RIVERSIDE UNIFIED SCHOOL DISTRICT
OPERATIONS DIVISION

Operations Board Subcommittee Meeting
April 26, 2018
2:00 p.m. – 4:00 p.m.
Conference Room 3
3380 14th St., Riverside, CA 92501

A G E N D A

As required by Government Code 54957.5, agenda materials can be reviewed by the public at the District's Administrative Offices, Reception Area, First Floor, 3380 Fourteenth Street, Riverside, California.

Call Meeting to Order

Public Input

The subcommittee will consider requests from the public to comment. Comments should be limited to three minutes or less. If you wish to address the subcommittee concerning an item already on the agenda, please indicate your desire to do so on a provided card. You will have an opportunity to speak prior to the subcommittee's deliberation on that item.

Pursuant to Section 54954.2 of the Government Code, no action or discussion shall be undertaken on any item not appearing on the posted agenda, except that members of the Subcommittee or staff may briefly respond to statements made or questioned posed by persons exercising their public testimony rights. Discussion of items brought forward that are not on the agenda shall be considered for future agendas by the Subcommittee Chair.

Action/Discussion Items

The following agenda items will be discussed and the subcommittee members may choose to introduce and pass a motion as desired.

1. **Approval of Minutes**
   The subcommittee will be asked to approve the minutes of the March 29, 2018, meeting.

2. **The Grove Community Church Developer Fees Waiver**
   Staff will present a request from The Grove Community Church to waive developer fees for their Transitional Homeless Housing Project for the subcommittee's review.

3. **Community Facilities District (CFD) Formation Process**
   RUSD Financial Advisor and Bond Counsel will review the CFD formation process with the subcommittee.

4. **Martin Luther King High School Wrestling Room**
   Staff will present a preliminary conceptual plan and site request for a proposed Wrestling Room at Martin Luther King High School for the subcommittee's review.

5. **Martin Luther King High School – Proposed Traffic & Pedestrian Circulation Plan**
   Staff will present a preliminary conceptual traffic and pedestrian circulation plan for the Martin Luther King High School campus. The proposed plan includes a new ingress/egress campus access from Van Buren Boulevard, new overflow parking lot, student drop-off area, and pedestrian/student safe route access plan.

6. **Proposed School Auto Shop - Lincoln Continuation High School**
   Staff will present a preliminary conceptual plan and site request to develop a proposed auto shop at the Lincoln Continuation High School campus.

7. **California Environmental Quality Act (CEQA) Addendum (20375 Spring Street Site)**
   Staff will present the California Environmental Quality Act (CEQA) Addendum Report for the 20375 Spring Street, Riverside, CA, Project Site in the Highgrove Spring Mountain Ranch area for the subcommittee's review. On January 18, 2005, the District adopted the Helen Keller Elementary School Mitigated Negative Declaration (MND) Report for a proposed new Elementary School. Pursuant to CEQA and the State CEQA Guidelines, this Addendum focuses on the proposed changes to the project that might cause a change in the conclusions of the 2005 adopted MND, and any change in circumstances or new information of substantial importance that would substantially change the conclusions of the previous environmental documents.

8. **Ramona High School Theater Dedication Plaque**
   Staff will present the revised dedication plaque and the revised William Shakespeare's quote for the subcommittee's review.

9. **Schedule of Meetings**
   The subcommittee's next meeting has been scheduled for Thursday, May 24, 2018 at 2:00 p.m., in Conference Room 1, 3380 14th Street, Riverside, CA 92501.

Conclusion

Subcommittee Members Comments

Adjournment

ITEM No. 1

Riverside Unified School District
Operations Division
Operations Board Subcommittee Meeting
March 29, 2018
2: 00 p.m. – 4:00 p.m.
Conference Room 3
3380 14th St., Riverside, CA 92501

MINUTES

CALLED TO ORDER: 2:05 p.m. by Mr. Lee

PRESENT: Brent Lee and Tom Hunt, Board Members, and Sergio San Martin, Assistant Superintendent, Operations.

Also present were Ana Gonzalez, Director, Planning and Development; Ken Mueller, Director, Maintenance and Operations; Jessica Mears, Facilities Planning Assistant Director; Kevin Hauser, Facilities Planning Assistant Director; Daniel Rodriguez, Facilities Projects Assistant Director; Gaby Adame, Facilities Analyst; Carolina Michel, John Adams Elementary School Principal; John McCombs, Madison Elementary School Principal; Adela Flores-Bertrand, Tomas Rivera Elementary School Principal, Kiersten Reno-Frausto, Director Elementary Education; Paul DeFoe, CWA Manager; Richard Prince, Communications Relations Manager; David Marshall, Conflict Resolution Officer, Melina Aluwi and David Eaves, LPA Inc., Lyn Gruber, Koppel and Gruber, Public Finance; Donna Fuller and Gilbert Hernandez, City Traffic Engineer, and Lizette Delgado, (Recorder).

Public Input

There were no request to speak with subcommittee members.

Action/Discussion Items

1. **Approval of Minutes**
   Mr. Hunt moved and Mr. Lee seconded to approve the minutes of the March 16, 2018, meeting, as presented.

2. **Measure O Project Groups A – C Update**
   Staff and design teams presented information on John Adams and Madison Elementary Schools. Information such as budget summary, project summary, site renderings, and schedule was presented for subcommittee members' approval.

   John Adams Elementary School: Option 2 Project Budget: $13,995,922.

   Option 2 Project Description: New 6-classrom Kindergarten building and playground, drop-off, visitor parking lot, ornamental iron fence, and storm water upgrades. Hardscape, exterior fence, and sand pit play area improvements, and portable building renovation. Alternates: Add carpet for classrooms that need new carpet. Staff will provide a cost estimate for replacement. Estimated project duration: December 2017 – July 2021.

The subcommittee discussed the information presented and received input from the staff, school principal, and architects, and agreed to move forward the project's Option 2, as presented. Subcommittee members asked staff to add new carpet for classrooms that need new carpet.

Madison Elementary School: Budget for the project: $18,631,461

Project description: New 5-classroom Kindergarten building and playground, lunch shelter, and storm water basin. Low-level renovation to existing buildings and 15 portables, and medium-level renovation to existing MPR and Administration buildings. Remove 6 and relocate 3 existing portables. Parking lot, hardscape, existing playground, curb appeal, exterior fence, and site utilities improvements. Relocate existing lunch shelter. Estimated project design duration: December 2017 – July 2021.

