff from the proposed water tank. Water from the tennis courts would be directed to vegetated swales and would run across landscaped

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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areas. Later phases of the Master Plan would be designed separately, with specific areas for future detention facilities designated on the project plans. DPW staff have determined that existing storm water facilities are adequate to handle the increase in drainage associated with the project. Refer to response B-5 for discussion of urban contaminants and/or other polluting runoff.

- |     |   |                          |                          |                                     |                                     |
|-----|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 9.  | Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 10. | Otherwise substantially degrade water quality?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

See response B-5 above.

### C. BIOLOGICAL RESOURCES

Would the project:

- |    |  |                          |                                     |                          |                          |
|----|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. | Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|----|--|--------------------------|-------------------------------------|--------------------------|--------------------------|

A Biotic Report was prepared for this project by Dana Bland, dated 4/7/11 (Attachment 7). The report focused on evaluating the presence of California Red-Legged Frog (CRLF) on the subject property and the project site. All five phases of the Master Plan were considered in the biotic assessment. Potential aquatic habitat for the CRLF was evaluated on and near the subject property and no evidence of CRLF was found. However, due to the number and location of existing aquatic habitats, it is possible that the subject property is used as a dispersal or transit route for CRLF and that individual CRLFs may occasionally be present on the subject property. The biotic report provides recommendations to avoid potential impacts to CRLF during construction activities. These recommended mitigations are as follows:

- (1) No more than 48 hours prior to ground stripping or grading, a qualified biologist shall conduct a preconstruction survey of the building sites located in turf or non-native grassland areas to search for CRLF. If any CRLF are observed within or along the perimeter of the building site, construction shall be postponed until the frog leaves of its own accord and retreats into suitable riparian or aquatic habitat. The U.S. Fish and Wildlife Service (USFWS) shall be contacted for further guidance. In no case shall a biologist capture and relocate any CRLF without approval from the USFWS.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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- (2) A qualified biologist shall give a worker training session on the first morning of construction to all construction personnel. The training shall include information on identification of the species, its life history, and measures implemented for this project to avoid any harm to the species. The training may include flyers, photographs, or books with pertinent information.
- (3) Prior to commencement of ground clearing or grading, the applicant shall install silt fencing along the perimeter of construction areas closest to Pond A (i.e., new gym, classrooms, and new weight room/field house) to prevent any loose sediment from entering aquatic areas, and to discourage frogs from entering construction sites. The silt fencing shall be maintained throughout the construction period.
- (4) All fueling of construction equipment shall take place at least 20 meters from any aquatic habitat. The construction foreman shall inform the construction workers of plans to properly contain and clean up any accidental petroleum spills.

The biotic report has been reviewed and accepted by the Planning Department Environmental Planning Section. No other special status species have been identified on the subject property in either the Biotic Report or in site visits by Planning Department staff.

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

See response C-1 above. The first phase of the project would include the construction of a gymnasium and classroom building to the south of an existing pond. Although the classroom is designed to comply with the 100 foot riparian setback from the pond, the proposed gymnasium building would be located approximately 79 feet from the existing pond. The construction of the gymnasium in this location would require a Riparian Exception to reduce the 100 foot setback to a pond. The area is disturbed (as the existing junior varsity softball field) and the request for a Riparian Exception has been reviewed by Environmental Planning staff. No further modifications or mitigations have been requested to comply with the Riparian and Wetland Protection Ordinance. There are no other mapped or designated sensitive biotic communities on or adjacent to the project site.

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 3. Interfere substantially with the movement of any native resident or | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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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?

See response C-1 above. The proposed project does not involve any activities that would interfere with the movements or migrations of fish or wildlife, or impede use of a known wildlife nursery site.

- |  |                          |                                     |                          |                          |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| 4. Produce nighttime lighting that would substantially illuminate wildlife habitats? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|

The development area is adjacent to a riparian corridor, which could be adversely affected by a new or additional source of light that is not adequately deflected or minimized. The following mitigation measures will be added to the project, such that any potential impact will be reduced to a less than significant level: All new outdoor and building lighting shall be directed downward and away from riparian areas and ponds.

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|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 5. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

The project will not include activities that will have an adverse effect on any federally protected wetlands.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 6. Conflict with any local policies or ordinances protecting biological resources (such as the Sensitive Habitat Ordinance, Riparian and Wetland Protection Ordinance, and the Significant Tree Protection Ordinance)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

The project would not conflict with any local policies or ordinances. A Riparian Exception has been requested in compliance with the requirements of the Riparian and Wetland Protection Ordinance.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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The proposed project would not conflict with the provisions of any adopted Habitat Conservation Plan Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact would occur.

#### D. AGRICULTURE AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

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

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

The main campus (located on Assessor's Parcel Number 109-331-01) is zoned PF (Public Facilities), which is not considered to be an agricultural zone. The other parcels are zoned as follows: 109-141-24 & -25 are zoned A (Agriculture) and 109-141-20 & -54 are zoned RA (Residential Agriculture). The A and RA zoned parcels are located within the Rural Residential General Plan Land Use Designation and are not intended for commercial agricultural uses. None of the subject property is under a Williamson Act Contract.

The construction of the proposed tennis courts and the proposed junior varsity softball field will be located within 200 feet of existing CA (Commercial Agriculture) zoned parcels, with ongoing commercial agricultural activities on these properties. An

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Agricultural Buffer Setback Reduction is required to locate new habitable areas (or areas of intense outdoor human activity) within 200 feet of land designated for commercial agriculture in order to protect existing agricultural resources. This application includes a request to reduce the required agricultural buffer setback to 90 feet (to the west) for the proposed tennis courts and to 60 feet (to the west) and 115 feet (to the north) of the proposed junior varsity softball field. The request for Agricultural Buffer Setback Reductions was heard by the Agricultural Policy Advisory Commission on 11/15/12, and was approved with conditions at the public hearing (Attachment 8). The standard conditions of the Agricultural Buffer Setback Reduction will ensure protection of existing agricultural resources and the project will not adversely affect existing commercial agricultural operations on the adjacent parcels.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. | Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

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

No forest land occurs on the project site or in the immediate vicinity. No impact is anticipated.

- |    |   |                          |                          |                                     |                          |
|----|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 5. | Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|----|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

See responses D-2 and D-4 above.

## E. MINERAL RESOURCES

Would the project:

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. | Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

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

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is zoned PF (Public Facilities), A (Agriculture) and RA (Residential Agriculture), which are not considered to be an Extractive Use Zone (M-3) and the property does not have a Quarry Designation Overlay (Q) (County of Santa Cruz General Plan, 1994). Therefore, no potentially significant loss of availability of a known mineral resource of locally important mineral resource recovery (extraction) site delineated on a local general plan, specific plan or other land use plan would occur as a result of this project.

## F. VISUAL RESOURCES AND AESTHETICS

Would the project:

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

The project would not directly impact any public scenic resources, as designated in the County's General Plan (1994), or obstruct any public views of these visual resources.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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 within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

The project site is not located along a County designated scenic road, public viewshed area, scenic corridor, within a designated scenic resource area, or within a state scenic highway. Therefore, no impact is anticipated.

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

The existing visual setting is a rural residential neighborhood with agricultural activities and an existing public school facility. The proposed project is designed and landscaped so as to fit into this setting.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

The project would create an incremental increase in night lighting. However, this

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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increase would be small, and would be similar in character to the lighting associated with the surrounding existing uses.

## G. CULTURAL RESOURCES

Would the project:

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

The existing structures on the property are not designated as a historic resource on any federal, state or local inventory.

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

Portions of the subject property are mapped as potentially containing archaeological resources, although the majority of the parcel containing the main campus (APN 109-331-01) does not contain this designation. Archaeology was reviewed as a component of the 1995 Master Plan and a site survey was performed (Attachment 9) and did not find any evidence of pre-historic cultural resources on the property. The 1995 archaeological survey followed an earlier survey which also had negative results. No additional surveys or reports have been requested as a component of the current application to update the Master Plan. However, pursuant to Section 16.40.040 of the Santa Cruz County Code, if archeological resources are uncovered during construction, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in County Code Chapter 16.40.040.

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

Pursuant to Section 16.40.040 of the Santa Cruz County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this project, human remains are discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native California Indian group shall be contacted. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|



Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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## H. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

- |    |   |                          |                          |                                     |                                     |
|----|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 1. | Create a significant hazard to the public or the environment as a result of the routine transport, use or disposal of hazardous materials?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 2. | Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3. | Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. | 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

Although the project site is included on the Environmental Health Services list of potentially hazardous sites in Santa Cruz County compiled pursuant to the specified code, the list indicates that the County Department of Environmental Health Services closed and resolved the case (involving hydrocarbons) on 4/1/2005.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. | For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

The subject property is over 3 miles from the Watsonville Airport and is not within the boundaries of an airport land use plan.

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|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 6. | For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The school has an existing emergency preparedness plan as required by the California Office of Emergency Services and applicable State laws. The proposed update to the Master Plan would not impair implementation of the emergency preparedness plan. The existing the emergency preparedness plan would be updated, as needed, to reflect the new buildings and improvements proposed as a component of this project.

8. Expose people to electro-magnetic fields associated with electrical transmission lines?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project design incorporates all applicable fire safety code requirements and includes fire protection devices as required by the local fire agency.

## I. TRANSPORTATION/TRAFFIC

Would the project:

1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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The proposed Master Plan update would not generate additional traffic as there is no proposed increase in enrollment or residential density on the subject property.

2. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The existing road access and circulation within the project site provides adequate emergency access. All building plans and proposed improvements will comply with the requirements of the local fire agency.

5. Cause an increase in parking demand which cannot be accommodated by existing parking facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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The project does not include an increase in student enrollment or residential density and the current parking facilities are adequate to accommodate parking demand.

6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Exceed, either individually (the project alone) or cumulatively (the project combined with other development), a level of service standard established by the County General Plan for designated intersections, roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

See response I-1 above.

## J. NOISE

Would the project result in:

1. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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The project does not include an increase in student enrollment or residential density. The existing activities on the subject property would shift in location as a result of the proposed Master Plan and noise associated with these activities may increase in some areas while decreasing in others. However, any increase in noise generated would be small, and would be similar in character to noise generated by the existing school and

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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surrounding existing uses.

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

Ground vibrations generated during construction or grading activities may temporarily increase the groundborne 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.

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|----|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 3. | Exposure of persons to or generation of noise levels in excess of standards established in the General Plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|----|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Per County policy, average hourly noise levels shall not exceed the General Plan threshold of 50 Leq during the day and 45 Leq during the nighttime. Impulsive noise levels shall not exceed 65 db during the day or 60 db at night. The proposed project would not generate noise in excess of these levels or expose individuals to noise in excess of the established thresholds.

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|----|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 4. | A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|----|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

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.

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|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. | For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. | For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## K. AIR QUALITY

Where available, the significance criteria established by the Monterey Bay Unified

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Air Pollution Control District (MBUAPCD) may be relied upon to make the following determinations. Would the project:

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

The North Central Coast Air Basin does not meet state standards for ozone and particulate matter (PM<sub>10</sub>). Therefore, the regional pollutants of concern that would be emitted by the project are ozone precursors (Volatile Organic Compounds [VOCs] and nitrogen oxides [NO<sub>x</sub>]), and dust.

Given that no additional traffic is anticipated to be generated by the project there is no indication that new emissions of VOCs or NO<sub>x</sub> would exceed 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, will be implemented during construction to reduce impacts to a less than significant level.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

See response K-1 above. The project would not conflict with or obstruct implementation of the regional air quality plan.

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. Expose sensitive receptors to substantial pollutant concentrations?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Create objectionable odors affecting a substantial number of people?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

The existing equestrian facilities currently utilize a manure management plan which was reviewed and approved by the County Department of Environmental Health Services as a component of the 1995 Master Plan. No changes to the existing equestrian facilities or manure management plan are proposed as a part of this project.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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## L. GREENHOUSE GAS EMISSIONS

Would the project:

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

The proposed project, like all development, would be responsible for an incremental increase in green house gas emissions by usage of fossil fuels during the site grading and construction. At this time, Santa Cruz County is in the process of developing a Climate Action Plan (CAP) intended to establish specific emission reduction goals and necessary actions to reduce greenhouse gas levels to pre-1990 levels as required under AB 32 legislation. Until the CAP is completed, there are no specific standards or criteria to apply to this project. All project construction equipment would be required to comply with the Regional Air Quality Control Board emissions requirements for construction equipment. As a result, impacts associated with the temporary increase in green house gas emissions are expected to be less than significant.

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

See the discussion under L-1 above. No impacts are anticipated.

## M. PUBLIC SERVICES

Would the project:

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: |                          |                          |                                     |                          |
| a. Fire protection?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Police protection?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Schools?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Parks or other recreational activities?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
--	--------------------------------------	--	------------------------------------	-----------

- e. Other public facilities; including the maintenance of roads?

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

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

## N. RECREATION

Would the project:

1. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
2. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

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

The proposed Master Plan update would include relocation and expansion of existing indoor and outdoor recreational facilities. The construction of these facilities is included as a component of the review of this application and the potential physical effect of these recreational facilities on the environment has been evaluated in this document.

## O. UTILITIES AND SERVICE SYSTEMS

Would the project:

1. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

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

See response B-8 above.

2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

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

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
--------------------------------------	--	------------------------------------	-----------

The school relies on an existing individual water system for water supply and no increase in water demand is anticipated as a result of this project. Public water delivery facilities would not have to be expanded.

The school is served by an existing on-site sewage disposal system (with on site septic system and treatment ponds) for wastewater disposal. No increase in sewage waste water flows are anticipated as a result of this project.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 3. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

The existing wastewater treatment system was reviewed and approved by the County Department of Environmental Health Services as a component of the 1995 Master Plan. No increase in student enrollment or residential density is proposed as a part of this project, and no increase in waste water flows are anticipated. The existing wastewater treatment system is not proposed to be modified as a result of this project.

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 4. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

The school relies on an existing individual water system for water supply and no increase in water demand is anticipated as a result of this project.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

The school is served by a private on-site sewage disposal system.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 6. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

No increase in waste disposal in anticipated as a result of this project.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|



Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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## P. LAND USE AND PLANNING

Would the project:

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. | Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

The proposed project does not conflict with any regulations or policies adopted for the purpose of avoiding or mitigating an environmental effect. No impact is anticipated.

- |    |  |                          |                          |                          |                                     |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. | Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

The subject property is not located in an area covered by a conservation plan.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. | Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

The project would not include any element that would physically divide an established community.

## Q. POPULATION AND HOUSING

Would the project:

- |    |  |                          |                          |                                     |                          |
|----|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. | Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|----|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

The proposed project is an update to an existing approved Master Plan. The update includes relocation of existing structures and improvements on the property and no increase in student enrollment or residential density is proposed. Additionally, the project does not involve extensions of utilities (e.g., water, sewer, or new road systems) into areas previously not served. Consequently, it is not expected to have a significant growth-inducing effect.

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

Later phases of the project would result in the demolition of existing residential structures for the construction of a new swimming pool. The removal of these

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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residential units would not be substantial (less than 4 units total) and construction of replacement housing would not be required as a result of this project.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

See response Q-2 above

## R. MANDATORY FINDINGS OF SIGNIFICANCE

- |   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation | Less than<br>Significant<br>Impact | No<br>Impact             |
|---|--------------------------------------|--|------------------------------------|--------------------------|
| 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, reduce the number or restrict the range of a rare or endangered plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/>             | <input checked="" type="checkbox"/>            | <input type="checkbox"/>           | <input type="checkbox"/> |

The potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory were considered in the response to each question in Section III of this Initial Study. Resources that have been evaluated as significant would be potentially impacted by the project, particularly biotic resources. However, mitigation has been included that clearly reduces these effects to a level below significance. This mitigation includes specific recommendations to ensure protection of California Red-Legged Frogs (CRLF). As a result of this evaluation, there is no substantial evidence that, after mitigation, significant effects associated with this project would result. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

- |  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation | Less than<br>Significant<br>Impact | No<br>Impact                        |
|--|--------------------------------------|--|------------------------------------|-------------------------------------|
| 2. Does the project have impacts that are individually limited, but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |

In addition to project specific impacts, this evaluation considered the projects potential for incremental effects that are cumulatively considerable. As a result of this evaluation, there were determined to be potentially significant cumulative effects related to transportation and traffic. However, mitigation has been included that clearly reduces these cumulative effects to a level below significance. This mitigation includes payment of the transportation impact fee. As a result of this evaluation, there is no substantial evidence that, after mitigation, there are cumulative effects associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
3. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings were considered in the response to specific questions in Section III. As a result of this evaluation, there is no substantial evidence that there are adverse effects to human beings associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

#### IV. TECHNICAL REVIEW CHECKLIST

	<u>REQUIRED</u>	<u>DATE COMPLETED</u>
Agricultural Policy Advisory Commission (APAC) Review	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<u>11/15/12</u>
Archaeological Review	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<u>5/15/95</u>
Biotic Report/Assessment	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<u>4/7/11</u>
Geologic Hazards Assessment (GHA)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<u>11/3/11</u>
Geologic Report	Yes <input type="checkbox"/> No <input type="checkbox"/>	<u>                    </u>
Geotechnical (Soils) Report	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<u>4/5/11 &amp; 11/9/11</u>
Riparian Pre-Site	Yes <input type="checkbox"/> No <input type="checkbox"/>	<u>                    </u>
Septic Lot Check	Yes <input type="checkbox"/> No <input type="checkbox"/>	<u>                    </u>
Other:	Yes <input type="checkbox"/> No <input type="checkbox"/>	<u>                    </u>

## **V. REFERENCES USED IN THE COMPLETION OF THIS ENVIRONMENTAL REVIEW INITIAL STUDY**

### **County of Santa Cruz 1994**

1994 General Plan and Local Coastal Program for the County of Santa Cruz, California. Adopted by the Board of Supervisors on 5/24/94, and certified by the California Coastal Commission on 12/15/94.

### **County of Santa Cruz 1995**

Mitigated Negative Declaration for Monte Vista Christian School Master Plan Update 95-0034. Approved by Environmental Coordinator on 11/4/97 and adopted by the Zoning Administrator on 1/16/98.

Geological and Geophysical Investigation for Fault Location, Monte Vista Christian School, prepared by Geoconsultants, Inc., dated 6/16/78.

Supplemental Data for Fault Location Investigation, Monte Vista Christian School, prepared by Geoconsultants, Inc., dated 7/19/78.

Addendum Report on Results of Exploratory Trenching, Investigation for Fault Location, Monte Vista Christian School, prepared by Geoconsultants, Inc., dated 9/21/78.

Summary Letter of Fault Location Studies, Monte Vista Christian School, prepared by Geoconsultants, Inc., dated 9/28/98.

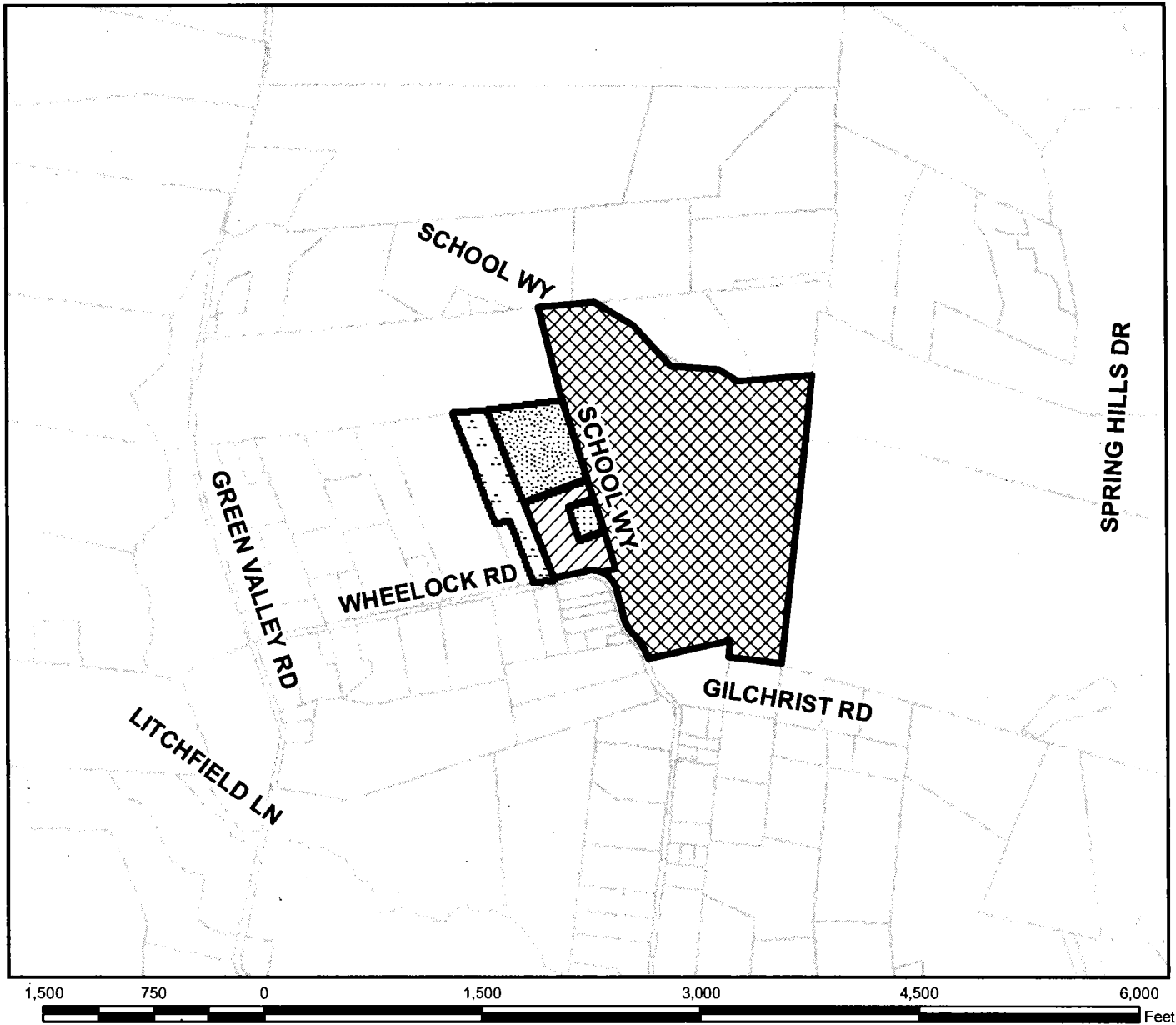
Drainage Calculations, prepared by C2G/Civil Consultants Group Inc., revised 5/12.

## **VI. ATTACHMENTS**










1. Vicinity map, Map of Zoning Districts; Map of General Plan Designations; and Assessors Parcel Map.
2. Master Plan Summary, dated 6/11; Master Plan Improvement Exhibit, dated 12/5/12; & Project plans "Monte Vista Christian School", revised 3/14/12, prepared by C2G/Civil Consultants Group Inc.
3. Geologic Hazards Assessment "Fault Delineation Study" (Report Summary, Conclusions & Recommendations), prepared by Haro, Kasunich and Associates, dated 11/5/11.
4. Geotechnical Investigation for proposed gymnasium, classroom building, and tennis courts (Report Summary, Conclusions & Recommendations), prepared by Haro, Kasunich and Associates, dated 4/5/11.
5. Geotechnical Investigation for proposed water tank (Report Summary, Conclusions & Recommendations), prepared by Haro, Kasunich and Associates, dated 11/9/11.
6. Geologic and Geotechnical Review Letters, prepared by Joe Hanna, County Geologist, dated 12/7/11 & 2/29/12.
7. Biotic Report "Site Assessment for California Red-Legged Frog" (Report Summary, Conclusions & Recommendations), prepared by Dana Bland, dated 4/7/11.
8. Staff report and minutes from the Agricultural Policy Advisory Commission, 11/15/12 public hearing.
9. Archeological Reconnaissance Survey Letter, prepared by Suzanne Smith, dated 5/15/95.

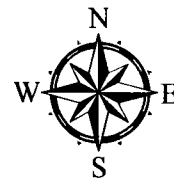


# Location Map



## LEGEND

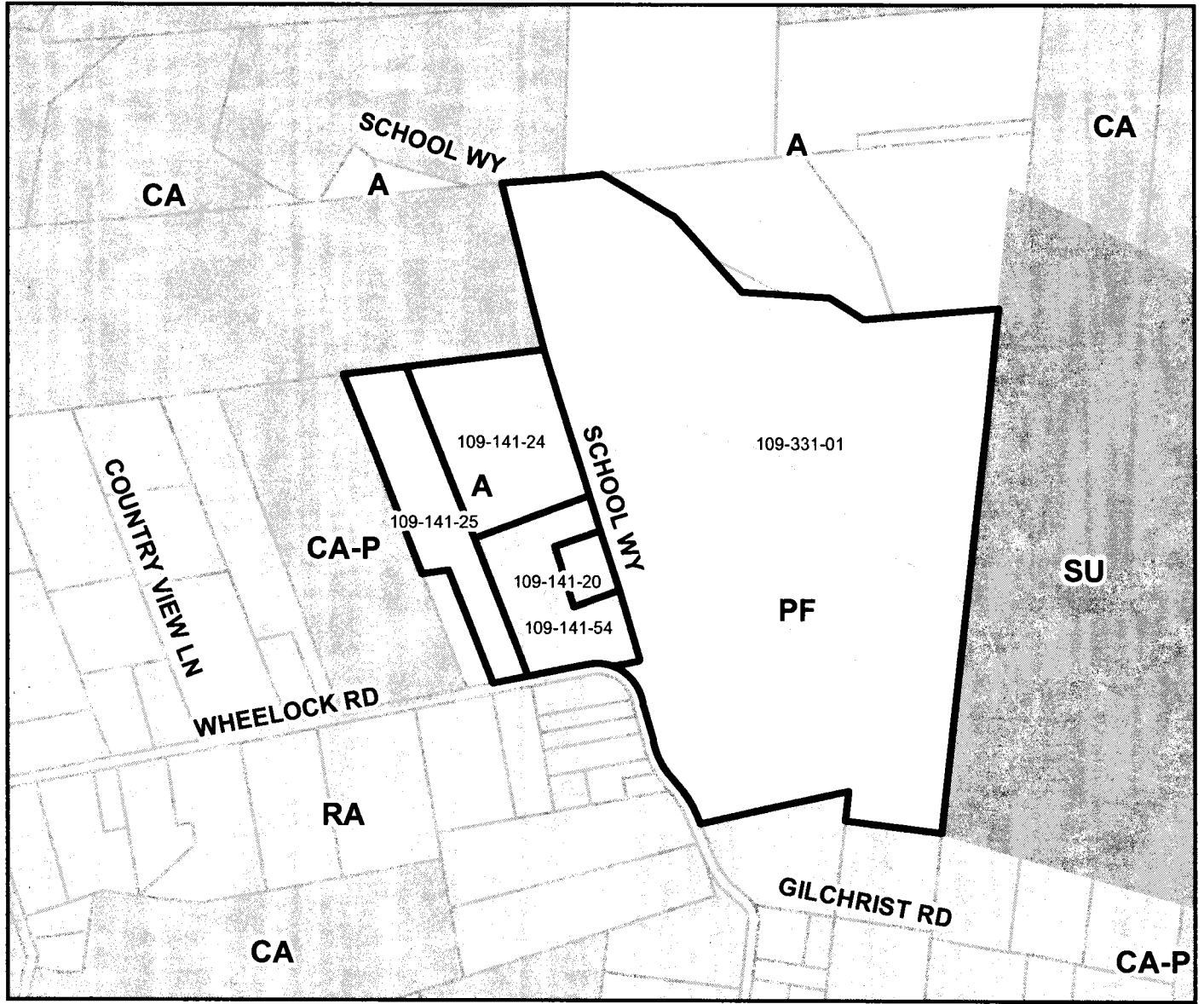
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-  APN: 109-141-54
-  APN: 109-141-25
-  APN: 109-141-24
-  APN: 109-141-20
-  Assessors Parcels
-  Streets
-  SWALE
-  Lakes



Map Created by  
County of Santa Cruz  
Planning Department  
July 2011

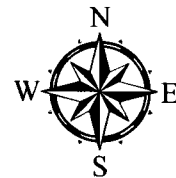


# Zoning Map



## LEGEND

	APN: 109-331-01		SWALE
	APN: 109-141-54		PUBLIC FACILITY
	APN: 109-141-25		AGRICULTURE
	APN: 109-141-24		AGRICULTURE RESIDENTIAL
	APN: 109-141-20		AGRICULTURE COMMERCIAL
	Assessors Parcels		SPECIAL USE
	Streets		