The subcommittee discussed the information presented and received input from the staff, school principal, and architects, and agreed to move forward the project, as presented.

3. Tomás Rivera Elementary School Traffic Circulation Plan

At the request of Board Member Hunt, staff presented an update to the City of Riverside's Proposed Traffic Circulation Plan for Tomás Rivera Elementary School.

Adela Flores-Bertrand and Paul DeFoe provided background information concerning the traffic issues at Rivera Elementary School, including meetings with City staff, school staff, and Paul DeFoe, Pupil Services, and support provided by Maintenance and Operations Department. Principal Flores-Bertrand will send a letter informing parents about the circulation plan implementation, scheduled to begin on Monday, April 9, 2018. Staff suggested requesting assistance from the Riverside Police Department to implement the plan.

4. 2018 Fee Justification Report

Staff informed the subcommittee that in even-numbered years, the State Allocation Board makes an inflationary adjustment to the statutory residential and commercial/industrial development fees that may be charged by school districts throughout the State of California. On January 24, 2018, the fees were increased from $3.48 to $3.79 per square foot for residential development and from $0.56 to $0.61 per square foot for commercial/industrial development. In order to collect higher fees, a district must perform a Fee Justification Study that shows that the impacts of development are equal to or greater than the statutory fees, and adopt the findings of the study. Prior to adoption, a public hearing must be held to receive any public comment regarding the study.

The subcommittee reviewed and approved the 2018 Fee Justification Report. The reports will be presented to the Board of Education for adoption at the June 5, 2018 Board meeting.

5. 2018 School Facilities Needs Analysis (SFNA)

Staff informed the subcommittee that pursuant to Government Code 66995.5 et seq., the District is required to adopt a School Facilities Needs Analysis in order to levy the alternative school facilities fees provided under Senate Bill 50. The School Facility Needs Analysis Report, dated March 19, 2018, demonstrates that the District may impose $4.10 per square foot in Level II Fees and $8.20 per square foot in Level III Fees on new residential construction.

The subcommittee reviewed and approved the 2018 School Facilities Needs Analysis to be presented to the Board of Education for adoption at the June 5, 2018 Board meeting.

6. Schedule of Meetings

The subcommittee's next meeting has been scheduled for Tuesday, April 10, 2018 at 2:00 p.m., in Conference Room 1, 3380 14th Street, Riverside, CA 92501.

Conclusion

Subcommittee Members Comments

Mr. Hunt, on behalf of the subcommittee, asked staff to keep the Board of Education updated about the projects that have been approved. He also suggested having the Measure O COC membership informed on the approved projects.

Adjournment

Meeting was adjourned at 3:43 p.m.

The Grove Village Management and Operations Plan

February 9, 2018

Program Summary: The homeless housing project for the Grove Community Church is part of our church living out our purpose statement which is "**Being changed by God to reach all people**". That would include doing our best to help the city of Riverside reach out and care for the homeless population of our city and surrounding areas.

We intend to build four fully functional cottages of 600 SF each on our property to demonstrate the viability of this concept for the city and other churches. We want to reach out to the homeless who reside in shelters, on the streets, or even in our own church community within Riverside and the Inland Empire. While we will be equipped to welcome families, our target demographic is under represented adult individuals or married couples without children including emancipated foster youth and those who are able and willing to seek and maintain gainful employment.

The goal for those who come and live in these cottages is transitional housing. We envision those who stay in our cottages to be here for six months with the possibility of the stay lasting up to two years. Our plan is that within these two years, we would help facilitate job and independent living skills, employment and their own permanently sustainable independent housing.

The Grove is a church and whoever is welcomed into our program to live on our property must know our expectations for them to live Biblically. We won't allow those that are not married to live together, drinking of alcohol, use of drugs or smoking on church grounds. We just expect people who live in our cottages to know we are a church, set aside to honor God and live by His word. We are not a legalistic church and we have great love and grace for all people. We just want those who join us to represent God well and the beliefs we hold from scripture. People who live in these cottages do not have to be Christian but must appreciate, respect and live by our standards while they are here.

What we will do for those who live here will far outweigh any standards they may feel required to follow. We will:

1. Love those who live here and treat them like family
2. Do our best to care for their needs and assure they have all they need to succeed in the future
3. They will never go hungry and will have a nice place to live while they are here
4. We will introduce them to people in our church who have the possibility of hiring them and giving them a chance for a career
5. With their help, assure their cottages are always nice and safe. They will need to make sure they are always neat and clean
6. Offer counseling, supportive services and any spiritual advice they may want. We have a counseling center that will help them and will partner with Path of Life Ministries and our church volunteers for supportive services
7. Invite them to join our church activities and help them with the cost if they can't afford it from the beginning
8. Get them involved in our sports leagues and other such activities as they desire
9. Mentor and befriend them so they can better focus on behaviors that will lead to sustainable permanent living
10. Open our church and ministries to them but never force them

Project Summary: The Grove Village will be located just west of the current High School ministry building on a pad that was originally developed as volleyball courts. It is bordered to the north by a parking lot and to the southwest by a ballfield

1. Phase 1 will include 4 transitional cottages of 600 square feet each. They will be detached, single story, Type V, slab on grade, and architecturally consistent with the existing campus
2. The transitional cottages will include 2 bedrooms, bathroom and common living/kitchen that includes sink, refrigerator, stove, and washer/dryer
3. The immediate grounds will be landscaped consistently with the existing campus
4. This residential project will not comply with ADA and no modifications will be anticipated on the existing campus
5. A utility summary is located on the plans with all connections occurring on the existing campus

Operational Logistics:

1. Vehicles will be parked in the existing adjacent lot to the north. All vehicles must remain in operating condition
2. Storage will be prohibited in the parking lots and open space surrounding the units. Any arrangements for storage will be accommodated out of view or offsite so the lots and grounds remain clean and orderly
3. Animals will not be allowed on campus or in the cottages
4. Childcare must be arranged when parents are off campus, so children are not left alone or to wander around campus unchaperoned
5. Trash will be collected in each cottage and deposited in the existing bins in the outdoor kitchen service area
6. Supportive services include:
    a. Healthcare
    b. Nutrition and groceries
    c. Transportation
    d. Permanent address
    e. Live skills support – banking, budgeting, home economics, licensing, continuing education, job skills, parenting, sobriety, hygiene, and insurance

Please see the following attachments for additional clarity and support:

1. Transitional Housing Program Agreement
2. Code of Safe Conduct and Good Neighbor Policy

TOM LANCE
SENIOR PASTOR
The Grove Community Church
Riverside, CA
www.thegrove.cc
951-571-9090 x2110

ITEM No. 4

RUSD

Innovation in Education

Martin Luther King High School Wrestling Room

Operations Board Subcommittee

April 26, 2018

Why the need of a wrestling room?

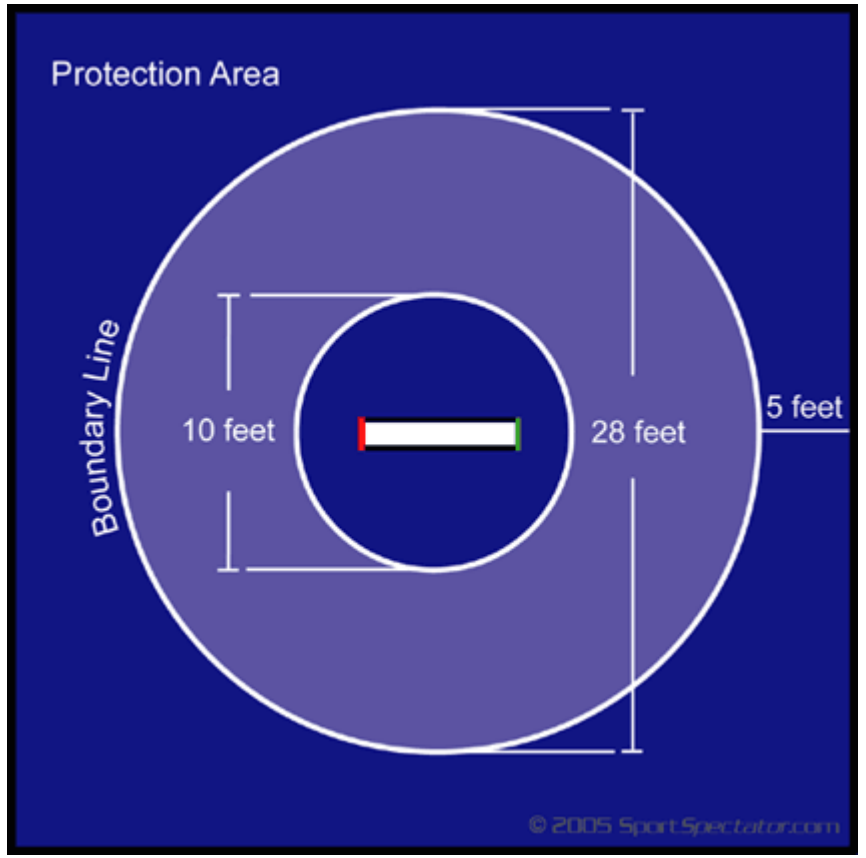
- Lack of dedicated wrestling practice room
- Existing limited practice area behind bleachers
- Boys & Girls share limited practice area
- Existing practice mats overlap – risk of injuries
- Wrestling Practice cancels throughout the year when gym is in use
- Etc.

WRESTLING ROOM FEASABILITY
MARTIN LUTHER KING HIGH SCHOOL
RIVERSIDE UNIFIED SCHOOL DISTRICT
KH 10.24.17

A1

Specifications:

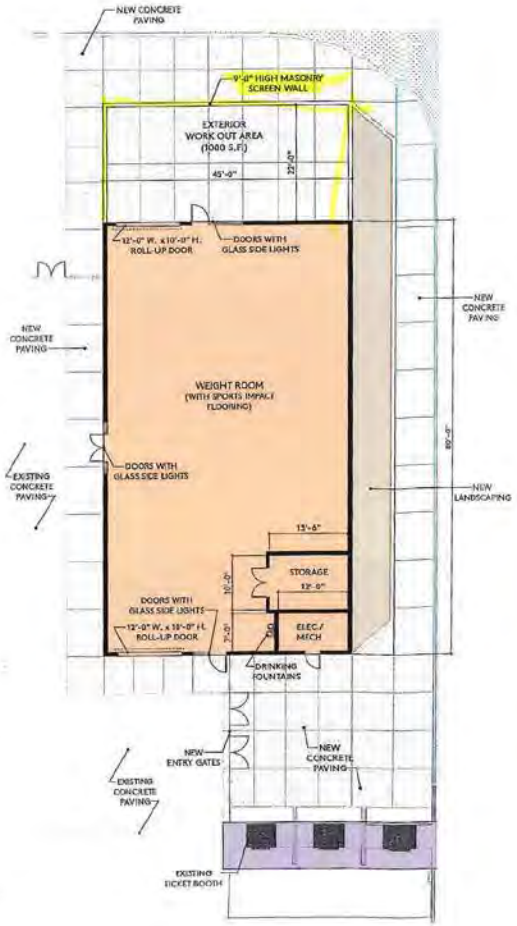
- (2) mats 38’ x 38’ = 45’ x 80’ building
- Adjacent to restrooms, locker rooms, weight room, and the gym
- Sports impact flooring