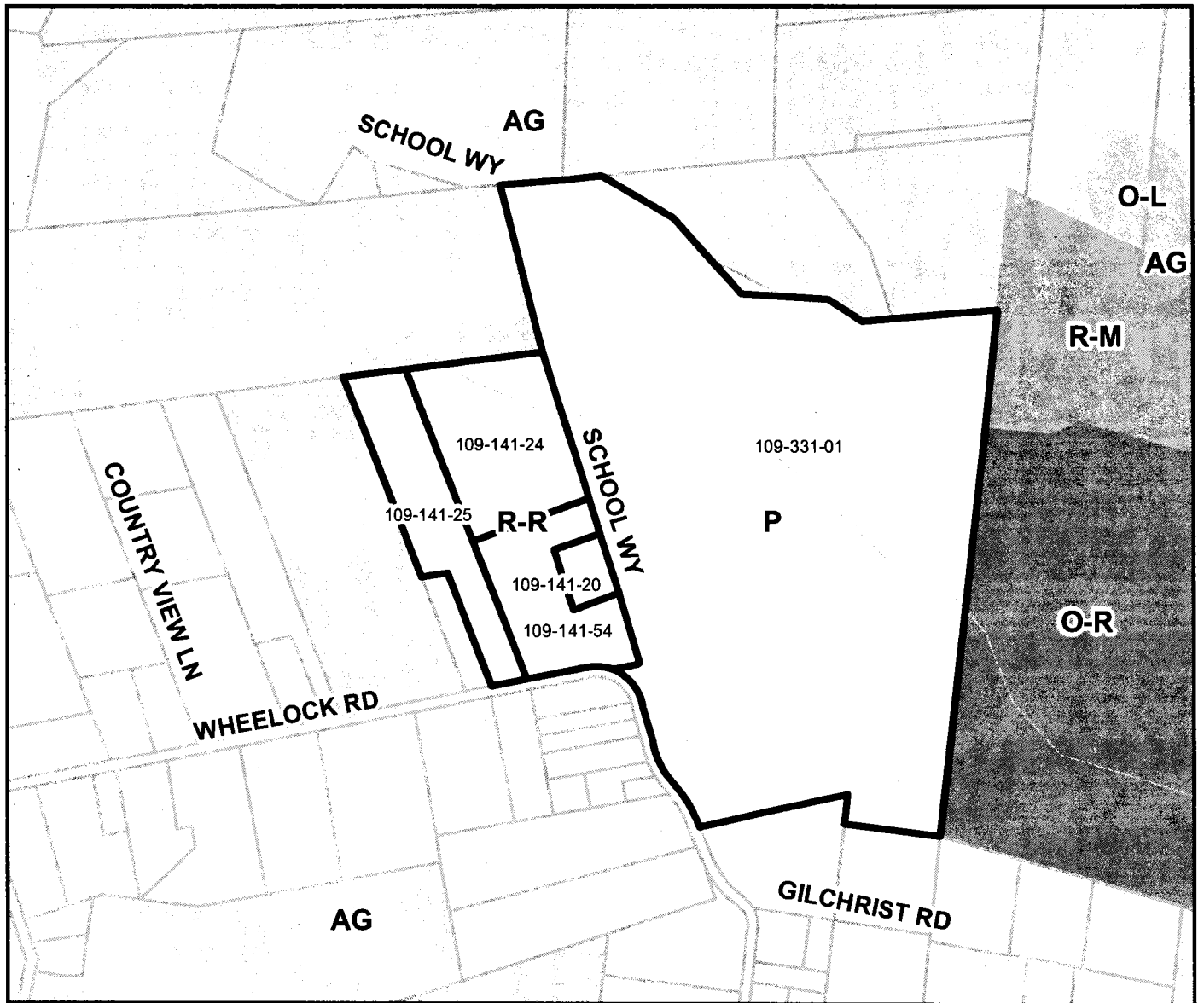


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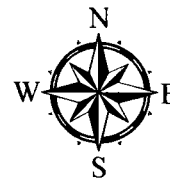
# General Plan Designation Map



860 430 0 860 1,720 2,580 3,440 Feet

## LEGEND

	APN: 109-331-01		SWALE
	APN: 109-141-54		Public Facilities
	APN: 109-141-25		Residential-Rural
	APN: 109-141-24		Agriculture
	APN: 109-141-20		Lake
	Assessors Parcels		Residential-Mountain
	Streets		Parks and Recreation



Map Created by  
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Planning Department  
July 2011

# FOR TAX PURPOSES ONLY

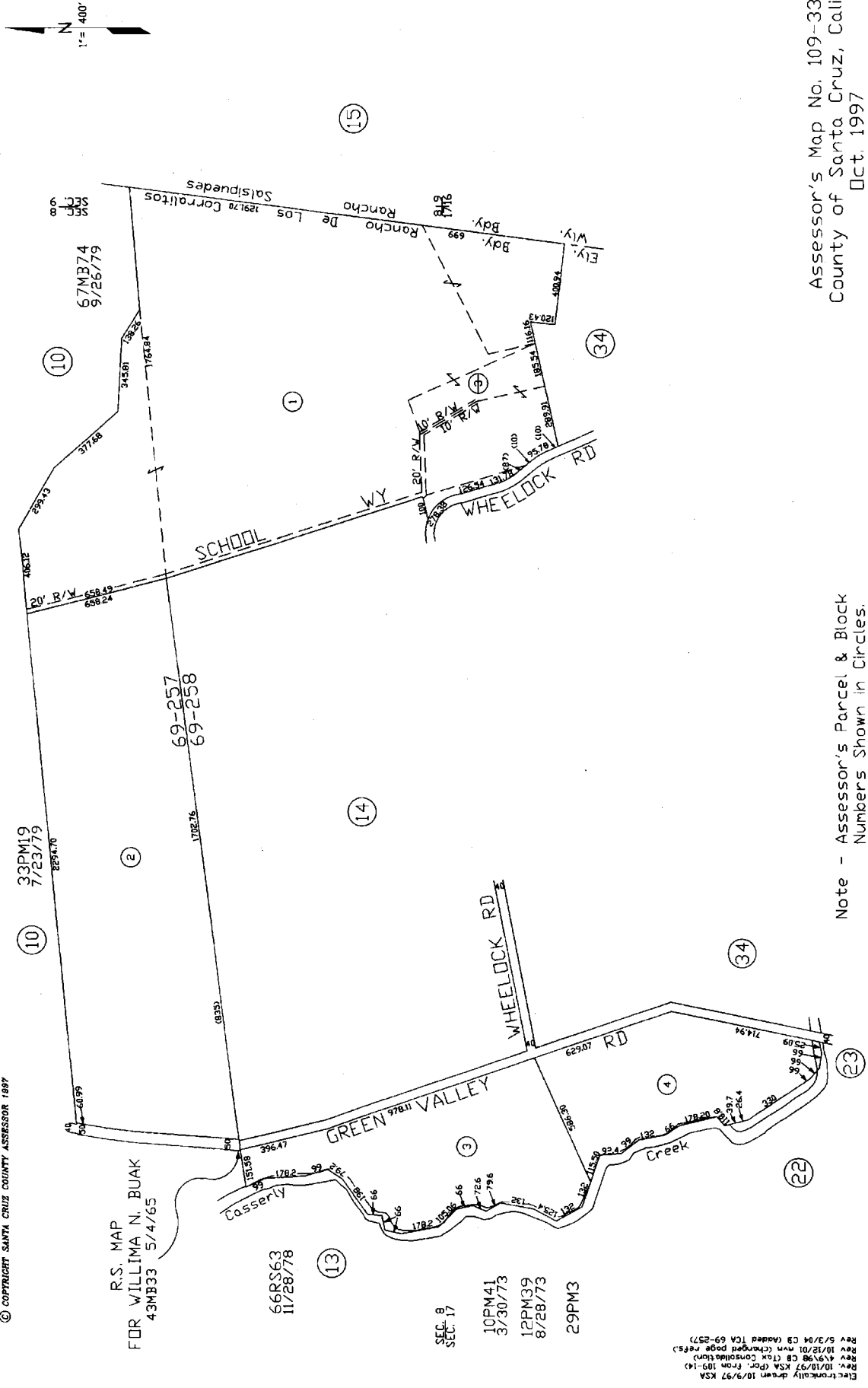
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## RANCHO DE LOS CORRALITOS

POR. SECS. 8 & 17, T.11S., R.2E., M.D.B. & M.

Tax Area Code  
69-257 69-258

109-33



Note - Assessor's Parcel & Block Numbers Shown in Circles.

Assessor's Map No. 109-33  
County of Santa Cruz, Calif.  
Oct. 1997

# FOR TAX PURPOSES ONLY

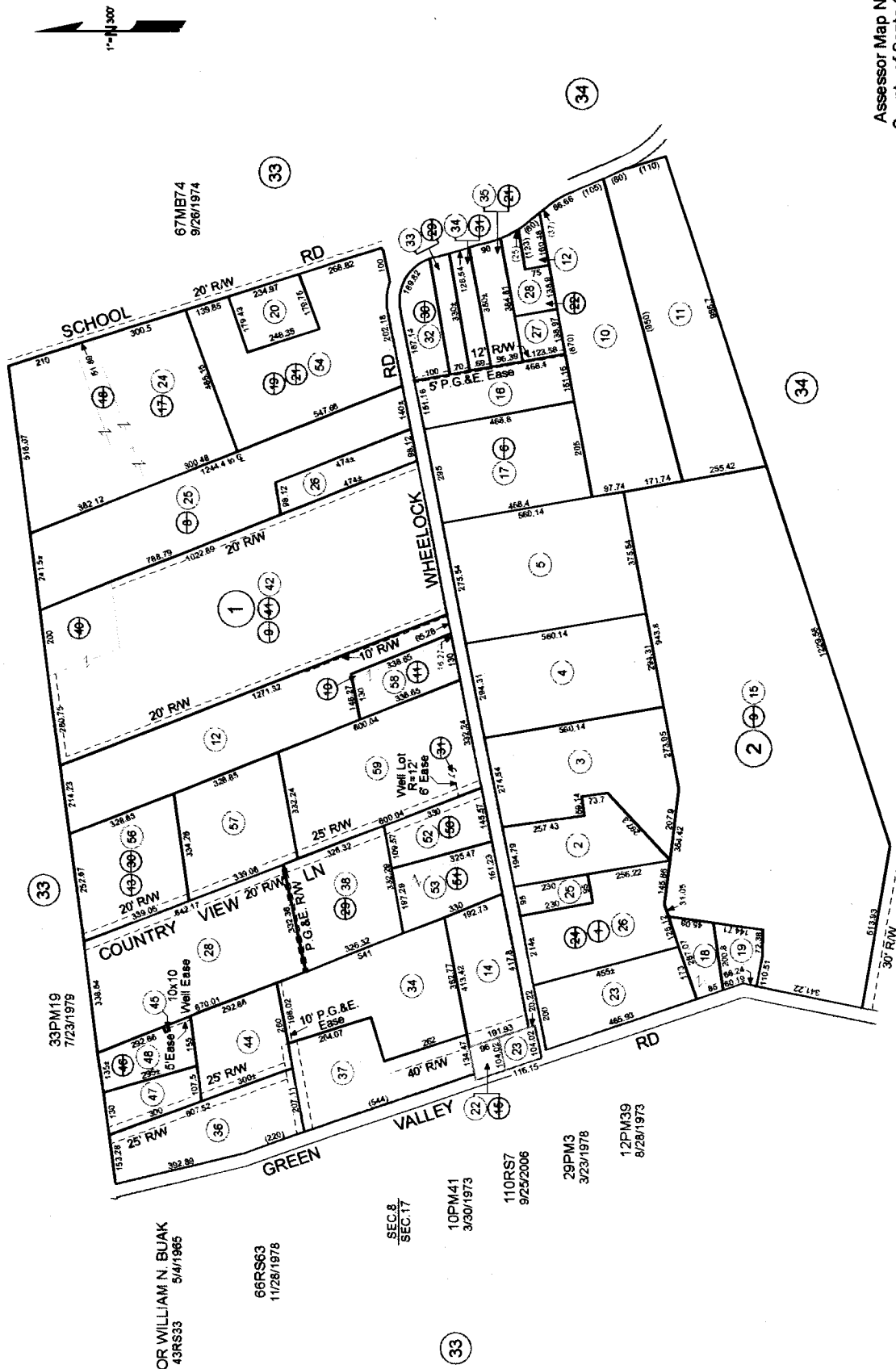
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## RANCHO DE LOS CORRALITOS

POR. SEC. 8 & 17, T.11S., R.2E., M.D.B. & M.

Tax Area Code  
69-258

109-14



FOR WILLIAM N. BUAK  
43RS33 5/4/1985

66RS63  
11/28/1978

SEC. 8  
SEC. 17

10PM41  
3/30/1973

11ORS7  
9/25/2006

29PM3  
3/23/1978

12PM39  
8/28/1973

Note - Assessor's Parcel & Block  
Numbers Shown in Circles.

Assessor Map No. 109-14  
County of Santa Cruz, Calif.  
Oct. 1997

Electronically drawn 10/10/97 KSA  
Rev 10/10/97 KSA (Per to 109-33)  
Rev 4/9/98 CB (Tax Consolidation)  
Rev 10/12/01 mm (changed page no.)  
Rev 4/10/04 CG (Renewed R/W 1-35 & 47 as per 2004-0003062 & 0026447)  
Rev 4/21/05 mm (Added Country View Ln)  
Rev 1/15/08 id (11ORS7)

June, 2011

## **MONTE VISTA CHRISTIAN SCHOOL MASTER PLAN AND USE PERMIT AMENDMENTS**

APN's: 109-331-01, 109-141-20, 24, 25, & 54

Address: 2 School Way, Watsonville, CA 95076

Construction Phase 1: Construct new (replacement) middle school gym (approx. 14,000 sq ft) with bathrooms but no showers and 4 new (replacement for 2) classrooms with sinks (approx. 3,000 sq ft) on location of current JV softball field. Construct 6 new tennis courts (to replace 2 existing). Construct a new water tank of approx. 180,000 gal and a new fire hydrant to handle fire suppression for the new construction. (This is the current project) (See Phase 5 for relocation of JV softball field.)

Construction Phase 2: Demolition of old middle school gym, existing modular classrooms, & 2 tennis courts; construct a new chapel in the location of the demolished buildings. This chapel is to be used for school musical, performing arts and chapel programs only. Guests of the school may attend programs, such as parents. The chapel will not be rented out to the public. It is not a public performing arts center. It is a private chapel and performing arts venue for school use only. It is to be used for existing school functions which are now held in the large gym. The chapel will not intensify the school's uses. It will be approximately a 500 seat chapel, large enough for half the school to have chapel services at one time.

Construction Phase 3: Construct new music/performing arts classrooms near chapel (these classes are now held in the gym); convert existing weight room to Instrumental classroom and storage (also now done in the gym); Construct a new field house near football field (changing rooms for football players).

Construction Phase 4: Construct new replacement swimming pool, to be a competition size pool with bathroom facilities for sports complex: to serve baseball fields and tennis courts as well as swimming pool. Remove current swimming pool and use area as part of main campus quad. New pool will be constructed so as to be able to provide fire flow capacity, as did existing pool.

Construction Phase 5: Expand existing café seating and create student activity center next to existing cafeteria. Again, there will be no intensification of uses. The students now meet outdoors. Relocate JV softball field to near water tank.

Phases 2, 3, 4, and 5 are approximately located on the Master site plan but building plans are to be processed separately later as Level 4 applications.

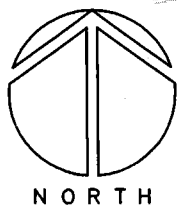
Requires a Master Plan Amendment and Amendments to existing Use Permits 95-0034, 96-0224, 01-0212, and 07-0468.

Construction Phase 1 also requires a Riparian Exception for construction of the new gym and classrooms within 100 feet of a pond. The new buildings are located plus 50 feet from the willows around the pond. Our reasons for this request are as follows: The use is an existing school and this location is already a disturbed site in that it has been a softball field for many years. This area was shown on the approved 1995 Master Plan as a school use area. We are not intensifying the school use, but this area is needed for buildings now. The school is approved for 1000 students, and we are not changing this number in this Master Plan Amendment. The pond is a man-made drainage pond and is part of the percolation drainage system for the school. It is aerated to keep down the algae. Please see accompanying red-legged frog assessment for the unlikelihood of red-legged frogs being there.

Construction of Phase 1 also requires an Agricultural Buffer setback reduction from 200 feet to 90 feet. The new courts are located as close to the rest of the existing sports fields as possible. There is no other good place for such a facility. The school proposes a solid fence with a double row of trees along the property line 90 feet away.

## MASTER PLAN TEAM CONTACT LIST

Steve Sharp, School Headmaster	Chief School Administrator	722-8178
Jimmie Brewer, Asst. to Headmaster	Internal Project Manager	768-6161
<b>Betty Cost, Planning Consultant</b>	<b>External Project Manager &amp; main contact for County planners</b>	<b>724-4597</b>
Wayne Johnson, Plant Manager	Construction Manager	722-8178 Ext. 164 (cell 750-2576)
Cheryl Sharp, Campus Décor Consultant	Décor Integrative Consultant	722-8178
Mike Bridgette, Surveyor	Topography & Site Map	722-5800
Steve Pollock, Theatrical and Audio Consultant	Chapel Interior Design	415-392-7528
Jeffrey Berg, Steinberg Architects	Chapel Architecture	408-817-3176
Brian Spector, WRD Architects	Gym and Classrooms drawings	649-4642 (cell 595-4784)
Todd Creamer & Dave Dauphin, C2G Engineers	Civil Engineering	438-4420
Jeff Martin, Steelhead Engineering	Structural Engineering	



*DRAWN: DD*  
*SHEET: 1 OF 2*

<b>Phase</b>	<b>ID #</b>	<b>Description</b>	<b>Size</b>	<b>Unit of measurement</b>
1	1	New Tennis Courts	39,960	Sq.Ft.
1	2	New Classroom Bldg	3,600	Sq.Ft.
1	3	New M.S. Gymnasium	14,250	Sq.Ft.
1	4	New J.V. Softball Field	31,000	Sq.Ft.
1	5	New Water Tank	192,000	Gallons
2	6	New Chapel / Perf. Arts	16,500	Sq.Ft.
3	7	Drama & Storage Room	3,150	Sq.Ft.
3	8	New Weight Room	7,300	Sq.Ft.
4	9	New Swimming Pool	14,000	Sq.Ft.
5	10	Expanded Café Seating	11,200	Sq.Ft.

#### MASTER PLAN SCHEDULE

##### PHASE 1 - (1 TO 2 YEAR CONSTRUCTION)

- NEW MIDDLE SCHOOL GYMNASIUM & CLASSROOM RELOCATION
- NEW TENNIS COURT RELOCATION & EXPANSION
- DOMESTIC WATER STORAGE IMPROVEMENTS
- NEW JV SOFTBALL FIELD

##### PHASE 2 - (2 TO 3 YEAR CONSTRUCTION)

- DEMOLITION OF EXISTING MIDDLE SCHOOL GYMNASIUM & REDIRECT ACCESS ROAD
- DEMOLITION OF EXISTING TENNIS COURTS
- DEMOLITION OF (E) PORTABLES
- NEW CHAPEL / PERFORMING ARTS BUILDING

##### PHASE 3 - (1 TO 2 YEAR CONSTRUCTION)

- CHOIR ROOM & INSTRUMENT ROOM IN CHAPEL / P. ARTS BLDG
- CONVERT EXISTING WEIGHT ROOM TO DRAMA / STORAGE ROOM
- NEW WEIGHT ROOM / FIELD HOUSE

##### PHASE 4 - (1 TO 2 YEAR CONSTRUCTION)

- REMOVE HOUSING AS NECESSARY
- (N) COMPETITION SWIMMING POOL AND POOL FACILITIES
- REMOVE (E) SWIMMING POOL AFTER CONSTRUCTION OF NEW COMPETITION SWIMMING POOL TO MAINTAIN APPROVED FIRE STORAGE

##### PHASE 5 - (1 TO 2 YEAR CONSTRUCTION)

- EXPANDED CAFE SEATING / ACTIVITY CENTER

#### MASTER PLAN GRADING QUANTITIES

PHASE	CUT	FILL
1	4882	6520
2*	850	200
3*	250	100
4*	620	500
5*	120	100
TOTAL	6,722	7,420

\* = QUANTITIES SHOWN ARE SCHEMATIC AND MAY VARY DURING THE DESIGN OF EACH PHASE.

ABOVE QUANTITIES REFLECT CHANGE IN EXISTING GRADE TO FINISH GRADE.

#### MASTER PLAN IMPROVEMENT SCHEDULE

MONTE VISTA CHRISTIAN SCHOOL  
 2 SCHOOL WAY, WATSONVILLE, CA

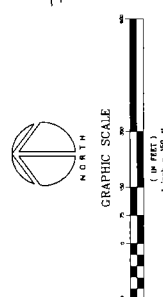
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SHEET 2 OF 2

APN 109-331-01



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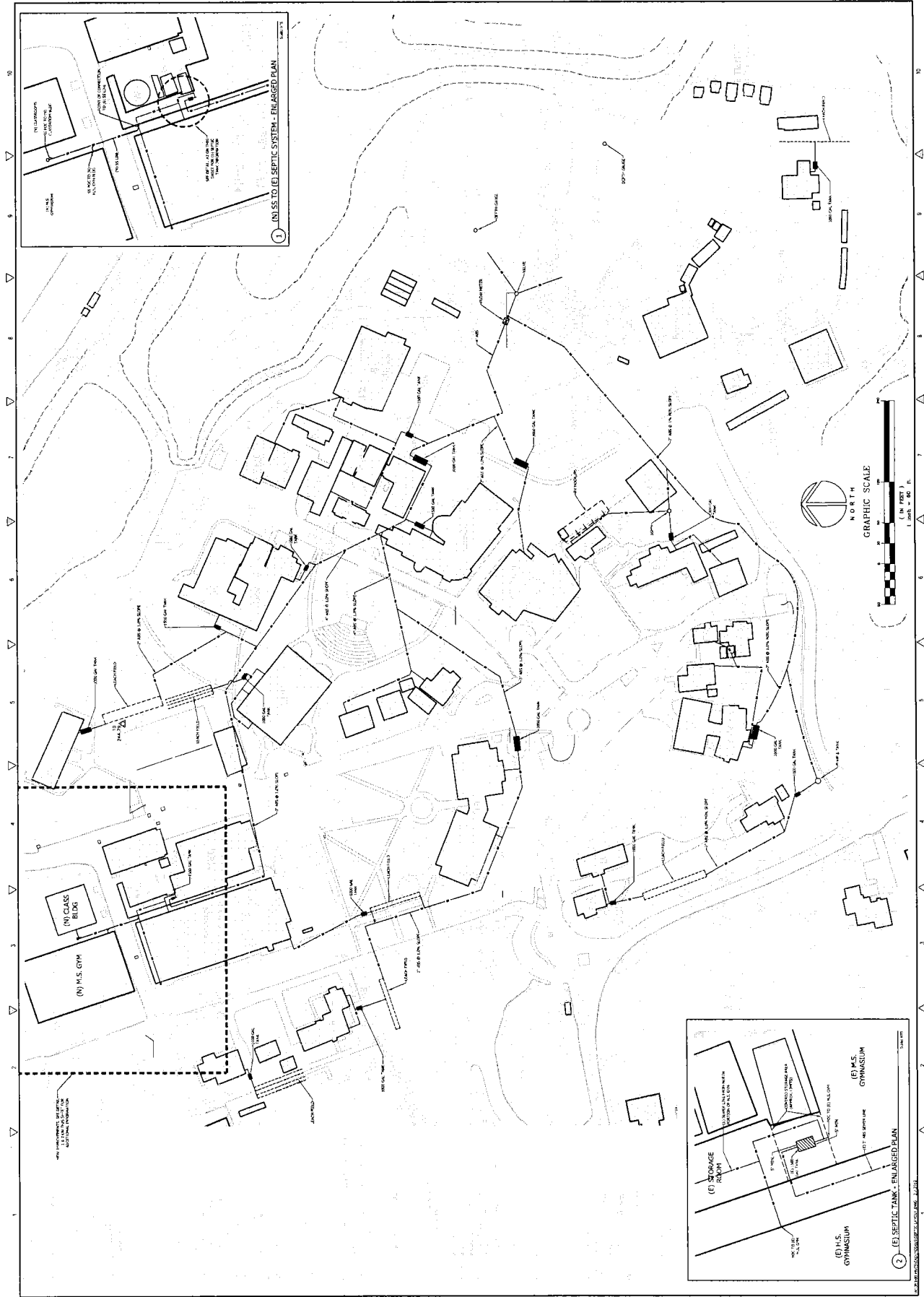
1005	-	EXISTING SLOPE LAYOUT
1010	-	TENNIS COURT - COVER SHEET
1101	-	TENNIS COURT - DEMOLITION PLAN
1111	-	TENNIS COURT - HORIZONTAL CONTROL PLAN
1121	-	TENNIS COURT - GRADING PLAN
1131	-	TENNIS COURT - CONSTRUCTION DETAILS
1301	-	GYM & CLASS - COVER SHEET
201	-	GYM & CLASS - DEMOLITION PLAN
211	-	GYM & CLASS - HORIZONTAL CONTROL PLAN
221	-	GYM & CLASS - CONSTRUCTION DETAILS

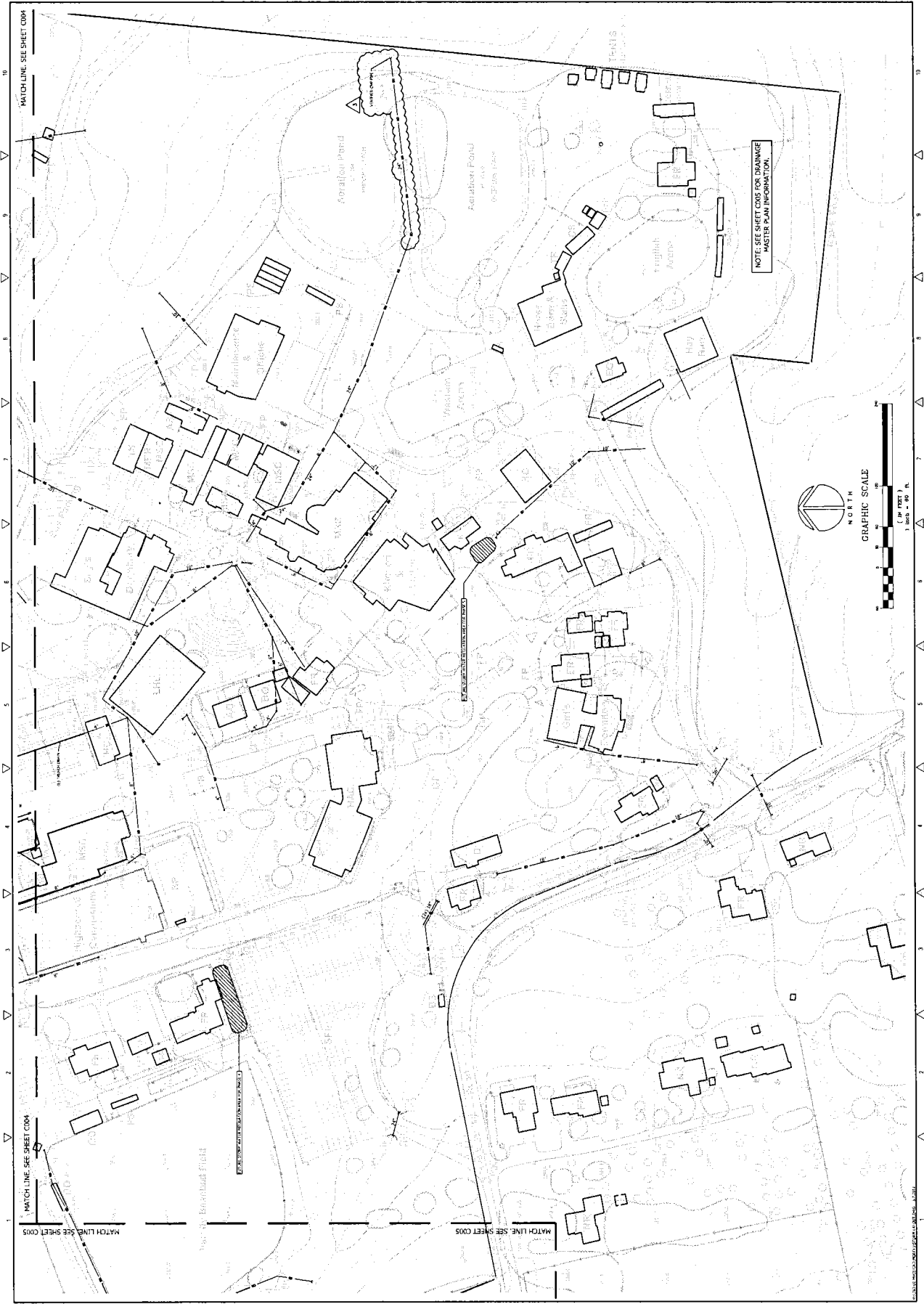
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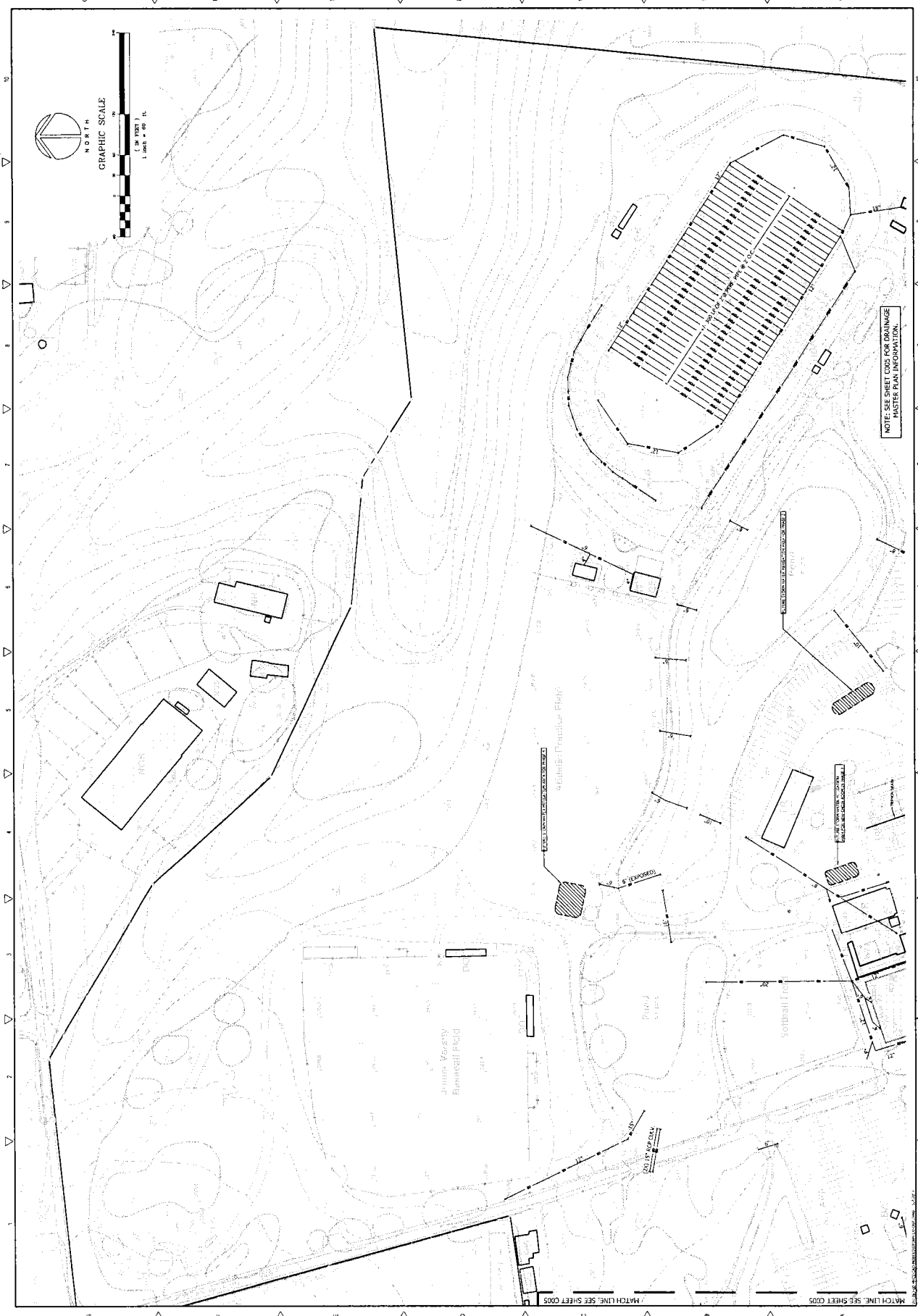
\*SANTA CRUZ COUNTY PARKING RATIO REQUIREMENTS\*

1000 STUDENTS	=	100 STALLS (0.1 STALL / STUDENT)
140 STAFF	=	42 STALLS (0.3 STALL / STAFF)
12 RESIDENCES	=	36 STALLS
178 STALLS REQUIRED (SEE TABLE ABOVE)		









**STORM WATER MITIGATION MEASURES FOR FUTURE PHASES OF THE MASTER PLAN**

**PHASE 2 DESIGNATED MITIGATION AREA**

- = 1% INfiltration SANDY LOAM
- = 2% INfiltration SANDY LOAM
- = MODERATELY HIGH (0.20 TO 0.57 IN/HR)
- = NONE
- = MORE THAN 50 FROM (E) LEACH FIELD
- = YES

**PHASE 3 DESIGNATED MITIGATION AREA**

- = 1% INfiltration SANDY LOAM
- = 2% INfiltration SANDY LOAM
- = MODERATELY HIGH (0.20 TO 0.57 IN/HR)
- = NONE
- = MORE THAN 50 FROM (E) LEACH FIELD
- = YES

**PHASE 4 DESIGNATED MITIGATION AREA**

- = 1% INfiltration SANDY LOAM
- = 2% INfiltration SANDY LOAM
- = MODERATELY HIGH (0.20 TO 0.57 IN/HR)
- = NONE
- = MORE THAN 50 FROM (E) LEACH FIELD
- = YES

**PHASE 5 DESIGNATED MITIGATION AREA**

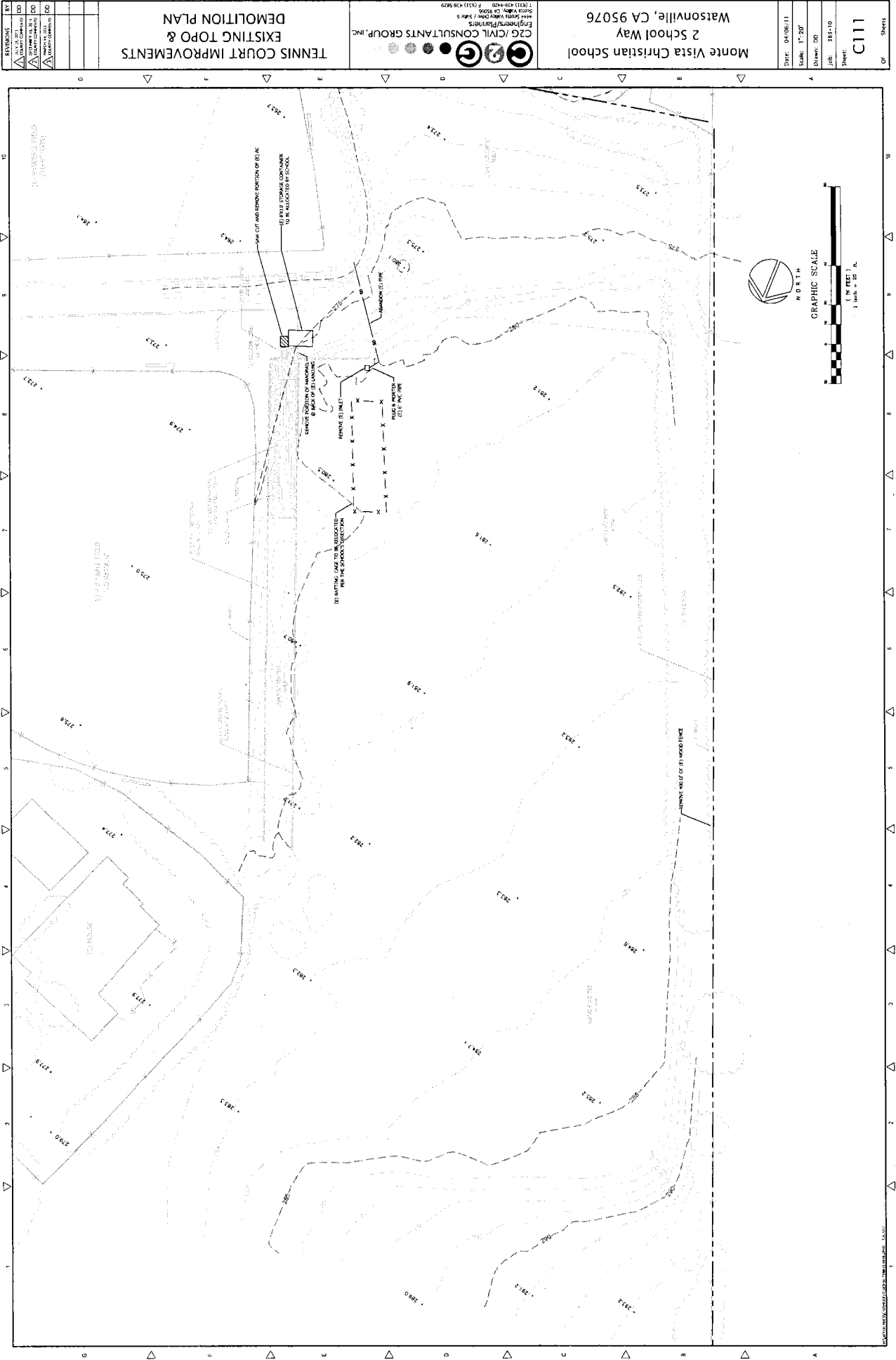
- = 1% INfiltration SANDY LOAM
- = 2% INfiltration SANDY LOAM
- = MODERATELY HIGH (0.20 TO 0.57 IN/HR)
- = NONE
- = MORE THAN 50 FROM (E) LEACH FIELD
- = YES

**IMPERVIOUS AREA CALCULATIONS**

THE FOLLOWING QUANTITIES FOR FUTURE PHASE IMPROVEMENTS ARE PRELIMINARY AND APPROXIMATE. THESE QUANTITIES ARE FOR REFERENCE ONLY.

PHASE #	DESCRIPTION	IMPERVIOUS ADD	IMPERVIOUS DEDUCT	TOTAL
PHASE 1	NEW MIDDLE SCHOOL GYMNASIUM AND WALLMOUNT	11,000		
	CLASSROOM RELOCATION	3,000		
	NEW TENNIS COURT RELOCATION & EXPANSION	985		
	DOMESTIC WATER STORAGE IMPROVEMENTS	1,440		
PHASE 2	ACCESSIBILITY IMPROVEMENTS		10,750	
	DEDUCTION OF EXISTING MIDDLE SCHOOL GYMNASIUM		17,436	
	DEDUCTION OF EXISTING TENNIS COURTS		12,483	
	RELOCATION OF 61 PORTABLE		3,945	
PHASE 3	NEW CHAPEL	16,000		
	CHURCH ROOM	8,265		
PHASE 4	CHURCH RELOCATION (RIGHT FROM TO EXISTING CHURCH ROOM)		10,665 S.F. OF ADDITIONAL IMPERVIOUS AREA	
	NEW WEIGHT ROOM - FIELD HOUSE	4,200		
PHASE 5	REMOVE CHURCH AS NECESSARY (IN COMPLETION SWIMMING POOL AND POOL REMOVAL)	13,750		
	REMOVE 61 SWIMMING POOL AND DECK AFTER CONSTRUCTION OF NEW SWIMMING POOL TO HAVE AN APPROVED FIRE STORAGE		8,771	
TOTAL IMPROVEMENTS TO BE DONE		65,000	65,000	0 ADDITIONAL IMP. AREA





0' 10' Sheets

Civil

Sheet

Job: 388-10

Drawn: DD

Scale: 1"=20'

Date: 04/06/11

Monte Vista Christian School  
2 School Way  
Watsonville, CA 95076

**CZG** CIVIL CONSULTANTS GROUP, INC.  
Engineers/Planners  
10000 N. Highway 101, Suite 100  
Watsonville, CA 95076  
Tel: (831) 838-4000 Fax: (831) 838-5829

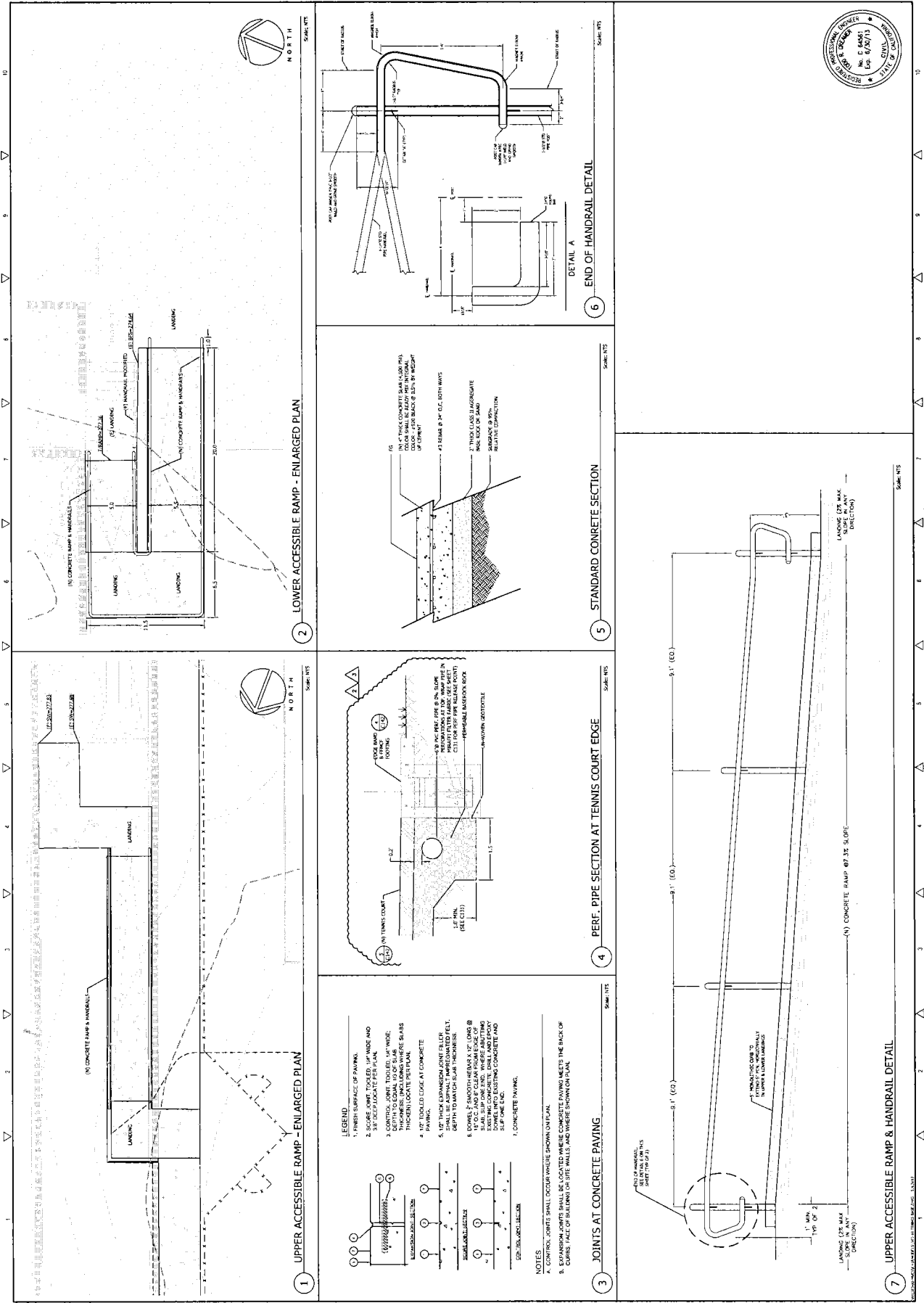
TENNIS COURT IMPROVEMENTS  
EXISTING TOPO &  
DEMOLITION PLAN

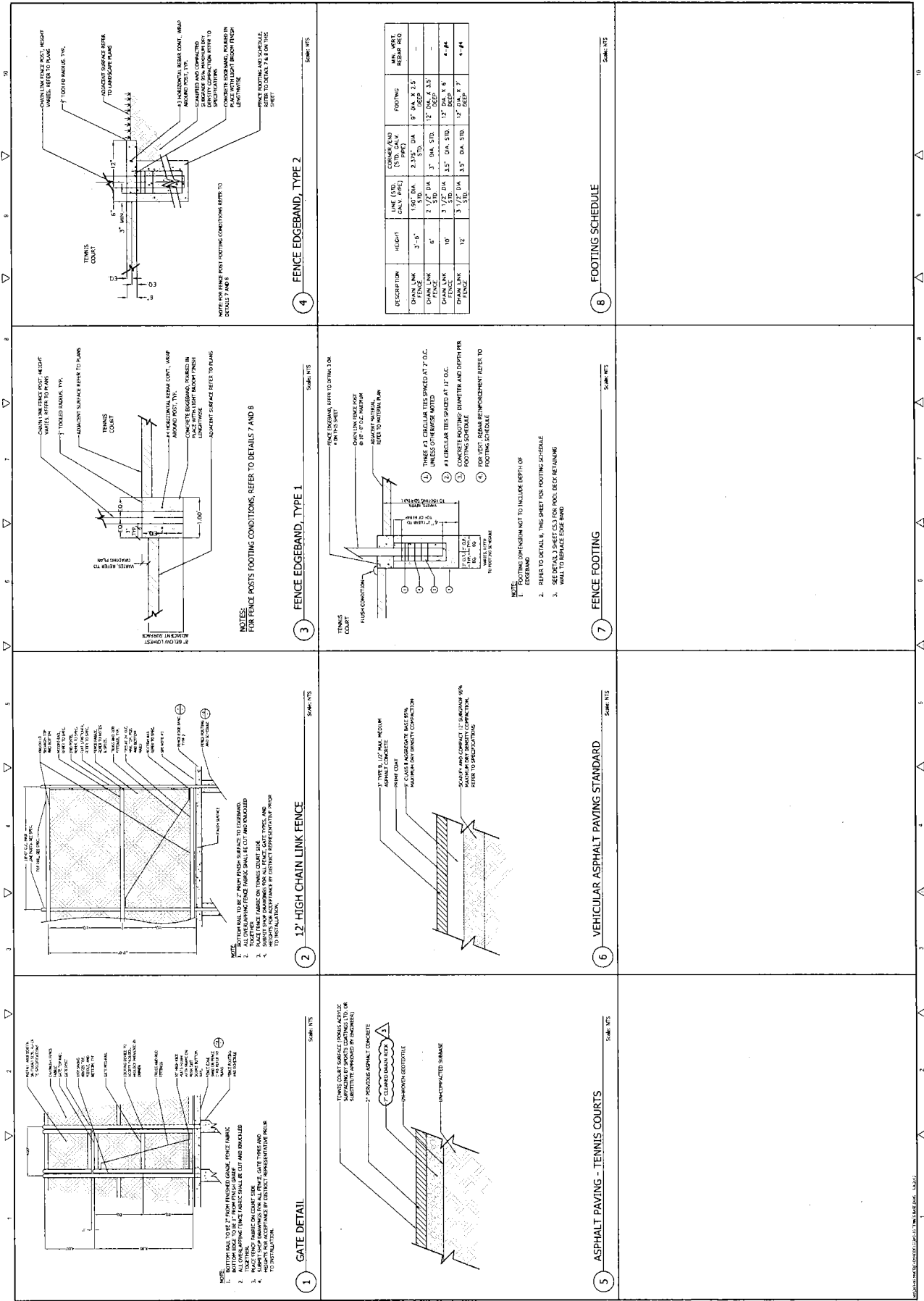
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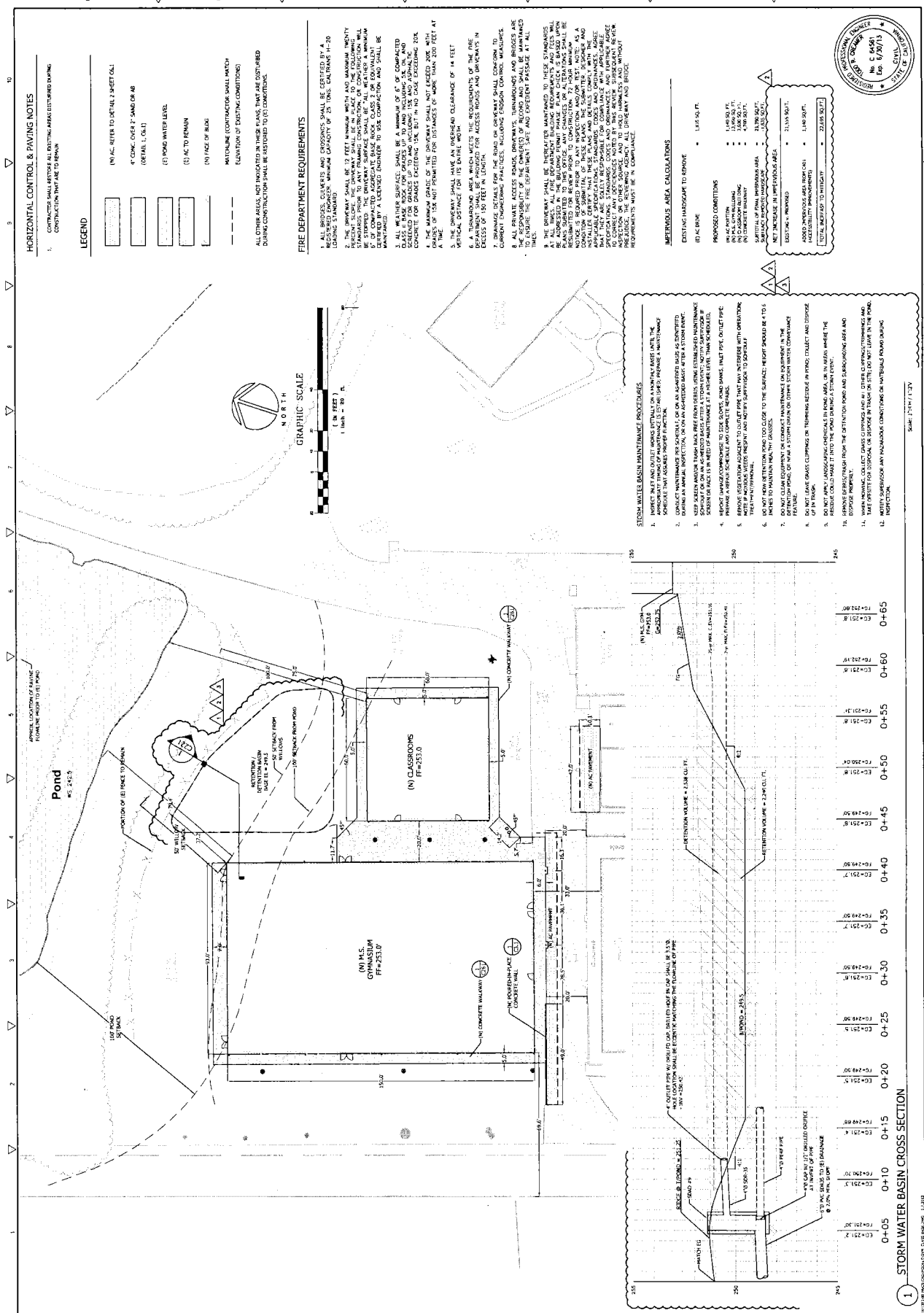