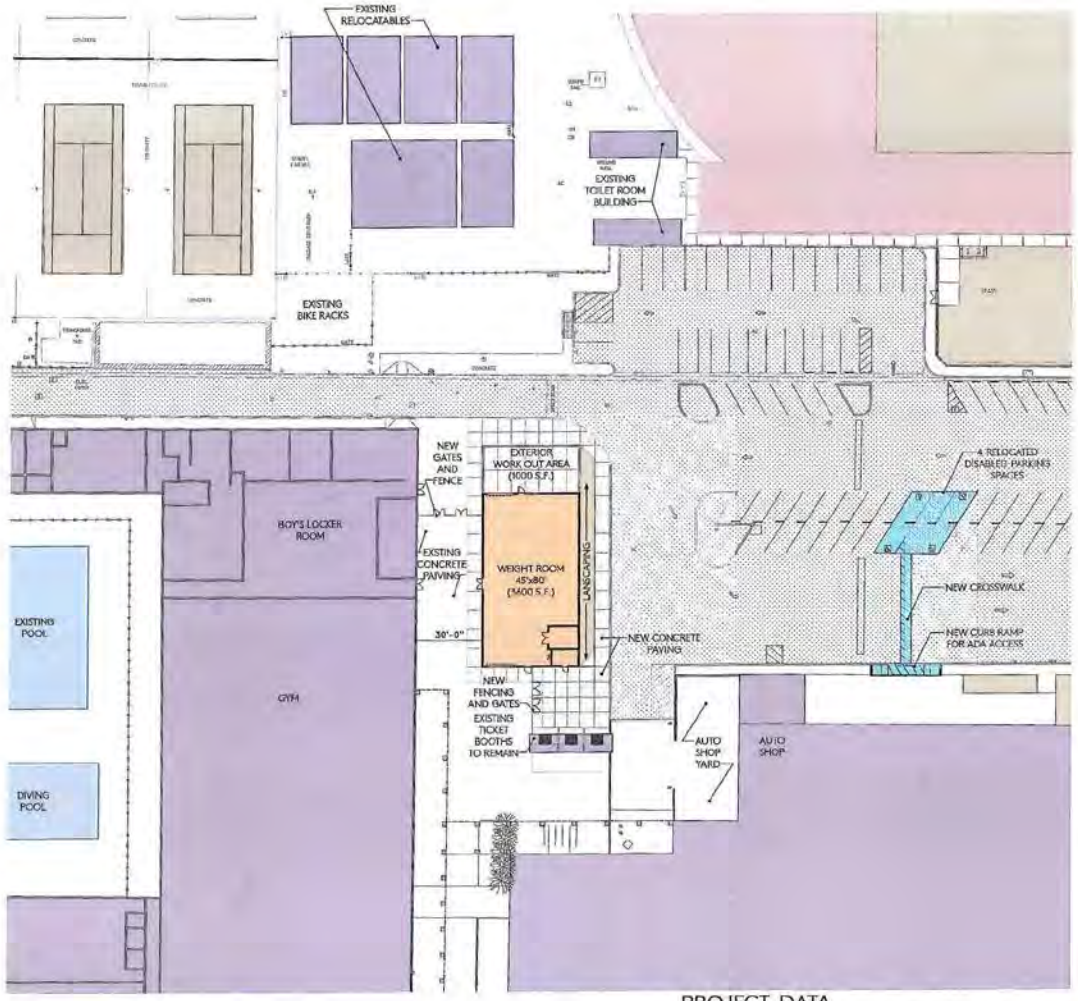
Silver Creek Industries
Modular 48x80 Building
Concrete foundation
Stucco Sides

Marina High School
Huntington Beach

Building only cost:
$700,000



FLOOR PLAN



PROJECT DATA
- NEW 3600 S.F. WEIGHT ROOM
- 1000 S.F. EXTERIOR WORK OUT AREA
- EXISTING TICKET BOOTHS TO REMAIN
- RELOCATE 4 DISABLED PARKING SPACES

PARTIAL SITE PLAN OPTION 1A

pjhm architects

MARINA HIGH SCHOOL
NEW WEIGHT ROOM
SCHEMATIC DESIGN
HUNTINGTON BEACH UNION HIGH SCHOOL DISTRICT

PARTIAL SITE PLAN
OPTION 1A

QUESTIONS & ANSWERS

ITEM No. 5

RUSD

Innovation in Education

Martin Luther King High School
Proposed Traffic and Pedestrian Circulation Plan

Operations Board Subcommittee

April 26, 2018

Why the need for expansion and reconfiguration?

- Safety for students walking through the parking lot
- Overflow parking for special events
- Designated drop off lane for students
- Dedicated entry point for students walking in from Wood Rd.

Existing Condition

Proposed Configuration

Add student info/map

Students:
Travel west on Van Buren: 22%
Travel east on Van Buren: 19%
Travel south on Wood Rd: 35%
Travel north on Wood Rd: 24%

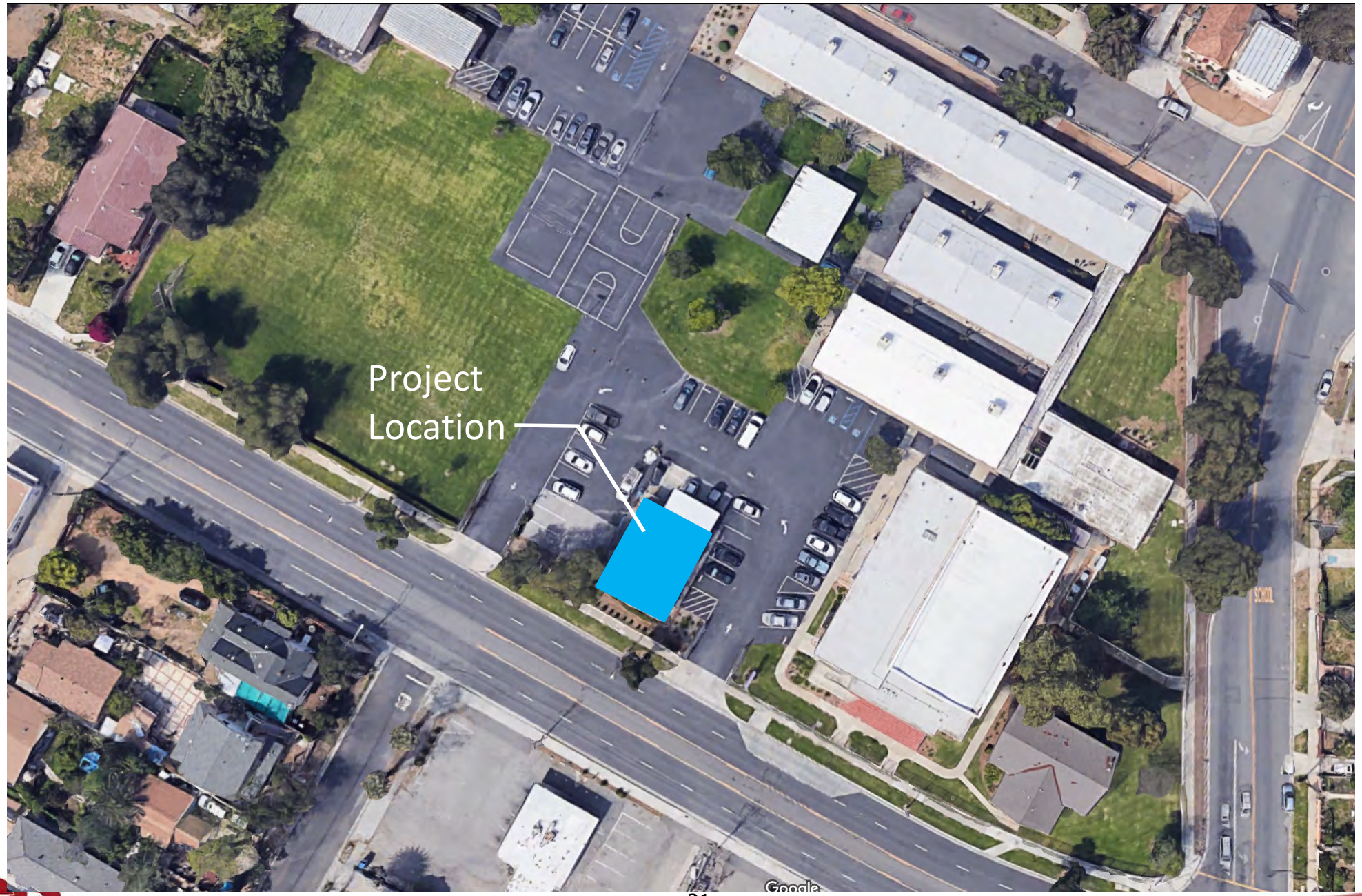
Base on student addresses.

QUESTIONS & ANSWERS

RUSD
Innovation in Education

Lincoln Continuation High School

Auto Shop Lab


Project
Location

Existing building to be demolished


APPOINTMENTS
13 TOY RAV4
5K MI SERVICE
*LOF
* TIRE ROTATION
R & R REAR BRAKES
*MACHINE ROTORS
RESEAL OIL PAN - 3 TOY MOTORS
13 HYUNDAI SONATA
TIRE LIGHT ON
* CHECK TIRE PSI
* RESET
P20
NOTICE


SHOP
Engine
#2

STEEL BUILDING TYPE EXAMPLE

Required Elements:

- Insulated and air conditioned
- Clarifier tank
- Fire Sprinklers
- Handwashing sink
- 240V 3 phase power
- Thickened slab
- Stub-outs for future restroom (additive alternate item)
- Fixtures and equipment budgeted and installed separately under Anthony Rice's CTE budget

Budget: $678,000

Cost Estimates:

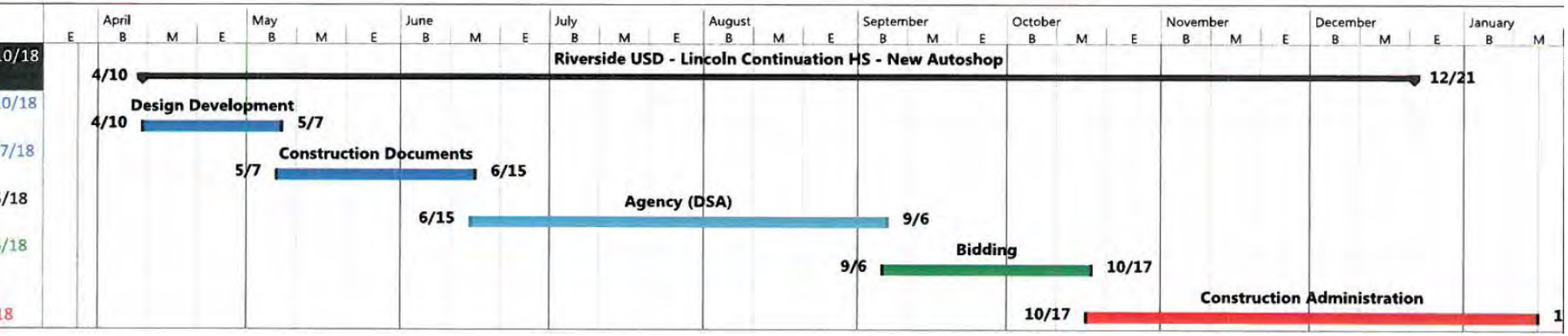
48x40 Steel Building:

Hard Costs:	$509,534
Soft Costs*:	$169,789
Total:	$679,323

*Soft costs include contingency and escalation

Project Schedule

ID	Task Name	Start
1	Riverside USD - Lincoln Continuation HS - New	Tue 4/10/18
2	Design Development	Tue 4/10/18
3	Construction Documents	Mon 5/7/18
4	Agency (DSA)	Fri 6/15/18
5	Bidding	Thu 9/6/18
6	Construction Administration	Wed 10/17/18



ITEM No. 7

January 2018 | Addendum to MND
State Clearinghouse No. 2004121077

SPRING STREET - ELEMENTARY SCHOOL

(2005 Adopted MND for Helen Keller Elementary School)

Riverside Unified School District

Prepared for:

Riverside Unified School District
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Prepared by:

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PLACEWORKS

Table of Contents

APPENDICES

Table of Contents

List of Figures

Abbreviations and Acronyms

AAQS	ambient air quality standards
ADT	average daily trips
ALUP	airport land use plan
CBC	California Building Code
CEQA	California Environmental Quality Act
EIR	environmental impact report
EMF	electromagnetic field
EPA	Environmental Protection Agency (US)
GHG	greenhouse gases
gpd	gallons per day
HRA	health risk assessment
HVAC	heating, ventilating, and air conditioning system
kV	kilovolt
LACSD	Sanitation Districts of Los Angeles County
LAX	Los Angeles International Airport
LST	localized significance thresholds
mgd	million gallons per day
RCFD	Riverside County Fire Department
RCS	Riverside County Sheriff
RUSD	Riverside Unified School District
SCAQMD	South Coast Air Quality Management District
SEIR	supplemental environmental impact report
SoCAB	South Coast Air Basin

Abbreviations and Acronyms

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1. Introduction

1.1 PURPOSE AND SCOPE

The Riverside Unified School District (RUSD or District) is proposing to move forward with the previously proposed Elementary School at 20375 Spring Street (herein referred to as the "2005 Approved Project"), located at the northwest corner of the intersection of East Spring Street and Observation Road. The Helen Keller Elementary School Mitigated Negative Declaration (MND) was adopted on January 18, 2005 (State Clearinghouse No. 2004121077) (herein referred to as the "2005 Adopted MND"). Since the adoption of the 2005 Approved Project, the land uses surrounding the project site have changed.

This addendum analyzes changes in circumstance to the surrounding area of the previously proposed project (herein referred to as the "proposed project"). This Initial Study evaluates the changes in circumstance with respect to the 2005 Adopted MND for the elementary school. The previous environmental documentation relied on for this analysis is summarized under Section 1.3, *Previous Environmental Documentation*, below.

The District has prepared this addendum to the 2005 Adopted MND in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] 21000 et seq.), and the State CEQA Guidelines (California Administrative Code [CAC] 15000 et seq.) to adequately assess the proposed modifications to the high school.[1]

1.2 ENVIRONMENTAL PROCEDURES

Pursuant to CEQA and the State CEQA Guidelines, this Addendum focuses on the proposed changes to the project that might cause a change in the conclusions of the 2005 Adopted MND, and any change in circumstances or new information of substantial importance that would substantially change the conclusions of the previous environmental documents.