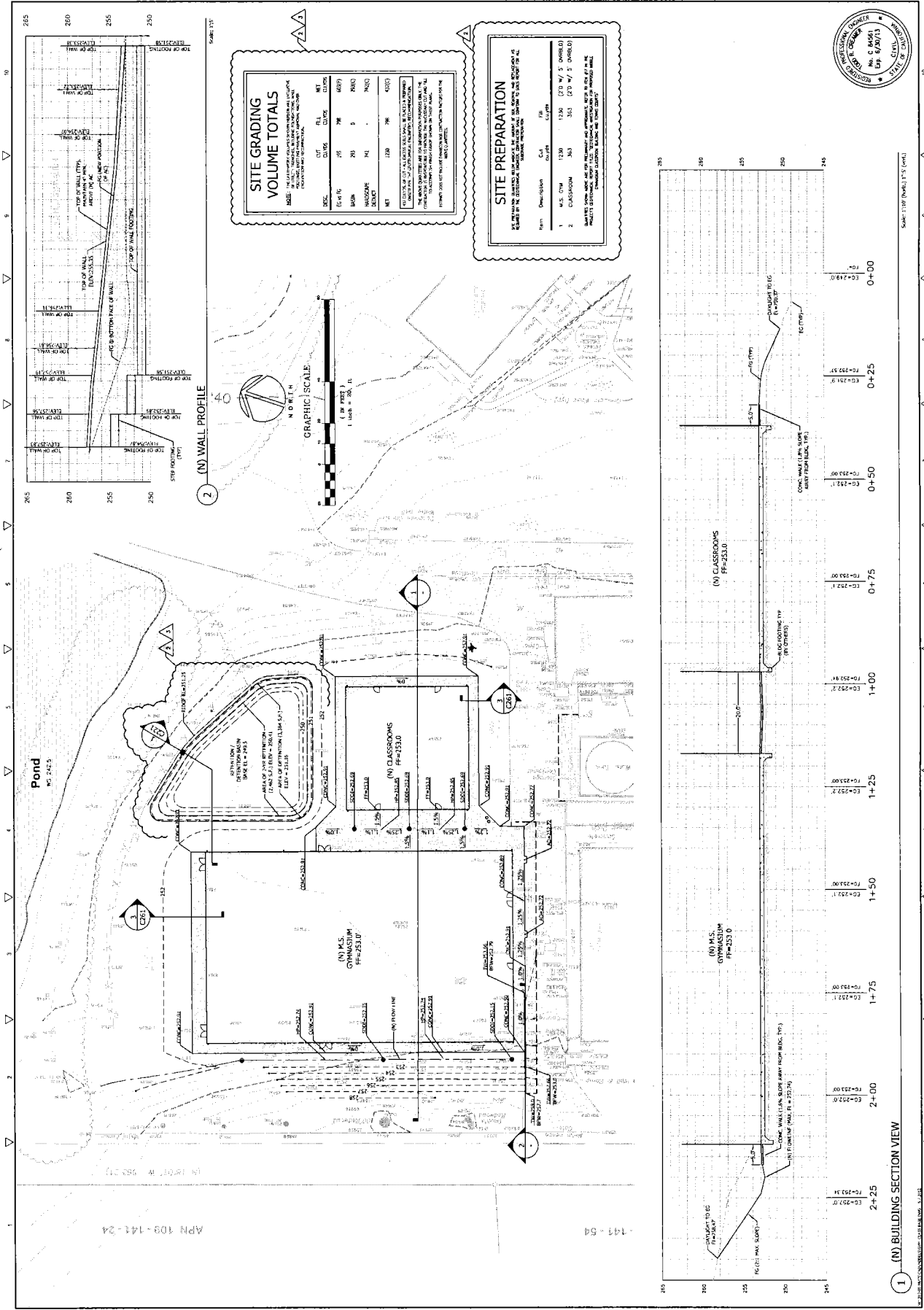




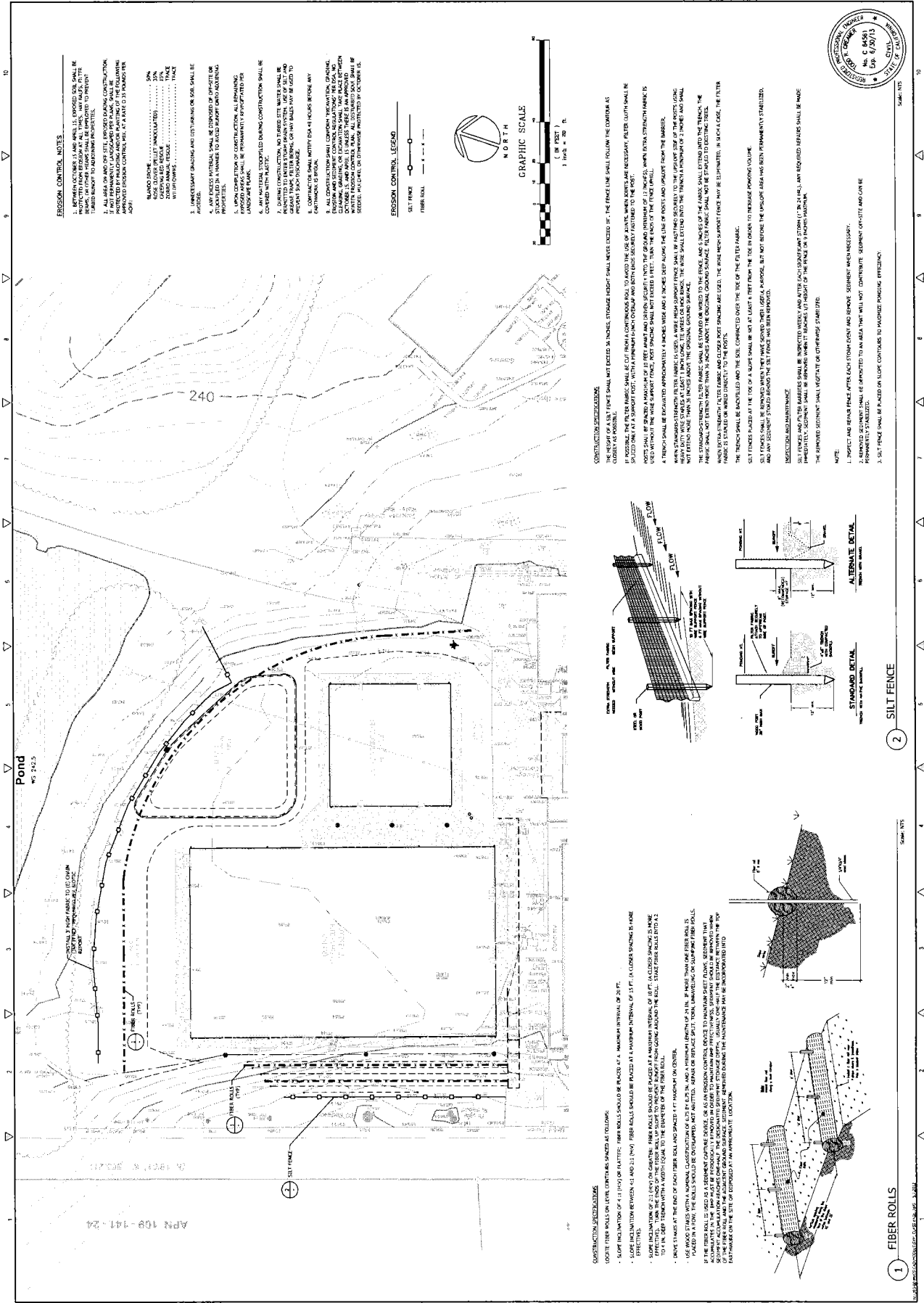




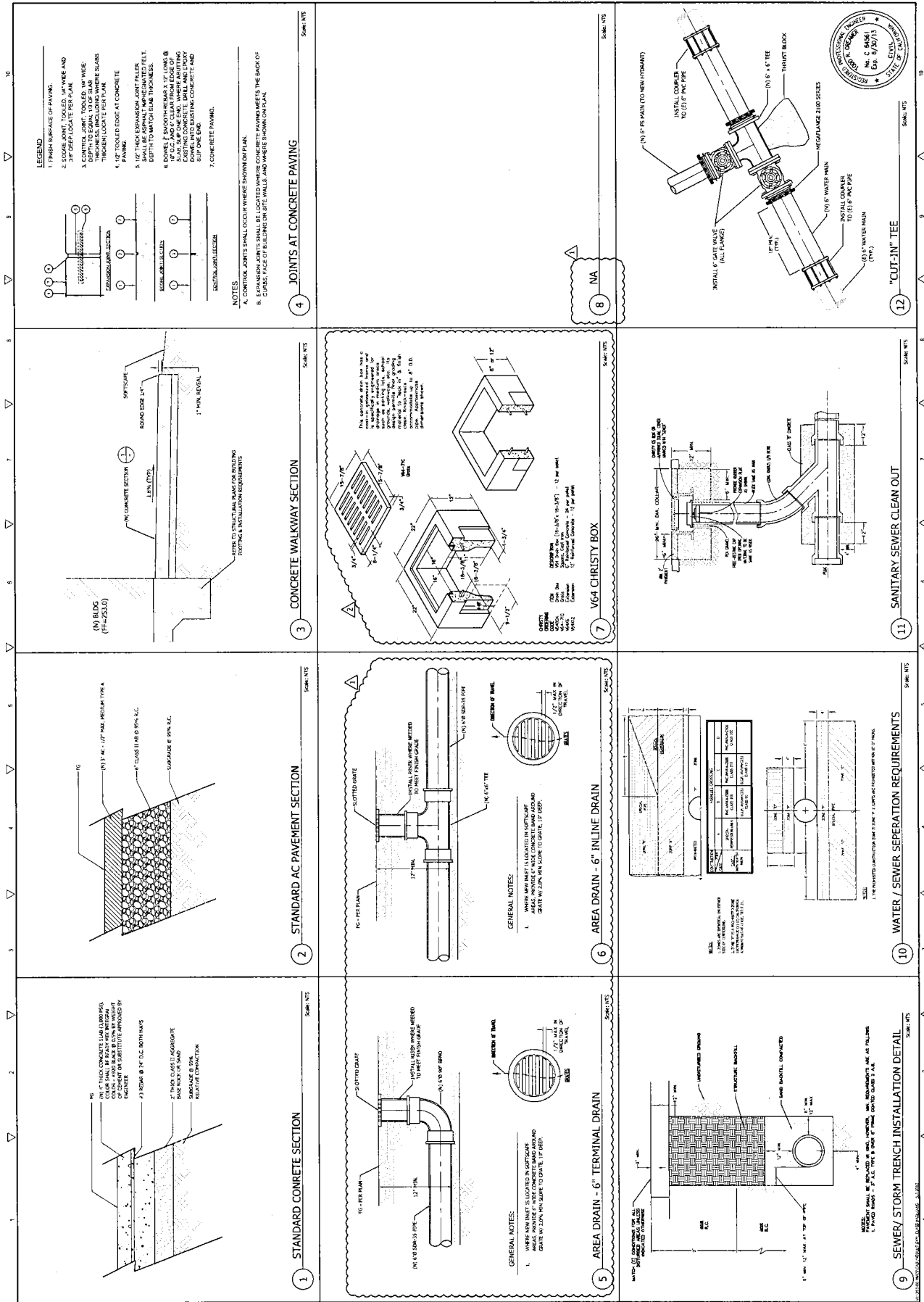


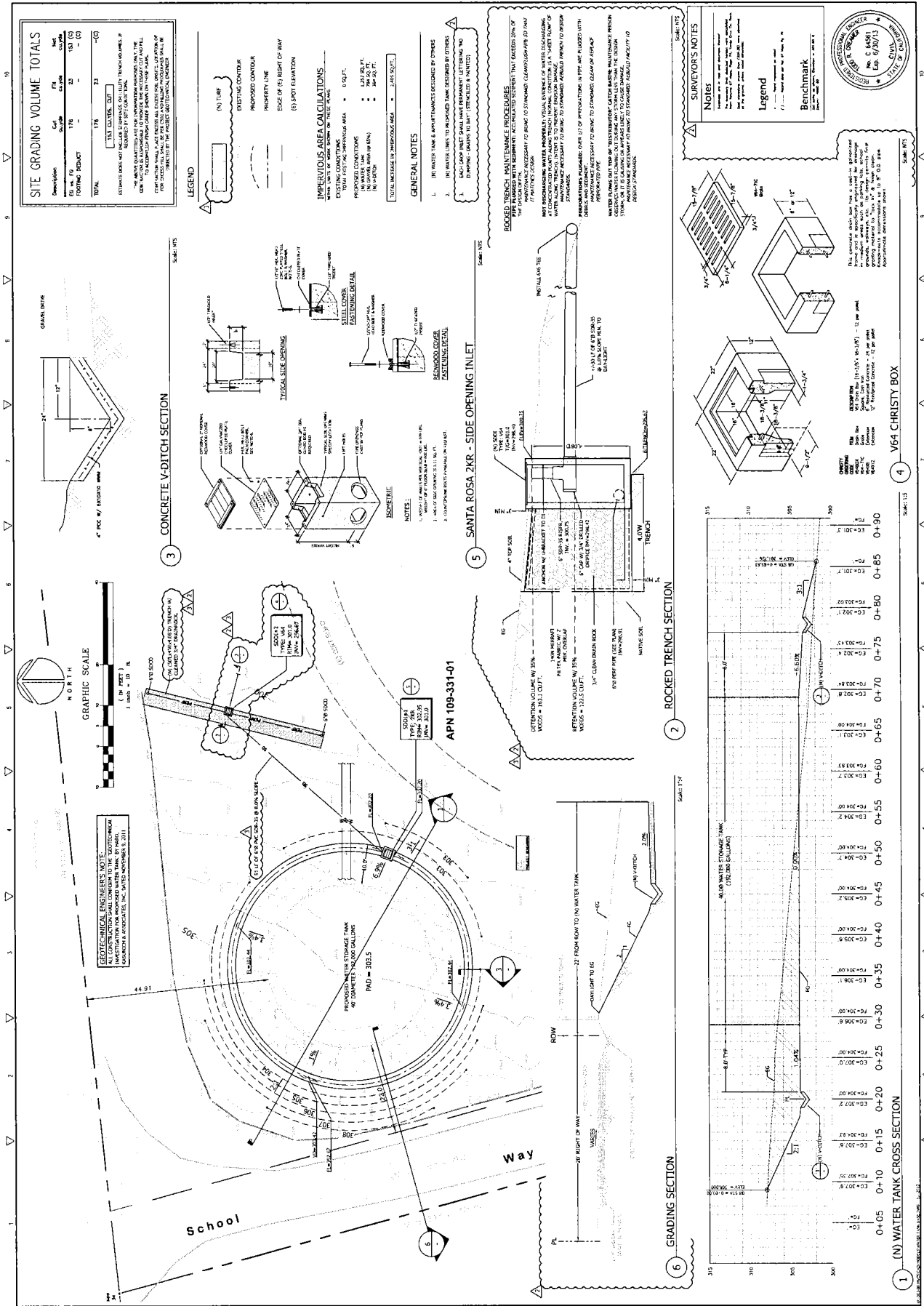












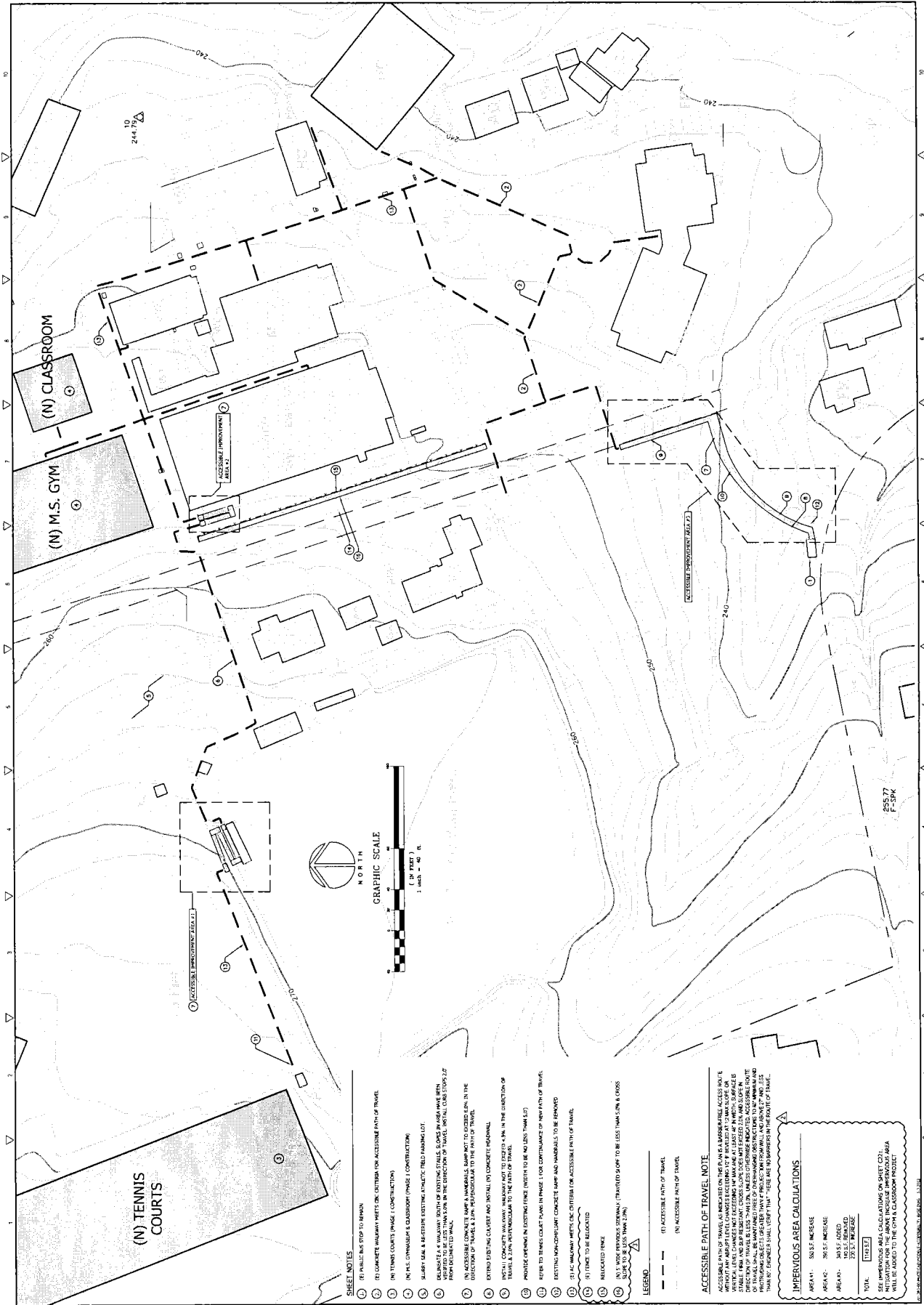
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5	DO	10/10/10

# ACCESSIBILITY PLAN



MONTE VISTA CHRISTIAN SCHOOL  
2 SCHOOL WAY  
WATSONVILLE, CA 95076

DATE	09/11/11
SCALE	NTS
DRAWN	DO
CHECKED	DO
DATE	10/10/10



- SHEET NOTES**
- (1) PUBLIC BUS STOP TO BE MOVED
  - (2) TO CONCRETE WALKWAY W/ 10' WIDE SIDEWALK ON ACCESSIBILITY PATH OF TRAVEL
  - (3) (N) TENNIS COURTS (PARKING) (CONSTRUCTION)
  - (4) (N) M.S. GYMNASIUM & CLASSROOM (PARKING) (CONSTRUCTION)
  - (5) SLURRY GROUT & REINFORCING EXISTING PAVED PARKING LOT
  - (6) DELINEATE A 4' WALKWAY SOUTH OF EXISTING STALLS. STALLS IN AREA HAVE BEEN DELINEATED BY A 4' WALKWAY SOUTH OF EXISTING STALLS. STALLS IN AREA HAVE BEEN DELINEATED BY A 4' WALKWAY SOUTH OF EXISTING STALLS.
  - (7) (N) ACCESSIBILITY CONCRETE RAMP & HANDRAILS. RAMP NOT TO EXCEED 8% IN THE DIRECTION OF TRAVEL & 4% PERPENDICULAR TO THE PATH OF TRAVEL
  - (8) EXISTING EXISTING CLAYEY AND INSTALL 10' CONCRETE HANDRAIL
  - (9) (N) CONCRETE WALKWAY W/ 10' WIDE SIDEWALK ON ACCESSIBILITY PATH OF TRAVEL
  - (10) PROVIDE FENCING IN EXISTING FENCE (FENCE TO BE NO LESS THAN 4' HGT)
  - (11) REFER TO TENNIS COURT PARKING IN PHASE 1 FOR CONTINUANCE OF NEW PATH OF TRAVEL
  - (12) EXISTING NON-CONCRETE RAMP & HANDRAILS TO BE REMOVED
  - (13) (N) ACCESSIBILITY CONCRETE RAMP & HANDRAILS TO BE REMOVED
  - (14) (N) FENCE TO BE RELOCATED
  - (15) RELOCATED FENCE
  - (16) (N) 5' WIDE SIDEWALK (FENCING) (TRAVEL) (TO BE LESS THAN 4' HGT & CROSS SLOPE TO BE LESS THAN 2%)

- LEGEND**
- (1) ACCESSIBILITY PATH OF TRAVEL
  - (2) ACCESSIBILITY PATH OF TRAVEL
  - (3) ACCESSIBILITY PATH OF TRAVEL

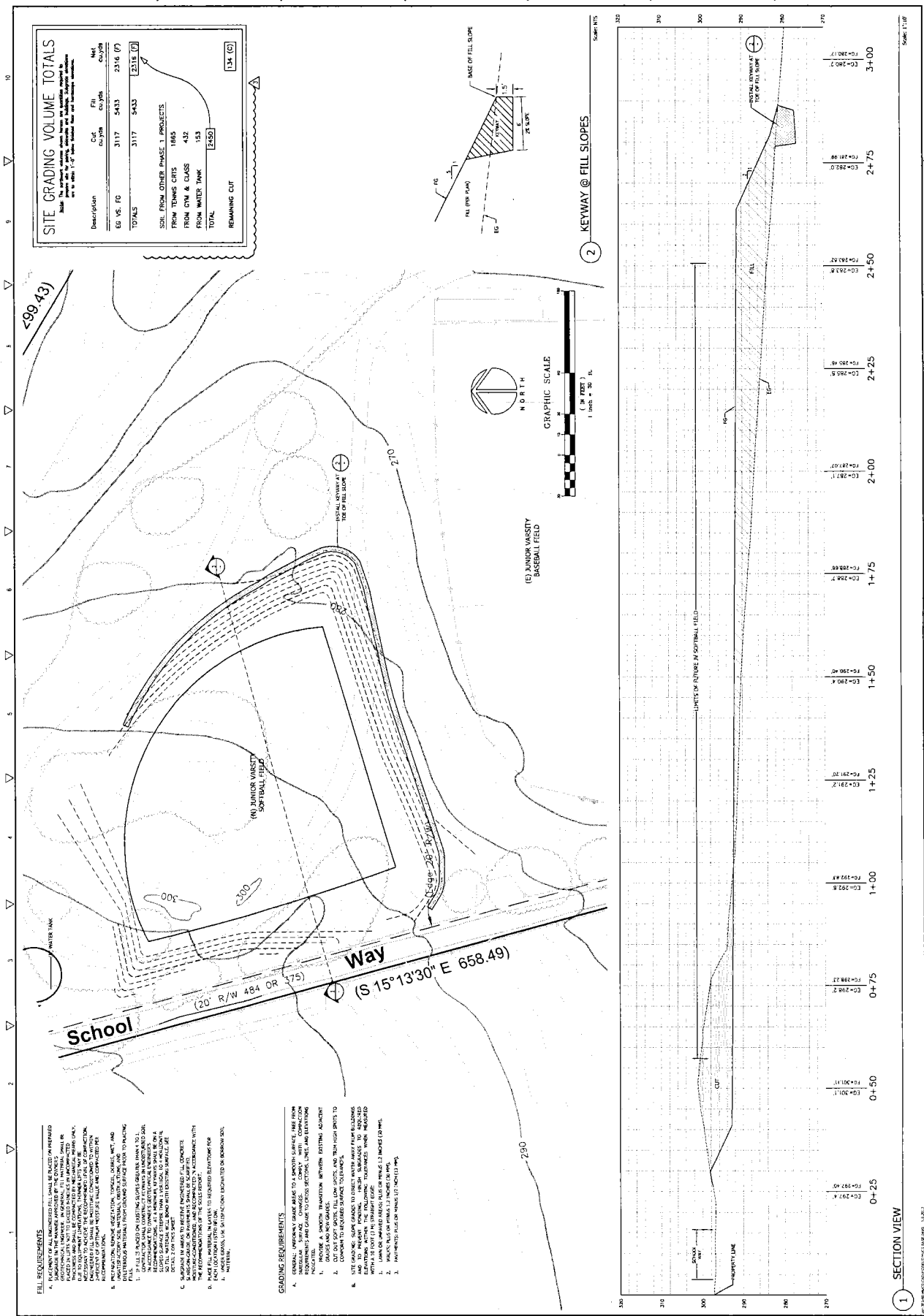
**ACCESSIBILITY PATH OF TRAVEL NOTE**

ACCESSIBILITY PATH OF TRAVEL AS INDICATED ON THE PLAN IS A BARRIER-FREE ACCESS ROUTE WITHOUT ANY ADJUSTABLE LEVEL CHANGES EXCEEDING 1/4" PER FOOT AT 12" MAX SLOPE OR 1/2" PER FOOT AT 6" MAX SLOPE. ACCESSIBILITY PATH OF TRAVEL AS INDICATED ON THE PLAN IS A BARRIER-FREE ACCESS ROUTE WITHOUT ANY ADJUSTABLE LEVEL CHANGES EXCEEDING 1/4" PER FOOT AT 12" MAX SLOPE OR 1/2" PER FOOT AT 6" MAX SLOPE. ACCESSIBILITY PATH OF TRAVEL AS INDICATED ON THE PLAN IS A BARRIER-FREE ACCESS ROUTE WITHOUT ANY ADJUSTABLE LEVEL CHANGES EXCEEDING 1/4" PER FOOT AT 12" MAX SLOPE OR 1/2" PER FOOT AT 6" MAX SLOPE.

**IMPERVIOUS AREA CALCULATIONS**

AREA	TYPE	AREA
AREA 1	ASPH/CON	701.57' INCREASE
AREA 2	ASPH/CON	101.15' INCREASE
AREA 3	ASPH/CON	101.15' INCREASE
AREA 4	ASPH/CON	101.15' INCREASE
AREA 5	ASPH/CON	101.15' INCREASE
AREA 6	ASPH/CON	101.15' INCREASE
AREA 7	ASPH/CON	101.15' INCREASE
AREA 8	ASPH/CON	101.15' INCREASE
AREA 9	ASPH/CON	101.15' INCREASE
AREA 10	ASPH/CON	101.15' INCREASE
AREA 11	ASPH/CON	101.15' INCREASE
AREA 12	ASPH/CON	101.15' INCREASE
AREA 13	ASPH/CON	101.15' INCREASE
AREA 14	ASPH/CON	101.15' INCREASE
AREA 15	ASPH/CON	101.15' INCREASE
AREA 16	ASPH/CON	101.15' INCREASE
AREA 17	ASPH/CON	101.15' INCREASE
AREA 18	ASPH/CON	101.15' INCREASE
AREA 19	ASPH/CON	101.15' INCREASE
AREA 20	ASPH/CON	101.15' INCREASE
AREA 21	ASPH/CON	101.15' INCREASE
AREA 22	ASPH/CON	101.15' INCREASE
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AREA 25	ASPH/CON	101.15' INCREASE
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AREA 29	ASPH/CON	101.15' INCREASE
AREA 30	ASPH/CON	101.15' INCREASE
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AREA 94	ASPH/CON	101.15' INCREASE
AREA 95	ASPH/CON	101.15' INCREASE
AREA 96	ASPH/CON	101.15' INCREASE
AREA 97	ASPH/CON	101.15' INCREASE
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AREA 100	ASPH/CON	101.15' INCREASE

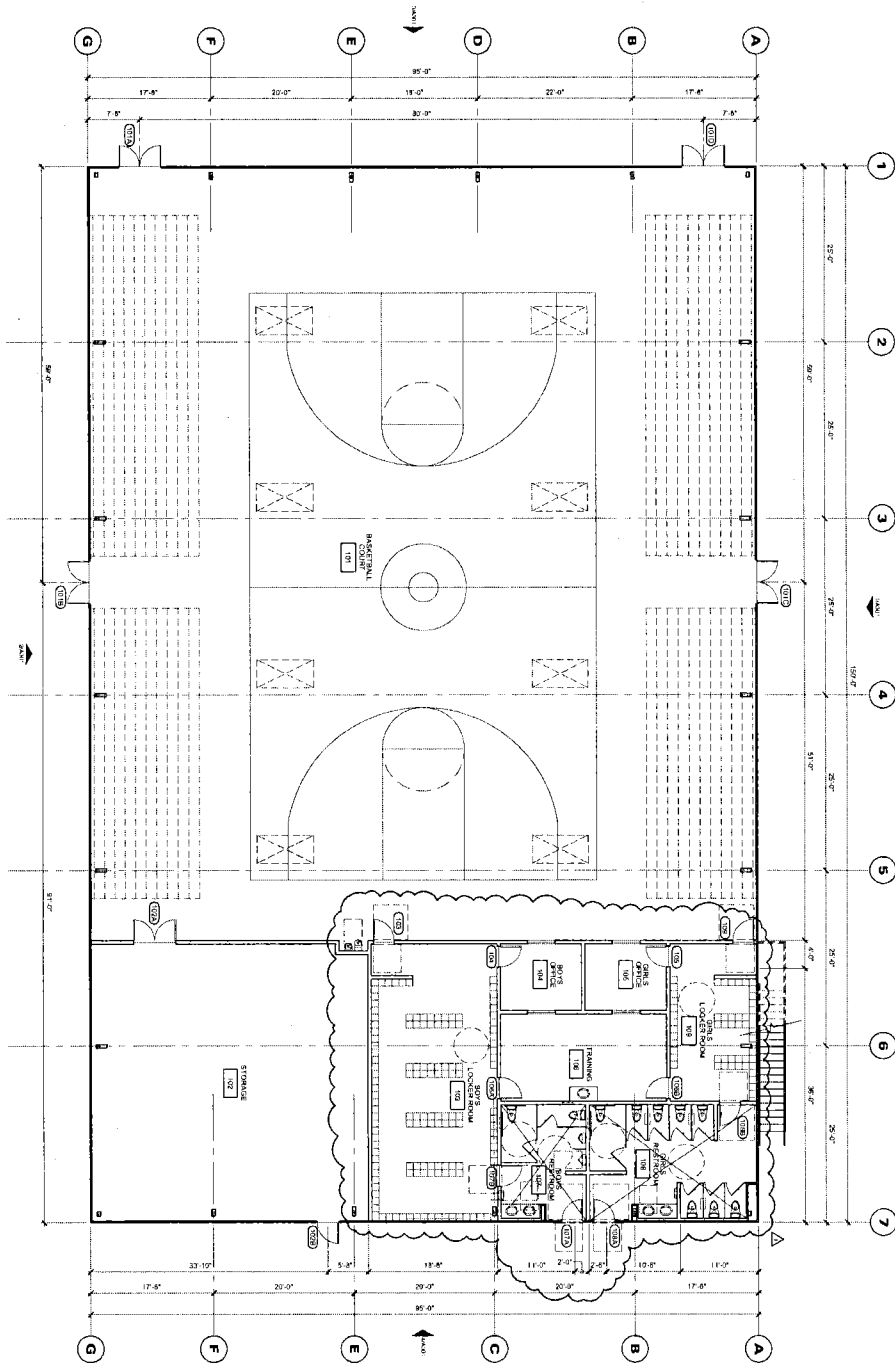
SEE IMPERVIOUS AREA CALCULATIONS ON SHEET 021.  
IMPERVIOUS AREA CALCULATIONS ON SHEET 021.  
IMPERVIOUS AREA CALCULATIONS ON SHEET 021.





GYMNASIUM FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"



MVC'S MIDDLE SCHOOL GYM AND CLASSROOM RELOCATION PROJECT

MONTER VISTA CHRISTIAN SCHOOL  
2 SCHOOL WAY  
WATSONVILLE, CALIFORNIA 95076

A.P.N. NO.:

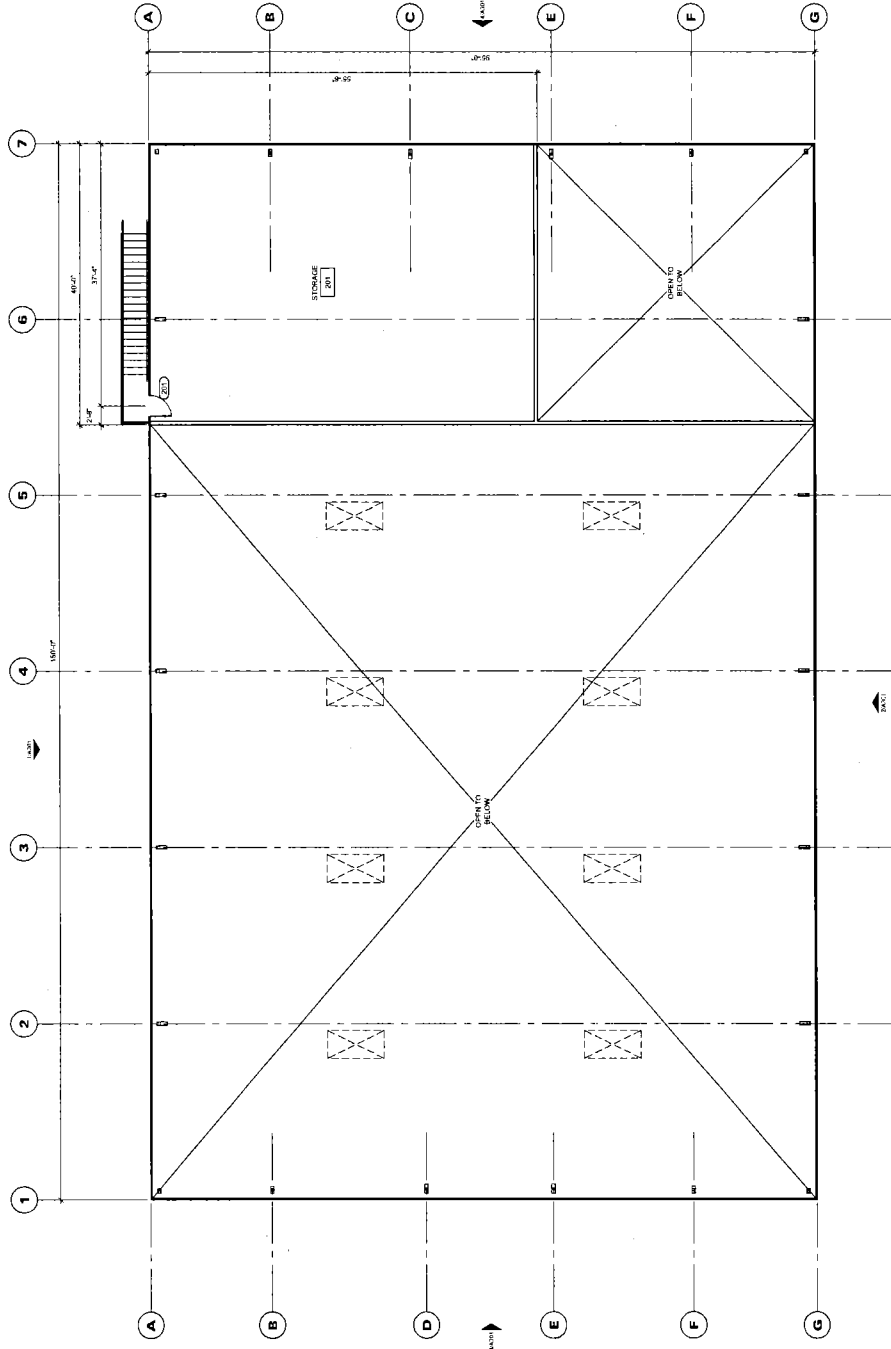
WALD PHINCE & DOD  
ARCHITECTS LLP  
2300 SANDHILL AVENUE, SUITE 100  
MENLO PARK, CALIFORNIA 94025  
PHONE: 650.321.4442  
FAX: 650.321.4443  
WWW.WALDPHINCE.COM

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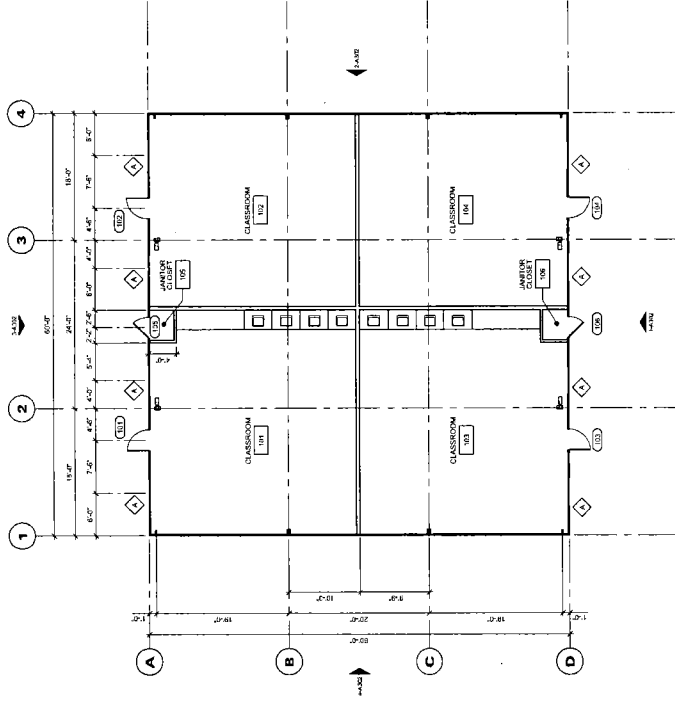
JOB NO.:  
11110  
PROJECT NAME:  
MVC'S MIDDLE SCHOOL GYM AND CLASSROOM RELOCATION PROJECT  
DATE:  
11/12/2011  
DRAWN BY:  
CHECKED BY:  
DATE:  
11/12/2011  
REVISIONS:  
1. 11/12/2011  
2. 11/12/2011

A201

FILE NAME: 11110.A201



**GYMNASIUM SECOND FLOOR PLAN**  
 SCALE: 1/8" = 1'-0"  
 PLAN NORTH



**CLASSROOM FLOOR PLAN**  
 SCALE: 1/8" = 1'-0"

**KEY NOTES**

1. ALL NOTES MAY NOT APPLY TO ALL DRAWINGS. REFER TO FOLLOWING SHEETS FOR NOTES THAT ARE APPLICABLE TO THESE DRAWINGS.

2. INDICATES 4" WIDE CEMENT PLASTER WALL PANELS.

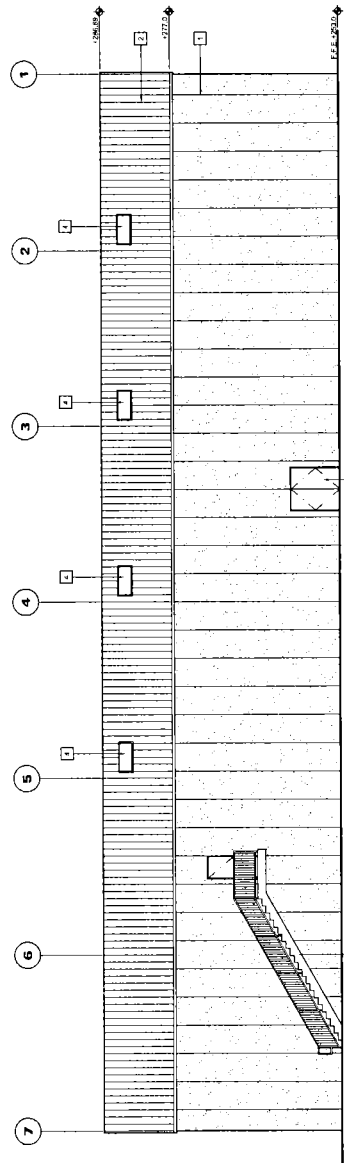
3. INDICATES METAL ROOF.

4. INDICATES NEW DOOR TYPE.

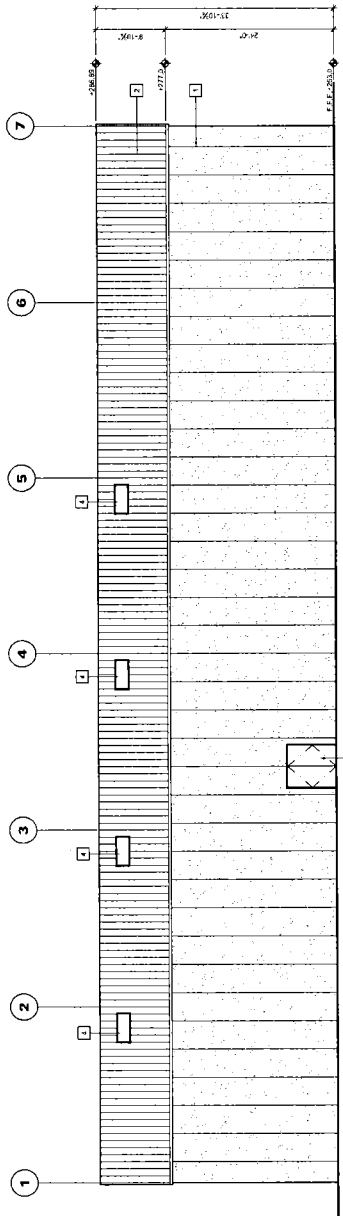
5. INDICATES NIGHT LIGHT TYPE.

6. INDICATES STAIR TYPE.

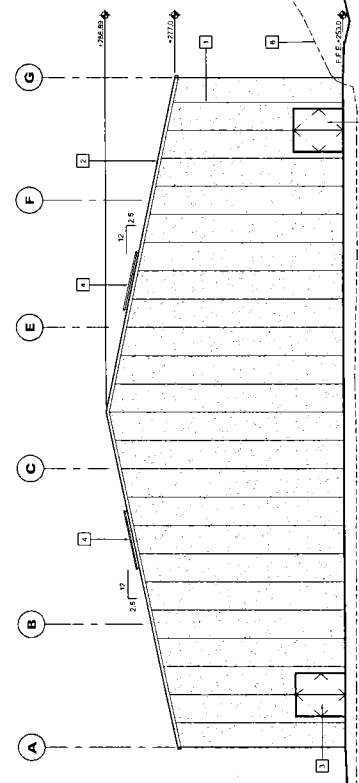
7. DASHED LINE INDICATES EXISTING GRADE.



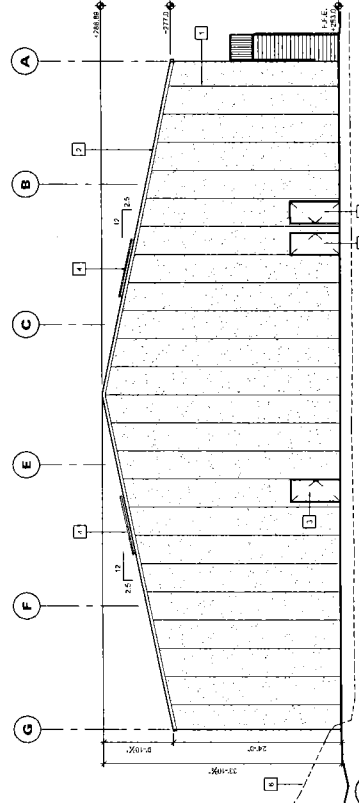
**1 EAST EXTERIOR ELEVATION**  
 SCALE: 1/8" = 1'-0"



**2 WEST EXTERIOR ELEVATION**  
 SCALE: 1/8" = 1'-0"



**3 NORTH EXTERIOR ELEVATION**  
 SCALE: 1/8" = 1'-0"



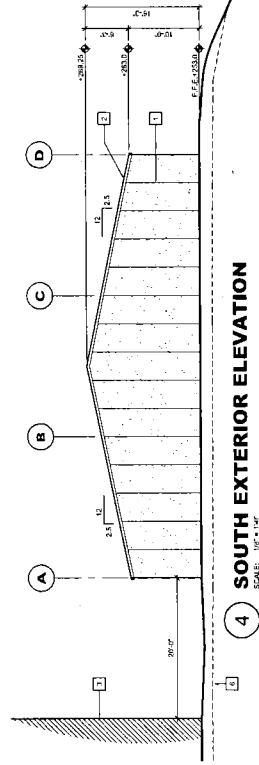
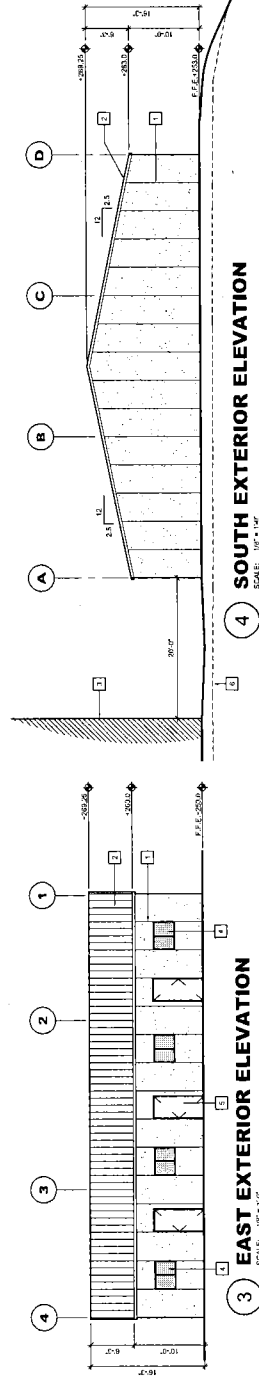
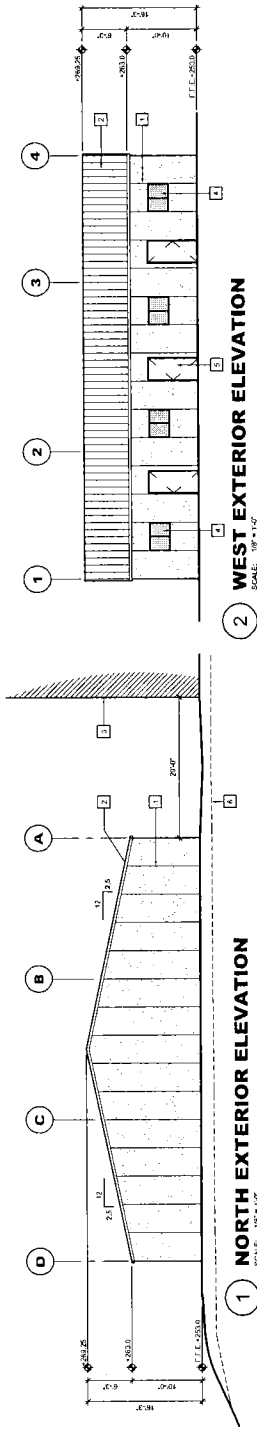
**4 NORTH EXTERIOR ELEVATION**  
 SCALE: 1/8" = 1'-0"



# KEY NOTES

THE KEY NOTES THAT FOLLOW APPLY TO THE DRAWINGS ON THIS SHEET ONLY. REFER TO FOLLOWING SHEETS FOR NOTES THAT ARE APPLICABLE TO THOSE DRAWINGS.

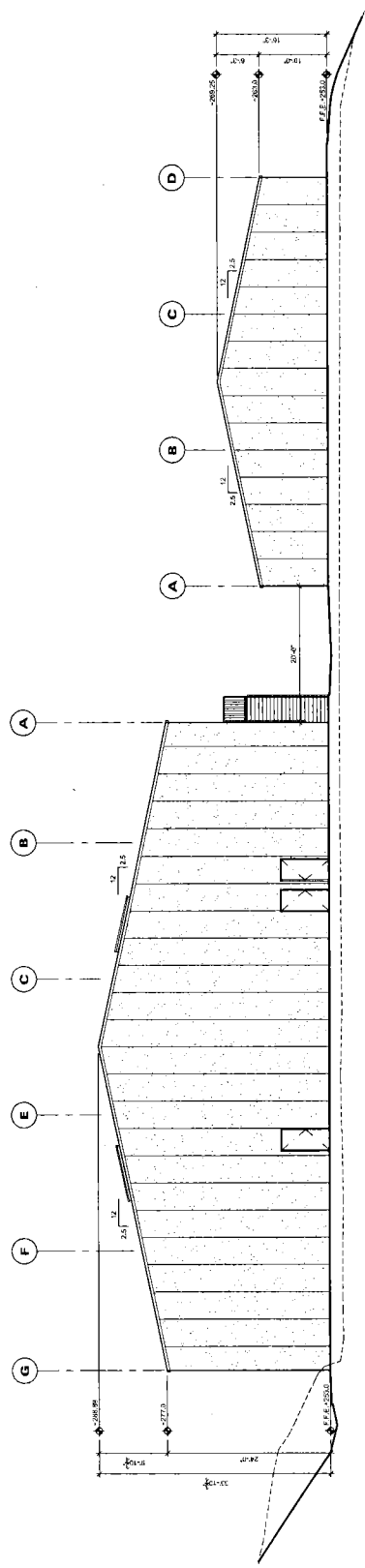
- 1 INDICATES CLUSTER ELEMENT PLASTER WALL PANELS.
- 2 INDICATES METAL ROOF
- 3 INDICATES GLAZED NEW CONCRETE
- 4 INDICATES NEW WINDOW, TYP.
- 5 INDICATES NEW DOOR, TYP.
- 6 DASHED LINE INDICATES EXISTING GRADE



2 WEST EXTERIOR ELEVATION  
 SCALE: 1/8" = 1'-0"

3 EAST EXTERIOR ELEVATION  
 SCALE: 1/8" = 1'-0"

4 SOUTH EXTERIOR ELEVATION  
 SCALE: 1/8" = 1'-0"



**1**  
**GYM & CLASSROOM**  
**COMPOSITE EXTERIOR ELEVATION**  
 SCALE: 1/8" = 1'-0"

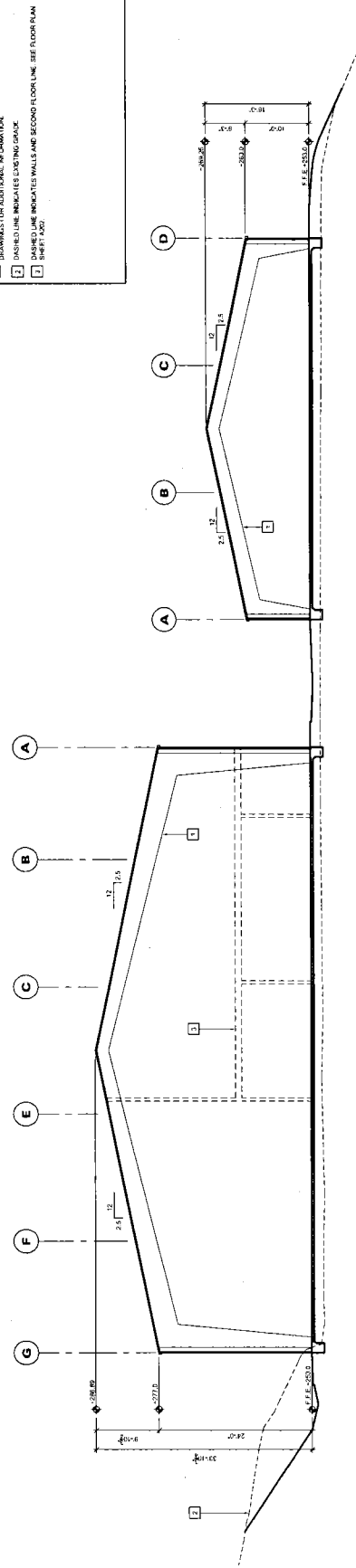
**KEY NOTES**

THE KEY NOTES THAT FOLLOW APPLY TO THE DRAWINGS ON THIS SHEET ONLY. REFER TO FOLLOWING SHEETS FOR NOTES THAT ARE APPLICABLE TO THOSE DRAWINGS.

1 INDICATES METAL BUILDING STRUCTURE. SEE GENERAL STEEL CORPORATION DRAWINGS FOR ADDITIONAL INFORMATION.

2 DASHED LINE INDICATES EXISTING GRADE.

3 DASHED LINE INDICATES WALLS AND SECOND FLOOR LINE. SEE FLOOR PLAN SHEET AND.



**2**  
**GYM & CLASSROOM**  
**COMPOSITE BUILDING SECTION**  
 SCALE: 1/8" = 1'-0"

Project No. SC10077.1  
3 May 2012

MONTE VISTA CHRISTIAN HIGH SCHOOL  
c/o Betty Cost Planning & Permit Services  
P. O. Box 355  
Aromas, California 95004

Attention: Betty Cost

Subject: Focused Fault Lineation Study

Reference: Proposed New Water Tank  
Monte Vista Christian School  
2 School Way, Watsonville, CA 95076  
Santa Cruz County, California

Dear Ms. Cost:

At your request we conducted a lineation study to evaluate geologic faulting in the vicinity of the proposed new gymnasium and classroom building at Monte Vista Christian School and presented a report entitled "Focused Fault Lineation Study". The purpose of this investigation was to evaluate the potential for ground rupture at the new gymnasium and classroom building sites from fault movement caused by future tectonic movement along geologic faults that exist in the vicinity of the referenced property (Monte Vista Christian School).

Subsequent to preparation of that report, you requested that we address the potential for faulting at a new proposed water tank at the northwestern corner of the campus. You provided a copy of a letter from Joe Hanna of the Santa Cruz County Planning Department indicating that they require an "engineering geologist shall confirm in writing that the tank construction site is not located on the surface trace of a fault".

This letter report is focused on fulfilling this requirement.

Our scope of work included:

- 1) Review of our files and prior geotechnical and geologic work at the site.
- 2) Preparation of this report and accompanying graphics

Our firm prepared a geotechnical report for the water tank site dated 9 November 2011. The attached site location map (Figure 1) and the boring site plan (Figure 2) from that report document the location of the proposed water tank. Our October 21, 2011 "Focused Fault Lineation Study" for the proposed new gymnasium and classroom building at Monte Vista showed aerial photo lineations and suspected fault traces in the area of Monte Vista Christian School. That photo has been modified to show the proposed water tank location (see Figure 3). Immediately northeast of the proposed water tank site a well delineated air photo lineation exists, and this lineation is mapped as a fault trace on the 1974 Santa Cruz County Fault Map by Hall and Others. This fault trace is in the axis of a drainage and trends North 58 degrees East.

Fault traces are often complex ruptures in the earth surface that have shearing some distance to either side of the central alignment of the fault trace. In order to evaluate whether fault traces exist at the ground surface at the proposed water tank construction site, we performed a subsurface investigation.

Our subsurface investigation involved excavation of a 5 to 6 foot deep exploratory trench just to the southeast of the proposed tank site. The trench was 65 feet long and was oriented perpendicular to the trend of the adjacent mapped fault trace.

Mark Foxx, an Engineering Geologist employed by our firm scraped the wall of the trench to remove the earth materials that were smeared by the excavation process and examined the cleaned exposures. Native earth materials consisting of soils and Aromas Formation earth materials (clayey silts and sands) were exposed and inspected for evidence of ground rupture from faulting. No open voids, in-filled ground cracks, or displaced soil horizons were observed. Figure 4 is a diagram of the exploratory trench showing our observations of the earth materials.

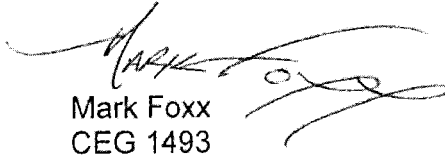
Based on our investigation, it is our opinion that the tank construction site is not located on the surface trace of a fault. In our opinion, there is not a significant hazard to the proposed water tank from fault-generated ground rupture under the tank.

Monte Vista Christian High School  
Project No. SC10077.1  
Proposed New Water Tank  
3 May 2012  
Page 3

If you have any questions, please call our office.

Respectfully Submitted,

**HARO, KASUNICH AND ASSOCIATES, INC.**

  
Mark Foxx  
CEG 1493

MF/dk  
Copies: 4 to Addressee  
1 to Addressee

**References**

Hall, N.T., Sarna-Wojcicki, A.M., and Dupré, W.R., 1974, Faults and their potential hazards in Santa Cruz County, California: U.S. Geological Survey Miscellaneous Field Studies Map MF-626, scale 1:62,500.

**Attachments:**

Figure 1: Site Location Map

Figure 2: Boring Site Plan Showing Exploratory Fault Trench Location

Figure 3: Aerial Photograph Showing Air Photo Lineations, Mapped Fault Traces, and Proposed Water Tank Location

Figure 4: Exploratory Fault Trench Diagram

# PROPOSED WATER TANK SITE

**SITE LOCATION MAP  
PROPOSED WATER TANK  
MONTE VISTA CHRISTIAN SCHOOL**

**HARO, KASUNICH AND ASSOCIATES, INC.**  
CONSULTING CIVIL, GEOTECHNICAL & COASTAL ENGINEERS  
116 EAST LAKE AVE., WATSONVILLE, CA 95076 (831) 722-4175

Date	5-1-2012
Scale	1"=500'
Drawn	MJF
Job	

### FIGURE 1

REVISIONS	BY



0 600 1200  
1"=600 FEET

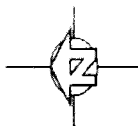


FIGURE 3

2011

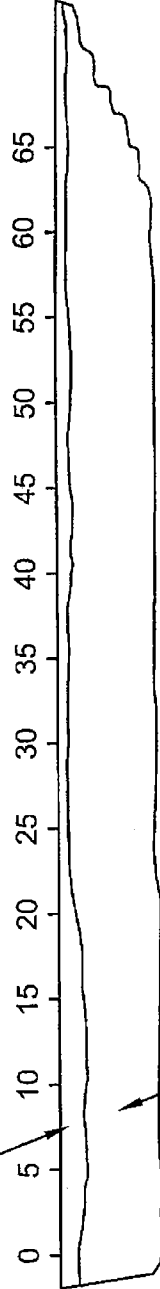




MONTE VISTA CHRISTIAN SCHOOL  
WATER TANK SITE  
EXPLORATORY GEOLOGIC TRENCH  
HARO KASUNICH AND ASSOCIATES, INC.  
GEOLOGIST: MARK FOXX

———— S 32 W ————

DARK REDDISH BROWN  
CLAYEY FINE SAND (TOPSOIL).  
GROUND SURFACE HAS BEEN  
SCRAPED



MOTTLED TAN, ORANGE BROWN SANDY CLAY AND CLAYEY SAND WITH ROUNDED TO SUB ANGULAR PEBBLES AND SEDIMENTARY CLASTS. FLUVIAL OR ALLUVIAL DEPOSITS THAT ARE DEEPLY WEATHERED. ISOLATED CHANNEL DEPOSITS CONSISTING OF SAND LENSES AND CLAY LAYERS ARE PRESENT. EARTH MATERIALS ARE CONSOLIDATED AND TIGHT. TRENCH WALLS STAND VERTICALLY AND REQUIRED VIGOROUS SCRAPING TO EXPOSE CLEAN SURFACES UNDISTURBED BY EXCAVATION. NO VOIDS OR GROUND CRACKS WERE PRESENT. NO EVIDENCE OF HISTORICAL CRACKING OR GROUND RUPTURE WAS OBSERVED.

3-29-2012  
1" = 10' H = V

REVISIONS	BY
<p>EXPLOATORY GEOLOGIC TRENCH PROPOSED WATER TANK MONTE VISTA CHRISTIAN SCHOOL</p>	
<p>HARO, KASUNICH AND ASSOCIATES, INC. CONSULTING CIVIL, GEOTECHNICAL &amp; COASTAL ENGINEERS 116 EAST LAKE AVE., WATSONVILLE, CA 95076 (831) 722-4175</p>	
Date	5-1-2012
Scale	1"=10' H=V
Drawn	J/F
Job	
FIGURE 4	

Project No. SC10077  
5 April 2011

MS. BETTY COST  
P.O. Box 355  
Aromas, California 95004

Subject: Geotechnical Investigation

Reference: Proposed Middle School Gymnasium  
Classroom Building and Tennis Courts  
Monte Vista Christian School  
2 School Way  
Watsonville, California

Dear Ms. Cost:

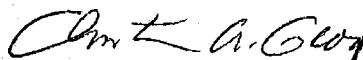
In accordance with your authorization, we have performed a Geotechnical Investigation for the proposed Middle School Gymnasium, Classroom Building and Tennis Courts project at the referenced site in Watsonville, California.

Based on the results of our investigation, the proposed project is acceptable from a geotechnical standpoint provided the design criteria and recommendations presented in this report are incorporated into the design and construction of the proposed project.

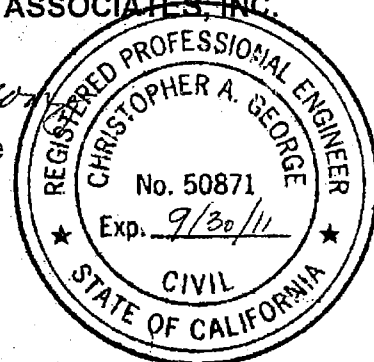
The accompanying report presents our results, conclusions and recommendations. If you have any questions concerning this report, please contact our office.

Very truly yours,

HARO, KASUNICH & ASSOCIATES, INC.



Christopher A. George  
C.E. 50871



CAG/sr

Copies: 4 to Addressee  
1 to C2G

## GEOTECHNICAL INVESTIGATION

### Introduction

This report presents the results of our Geotechnical Investigation for a proposed Middle School Gymnasium, Classroom Building and Tennis Courts project at Monte Vista Christian School (MVCS) in Watsonville, California (see Figure 1 in Appendix A). The buildings will be situated on a baseball field north of the existing gymnasium on the MVCS Campus. The tennis courts will be constructed on the west portion of the property.

A Topographic Map of the MVCS Campus (Sheet 1 of 3), dated September 2010, and Schematic Plans for the Gym and Classroom Site and Tennis Court Site, dated 2 December 2010, were prepared by C2G. We used the Topographic Map as the base for our Boring Site Plans (see Figure Nos. 2 and 3 in Appendix A). Site descriptions, distances, elevations, and gradients discussed in this report are based on a site visit by the engineer and review of the Site Plan, and maps and reports in our files.

At the time this report was prepared, building and grading plans had not been developed. We should review the project plans prior to construction to evaluate if the geotechnical criteria and recommendations presented were properly interpreted and implemented and determine if this report is adequate and complete for proposed grading and construction.

### **Purpose**

The purpose of our investigation was to explore and evaluate the soil conditions at the site and provide geotechnical criteria and recommendations for design and construction of the proposed school expansion project.

### **Scope of Work**

The specific scope of our services was as follows:

1. Site reconnaissance and review of available data in our files regarding the site and vicinity.
2. A field exploration program at the Gymnasium and Classroom Building site consisting of logging and interval sampling of soil encountered in eight (8) continuous flight-augered borings drilled from 11.5 to 31.5 feet deep. Three hand-augered borings from 7 to 10 feet deep were also drilled at the Tennis Courts site. The soil samples obtained were sealed and returned to the laboratory for testing.
3. Laboratory testing and classification of selected samples were performed to determine pertinent engineering properties required for our analyses. Moisture content and dry density tests were performed to evaluate the consistency of the in situ soils. Grain size analysis and Atterberg Limits tests were performed to aid in

soil classification and evaluate the soil plasticity and expansion potential. Direct Shear tests were performed to evaluate soil shear strength.

4. Engineering analysis and evaluation of the resulting field and laboratory test data. Based on our findings we developed geotechnical design criteria for site grading, foundations, retaining walls, slabs-on-grade, site drainage and erosion control.
5. Preparation and submittal of this report presenting the results of our investigation.

#### **Site Location and Conditions**

Monte Vista Christian School is located at 2 School Way, about ½ mile east of the intersection of Wheelock Road and Green Valley Road in Watsonville, California (see Figure 1 in Appendix A).

The proposed new Middle School Gymnasium and Classroom Building will be located on a level area presently used as a baseball playing field on the north side of the existing Gymnasium. The field has a grass outfield and a granite sand infield and is bordered by a small chain link fence.

The site is bordered to the west by a gentle slope ascending to School Way, a paved road about 40 feet from the proposed Middle School Gymnasium. A small retaining wall

supports the toe of the south end of the slope. On the east side of the playing field, a small slope descends to a north-south access road. The Classroom Building will be 30 to 40 feet from the road.

On the north side of the playing field, a gentle north facing slope descends about 10 feet to a pond north of the field. The pond is one of three ponds and embankments in a drainage swale which flows from the northwest to the southeast on the north portion of the MVCS Campus. The northeast (closest) portion of the proposed Gymnasium or Classroom Building will be over 150 feet from the centerline of the drainage swale/pond alignment.

The proposed Tennis Courts will be located about 200 yards west of the Middle School Gymnasium and Classroom site and west of the Headmasters residence and another baseball playing field. They will be situated on a very gently sloping to level area that appears to have been graded at some time in the past and is presently vegetated with low grass and weeds. Ponded water was observed on the northwest portion of the Tennis Court site during our field exploration in January 2011.

### **Project Description**

The new Middle School Gymnasium will be a 95 foot by 150 foot steel frame building with spread footings and a concrete slab-on-grade floor. The building will be on the level portion of the playing field with the exception of the west side of the building, which will

require a small cut in the slope descending to the playing field from School Way. The cut will be supported by a site retaining wall situated 5 feet from the building to allow a walkway to be constructed around the building.

The new 60 foot by 60 foot Classroom Building will be constructed on the level playing field east of the new Middle School Gymnasium. Spread footing foundations and slab-on-grade floors are anticipated for the classroom building. Finish floor elevations on both buildings will be about 1 foot above the playing field elevation.

The proposed Tennis Court site is 110 foot wide by 350 foot long and will include 6 full tennis courts. Two inches of asphalt over 6 inches of baserock are proposed for the court surface.

### **Field Exploration**

Subsurface conditions at the Middle School Gymnasium and Classroom Building site were investigated on 30 December 2011 by drilling eight (8) exploratory borings from 11.5 to 31.5 feet in depth. The borings were advanced with 6-inch diameter continuous flight-auger equipment mounted on a truck. The Tennis Court site was investigated on 11 January 2011 by drilling three (3) hand augered boring from 5 to 10 feet deep. The borings were advanced with 4-inch diameter hand-auger equipment. The approximate locations of the test borings are indicated on the Boring Site Plans (see Figures 2 and 3 in Appendix A).

Representative soil samples were obtained from the exploratory borings at selected depths, or at major strata changes. These samples were recovered using the 3.0 inch outside diameter (O.D.) Modified California Sampler (L), the 2.0 inch O.D. Standard Terzaghi Sampler (T), or from auger spoils (B).

The penetration resistance blow counts noted on the boring logs for the 6-inch diameter continuous flight-auger borings were obtained as the sampler was dynamically driven into the in situ soil. The process was performed by dropping a 140-pound hammer a 30-inch free fall distance, driving the sampler 6 to 18 inches and recording the number of blows for each 6-inch penetration interval. The blows recorded on the boring logs represent the accumulated number of blows that were required to drive the last 12 inches.

The soil encountered in the borings was continuously logged in the field and described in accordance with the Unified Soil Classification System (ASTM D2487). A description of the soil and moisture conditions underlying the site is presented in our Logs of Test Borings (see Figures 5 to 16 in Appendix A).

The Boring Logs denote subsurface conditions at the locations and time observed, and it is not warranted that they are representative of subsurface conditions at other locations or times.



### **Laboratory Testing**

The laboratory testing program was directed toward determining pertinent engineering and index soil properties.

The natural moisture contents and dry densities were determined on selected samples and are recorded on the boring logs at the appropriate depths. Since the engineering behavior of soil is affected by changes in moisture content, the natural moisture content will aid in evaluation of soil compressibility, strength, and potential expansion characteristics. Soil dry density and moisture content are index properties necessary for calculation of earth pressures on engineering structures. The soil dry density is also related to soil strength and permeability.

Atterberg Limits tests were performed on selected soil samples to evaluate the range of moisture contents over which the soil exhibits plasticity, and to classify the soil according to the Unified Soil Classification System. The plasticity characteristics of a soil give an indication of the soil's compressibility and expansion potential. The test results indicate that near surface clay soil at the site had low expansion potential ( $P.I.=8, 9$ , and  $10$ ) and soil at depths of 4 feet and 15 feet had low to moderate expansion potential ( $P.I.=15$  and  $21$ , respectively). Grain size analysis tests were performed on select samples to aid in soil classification.

The strength parameters of the underlying earth materials were determined from Standard Penetration Test (SPT) values obtained in the field during drilling and direct shear tests performed in the laboratory. The direct shear test samples were presaturated a minimum of 24 hours prior to testing.

The results of the field and laboratory testing appear on each "Log of Test Boring" opposite the sample tested in Appendix A.

### **Subsurface Conditions**

Based on our subsurface exploration, the general soil profile in our borings at the Middle School Gymnasium and Classroom Building site consisted of loose clayey sand (topsoil) from the surface to depths of 2 to 3 feet, underlain by medium dense to dense clayey and silty sand and stiff sandy clay to the depths explored (11.5 to 31.5 feet). In Borings 7 and 8, loose clayey sand was encountered from the surface to depths of 6 and 7 feet, underlain by medium dense clayey sand and stiff sandy clay to the depths explored (16.5 feet).

In our borings at the Tennis Court site, we encountered loose silty and clayey sand from the surface to depths of 1½ to 4 feet, underlain by firm to stiff clay to the depth explored (5 to 10 feet). In Boring HA 1, drilled on the south end of the tennis courts, we encountered loose clayey sand fill soil from the surface to a depth of about 3 feet.

### **Groundwater**

Groundwater was encountered at depths of 6.5 to 10 feet in six out of the eight borings at the Gym and Classroom site. In the three borings at the Tennis Court site, groundwater was encountered at depths ranging from 1 to 7 feet. However, the groundwater levels may fluctuate due to variations in rainfall or other factors not evident during our investigation. The depth to groundwater (if found) is noted on the "Logs of Test Borings".

### **Site Geology**

Based on a review of the Santa Cruz County Map of Geologic Deposits (Brabb, 1989), the project site is mapped as Qaf: Aromas Sand, Fluvial Lithofacies, (Pleistocene).

"Fluvial Lithofacies Semi-consolidated, heterogeneous, moderately to poorly sorted silty clay, silt, sand and gravel. Deposited by meandering and braided streams. Includes beds of relatively well sorted gravel ranging from 10 to 20 feet thick. Clay and silty clay layers, locally as much as 2 feet thick, occur in unit. Locally includes buried soils, high in expansive clays, as much as 14 feet thick." (Brabb, 1989)

The soil encountered in our borings appears to be consistent with the geologic description of the Fluvial Lithofacies of the Aromas Sand.

### **Seismicity**

The following is a general discussion of seismicity in the project area. Detailed studies of seismicity and geologic hazards are beyond the scope of this study. Previous Geologic Reports and Fault Investigations for MVCS building sites were prepared by Geoconsultants, Inc.