Pursuant to Section 21166 of CEQA and Section 15162 of the State CEQA Guidelines, when an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR or negative declaration shall be prepared for the project unless the lead agency determines that one or more of the following conditions are met:

- Substantial project changes are proposed that will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- Substantial changes would occur with respect to the circumstances under which the project is undertaken that require major revisions to the previous EIR or negative declaration due to the involvement of new

[1] CEQA Guidelines Section 15168(c)(4).

significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

- New information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified or the negative declaration was adopted shows any of the following:

  A. The project will have one or more significant effects not discussed in the previous EIR or negative declaration.

  B. Significant effects previously examined will be substantially more severe than identified in the previous EIR.

  C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt the mitigation measures or alternatives.

  D. Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measures or alternatives.

Where none of the conditions specified in Section 15162 are present, the lead agency may prepare an addendum. Section 15164 of the CEQA Guidelines states that an addendum to an adopted negative declaration shall be prepared "if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred."

This Addendum reviews changes to the existing conditions that have occurred since the 2005 Adopted MND was approved. It also reviews any new information of substantial importance that was not known and could not have been known with exercise of reasonable diligence at the time that the 2005 Adopted MND was approved. It further examines whether, as a result of any changes or any new information, a subsequent MND may be required. This examination includes an analysis of the provisions of Section 21166 of CEQA and Section 15162 of the State CEQA Guidelines and their applicability to the proposed project.

The environmental checklist form and analysis (Sections 5 of this Addendum) have been completed by the lead agency, the Riverside Unified School District. The environmental analysis addresses environmental checklist topics section by section and includes findings of 1) the environmental effects of the proposed project in comparison with the findings of the 2005 Adopted MND and 2) whether or not the previous documents has adequately analyzed the potential impacts of the proposed project. Each environmental topic discussed in this Addendum includes an overview of the impacts to the environment evaluated in the previous documents; a comparison between this proposed project's effects on the environment and the effects evaluated in the previous documents; and a determination as to whether or not the proposed project's physical effects on the environment are within the scope of those analyzed in the previous documents. Applicable mitigation measures of the previous documents, if any, are being carried forward and incorporated

into the proposed project are also identified in this Addendum (pursuant to CEQA Guidelines Section 15168[c]).

As this Addendum does not identify new or substantially greater significant impacts, circulation for public review and comment is not necessary (CEQA Guidelines Section 15164(c)). However, the RUSD Board will consider and adopt or reject this Addendum at a public meeting prior to the approval of the proposed project (CEQA Guidelines Section 15164(d)). The findings of the RUSD Board in its resolution of adoption of this Addendum, if adopted, will reflect this Addendum which provides the basis and substantial evidence for the decision not to prepare a Subsequent or Supplemental MND (CEQA Guidelines Section 15164(e)).

1.3 PREVIOUS ENVIRONMENTAL DOCUMENTATION

This Initial Study relies on the previous certified environmental analysis, adopted findings, and statement of overriding considerations prepared for the development of Helen Keller Elementary School. This section summarizes the previous environmental documentation and how it relates to the proposed project.

1.3.1 2005 Adopted MND for Helen Keller Elementary School

On January 18, 2005, the RUSD Board of Education adopted the Helen Keller Elementary School MND (2005 Adopted MND; State Clearinghouse No. 2004121077), adopted a Mitigation Monitoring and Reporting Program, and approved the proposed Helen Keller Elementary School at northwest corner of Spring Street and Observation Road within the Highgrove area of unincorporated Riverside County. The District proposed the acquisition of property for the development and operation of a 750-student public elementary school that would serve grades kindergarten through 6. The elementary school would be comprised of ten single-story buildings would encompass approximately 65,000 square feet of building space. Amenities included four classroom buildings, two kindergarten classroom buildings, an administration building, a library building, a multipurpose/food service building, and a day care. A total of 38 classrooms, six kindergarten and 32 elementary, would be provided.

The school would include a lunch shelter, playground space (turf and hardscape), a separate kindergarten play area, and a service yard. Nighttime high intensity lighting was not proposed for any recreational facilities.

The 2005 Adopted MND included the construction of a 5,200 sf joint-use community public library to be operated by the Riverside County Public Library. The community library would be available for use to project students and staff during school hours, and the local community after-school hours. The community would not be allowed to use the library during school operating hours.

1. Introduction

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2. Environmental Setting

2.1 PROJECT LOCATION

The proposed project site is located on a 13.93-acre parcel at 20375 Spring Street (Assessor's Parcel Number [APN] 255-170-016) within the Spring Mountain Ranch Specific Plan No. 323 (SMRSP) in the Highgrove area of unincorporated Riverside County, California. Regional access to the school is from Interstate 215 (I-215) to the northwest, California State Route 60 (SR-60) to the southeast, and SR-91 to the southeast, approximately 1.6 mile, 2.76 miles, and 2.8 miles away, respectively (see Figure 1, *Regional Location*, and Figure 2, *Local Vicinity*).

2.2 ENVIRONMENTAL SETTING

2.2.1 Existing Land Use

2.2.1.1 2005 CONDITIONS

The 2005 Approved Project site was rectangular and comprised of 13.93 acres of vacant land covered by tall grasses and shrubs. While no building structures were situated on the site, there were several active and abandoned irrigation boxes located along the perimeter of the site. The 2005 Approved Project site is also located within the SMRSP, a residential/mixed use development project that would include approximately 1,800 dwelling units. While the site was currently vacant, the project site and the surrounding project area were designated for residential development.

2.2.1.2 CHANGE IN CIRCUMSTANCES

The project site has remained mostly vacant and is still covered in tall grasses and shrubs with the exception of a concrete drainage feature that drains into the Riverside County Flood Control detention basin to the north. There is a white wooden fence along the south border of the project site, and a chain link fence partially along the northern border. There is also a block wall that separates the aboveground water tank facility and the project site along the northeast border. Figure 3 *Existing Conditions*, Figure 4, *Photo Location Key*, and Figures 4a-4c, *Site Photographs*, show the existing conditions of the project site and its surroundings.

2.2.2 Surrounding Land Use

2.2.2.1 2005 CONDITIONS

The 2005 Approved Project site was surrounded by agricultural uses and vacant land. Agricultural development existed adjacent to the northern and western boundaries of the 2005 Approved Project site, and as envisioned in the SMRSP, residential uses were planned for areas surrounding the project site.

2.2.2.2 CHANGE IN CIRCUMSTANCES

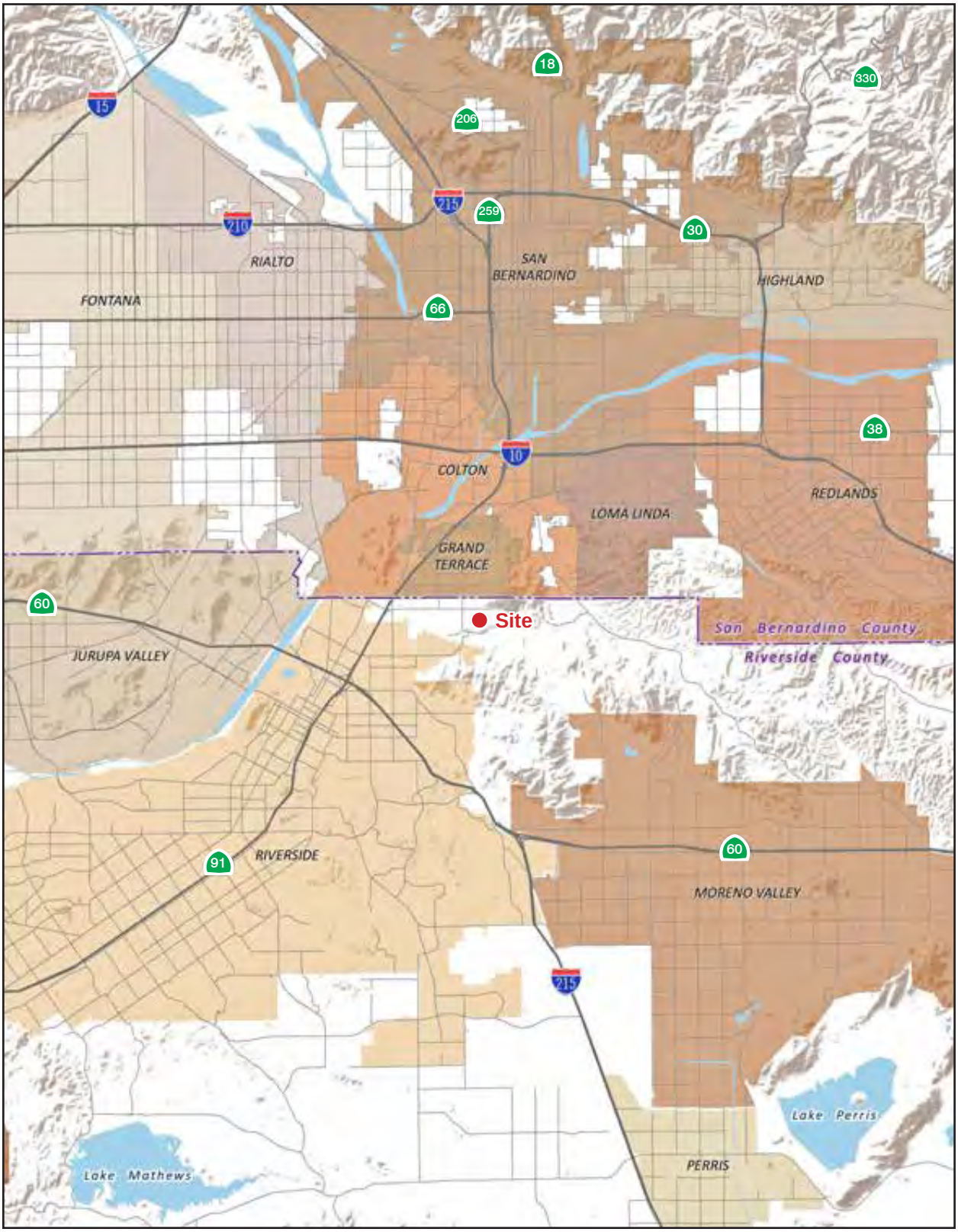
The residential uses envisioned in the SMRSP have now been built-out surrounding the project site. The project site is now surrounded by a mixture of vacant land, residential development, a retention basin, and an aboveground storage tank. As shown on Figure 3, *Existing Conditions*, the project site is bordered by the following land uses:

- North: An aboveground water storage tank owned and operated by Riverside Highlands Water Company (RHWC) and a Riverside County Flood Control detention basin.
- East: Single-family residential.
- South: Spring Street and Single-family residential.
- West: Vacant land, the California Aqueduct Easement, and a citrus orchard.

2.2.3 Existing Zoning and General Plan

The project site is located within the Highgrove Area Plan of unincorporated Riverside County. Land use designation is Medium Density Residential, while the zoning designation is R-1 Residential, as identified in the Spring Mountain Ranch Specific Plan No. 323.

Figure 1 - Regional Location
2. Environmental Setting



County Boundary

Note: Unincorporated county areas are shown in white.

Source: ESRI, 2018

0 3
Scale (Miles)