A review of State Fault Traces on the Santa Cruz County Planning Department GIS website indicates the Gym and Classroom site is 2.57km (1.57mi) from the active San Andreas Fault Zone, 1.08 km (.67 mile) from the potentially active Zayante-Vergeles Fault Zone and within the potentially active Corralitos Fault Complex.

The south Santa Cruz Mountains section of the San Andreas Fault is a major fault zone of active displacement which extends from the Gulf of California to the vicinity of Point Arena, where the fault leaves the California coastline. Between these points, the San Andreas Fault is about 700 miles long. The fault zone is a break or series of breaks along the earth's crust, where shearing movement has taken place. This fault movement is primarily horizontal.

The largest historic earthquake in Northern California occurred on 18 April 1906 (M8.3+). The 17 October 1989 Loma Prieta earthquake (M6.9) is considered to have been associated with the San Andreas Fault system. This event was the second largest

earthquake in Northern California this century. Although no surface rupture was evident following the Loma Prieta earthquake, Hall et al. (1974) indicate that the San Andreas Fault has a high potential for surface rupture, with a recurrence interval of 50 to 1,000 years.

Potential seismic hazards include surface ground rupture, liquefaction, landsliding and strong seismic shaking. Previous Fault Investigations at the site have not found evidence of faulting to the south of the proposed building site. The alignment of the drainage swale to the north of the site could indicate a fault trace is located in the swale. However, an estimate of the original drainage swale alignment prior to the construction of the pond reveals the old centerline of the swale is over 150 feet from the closest point on the proposed buildings. Because of the medium dense to dense condition and cohesive nature of the soil underlying the site, the potential for seismic induced liquefaction at the site is relatively low. The potential for landsliding at the level site to negatively impact the buildings is low.

Due to the proximity of the site to active and potentially active faults, there is high potential for strong seismic shaking at the site. However, experience following the Loma Prieta earthquake indicates that the quality of construction is a primary factor affecting the amount of earthquake damage sustained by structures. Most structural damage caused by the Loma Prieta earthquake was sustained in structures where the foundations were not adequately embedded into firm materials, where the wood frame was not well braced for

lateral shear and/or where the wood frame was not securely tied to the building foundations. Conversely, where wood frame structures were supported on foundations embedded into firm material, braced for lateral shear and securely tied to the foundation, structural damage was generally minor. Even in areas quite close to the Loma Prieta earthquake epicenter, where structures sustained very strong to severe ground shaking, well-constructed buildings experienced little damage. Based on these considerations, the risk of substantial structural damage from earthquakes appears relatively low for structures which incorporate lateral shear bracing and modern building code requirements into their design and construction. Structures designed in conformance with the most current California Building Code (CBC) seismic design standards should perform well during strong seismic shaking.

## **DISCUSSIONS AND CONCLUSIONS**

Based on the results of our investigation, the proposed Middle School Gymnasium, Classroom Building and Tennis Courts project at Monte Vista Christian School (MVCS) is feasible from a geotechnical standpoint provided the design criteria and recommendations presented in this report are incorporated into the design and construction of the proposed project.

The geotechnical considerations at the site with respect to the proposed development include: the loose condition and compressibility of clayey sand soil found from the surface to depths of 2 to 3 feet; providing a firm uniform support for building footings and slabs and tennis court surface; and the high potential for strong seismic shaking. Based on the results of our laboratory testing, foundation zone soil has low expansion potential

The near surface soil at the site is loose and compressible. To provide uniform support for foundations and increase the bearing capacity of foundation zone soil, we recommend the proposed Middle School Gymnasium and Classroom Buildings and Tennis Courts be supported on redensified soil. We recommend the Gym and Classroom site be subexcavated to a minimum depth of 2 feet below the bottom of the footings and the Tennis Court site subexcavated to a minimum depth of 1 foot below subgrade elevation.

The bottom of the excavations should then be scarified, moisture conditioned (dried back) and compacted as engineered fill. The excavated soil should be moisture conditioned, placed in thin lifts, and compacted as engineered fill to design grades. The redensified zone should extend a minimum of 5 feet beyond building perimeters at the Gym and Classroom site and a minimum of 2 feet beyond the perimeter of the Tennis Courts. Provided the building pads are redensified as recommended above, conventional spread footing foundation systems are recommended for the proposed new buildings.

If overmoist or saturated soil is encountered in the excavations at the Gym and Classroom building site or Tennis Court site, the soil will need to be moisture conditioned (dried back) to near optimum moisture prior to compaction or additional excavation or soil stabilization may be necessary to establish a firm working platform. The potential for overmoist or saturated soil conditions is greatest shortly after the rainy season.

The site will most likely experience strong seismic shaking during the design lifetime of the proposed structures. The foundation and structure should be designed utilizing current California Building Code (CBC) seismic design standards.



## RECOMMENDATIONS

The following geotechnical criteria and recommendations should be followed during project design and preparation of project plans and specifications:

### Site Grading

1. The geotechnical engineer should be notified **at least four (4) working days prior to any site clearing or grading** so that the work in the field can be coordinated with the grading contractor and arrangements for testing and observation can be made. The recommendations of this report are based on the assumption that the geotechnical engineer will perform the required testing and observation during grading and construction. It is the owner's responsibility to make the necessary arrangements for these required services.
2. Where referenced in this report, Percent Relative Compaction and Optimum Moisture Content shall be based on ASTM Test Designation D1557-07.
3. Areas to be graded should be cleared of all obstructions including loose fill, concrete, wood, trees not designated to remain, or other unsuitable material. All unsuitable material should be removed offsite. Existing depressions or voids created during site clearing should be backfilled with engineered fill.

4. Cleared areas should then be stripped of organic-laden topsoil. Stripping depth should be from 2 to 4 inches. Actual depth of stripping should be determined in the field by the geotechnical engineer. Strippings should be wasted off-site or stockpiled for use in landscaped areas if desired.

5. The proposed new Gymnasium and Classroom Building envelopes should be excavated to a minimum depth of 2 feet below bottom of footings to provide a firm uniform building pad. The excavations should extend a minimum of 5 feet beyond building perimeters. The geotechnical engineer should determine the depth of over excavation where soft soil is encountered during construction. The bottom of excavations must be observed and approved by the geotechnical engineer or his representative prior to placement and compaction of engineered fill.

6. The proposed Tennis Courts should be excavated to a minimum depth of 12 inches below finished subgrade elevation. The excavation should extend a minimum of 2 feet beyond the court perimeters. Where soft or over moist soil conditions are observed, additional excavation may also be necessary. The geotechnical engineer should determine the depth of over excavation where soft soil is encountered during construction. The bottom of excavations must be observed and approved by the geotechnical engineer or his representative prior to placement and compaction of engineered fill.

7. The bottom of the excavations and other areas to receive engineered fill should be scarified to a depth of 8 inches, moisture conditioned, and compacted to a minimum of 90 percent relative compaction. Portions of the site may need to be moisture conditioned to achieve suitable moisture content for compaction. These areas may then be brought to design grade with engineered fill.

8. If grading is performed during or shortly after the rainy season, the grading contractor may encounter compaction difficulty, such as pumping or bringing free water to the surface, in the upper surface sandy silt and sandy silt with clay. If compaction cannot be achieved after adjusting the soil moisture content, it may be necessary to over-excavate the subgrade soil and replace it with angular crushed rock to stabilize the subgrade. We estimate that the depth of over-excavation would be 12 to 24 inches under these adverse conditions.

9. Engineered fill should be placed in thin lifts not exceeding 8 inches in loose thickness, moisture conditioned, and compacted to a minimum of 90 percent relative compaction. The upper 6 inches of pavement subgrades should be compacted to a minimum of 95 percent relative compaction. The aggregate base below pavements should likewise be compacted to a minimum of 95 percent relative compaction.

10. Fill slopes should have a maximum gradient of 3:1 and should be keyed and benched into firm soil or bedrock in areas where existing slope gradients exceed 6:1 (horizontal to vertical). Keyways and benches should have minimum slope gradient of 2 percent into the hillside. Subdrains will be required in areas where keyways or benches expose potential seepage zones.

11. Caution should be exercised when working near steep natural or cut slopes which exceed 5 feet in total height. The contractor is required to comply with all State and Federal laws, and any other applicable County or Municipal ordinances and regulations which in any manner affect those engaged in the work.

12. Permanent cut slopes over 4 feet high should have a maximum gradient of 2:1 or supported by an engineered retaining wall. Temporary cut slopes should be inclined no steeper than 1:1 up to a maximum height of 10 feet. Temporary cut slopes with gradients steeper than those mentioned above should be evaluated and approved by the geotechnical engineer prior to construction. Temporary cut slopes are defined as those which will remain from 24 hours up to the following rain season.

13. Fills should be keyed and benched into firm soil or bedrock in areas where existing slope gradients exceed 6:1 (horizontal to vertical). Subdrains will be required in areas where keyways or benches expose potential seepage zones.

14. The near surface soil encountered in our borings is acceptable for use as engineered fill, provided it is properly moisture conditioned. In situ conditions indicate the soil was over optimum moisture at the time of our field investigation. If the soil is over optimum moisture at the time of grading, the soil will need to be dried back to optimum moisture prior to redensification. Imported soil may be used as engineered fill provided the soil is in conformance with the following criteria:

- A. The fill should be free of debris, organics ( $\leq 3\%$  by weight), or other deleterious material.
- B. It should be predominantly granular and nonexpansive, with a plasticity index (PI)  $\leq 15$ . There should be sufficient clay binder for stable trench excavations.
- C. The fill should not contain rocks or clods greater than 4 inches in diameter.

15. We estimate shrinkage factors of 15 to 25 percent for the on-site materials when used in engineered fill.

16. After the earthwork operations have been completed and the geotechnical engineer has finished observation of the work, no further earthwork operations shall be performed except with the approval of and under the observation of the geotechnical engineer.

**Foundations- Conventional Spread Footings**

17. Conventional spread footings may be used to support the proposed Gymnasium and Classroom Building provided there is a minimum of 2 feet of engineered fill below the bottom of footings. The redensified zone should extend 5 feet beyond the building perimeters. Two story perimeter footings should be a minimum of 18 inches deep and 15 inches wide. One story footings should be a minimum of 12 inches wide and 12 inches deep. Actual footing depths should be determined in accordance with anticipated use and applicable design standards. The footings should be reinforced as required by the structural designer based on the actual loads transmitted to the foundation.

18. The foundation trenches should be kept moist and be thoroughly cleaned of all slough or loose materials prior to pouring concrete. In addition, all footings located adjacent to other footings or utility trenches should have their bearing surfaces founded below an imaginary 1½:1 plane projected upward from the bottom edge of the adjacent footings or utility trenches.

19. Foundations designed in accordance with the above may be designed for an allowable soil bearing pressure of 2000 psf for dead plus live loads. This value may be increased by one-third to include short-term seismic and wind loads.

20. Total and differential settlement under the proposed building loads are anticipated to be less than 1 inch and ½ inch, respectively.

21. Lateral load resistance for structures supported on footings may be developed in friction between the foundation bottom and the supporting subgrade. A friction coefficient of 0.33 is considered applicable.

22. We recommend that the geotechnical engineer or his representative be present for excavation of spread footings to confirm anticipated soil conditions and footing depths and sizes. If significant variations in soil conditions are encountered, additional recommendations can be presented.

#### **Seismic Design Criteria (CBC)**

23. The 2010 California Building Code (CBC) provides site class definitions for seismic design of structures. Based on these definitions, the result of our subsurface investigation indicates the site is classified as **Site Class D**. The New Gymnasium and Classroom Building site is located at Longitude 121.7682° West and Latitude 36.9838° North. The following maximum considered earthquake and five percent damped design spectral response accelerations adjusted for site class effects should be used for seismic design based on Sections 1613.5.3 and 1613.5.4 of the 2010 CBC:

- A.  $S_a = 2.053g$  (SMs, Site Class D)
- B.  $S_a = 1.667g$  (SM1, Site Class D)
- C.  $S_a = 1.369g$  (SDs, Site Class D)
- D.  $S_a = 1.111g$  (SM1, Site Class D)

### Retaining Walls

24. If retaining walls are designed for the site, conventional spread footings may be used for the walls. For fully drained walls up to 8 feet high, the following design criteria should be used:

- A. Active earth pressure for walls allowed to yield (up to ½ percent of wall height) is that exerted by an equivalent fluid weight of 45 pcf for a level backslope and 60 pcf for a 2:1 backslope.
- B. Where walls are not allowed to yield (restrained condition), the walls should be designed to resist a uniformly distributed load (rectangular distribution) of 33H psf per foot for a level backslope and 42H psf per foot for a 2:1 backslope, where H is the total height of the wall.



- C. For seismic design, a dynamic lateral force equal to  $18 H^2$  lbs may be assumed to act at a point  $0.6H$  above the heel of the wall base (where  $H$  is the height of the wall).
- D. Use a coefficient of friction of 0.30 between the base of the foundation and soil. A passive pressure of 250 pcf may also be used to resist lateral pressures. The top 1 foot of soil should be neglected when calculating passive resistance.
- E. In addition, the walls must be designed for any adjacent live or dead loads which will exert a force on the wall (compaction equipment, structures or traffic).
- F. Retaining walls which act as interior building walls should be waterproofed.
- G. The above lateral pressures are provided assuming the walls are fully drained to prevent development of hydrostatic pressure behind the walls. Drainage materials behind the wall should consist of Class 1; Type A permeable material (Caltrans Specification 68-1.025) or an approved equivalent. The drainage material should be at least 12 inches thick. The drains should extend from the base of the walls to within 12 inches of the top of the backfill. The top 12 inches of backfill behind the wall should be relatively impermeable native soil compacted in place. A perforated

pipe should be placed (holes down) about 4 inches above the bottom of the wall and be tied to a suitable drain outlet.

- H. Wall backfill should be compacted to a minimum of 90 percent relative compaction. The backfill material should be approved by the geotechnical engineer.

#### **Slabs-on-Grade**

25. Building floor slabs and exterior slabs should be constructed on moisture conditioned and compacted soil subgrade. Soil subgrades should be prepared and compacted as recommended in the section entitled "Site Grading".

26. The project design professional should determine the appropriate slab reinforcing and thickness, in accordance with the anticipated use and loading of the slab. However, we recommend that consideration be given to a minimum slab thickness of 5 inches and steel reinforcement necessary to address temperature and shrinkage considerations. It is recommended that rebar be used in lieu of wire mesh for slab reinforcement. The steel reinforcement should be held firmly in the vertical center of the slab during placement and finishing of the concrete with pre-cast concrete dobies. We also recommend the project design professional refer to ACI 302 & 360 for design and specifications of concrete slabs-on-grade.

27. Where floor dampness must be minimized or where floor coverings will be installed, concrete slabs-on-grade should be constructed on a capillary break layer at least 4 inches thick, covered with a membrane vapor retarder. Capillary break material should be free-draining, clean gravel or rock, such as ¾-inch gravel. The gravel should be washed to remove fines and dust prior to placement on the slab subgrade. The vapor retarder should be a high quality membrane, (minimum 10 mil thickness), and puncture resistant (MoistStop or equivalent). A layer of sand about 2 inches thick should be placed between the vapor retarder and the floor slab to protect the membrane and to aid in curing concrete. The sand should be lightly moistened prior to placing concrete.

28. Concrete slabs are not waterproof, nor are they vapor-proof. The recommended moisture retardant system will reduce water and water vapor transmission through the slab, but will not eliminate it. If moisture sensitive floor coverings are proposed, additional protective measures specified by a professional in this field are recommended. Floor coverings must be installed according to the manufacturer's specifications, including appropriate waterproofing applications and/or any recommended slab and/or subgrade preparation. Consideration should also be given to recommending a topical waterproofing application over the slab.

29. Interior and exterior concrete slabs-on-grade should be founded on firm, well-compacted ground. Reinforcing should be provided in accordance with the anticipated use and loading of the slab. Exterior slab reinforcement should not be tied to the building foundations. Interior and exterior slabs can be expected to suffer some cracking and movement. However, thickened exterior edges, a well-prepared subgrade, including premoistening prior to pouring concrete, adequately spaced expansion joints, and good workmanship should minimize cracking and movement.

#### **Flexible Pavement**

30. We understand the Tennis Court surface will be asphalt pavement over baserock. For proposed pavements to perform well, drainage and subgrade preparation is important. We have provided grading recommendations in a previous section of the report.

31. For designed pavement sections to perform to their greatest efficiency, it is important that the following items be considered:

- A. Properly moisture condition the subgrade and compact it to a minimum relative compaction of 93 to 95 percent at a moisture content of 1 to 3 percent over the optimum moisture content.
- B. Provide sufficient gradient to prevent ponding of water.

- C. Use only quality materials of the type and thickness (minimum) specified. All base rock, unless otherwise noted, must meet Cal-Trans Standard Specifications for Class 2 Aggregate Base, and be angular in shape.
- D. Compact the base rock uniformly to a minimum of 95 percent relative compaction.
- E. Place the asphaltic concrete only during periods of fair weather when the free air temperature is within a prescribed limit.
- F. Provide a routine maintenance program.

#### **Utility Trenches**

32. Trenches must be properly shored and braced during construction or laid back at an appropriate angle to prevent sloughing and caving at sidewalls. The project plans and specifications should direct the attention of the contractor to all CAL OSHA and local safety requirements and codes dealing with excavations and trenches.

33. Unless concrete bedding is required around utility pipes, bedding should consist of free-draining sand. The bedding should extend from the bottom of the trench to 1 foot above the pipe. Sand bedding should be compacted to County of Santa Cruz Standard Specifications or a minimum of 90 percent relative compaction. Backfill may then be placed in lifts over the bedding.

34. Trenches should be backfilled in lifts with granular-type material and uniformly compacted by mechanical means to the relative compaction required by County of Santa Cruz specifications, but not less than 95 percent under paved areas and 90 percent elsewhere. The relative compaction is based on the maximum dry density obtained from a laboratory compaction curve run in accordance with ASTM Procedure D1557-07.

35. Utility trenches that are parallel to the sides of buildings should be placed so that they do not extend below an imaginary line sloping down and away at a 1½:1 (horizontal to vertical) slope from the bottom outside edge of all footings. The structural design professional should coordinate this requirement with the utility layout plans for the project.

36. We strongly recommend placing a three-foot (3') wide concrete plug in each trench which passes under the exterior foundations to reduce the potential for water intrusion in the underfloor area. Care should be taken not to damage utility lines.

37. Trenches should be capped with a minimum of 12 inches of compacted on-site soil.

#### **Site Drainage**

38. Proper drainage is essential to the project. Surface drainage should include provisions for positive gradients so that surface runoff is rapidly removed and not allowed to pond adjacent to foundations or pavements. Surface drainage should be directed away

from the building foundations to collection systems which convey runoff to natural drainage areas or engineered drainage facilities.

39. Rain gutters and downspouts should be placed around roof eaves. Discharge from the rain gutters should be conveyed from downspouts via splash blocks or solid plastic pipe (minimum 3 inches diameter) and discharged away from foundations and improvements to collection facilities which convey runoff to natural drainage areas or engineered drainage facilities.

40. The migration of water or spread of extensive root systems below foundations, slabs, or pavements may cause undesirable differential movements and subsequent damage to these structures. Landscaping should be planned accordingly.

#### **Erosion Control**

41. Bare soil at the project site has potential for erosion. We recommend the following provisions be incorporated into the project plans:

- A. All grading and soil disturbance shall be kept to a minimum.
- B. No eroded soil is allowed to leave the site.
- C. All bare soil should be seeded and mulched immediately after grading with barley, rye, grass and crimson clover.

**Plan Review, Construction Observation and Testing**

42. Haro, Kasunich and Associates should be provided an opportunity to review project plans prior to construction to evaluate if our recommendations have been properly interpreted and implemented. We should also provide earthwork observations and testing and foundation excavation observations during construction. This allows us to confirm anticipated soil conditions and evaluate conformance with our recommendations and project plans. If we do not review the plans and provide observation and testing services during the earthwork phase of the project, we assume no responsibility for misinterpretation of our recommendations.



Project No. SC10077.1  
9 November 2011

MS. BETTY COST  
P.O. Box 355  
Aromas, California 95004

Subject: Geotechnical Investigation

Reference: Proposed Water Tank  
Monte Vista Christian School  
2 School Way  
Watsonville, California

Dear Ms. Cost:

In accordance with your authorization, we have performed a Geotechnical Investigation for a proposed new water tank at the referenced site in Watsonville, California.

Based on the results of our investigation, the proposed project is acceptable from a geotechnical standpoint provided the design criteria and recommendations presented in this report are incorporated into the design and construction of the proposed project.

The accompanying report presents our results, conclusions and recommendations. If you have any questions concerning this report, please contact our office.

Very truly yours,

**HARO, KASUNICH & ASSOCIATES, INC.**

Christopher A. George  
C.E. 50871

CAG/dk

Copies: 4 to Addressee  
1 to C2G

Project No. SC10077.1  
9 November 2011

## **GEOTECHNICAL INVESTIGATION**

### **Introduction**

This report presents the results of our Geotechnical Investigation for a proposed new water tank at Monte Vista Christian School (MVCS) in Watsonville, California (see Site Vicinity Map, Figure 1 in Appendix A). The tank will be situated on the top of a broad ridge located in the northwest corner of the MVCS Campus.

A Topographic Survey and Map of the tank site, dated 12 July 2011, was prepared by Bridgette Land Surveying. We used the Topographic Map as the base for our Boring Site Plan (see Figure No. 2 in Appendix A). Site descriptions, distances, elevations, and gradients discussed in this report are based on a site visit by the engineer and review of the Topographic Map.

At the time this report was prepared, foundation and grading plans had not been developed. We should review the project plans prior to construction to evaluate if the geotechnical criteria and recommendations presented were properly interpreted and implemented and determine if this report is adequate and complete for proposed grading and construction.

### **Purpose**

The purpose of our investigation was to explore and evaluate the soil conditions at the water tank site and provide geotechnical criteria and recommendations for design and construction of the tank and associated improvements.

### **Scope of Work**

The specific scope of our services was as follows:

1. Site reconnaissance and review of available data in our files regarding the site and vicinity.
2. A field exploration program at the tank site consisting of logging and interval sampling of soil encountered in two (2) continuous flight-augered borings drilled to depths of 21.5 and 31.5 feet. The soil samples obtained were sealed and returned to the laboratory for testing.
3. Laboratory testing and classification of selected samples were performed to determine pertinent engineering properties required for our analyses. Moisture content and dry density tests were performed to evaluate the consistency of the in situ soils. Grain size analysis and Atterberg Limits tests were performed to aid in soil classification and evaluate the soil plasticity and expansion potential.

4. Engineering analysis and evaluation of the resulting field and laboratory test data.  
Based on our findings we developed geotechnical design criteria for site grading, foundations, retaining walls, site drainage and erosion control.
5. Preparation and submittal of this report presenting the results of our investigation.

#### **Site Location and Conditions**

Monte Vista Christian School is located at 2 School Way, about ½ mile east of the intersection of Wheelock Road and Green Valley Road in Watsonville, California.

The proposed new water tank will be located about 350 feet northwest of the junior varsity baseball playing field in the northwest corner of the Monte Vista Campus property. The tank site is on the top of a broad gently sloping northwest-southeast trending ridge which lies between two drainage channels. A paved road (School Way) borders the west and north sides of the tank site, which will be setback 20 to 25 feet from the road. The site slopes down to the south-southeast at a gradient of about 10 percent. On the east and south sides of the proposed tank, a circular unpaved access road provides access to the tank site.

### **Project Description**

A new 40 foot diameter, 192,000 gallon steel water tank is proposed for the site. Cut and fill grading is proposed to create a level pad for the tank. A retaining wall may be constructed to support the cut slope on the west and north sides of the tank pad. Most of the pad will be excavated. Redensification of the soil below the tank pad is anticipated.

### **Field Exploration**

Subsurface conditions at the tank site were investigated on 21 July 2011 by drilling two (2) exploratory borings 21.5 feet deep and 31.5 feet deep. The borings were advanced with 6-inch diameter continuous flight-auger equipment mounted on a truck. The approximate locations of the test borings are indicated on the Boring Site Plan (see Figure 2 in Appendix A).

Representative soil samples were obtained from the exploratory borings at selected depths, or at major strata changes. These samples were recovered using the 3.0 inch outside diameter (O.D.) Modified California Sampler (L), the 2.0 inch O.D. Standard Terzaghi Sampler (T).

The penetration resistance blow counts noted on the boring logs for the 6-inch diameter continuous flight-auger borings were obtained as the sampler was dynamically driven into

the in situ soil. The process was performed by dropping a 140-pound hammer a 30-inch free fall distance, driving the sampler 6 to 18 inches and recording the number of blows for each 6-inch penetration interval. The blows recorded on the boring logs represent the accumulated number of blows that were required to drive the last 12 inches.

The soil encountered in the borings was continuously logged in the field and described in accordance with the Unified Soil Classification System (ASTM D2487). A description of the soil and moisture conditions underlying the site is presented in our Logs of Test Borings (see Figures 4 and 5 in Appendix A).

The Boring Logs denote subsurface conditions at the locations and time observed, and it is not warranted that they are representative of subsurface conditions at other locations or times.

#### **Laboratory Testing**

The laboratory testing program was directed toward determining pertinent engineering and index soil properties.

The natural moisture contents and dry densities were determined on selected samples and are recorded on the boring logs at the appropriate depths. Since the engineering behavior of soil is affected by changes in moisture content, the natural moisture content will aid in

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evaluation of soil compressibility, strength, and potential expansion characteristics. Soil dry density and moisture content are index properties necessary for calculation of earth pressures on engineering structures. The soil dry density is also related to soil strength and permeability.

Atterberg Limits tests were performed on selected soil samples to evaluate the range of moisture contents over which the soil exhibits plasticity, and to classify the soil according to the Unified Soil Classification System. The plasticity characteristics of a soil give an indication of the soil's compressibility and expansion potential. The test results indicate that near surface clay soil at the site has moderate expansion potential (P.I.=16 and 18). Grain size analysis tests were performed on select samples to aid in soil classification.

The strength parameters of the underlying earth materials were determined from Standard Penetration Test (SPT) values obtained in the field during drilling.

The results of the field and laboratory testing appear on each "Log of Test Boring" opposite the sample tested.

### **Subsurface Conditions**

Based on our subsurface exploration, the general soil profile in our borings at the tank site consisted of stiff to very stiff sandy lean clay and medium dense clayey sand from the

surface to depths of 20 to 25 feet, underlain by stiff to very stiff clay to the depths explored (21.5 and 31.5 feet).

### **Groundwater**

Groundwater was encountered at a depth of 19 feet in Boring 2, located on the downslope side of the water tank pad. Groundwater was not encountered in Boring 1, located about 40 feet upslope. The depth to groundwater (if found) is noted on the "Logs of Test Borings". Groundwater levels may fluctuate due to variations in rainfall or other factors not evident during our investigation.

### **Site Geology**

Based on a review of the Geologic Map of Santa Cruz County, the project site is mapped as Qaf: Aromas Sand, Fluvial Lithofacies, (Pleistocene) - Semi-consolidated, heterogeneous, moderately to poorly sorted silty clay, silt, sand and gravel. Deposited by meandering and braided streams; includes beds of relatively well sorted gravel ranging from 10 to 20 feet thick. Clay and silty clay layers, locally as much as 2 feet thick, occur in unit. Locally includes buried soils, high in expansive clays, as much as 14 feet thick." (Brabb, 1989)

The soil encountered in our borings appears to be consistent with the geologic description of the Fluvial Lithofacies of the Aromas Sand.



### **Seismicity**

The following is a general discussion of seismicity in the project area. Detailed studies of seismicity and geologic hazards are beyond the scope of this study. Previous Geologic Reports and Fault Investigations for MVCS building sites were prepared by Geoconsultants, Inc. A Focused Fault Lineation Study for the new Gymnasium and Classroom Building site, dated 3 November 2011, was prepared by our firm.

A review of State Fault Traces on the Santa Cruz County Planning Department GIS website indicates the Water Tank site is 2.29km (1.42 mi) from the active San Andreas Fault Zone, 1.29 km (0.80 mi) from the potentially active Zayante-Vergeles Fault Zone and within the potentially active Corralitos Fault Complex.

The south Santa Cruz Mountains section of the San Andreas Fault is a major fault zone of active displacement which extends from the Gulf of California to the vicinity of Point Arena, where the fault leaves the California coastline. Between these points, the San Andreas Fault is about 700 miles long. The fault zone is a break or series of breaks along the earth's crust, where shearing movement has taken place. This fault movement is primarily horizontal.

The largest historic earthquake in Northern California occurred on 18 April 1906 (M8.3+). The 17 October 1989 Loma Prieta earthquake (M6.9) is considered to have been

associated with the San Andreas Fault system. This event was the second largest earthquake in Northern California this century. Although no surface rupture was evident following the Loma Prieta earthquake, Hall et al. (1974) indicate that the San Andreas Fault has a high potential for surface rupture, with a recurrence interval of 50 to 1,000 years.

Potential seismic hazards at the site include liquefaction, landsliding, surface ground rupture, and strong seismic shaking. Because of the medium dense to dense or stiff to very stiff condition and cohesive nature of the soil underlying the site, the potential for seismic induced liquefaction at the site is low. The potential for landsliding at the gently sloping site to negatively impact the proposed water tank is also low. The site is within the potentially active Corralitos Fault Complex. Analysis of the potential for ground rupture at the water tank site is beyond the scope of this report.

Due to the proximity of the site to active and potentially active faults, there is high potential for strong seismic shaking at the site. We recommend the water tank be designed in conformance with the most current California Building Code (CBC) seismic design standards.

## **DISCUSSIONS AND CONCLUSIONS**

Based on the results of our investigation, the proposed water tank construction at the site in the northwest corner of the Monte Vista Christian School (MVCS) campus is feasible from a geotechnical standpoint provided the design criteria and recommendations presented in this report are incorporated into the design and construction of the proposed project.

The geotechnical considerations at the site include: the compressibility of near surface soil; providing firm uniform support for the proposed water tank; and the high potential for strong seismic shaking.

To provide uniform support for the proposed water tank, increase the bearing capacity of foundation zone soil and reduce the potential for differential settlement, we recommend the proposed water tank be supported on redensified soil. We recommend the top 4 feet of soil on the water tank pad be excavated and replaced as engineered fill. The bottom of the excavation should then be scarified, moisture conditioned (dried back) and compacted as engineered fill. The excavated soil should be moisture conditioned, placed in thin lifts, and compacted as engineered fill to design grades. The redensified zone should extend a minimum of 5 feet beyond the tank perimeters on the water tank site. Provided the tank building pad is redensified as recommended above, a continuous spread footing foundation is recommended for the proposed water tank.

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The site will most likely experience strong seismic shaking during the design lifetime of the proposed structures. The water tank and foundation should be designed utilizing current California Building Code (CBC) seismic design standards.

## RECOMMENDATIONS

The following geotechnical criteria and recommendations should be followed during project design and preparation of project plans and specifications:

### Site Grading

1. The geotechnical engineer should be notified **at least four (4) working days prior to any site clearing or grading** so that the work in the field can be coordinated with the grading contractor and arrangements for testing and observation can be made. The recommendations of this report are based on the assumption that the geotechnical engineer will perform the required testing and observation during grading and construction. It is the owner's responsibility to make the necessary arrangements for these required services.
2. Where referenced in this report, Percent Relative Compaction and Optimum Moisture Content shall be based on ASTM Test Designation D1557-07.
3. Areas to be graded should be cleared of all obstructions including loose fill, concrete, wood, trees not designated to remain, or other unsuitable material. All unsuitable material should be removed offsite. Existing depressions or voids created during site clearing should be backfilled with engineered fill.

4. Cleared areas should then be stripped of organic-laden topsoil. Stripping depth should be from 2 to 4 inches. Actual depth of stripping should be determined in the field by the geotechnical engineer. Strippings should be wasted off-site or stockpiled for use in landscaped areas if desired.

5. The top 4 feet of soil on water tank site should be excavated and redensified as engineered fill to provide a firm uniform building pad. The excavation should extend a minimum of 5 feet beyond the tank perimeter. The geotechnical engineer should determine the depth of over excavation if soft soil is encountered during construction. The bottom of excavations must be observed and approved by the geotechnical engineer or his representative prior to compaction and placement and compaction of engineered fill.

6. The bottom of the excavation and other areas to receive engineered fill should be scarified to a depth of 8 inches, moisture conditioned, and compacted to a minimum of 90 percent relative compaction. Portions of the site may need to be moisture conditioned to achieve suitable moisture content for compaction. These areas may then be brought to design grade with engineered fill.

7. If grading is performed during or shortly after the rainy season, the grading contractor may encounter compaction difficulty, such as pumping or bringing free water to the surface in the near surface silty sand and lean sandy clay soil at the water tank site. If

compaction cannot be achieved after adjusting the soil moisture content, it may be necessary to over-excavate the subgrade soil and replace it with angular crushed rock to stabilize the subgrade. We estimate that the depth of over-excavation would be 12 to 24 inches under these adverse conditions.

8. Engineered fill should be placed in thin lifts not exceeding 8 inches in loose thickness, moisture conditioned, and compacted to a minimum of 90 percent relative compaction. The upper 6 inches of pavement subgrades should be compacted to a minimum of 95 percent relative compaction. The aggregate base below pavements should likewise be compacted to a minimum of 95 percent relative compaction.

9. Fill slopes should have a maximum gradient of 3:1 and should be keyed and benched into firm soil or bedrock in areas where existing slope gradients exceed 6:1 (horizontal to vertical). Keyways and benches should have minimum slope gradient of 2 percent into the hillside. Subdrains will be required in areas where keyways or benches expose potential seepage zones.

10. Caution should be exercised when working near steep natural or cut slopes which exceed 5 feet in total height. The contractor is required to comply with all State and Federal laws, and any other applicable County or Municipal ordinances and regulations which in any manner affect those engaged in the work.

11. Permanent cut slopes over 4 feet high should have a maximum gradient of 2:1 or supported by an engineered retaining wall. Temporary cut slopes should be inclined no steeper than 1:1 up to a maximum height of 10 feet. Temporary cut slopes with gradients steeper than those mentioned above should be evaluated and approved by the geotechnical engineer prior to construction. Temporary cut slopes are defined as those which will remain from 24 hours up to the following rainy season.

12. The near surface silty sand and lean sandy clay soil encountered in our borings is acceptable for use as engineered fill, provided it is properly moisture conditioned. In situ conditions indicate the soil was near to over optimum moisture at the time of our field investigation. If the soil is over optimum moisture at the time of grading, the soil will need to be dried back to optimum moisture prior to redensification. Imported soil may be used as engineered fill provided the soil is in conformance with the following criteria:

- A. The fill should be free of debris, organics ( $\leq 3\%$  by weight), or other deleterious material.
- B. It should be predominantly granular and nonexpansive, with a plasticity index (PI)  $\leq 15$ . There should be sufficient clay binder for stable trench excavations.
- C. The fill should not contain rocks or clods greater than 4 inches in diameter.



13. We estimate shrinkage factors of 15 to 25 percent for the on-site materials when used in engineered fill.

14. After the earthwork operations have been completed and the geotechnical engineer has finished observation of the work, no further earthwork operations shall be performed except with the approval of and under the observation of the geotechnical engineer.

**Foundations- Conventional Spread Footings**

15. Conventional spread footings are recommended for the water tank foundation provided the top 4 feet of soil is excavated and redensified as engineered fill. The redensified zone should extend 5 feet beyond the building perimeters. Actual footing depths should be determined in accordance with anticipated use and applicable design standards. The footings should be reinforced as required by the structural designer based on the actual loads transmitted to the foundation.

16. The foundation trenches should be kept moist and be thoroughly cleaned of all slough or loose materials prior to pouring concrete. In addition, all footings located adjacent to other footings or utility trenches should have their bearing surfaces founded below an imaginary 1½:1 plane projected upward from the bottom edge of the adjacent footings or utility trenches.

17. Foundations designed in accordance with the above may be designed for an allowable soil bearing pressure of 2500 psf for dead plus live loads. This value may be increased by one-third to include short-term seismic and wind loads.

18. Total and differential settlement under the proposed water tank loads are anticipated to be less than 1 inch and ½ inch, respectively.

19. Lateral load resistance for structures supported on footings may be developed in friction between the foundation bottom and the supporting subgrade. A friction coefficient of 0.33 is considered applicable.

20. We recommend that the geotechnical engineer or his representative be present for excavation of spread footings to confirm anticipated soil conditions and footing depths and sizes.

#### **Seismic Design Criteria (CBC)**

21. The 2010 California Building Code (CBC) provides site class definitions for seismic design of structures. Based on these definitions, the result of our subsurface investigation indicates the site is classified as **Site Class D**. The Water Tank site is located at Longitude 121.7697° West and Latitude 36.9866° North. The following maximum considered earthquake and five percent damped design spectral response accelerations

adjusted for site class effects should be used for seismic design based on Sections 1613.5.3 and 1613.5.4 of the 2010 CBC:

- A.  $S_a = 2.066g$  (SMs, Site Class D)
- B.  $S_a = 1.683g$  (SM1, Site Class D)
- C.  $S_a = 1.377g$  (SDs, Site Class D)
- D.  $S_a = 1.122g$  (SM1, Site Class D)

### **Retaining Walls**

22. Retaining walls may be constructed to support cut slopes at the tank site. Conventional spread footing foundations or pier foundations may be used for the walls. For fully drained walls up to 8 feet high, the following design criteria should be used:

- A. Active earth pressure for walls allowed to yield (up to  $\frac{1}{2}$  percent of wall height) is that exerted by an equivalent fluid weight of 40 pcf for a level backslope and 55 pcf for a 2:1 backslope.
- B. Retaining wall spread footings embedded in undisturbed native soil may be designed for an allowable bearing capacity of 1500 psf plus a one-third increase for wind and seismic loads. Reinforced concrete piers or wood posts in concrete filled pier holes should have a minimum diameter of 12 inches. The piers may be

designed assuming a passive resistance of 250 psf (EFW) times  $1\frac{1}{2}$  pier diameters. The top 1 foot of soil should be neglected when calculating passive resistance. Piers should have a minimum spacing of 3 pier diameters.

- C. For seismic design, a dynamic lateral force equal to  $18 H^2$  lbs may be assumed to act at a point  $0.6H$  above the heel of the wall base (where  $H$  is the height of the wall).
- D. Use a coefficient of friction of 0.33 between the base of the foundation and soil. A passive pressure of 250 pcf may also be used to resist lateral pressures. The top 1 foot of soil should be neglected when calculating passive resistance.
- E. In addition, the walls must be designed for any adjacent live or dead loads which will exert a force on the wall (compaction equipment, structures or traffic).
- F. The above lateral pressures are provided assuming the walls are fully drained to prevent development of hydrostatic pressure behind the walls. Drainage materials behind the wall should consist of Class 1; Type A permeable material (Caltrans Specification 68-1.025) or an approved equivalent. The drainage material should be at least 12 inches thick. The drains should extend from the base of the walls to within 12 inches of the top of the backfill. The top 12 inches of backfill behind the

wall should be relatively impermeable native soil compacted in place. A perforated pipe should be placed (holes down) about 4 inches above the bottom of the wall and be tied to a suitable drain outlet.

- G. Wall backfill should be compacted to a minimum of 90 percent relative compaction. The backfill material should be approved by the geotechnical engineer.

#### **Slabs-on-Grade**

23. Concrete slabs should be constructed on moisture conditioned and compacted subgrade soil as recommended in the section entitled "Site Grading".

24. The project design professional should determine the appropriate slab reinforcing and thickness, in accordance with the anticipated use and loading of the slab. However, we recommend that consideration be given to a minimum slab thickness of 5 inches and steel reinforcement necessary to address temperature and shrinkage considerations. It is recommended that rebar be used in lieu of wire mesh for slab reinforcement. The steel reinforcement should be held firmly in the vertical center of the slab during placement and finishing of the concrete with pre-cast concrete dobies. We also recommend the project design professional refer to ACI 302 & 360 for design and specifications of concrete slabs-on-grade.

25. Exterior concrete slabs-on-grade should be founded on firm, well-compacted ground. Reinforcing should be provided in accordance with the anticipated use and loading of the slab. Exterior slab reinforcement should not be tied to the water tank foundations. Exterior slabs can be expected to suffer some cracking and movement. However, thickened exterior edges, a well-prepared subgrade, including premoistening prior to pouring concrete, adequately spaced expansion joints, and good workmanship should minimize cracking and movement.

#### **Flexible Pavement**

26. Pavement design was beyond the scope of our work. However, for designed pavement sections to perform to their greatest efficiency, it is important that the following items be considered:

- A. Properly moisture condition and compact the subgrade soil to a minimum relative compaction 95 percent at a moisture content of 1 to 3 percent over the optimum moisture content.
- B. Provide sufficient gradient to prevent ponding of water.
- C. Use only quality materials of the type and thickness (minimum) specified. All base rock, unless otherwise noted, must meet Cal-Trans Standard Specifications for Class 2 Aggregate Base, and be angular in shape.
- D. Compact the base rock uniformly to a minimum of 95 percent relative compaction.

- E. Place the asphaltic concrete only during periods of fair weather when the free air temperature is within a prescribed limit.
- F. Provide a routine maintenance program.

### **Utility Trenches**

27. Trenches must be properly shored and braced during construction or laid back at an appropriate angle to prevent sloughing and caving at sidewalls. The project plans and specifications should direct the attention of the contractor to all CAL OSHA and local safety requirements and codes dealing with excavations and trenches.

28. Unless concrete bedding is required around utility pipes, bedding should consist of free-draining sand. The bedding should extend from the bottom of the trench to 1 foot above the pipe. Sand bedding should be compacted to County of Santa Cruz Standard Specifications or a minimum of 90 percent relative compaction. Backfill may then be placed in lifts over the bedding.

29. Trenches should be backfilled in lifts with granular-type material and uniformly compacted by mechanical means to the relative compaction required by County of Santa Cruz specifications, but not less than 95 percent under paved areas and 90 percent elsewhere. The relative compaction is based on the maximum dry density obtained from a laboratory compaction curve run in accordance with ASTM Procedure D1557-07.

30. Utility trenches that are parallel to the tank perimeter should be placed so that they do not extend below an imaginary line sloping down and away at a 1½:1 (horizontal to vertical) slope from the bottom outside edge of all footings. The structural design professional should coordinate this requirement with the utility layout plans for the project.

31. Trenches should be capped with a minimum of 12 inches of compacted on-site soil.

#### **Site Drainage**

32. Proper drainage is essential to the project. Surface drainage should include provisions for positive gradients so that surface runoff is rapidly removed and not allowed to pond adjacent to the tank foundation or pavements. Runoff from the top and sides of the tank has erosion potential. An impermeable asphalt or concrete surface is recommended around the perimeter of the tank to reduce the potential for erosion. Surface drainage should be directed away from the foundation and impermeable surfaces around the foundation to collection systems which convey runoff to natural drainage areas or engineered drainage facilities.

33. The migration of water or spread of extensive root systems below foundations, slabs, or pavements may cause undesirable differential movements and subsequent damage to these structures. Landscaping should be planned accordingly.



**Erosion Control**

34. Bare soil at the project site has potential for erosion. We recommend the following provisions be incorporated into the project plans:

- A. All grading and soil disturbance shall be kept to a minimum.
- B. No eroded soil is allowed to leave the site.
- C. All bare soil should be seeded and mulched immediately after grading with barley, rye, grass and crimson clover.

**Plan Review, Construction Observation and Testing**

35. Haro, Kasunich and Associates should be provided an opportunity to review project plans prior to construction to evaluate if our recommendations have been properly interpreted and implemented. We should also provide earthwork observations and testing and foundation excavation observations during construction. This allows us to confirm anticipated soil conditions and evaluate conformance with our recommendations and project plans. If we do not review the plans and provide observation and testing services during the earthwork phase of the project, we assume no responsibility for misinterpretation of our recommendations.



# COUNTY OF SANTA CRUZ

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## PLANNING DEPARTMENT

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

December 7, 2011

Betty Cost  
P.O. Box 355  
Aromas, CA 95004

**Subject: Review of Geologic Hazards Assessment by Haro, Kasuich, and Associates  
Dated November 3, 2011 and November 2011: Project: SC10077.1  
APN 109-331-01, Application #: 11111**

Dear Betty Cost ,

The purpose of this letter is to inform you that the Planning Department has accepted the subject reports and the following items shall be required:

1. All construction shall comply with the recommendations of the reports.
2. Final plans shall reference the report and include a statement that the project shall conform to the reports' recommendations.
3. Before the submittal of a Building Permit for the water tank, the engineering geologist shall confirm in writing that tank construction site is not located on the surface trace of a fault.
4. Prior to building permit issuance a *plan review letter* shall be submitted to Environmental Planning. After plans are prepared that are acceptable to all reviewing agencies, please submit a geotechnical plan review letter that states the project plans conform to the recommendations of the geotechnical report. *Please note that the plan review letter must reference the final plan set by last revision date.* The author of the report shall write the *plan review letter*.
5. Please submit an electronic copy of the reports in .pdf format via compact disk or email to: [pln829@co.santa-cruz.ca.us](mailto:pln829@co.santa-cruz.ca.us). Please note that the report must be generated and/or sent directly from the soils engineer of record.

After building permit issuance the soils engineer *must remain involved with the project* during construction. Please review the *Notice to Permits Holders* (attached).

Our acceptance of the report is limited to its technical content. Other project issues such as zoning, fire safety, septic or sewer approval, etc. may require resolution by other agencies.

Review of Geologic Hazards Assesement, Project: SC10077.1  
APN: 109-331-01  
Page 2 of 3

Please note that this determination may be appealed within 14 calendar days of the date of service. Additional information regarding the appeals process may be found online at: [http://www.sccoplanning.com/html/devrev/plnappeal\\_bldg.htm](http://www.sccoplanning.com/html/devrev/plnappeal_bldg.htm)

Please call the undersigned at (831) 454-3175 if we can be of any further assistance.

Sincerely,

Joe Hanna  
County Geologist

Cc: Robert Loveland, Environmental Planning  
Haro, Kasuich, and Assoicates  
Monte Vista Christian School



# COUNTY OF SANTA CRUZ

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## PLANNING DEPARTMENT

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

February 29, 2012

Ms. Betty Cost  
P.O. Box 355  
Aromas, CA 95004

**Subject: Review of Geotechnical by Haro, Kasunich and Associates**  
**Dated April 5, 2011: Project: SC10077**  
**APN 109-331-01, Application #: 111111**

Dear Ms. Betty Cost,

The purpose of this letter is to inform you that the Planning Department has accepted the subject report and the following items shall be required:

1. All construction shall comply with the recommendations of the report.
2. Final plans shall reference the report and include a statement that the project shall conform to the report's recommendations.
3. Prior to building permit issuance a *plan review letter* shall be submitted to Environmental Planning. After plans are prepared that are acceptable to all reviewing agencies, please submit a geotechnical plan review letter that states the project plans conform to the recommendations of the geotechnical report. *Please note that the plan review letter must reference the final plan set by last revision date.* The author of the report shall write the *plan review letter*.
4. Please submit an electronic copy of the soils report in .pdf format via compact disk or email to: . Please note that the report must be generated and/or sent directly from the soils engineer of record.

After building permit issuance the soils engineer *must remain involved with the project* during construction. Please review the *Notice to Permits Holders* (attached).

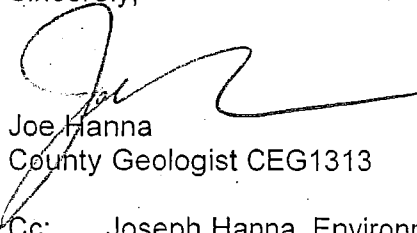
Our acceptance of the report is limited to its technical content. Other project issues such as zoning, fire safety, septic or sewer approval, etc. may require resolution by other agencies.

Please note that this determination may be appealed within 14 calendar days of the date of service. Additional information regarding the appeals process may be found online at:  
[http://www.sccoplanning.com/html/devrev/plnappeal\\_bldg.htm](http://www.sccoplanning.com/html/devrev/plnappeal_bldg.htm)

(over)

Please call the undersigned at (831) 454-3175 if we can be of any further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joe Hanna', with a long horizontal flourish extending to the right.

Joe Hanna  
County Geologist CEG1313

Cc: Joseph Hanna, Environmental Planning  
Haro, Kasunich and Associates  
owner (if different from applicant)

**NOTICE TO PERMIT HOLDERS WHEN A SOILS REPORT HAS BEEN PREPARED,  
REVIEWED AND ACCEPTED FOR THE PROJECT**

After issuance of the building permit, the County requires your soils engineer to be involved during construction. Several letters or reports are required to be submitted to the County at various times during construction. They are as follows:

1. **When a project has engineered fills and / or grading,** a letter from your soils engineer must be submitted to the Environmental Planning section of the Planning Department prior to foundations being excavated. This letter must state that the grading has been completed in conformance with the recommendations of the soils report. Compaction reports or a summary thereof must be submitted.
2. **Prior to placing concrete for foundations,** a letter from the soils engineer must be submitted to the building inspector and to Environmental Planning stating that the soils engineer has observed the foundation excavation and that it meets the recommendations of the soils report.
3. **At the completion of construction,** a *final letter* from your soils engineer is required to be submitted to Environmental Planning that summarizes the observations and the tests the soils engineer has made during construction. The final letter must also state the following: "Based upon our observations and tests, the project has been completed in conformance with our geotechnical recommendations."

If the *final soils letter* identifies any items of work remaining to be completed or that any portions of the project were not observed by the soils engineer, you will be required to complete the remaining items of work and may be required to perform destructive testing in order for your permit to obtain a final inspection.

**SITE ASSESSMENT FOR  
CALIFORNIA RED-LEGGED FROG  
AT  
MONTE VISTA CHRISTIAN SCHOOL  
2 SCHOOL WAY,  
WATSONVILLE , CA**

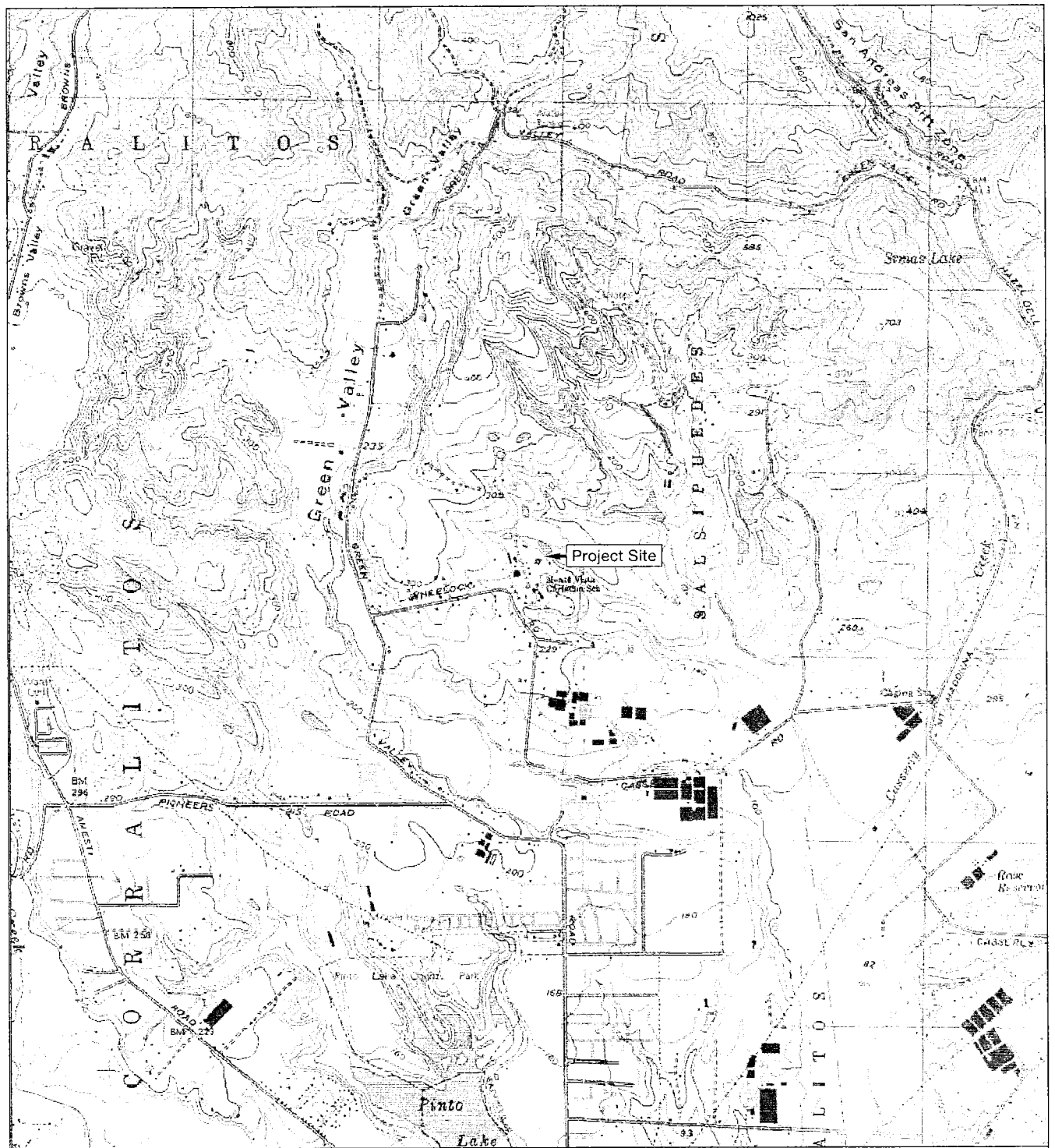
**Introduction**

A site assessment for proposed new facilities at the Monte Vista Christian School located at 2 School Way (APNs 109-331-01, 109-141-20, 24, 25 and 54), Watsonville, California (see Figure 1 for site location) was conducted for California red-legged frog (*Rana draytonii*), a species federally listed as threatened and a state Species of Special Concern. The guidelines for preparing a site assessment for CRLF published by the U. S. Fish and Wildlife Service (USFWS) are used in the preparation of this report (USFWS 2005). Dana Bland, Wildlife Biologist, conducted reconnaissance surveys of the project site on March 21 and 29, and April 4, 2011 to document the aquatic resources on the school property and evaluate habitats for the proposed new facilities relative to potential California red-legged frog habitat.

The proposed project will be implemented in four phases as shown on Figure 2. Proposed new facilities include a water tank, weight room/field house, chapel, larger gymnasium, six tennis courts, new classroom building, choir room, instrument room, sports restroom facility, and expanded café seating/student activity center. The existing gym will be demolished. All new facilities will be either built on the site of existing developed areas (e.g., existing gym, tennis courts, and softball diamond), or will be located in areas with disturbed non-native grassland habitat. All new facilities will be located at least 50 feet from any riparian vegetation.

**Project Site Location – Range of the Species**

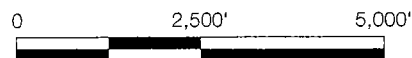
The project site is located at 2 School Way approximately 4 miles east of downtown Watsonville in Santa Cruz County, California (Figure 1). The project site is shown on the USGS Watsonville West 7.5 minute quadrangle. This project site is within the current and historic range of California red-legged frog (CRLF). The project site is not within designated Critical Habitat for CRLF (USFWS 2010).



Base Map Source: Watsonville West USGS Quadrangle



SCALE: 1" = 2,500'



Dana Bland & Associates  
Consulting Biologists

Location of Monte Vista Christian School  
Watsonville California

Figure 1  
3/11





### **Known Occurrences of CRLF Within Project Site and Vicinity**

There are no known occurrences of CRLF on or within 5 miles of the project site listed in the California Natural Diversity Data Base (CNDDB) most recent version dated March 2011 (CDFG 2011). The closest known locations are over 5 miles to the southwest in the Struve Slough area, and over 5 miles to the north and east in Little Arthur Creek and Bodfish Creek (CDFG 2011). A local wildlife biologist, Bryan Mori, was contacted; however, he knows of no CRLF observations in this project site vicinity, but he has not surveyed the area either. In 2006, Dana Bland & Associates conducted extensive surveys along Green Valley Creek during a major bridge replacement project (Paulson-Whiting Road), but observed no CRLF (only non-native bullfrogs and fish). That site is approximately 2 miles southwest of the Monte Vista Christian School. No additional observations of CRLF in the vicinity were found.

### **Habitats Within the Project Site and Vicinity**

The project site is a developed middle and high school campus, with many school buildings, parking lots, athletic fields, and access roads. There are both students that board at the school, and students that attend on a day time basis, with a total student body of approximately 930. The habitats within the total school property include landscaped areas, non-native grasslands, turf fields, bare soil, Eucalyptus groves, willow riparian along a perennial creek, and five ponds (described below).

The primary land use surrounding the Monte Vista Christian School is commercial agriculture. Other land uses include rural residential and recreational (Spring Hills Golf Course is just east of the school).

#### ***Aquatic Habitats***

The aquatic habitats observed within the Monte Vista Christian School campus include five ponds, one intermittent creek, and one perennial creek (see Figures 2). These are described in more detail below.

- 1) An unnamed perennial creek traverses roughly the central portion of the school campus. The creek does not show as a blue line creek on the USGS topographic map, but it is likely fed by a spring since it is perennial. Approximately 0.75 mile downstream of the school property, the creek flows into Salsipuedes Creek and eventually into Casserly Creek. Willow riparian is the dominant habitat along the creek within the school property.
- 2) An unnamed intermittent creek traverses the northern school property boundary. Within the school property, the dominant habitat along the creek is Eucalyptus forest. Understory plants observed include poison oak, blackberry, and miner's lettuce. From the USGS topographic map and aerial photographs, it appears that

this creek flows into a large reservoir located northeast of the school property, and from the reservoir back into Salsipuedes Creek.

- 3) There are five ponds on the school property (see Figure 2). Ponds A and B are instream impoundments of the perennial creek described above. There is another instream impoundment along this creek just to the north of the school property boundary, and it appears to be a large agricultural pond. Pond A flows into Pond B via a culvert under one of the school roads. Pond B flows through a v-ditch and eventually back into the unnamed creek which then flows off the school property.

Ponds C and D are wastewater treatment ponds. Pond C flows into Pond D when it rises to the level of the culvert connecting the two ponds. Pond D is self contained and does not flow into any other pond or creek. The water level in Ponds C and D drops with evaporation and percolation.

Pond E is a small intermittent off-channel pond located adjacent to the intermittent creek that flows along the school property northern boundary. This pond only received rainwater runoff and does not hold water year round. The pond is surrounded by Eucalyptus forest (75%) and willows (25%). Aquatic vegetation observed included cattails and horsetails.

Ponds A, C and D have aerators to keep water circulating and prevent growth of aquatic vegetation such as duckweed, which can cover the pond surface and provide habitat for mosquitoes. None of the ponds are currently treated for mosquitoes, but the mosquito abatement district checks them annually. All ponds are treated with Aquamaster to prevent algae growth.

Other aquatic habitats within 2 km (1.24 miles) of the project site include the following:

- 4) Numerous agricultural ponds (see Figure 1 and 3).
- 5) Several large reservoirs to northeast (see Figure 1).
- 6) Golf course ponds to east (see Figure 3).
- 7) Green Valley Creek to west, Salsipuedes and Casserly Creeks to east (see Figure 1).
- 8) Pinto Lake to the south (see Figure 1).

### ***Upland Habitats***

**Project Site.** Most of the project site is developed with existing school facilities. The new tennis courts, water tank, and weight room/field house will be located in areas of

non-native grassland, bare disturbed non-native grassland, and turf. The topography on the site is relatively flat.

**Surrounding Habitats.** The surrounding habitat is primarily commercial agriculture. The Spring Hills Golf Course is located to the east of the project site. The aerial photo also shows forested areas just to the north and southeast of the school property.

## **Discussion**

The Monte Vista Christian School project site lies at the base of an area east of Watsonville known as Spring Hills. There are numerous agricultural ponds, golf course ponds, reservoirs, and creeks throughout the general vicinity (See Figure 1). Although there are numerous aquatic habitats in the general area, no evidence of focused surveys for CRLF was found. Bullfrogs are known to occur in the ponds on the school property (Wayne Johnson, pers. comm.) and were abundant in Green Valley Creek during 2006 surveys (Dana Bland, pers. obs.). Although the non-native bullfrog competes with and preys on small CRLF, CRLF still sometimes persist in low numbers in aquatic habitats with bullfrogs (Dana Bland, pers. obs.). It is unknown if fish exist in the school ponds, although there are anecdotal records that several decades ago, fish were planted in the ponds (Wayne Johnson, pers. comm.).

The use of aerators in the ponds and the high level of human activity associated with the surrounding school facilities makes the ponds only marginal habitat for CRLF, which are largely absent from developed areas. It is very unlikely that CRLF breed in any of the ponds on the school property. CRLF need still water for their eggs to develop, and the constant water movement from the aerators would not be favorable to egg development. In addition, small larvae would likely be entrained in the aerator pumps. It is also very unlikely that CRLF would be found within the project construction sites during the daytime construction, because CRLF are mostly nocturnal and the project sites lack sufficient cover and moisture required by CRLF.

However, with the vast network of aquatic habitats in the general vicinity, individual CRLF may occasionally disperse through the site or forage on the site. Because occurrence of CRLF on the site is expected to be infrequent, it would likely be difficult to definitively state that they are absent by conducting focused surveys. Therefore, for the purposes of this project, we recommend that the project applicant presume that occasionally individual CRLF may be present in the aquatic habitats on the school property, and implement the measures recommended below to avoid any potential harm to CRLF.

The project itself will not alter any of the aquatic or riparian habitats on the school property. All new facilities will be at least 50 feet from edge of riparian vegetation (see Figure 2). The non-native grasslands where some of the new facilities are proposed is not considered essential habitat for CRLF, nor will the facilities pose significant barriers to frog movement. The project site is not within designated Critical Habitat for CRLF (USFWS 2010). Stormwater runoff from the new facilities will be directed into the

school's existing storm drain system that discharges downstream to the unnamed perennial creek. The school maintains the necessary permits for stormwater discharge (Wayne Johnson, pers. comm.).

### **Measures Recommended to Avoid Impacts to CRLF**

The following measures are recommended to avoid any potential impacts to individual CRLF in the unlikely event that any are present in the project area during construction of the proposed new school facilities at Monte Vista Christian School.

1. No more than 48 hours prior to ground stripping or grading, a qualified biologist shall conduct a preconstruction survey of the building sites located in turf or non-native grassland areas to search for CRLF. If any CRLF are observed within or along the perimeter of the building site, construction shall be postponed until the frog leaves of its own accord and retreats into suitable riparian or aquatic habitat. The U. S. Fish and Wildlife Service (USFWS) shall be contacted for further guidance. In no case shall the biologist or any other staff capture and relocate any CRLF without approval from the USFWS.
2. A qualified biologist shall give a worker training session on the first morning of construction to all construction personnel. The training shall include information on identification of the species, its life history, and measures implemented for this project to avoid any harm to the species. The training may include flyers, photographs, or books with pertinent information.
3. Prior to commencement of ground clearing or grading, the applicant shall install silt fencing along the perimeter of construction areas closest to Pond A (i.e., new gym, classrooms, and new weight room/field house) to prevent any loose sediment from entering aquatic areas, and to discourage frogs from entering construction sites. The silt fencing shall be maintained throughout the construction period.
4. All fueling of construction equipment shall take place at least 20 m from any aquatic habitat. The construction foreman shall inform the construction workers of plans to properly contain and clean up any accidental petroleum spills.

### **References**

U. S. Fish and Wildlife Service. 2005. Revised guidance on site assessments and field surveys for the California red-legged frog, August 2005.

U. S. Fish and Wildlife Service. 2010. Endangered and threatened wildlife and plants: Revised designation of critical habitat for the California red-legged frog; Final rule. Fed. Register Vol. 75, No. 51:12816-12959.



## County of Santa Cruz

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BRUCE DAU, Chairperson  
KEN KIMES, Vice Chairperson  
MARY LOU NICOLETTI, Executive Secretary

### MINUTES OF REGULAR MEETING

**NOVEMBER 15, 2012**

**1:30 PM**

Agricultural Extension Auditorium  
1432 Freedom Boulevard  
Watsonville, California

Present: Bruce Dau, Ken Kimes, Sam Earnshaw, Frank "Lud" McCrary.

Excused absence: Mike Manfre

Unexcused Absence: None

Others: Samantha Haschert, Randall Adams, Mary Lou Nicoletti

1. The meeting was called to order at 1:30 PM.

2. (a) Approved minutes from July 19, 2012.

AYES: Dau, Kimes, Earnshaw, McCrary;

NOES: None;

ABSTAIN: None;

ABSENT: Manfre

(b) Additional agenda item: addition of late correspondence received for Item 6.

3. No APAC Commissioner presentations

4. Staff presentations:

a. Mary Lou Nicoletti, Agricultural Commissioner, provided updates on field fumigation, permit issuance, and recruitment for a vacant Deputy Agricultural Commissioner position.

b. Samantha Haschert stated there would be no APAC meeting in December. She also informed the Commissioners that the report to the Board of

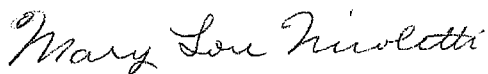
Supervisors is coming due and that the Commissioners will receive a draft for comments, via email, in the next few weeks.

5. No oral communication.
6. Approved staff recommendations for project HA22669. APN: 109-141-25 and 109-331-01, with the following revised conditions:
  - a. Decrease spacing of wax myrtle shrubs from 20' on center to 10' on center on the west side of the proposed Tennis Courts and on the west side of the proposed JV Softball Field;
  - b. The fence to the southwest of the JV Softball Field shall be a 6' chain link fence with slats;
  - c. Extend the 6' chain link fence with slats along the north property boundary of the school;
  - d. Maintain all existing vegetative buffers;

AYES: Dau, Kimes, Earnshaw, McCrary;  
NOES: None;  
ABSTAIN: None;  
ABSENT: Manfre

The meeting was adjourned at 2:30 PM.

Respectfully submitted,



Mary Lou Nicoletti  
Executive Secretary



## Staff Report to the Agricultural Policy Advisory Commission

Application Number:  
**HA22669**

**Applicant:** Betty Cost Planning and Permit Services  
**Owner:** Monte Vista Christian School  
**APN:** 109-141-25; 109-331-01

**Date:** 11/15/12  
**Agenda Item #:** 6  
**Time:** 1:30 p.m.

**Project Description:** Proposal to reduce the required agricultural buffer setback from 200 feet to about 90 feet to proposed tennis courts and to about 60 feet and 115 feet from a proposed softball field. Requires an Agricultural Buffer Setback Reduction.

**Location:** Monte Vista Christian School - 2 School Way, Watsonville

### Staff Recommendation:

- Approval of Application HA22669, based on the attached findings and conditions.

### Exhibits

- |                  |  |
|------------------|--|
| A. Project plans | D. Project Vicinity, Zoning, and General Plan maps |
| B. Findings      | E. Comments & Correspondence                       |
| C. Conditions    |  |

### Parcel Information

Parcel Size:	87.4 acres (including all school parcels)
Existing Land Use - Parcel:	Private school & associated facilities
Existing Land Use - Surrounding:	Rural residential and agricultural uses
Project Access:	School Way (via Wheelock Road)
Planning Area:	Eureka Canyon
Land Use Designation:	109-141-25: R-R (Rural Residential) 109-331-01: P (Public Facilities)
Zone District:	109-141-25: A (Agriculture) 109-331-01: PF (Public Facilities)
Supervisory District:	4th (District Supervisor: Greg Caput)
Within Coastal Zone:	<input type="checkbox"/> Inside <input checked="" type="checkbox"/> Outside

### Services Information

Inside Urban/Rural Services Line: ☐ Yes ☒ No



Water Supply:	Well
Sewage Disposal:	Septic & Private Treatment System
Fire District:	Pajaro Fire Protection District
Drainage District:	Zone 7 Flood Control District

## **Analysis and Discussion**

This request for an Agricultural Buffer Setback Reduction is a component of a proposal to amend the Master Plan for the Monte Vista Christian School in Watsonville. Although no buildings are proposed within the required 200 foot setback from Commercial Agriculture zoned parcels, two outdoor improvements (tennis courts and a softball field) are proposed within the required agricultural buffer setbacks.

### Tennis Courts

The new tennis courts are proposed to be located on APN 109-141-25 on the west side of the campus. The western edge of the tennis courts would be approximately 90 feet from the property boundary shared with APN 109-141-42, a Commercial Agriculture zoned parcel. The existing boundary is fenced and an existing row of pine trees is located on the school side of the fence line. The applicant proposes to replace 400 linear feet of the existing wood fencing with a tight wood board fence 6 feet in height and to plant additional trees and shrubs in this area. The replacement fencing and additional trees and shrubs will create an effective agricultural buffer barrier between the new tennis courts and any existing or future agricultural activities on APN 109-141-42.

### Softball Field

The junior varsity softball field is proposed to be located in the northernmost portion of the school campus on APN 109-331-01. The western edge of the softball field would be approximately 60 feet from the property boundary shared with APN 109-331-02 and the northern edge of the softball field would be approximately 115 feet from the property boundary shared with APN 109-101-32, which are both Commercial Agriculture zoned parcels.

The existing western boundary (with APN 109-331-02) is fenced with chain link material along School Way with some stands of shrubs and trees along this boundary. The applicant proposes to replace a portion of the existing chain link fencing with new chain link fencing including slats and to plant a row of large shrubs in this area. The replacement fencing and additional shrubs, combined with the presence and width of the existing roadway (School Way), will create an effective agricultural buffer barrier between the new softball field and any existing or future agricultural activities on APN 109-331-02.

The existing northern boundary (with APN 109-101-32) is heavily vegetated with trees and shrubs and a private right of way is located on the north side of the property line. No improvements are proposed for this boundary due to the existing vegetation. The existing vegetation will be retained as a buffer and a new water tank will be located within the 120 foot setback from the northern property line. The existing vegetation, combined with the presence and width of the existing roadway, will create an effective agricultural buffer barrier between the new softball field and any existing or future agricultural activities on APN 109-101-32.

A reduced agricultural buffer is recommended for the proposed improvements due to the outdoor nature of the uses and the presence of existing agricultural buffer barriers. The applicant is proposing additional fencing and planting plantings to reduce the impact of agricultural activities on the proposed recreational uses, and to therefore protect the agricultural interests on the Commercial Agriculture zoned parcels.

### **Recommendation**

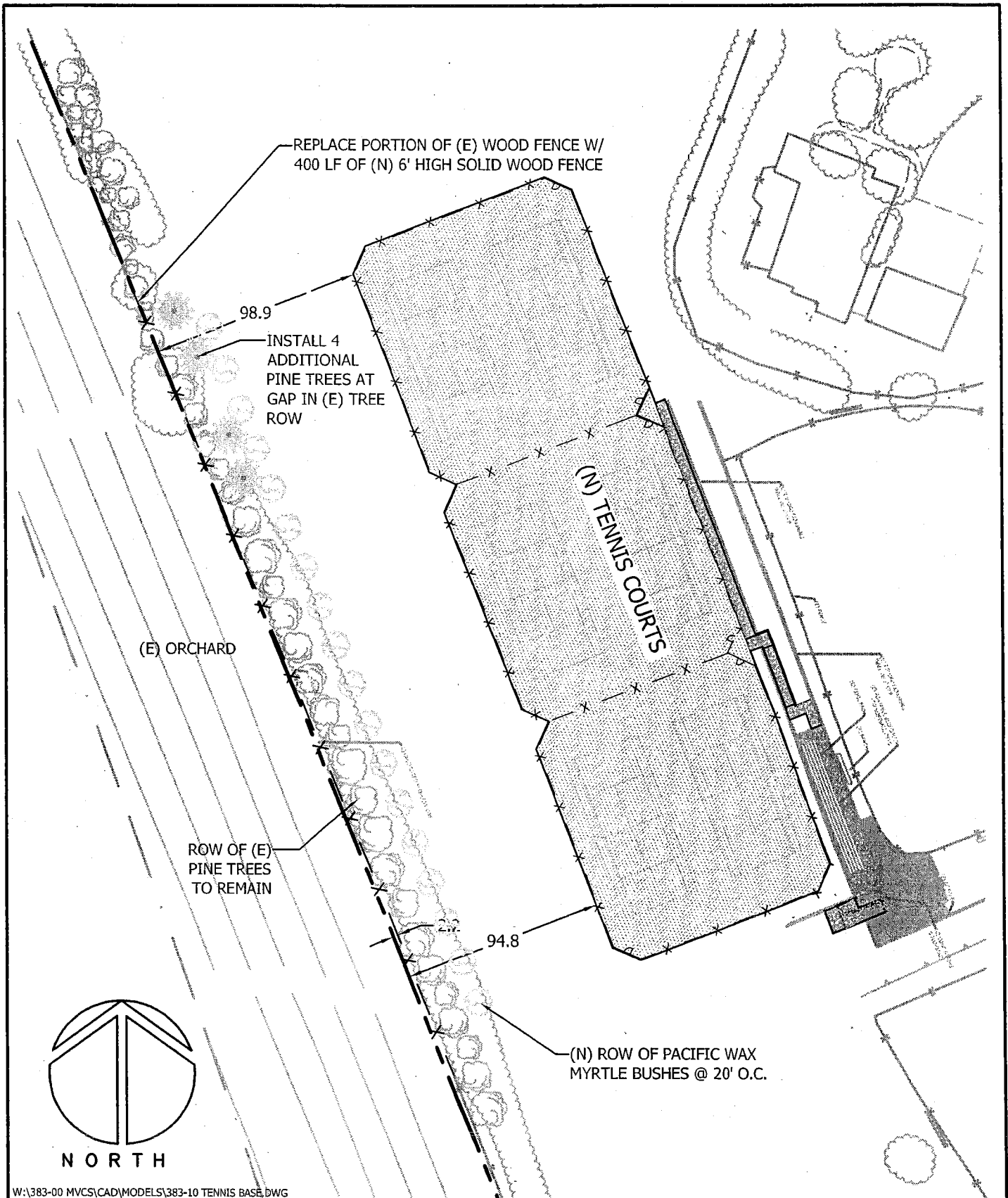
- Staff recommends that your Commission **APPROVE** the Agricultural Buffer Reduction from 200 feet to about 90 feet to the proposed tennis courts from the adjacent CA zoned property known as APN 109-141-42; and to about 60 feet & 115 feet to the proposed softball field from the adjacent CA zoned properties known as APNs 109-331-02 & 109-101-32, proposed under Application # HA22669, based on the attached findings and recommended conditions.

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

**The County Code and General Plan, as well as hearing agendas and additional information are available online at: [www.co.santa-cruz.ca.us](http://www.co.santa-cruz.ca.us)**

Report Prepared By: Randall Adams  
Santa Cruz County Planning Department  
701 Ocean Street, 4th Floor  
Santa Cruz CA 95060  
Phone Number: (831) 454-3218  
E-mail: [randall.adams@co.santa-cruz.ca.us](mailto:randall.adams@co.santa-cruz.ca.us)



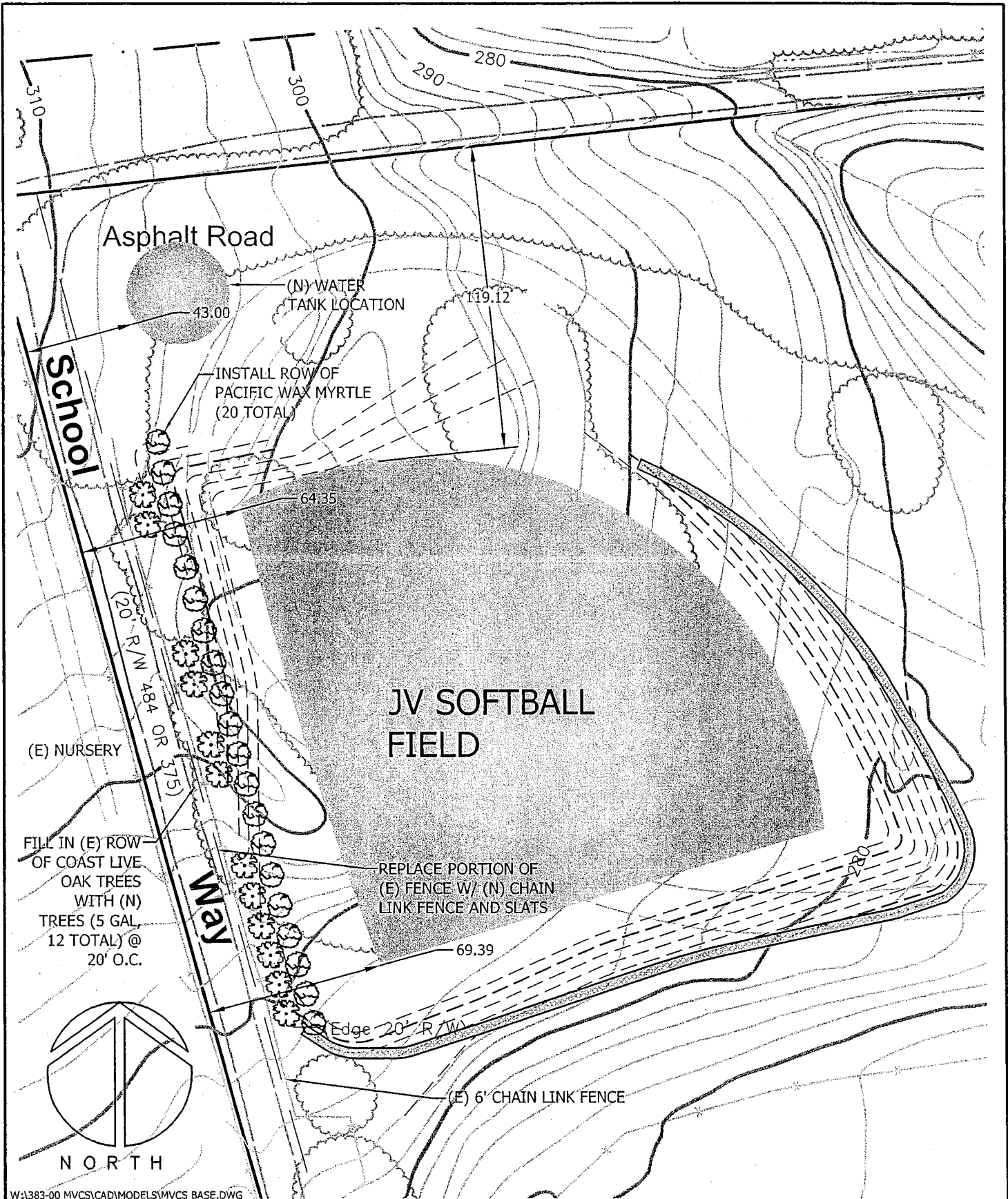


## VARIANCE EXHIBIT - TENNIS COURT SETBACK

MONTE VISTA CHRISTIAN SCHOOL  
2 SCHOOL WAY, WATSONVILLE, CA 95076

DATE: 06.26.12  
DRAWN: DD  
SCALE: 1"=60'  
SHEET: 1

EXHIBIT A



## VARIANCE EXHIBIT - JV SOFTBALL FIELD SETBACK

MONTE VISTA CHRISTIAN SCHOOL  
2 SCHOOL WAY, WATSONVILLE, CA 95076

DATE: 08.08.12  
DRAWN: BM  
SCALE: 1"=50'  
SHEET: 1

EXHIBIT A

**Required Findings for Agricultural Buffer Setback Reduction  
County Code Section 16.50.095(d)**

1. Significant topographical differences exist between the agricultural and non-agricultural uses which eliminates or minimizes the need for a 200 foot agricultural buffer setback; or

Not applicable.

2. Permanent substantial vegetation (such as a Riparian Corridor or Woodland protected by the County's Riparian Corridor or Sensitive Habitat Ordinances) or other physical barriers exist between the agricultural and non-agricultural uses which eliminate or minimize the need for a two hundred (200) foot agricultural buffer setback; or

Permanent substantial vegetation in the form of existing trees and large shrubs to north of the softball field proposed on APN 109-331-01 would be adequate to prevent conflicts between the non-agricultural development and the adjacent Commercial Agriculture zoned land of APN 109-101-32 to the north.

3. A lesser setback is found to be adequate to prevent conflicts between the non-agricultural development and the adjacent agricultural development and the adjacent agricultural land, based on the establishment of a physical barrier (unless it is determined that the installation of a barrier will hinder the affected agricultural use more than it would help it, or would create a serious traffic hazard on a public or private right of way) or the existence of some other factor which effectively supplants the need for a two hundred (200) foot agricultural buffer setback; or

The recreational improvements are proposed to be set back (90 feet to the tennis courts, 60 feet & 115 feet to the proposed softball field) from the adjacent Commercial Agriculture zoned land. An effective barrier consisting of fencing materials (a six foot tall solid wood fence west of the tennis courts and a six foot tall chain link fence with slats west of the softball field) enhanced with vegetation (a row of pine trees and large shrubs west of the tennis courts, a row of large shrubs west of the softball field, and existing trees and large shrubs north of the softball field) would be adequate to prevent conflicts between the non-agricultural development and the adjacent Commercial Agriculture zoned lands of APNs 109-141-42; 109-331-02 & 109-101-32. The barriers, as proposed, would not create a hazard in terms of the vehicular sight distance necessary for safe passage of traffic.

4. The imposition of a two hundred (200) foot agricultural buffer setback would preclude building on a parcel of record as of the effective date of this chapter, in which case a lesser buffer setback distance may be permitted, provided that the maximum possible setback distance is required, coupled with a requirement for a physical barrier (e.g. solid fencing and/or vegetative screening) to provide the maximum buffering possible, consistent with the objective of permitting building on a parcel of record.

The tennis courts are proposed to be located on APN 109-141-25 which is approximately 220 feet in width. The requirement of a 200 foot agricultural buffer setback, combined with the required 20 foot yard setback would preclude the construction of improvements on this parcel.

### **Conditions of Approval** (*Amended at APAC 11/15/12*)

- I. This permit authorizes an Agricultural Buffer Setback reduction from the proposed recreational uses (tennis courts on APN 109-141-25 and softball field on APN 109-331-01) to APNs 109-141-42; 109-331-02 & 109-101-32, as depicted on the approved Exhibit "A" for this permit. This approval does not confer legal status on any existing structure(s) or existing use(s) on the subject property that are not specifically authorized by this permit. Prior to exercising any rights granted by this permit, including, without limitation, any construction or site disturbance, the applicant/owner shall:
  - A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.
  - B. Obtain a Building Permit and Grading Permit from the Santa Cruz County Building Official.
    1. Any outstanding balance due to the Planning Department must be paid prior to making a Building Permit application. Applications for Building Permits will not be accepted or processed while there is an outstanding balance due.
- II. Prior to issuance of a Building Permit the applicant/owner shall:
  - A. Submit final architectural/engineering plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "A" on file with the Planning Department. Any changes from the approved Exhibit "A" for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional information:
    1. The following minimum setbacks shall be met from the proposed development to the surrounding Commercial Agriculture zoned parcels: 90 feet (from the tennis courts to APN 109-141-42 to the west), 60 feet (from the softball field to APN 109-331-02 to the west), and 115 feet (from the softball field to APN 109-101-32 to the north)
    2. Final plans shall show the location of the vegetative buffering barrier (and any fences/walls used for the purpose of buffering adjacent agricultural land) which shall be composed of drought tolerant shrubbery. The shrubs utilized shall attain a minimum height of six feet upon maturity. Species type, plant sizes and spacing shall match the approved exhibits and shall be indicated on the final plans for review and approval by Planning Department staff.
      - a. *Spacing of Wax Myrtle shrubs shall be reduced from the 20' o.c. dimension indicated on the approved Exhibit A to 10' o.c. spacing. (Added at APAC 11/15/12)*
      - b. *6' high chain link fencing with slats shall continue along west and north property lines shared with CA zoned property adjacent to the proposed JV softball field. (Added at APAC 11/15/12)*

- B. The owner shall record a Statement of Acknowledgement, as prepared by the Planning Department, and submit proof of recordation to the Planning Department. The statement of Acknowledgement acknowledges the adjacent agricultural land use and the agricultural buffer setbacks.
- III. All construction shall be performed according to the approved plans for the building permit. Prior to final building inspection, the applicant/owner must meet the following conditions:
- A. The agricultural buffer setbacks shall be met as verified by the County Building Inspector.
  - B. The required vegetative and/or physical barrier shall be installed. The applicant/owner shall contact the Planning Department, a minimum of three working days in advance to schedule an inspection to verify that the required barrier (vegetative and/or other) has been completed.
  - C. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official and/or the County Senior Civil Engineer.
- IV. Operational Conditions
- A. The *existing and proposed* vegetative and physical barriers shall be permanently maintained. (*Amended at APAC 11/15/12*)
  - B. All required Agricultural Buffer Setbacks shall be maintained.
  - C. In the event that future County inspections of the subject property disclose non-compliance with any Conditions of this Approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, up to and including permit revocation.
- V. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, its officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.
- A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.
  - B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:
    - 1. COUNTY bears its own attorney's fees and costs; and



2. COUNTY defends the action in good faith.

- C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.
- D. Successors Bound. "Development Approval Holder" shall include the applicant and the successor'(s) in interest, transferee(s), and assign(s) of the applicant.

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

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

Approval Date: 11/15/12

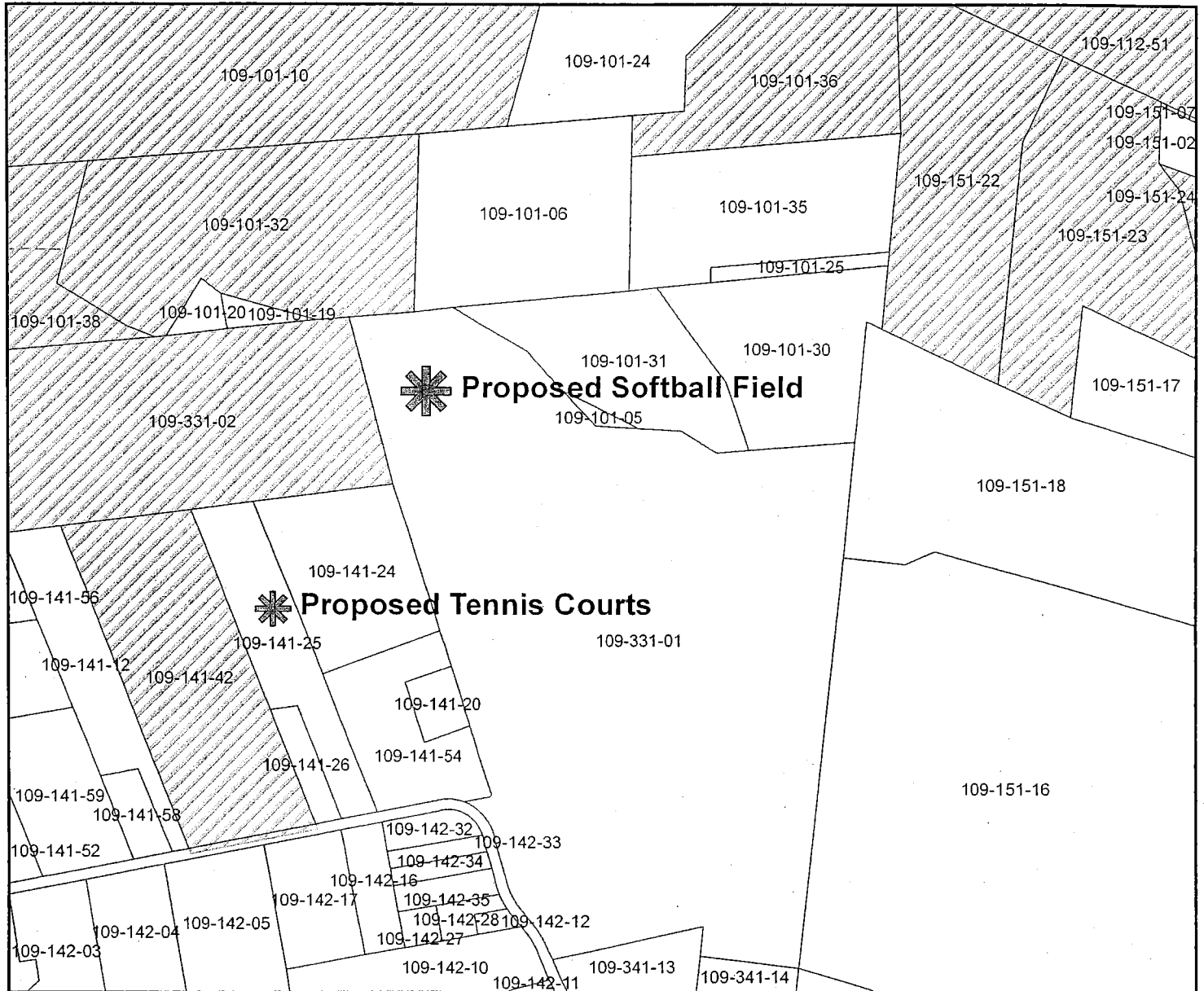
Effective Date: Subject to approval of Application 111111

Expiration Date: Effective date for Application 111111 shall apply

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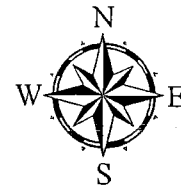
Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Agricultural Policy Advisory Commission under the provisions of County Code Chapter 16.50, may appeal the act or determination to the Board of Supervisors in accordance with chapter 18.10 of the Santa Cruz County Code.

# Project Vicinity Map



## LEGEND

- Streets selection
- Assessors Parcels
- State Highways
- Commercial Agriculture Zoned Properties



Map Created by  
County of Santa Cruz  
Planning Department  
August 2012

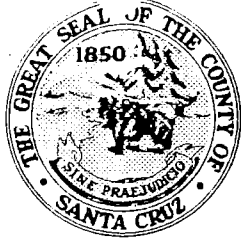
**EXHIBIT D**

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PLANNING DEPARTMENT

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GOVERNMENTAL CENTER



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C O U N T Y   O F   S A N T A   C R U Z

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701 OCEAN STREET   SANTA CRUZ, CALIFORNIA   95060  
(408) 454-2580   FAX (408) 454-2131   TDD (408) 454-2123

May 15, 1995

Mr. Clark Wetzel  
2 School Way  
Watsonville, CA 95706

SUBJECT: ARCHAEOLOGICAL RECONNAISSANCE REPORT, APN 109-141-55,  
APPLICATION NO. 95-0034

Dear Mr. Wetzel:

The County's archaeological consultant has completed the review of your property. As a result of the required archival search, the consultant has verified a previous survey was completed on your parcel with negative results (no prehistoric cultural indications were found). Therefore, no further archaeological review will be required for development of this parcel.

Please call me at 454-3162 if you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Suzanne Smith'.

Suzanne Smith  
Resource Planner

For: Rachel Lather  
Senior Civil Engineer