PlaceWorks

2. Environmental Setting

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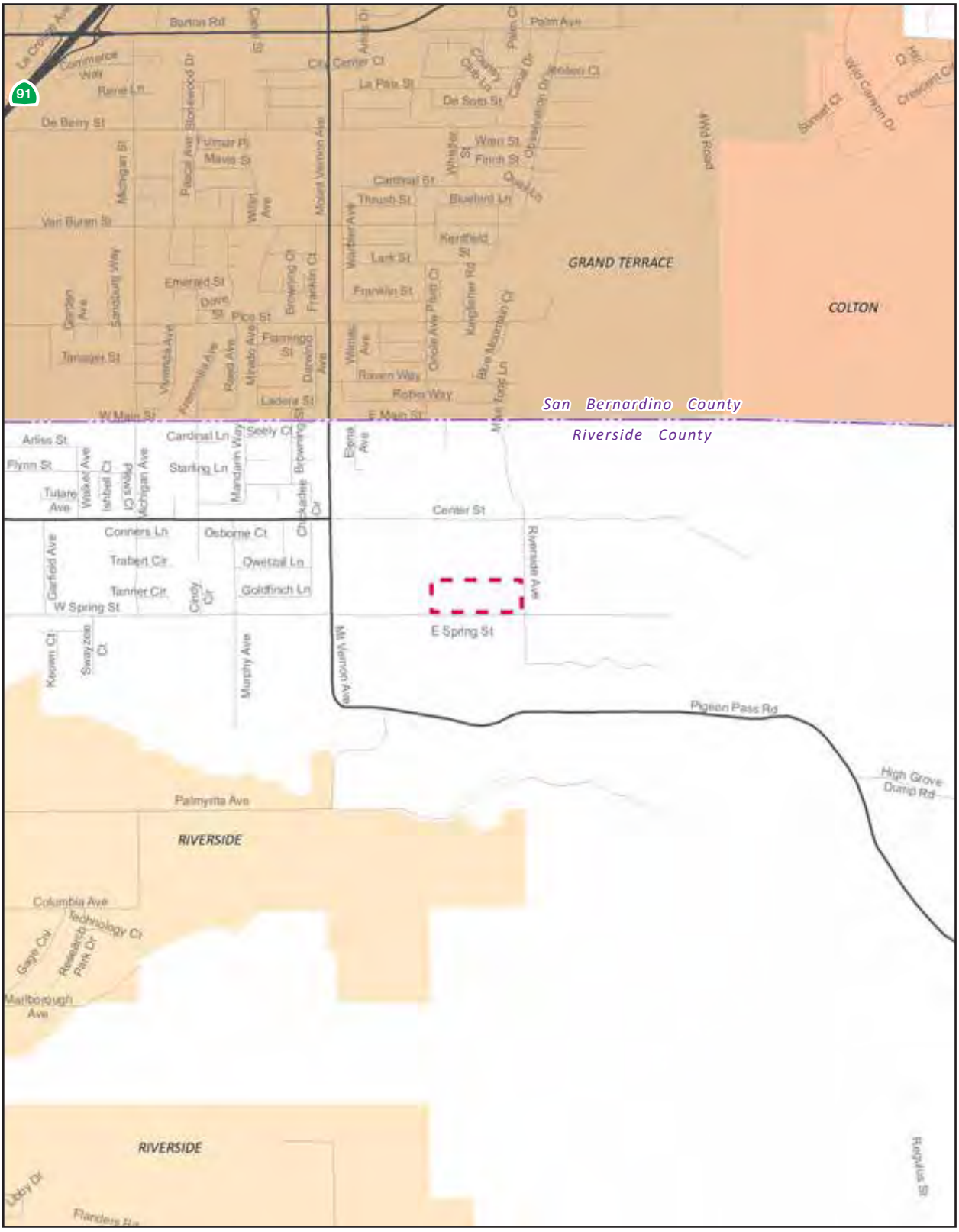
Figure 2 - Local Vicinity
2. Environmental Setting



Note: Unincorporated county areas are shown in white.
Source: ESRI, 2018

PlaceWorks

2. Environmental Setting

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Figure 3 - Aerial Photograph
2. Environmental Setting

Project Boundary

0 700
Scale (Feet)

Source: ESRI, 2018

PlaceWorks

2. Environmental Setting

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Figure 4 - Photograph Location Key
2. Environmental Setting

Project Boundary

1 Photograph Location and Direction (4)

0 140
Scale (Feet)

Source: Google Earth Pro, 2018

2. Environmental Setting

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Figure 5a - Site Photographs
2. Environmental Setting

Photo 1. View from the southwest area of the project site along Spring Street, looking north. Single-family residential homes are shown on the right. The above ground water storage tank owned and operated by Riverside Highlands Water Company is shown in the background.

Photo 2. View from the north border of the project site, adjacent to the detention basin, looking east. The new single-family residential homes are shown in the background. The project site is shown on the right. The above ground water tank and a portion of the Riverside County Flood Control detention basin are shown on the left.

2. Environmental Setting

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Figure 5b - Site Photographs
2. Environmental Setting

Photo 3. View from the northeast area of the project site, adjacent to the southeast corner of the above ground water storage tank, looking south. The project site is shown on the right, along with Spring Street and single-family residential homes in the background.

Photo 4. View from the north area of the project site, adjacent to the southwest corner of the above ground water storage tank, looking southeast. The project site is shown in the foreground. Single-family residential homes are shown in the background to the right and left.

2. Environmental Setting

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3. Project Description

3.1 PROJECT BACKGROUND

In 2005, RUSD approved the construction and operation of a new elementary school that would serve a maximum of 750 students in grades kindergarten through 6 on an undeveloped 13.93-acre site. The school was proposed to open in fall 2007, but the school was not built due to the downturn in the economy.

3.2 PROJECT DESCRIPTION

The current project is the same as the 2005 project; this description is from the 2005 Adopted MND. The Riverside Unified School District (District) proposed to acquire a 13.93-acre site to construct and operate Helen Keller Elementary School. The elementary school would serve a maximum of 750 students in grades kindergarten through six.

The elementary school would be comprised of a building space of approximately 65,000 square feet. The campus would include four classroom buildings, two kindergarten classroom buildings, an administration building, a multipurpose building, and a day care facility. All buildings would be compliant with the American with Disabilities Act of 1990 (ADA) standards; ADA-compliant ramps would be located throughout the school to facilitate handicap access into buildings and between facilities. The school would also provide outdoor amenities including hard court space, athletic fields, and a lunch shelter.

The 2005 Approved Project also entails the construction of a 5,200 sf joint-use community public library to be operated by the Riverside County Public Library. The community library would be available for use to project students and staff during school hours, and the local community after-school hours; the community would not be allowed to use the library during school operating hours.

3.2.1 Access, Circulation, and Parking

The access, circulation, and parking characteristics of the proposed project would remain the same as the 2005 Approved Project. Four driveways on Spring Street would provide ingress and egress into the project site. Student loading will be available onsite at the eastern parking lot, along the parking lot's western curb separated from the parking area. The bus loading area will be located onsite at the western parking lot accessible from two driveways located on Spring Street. A total of 128 visitor and faculty parking spaces would be available.

3.2.2 Operation

The operational characteristics of the proposed school would be the same as the 2005 Approved Project. The school is proposed to operate on a traditional school calendar. Classes would begin early September and end

early-mid June the following year. Summer school may be provided between June and August. Standard hours of operation are between 7:00 a.m. and 4:00 p.m., with classes generally scheduled between the hours of 8:00 and 11:00 a.m. in the morning and 12:00 and 3:00 pm in the afternoon, Monday through Friday.

The joint-use community library would operate during school hours for use by project students and staff and also during after-school hours for use by the community at-large; while, the library closing time has not been determined, it is anticipated to close at 9:00 p.m. School use and public use of the library would be separate; the community would not be allowed to use the library during school operating hours.

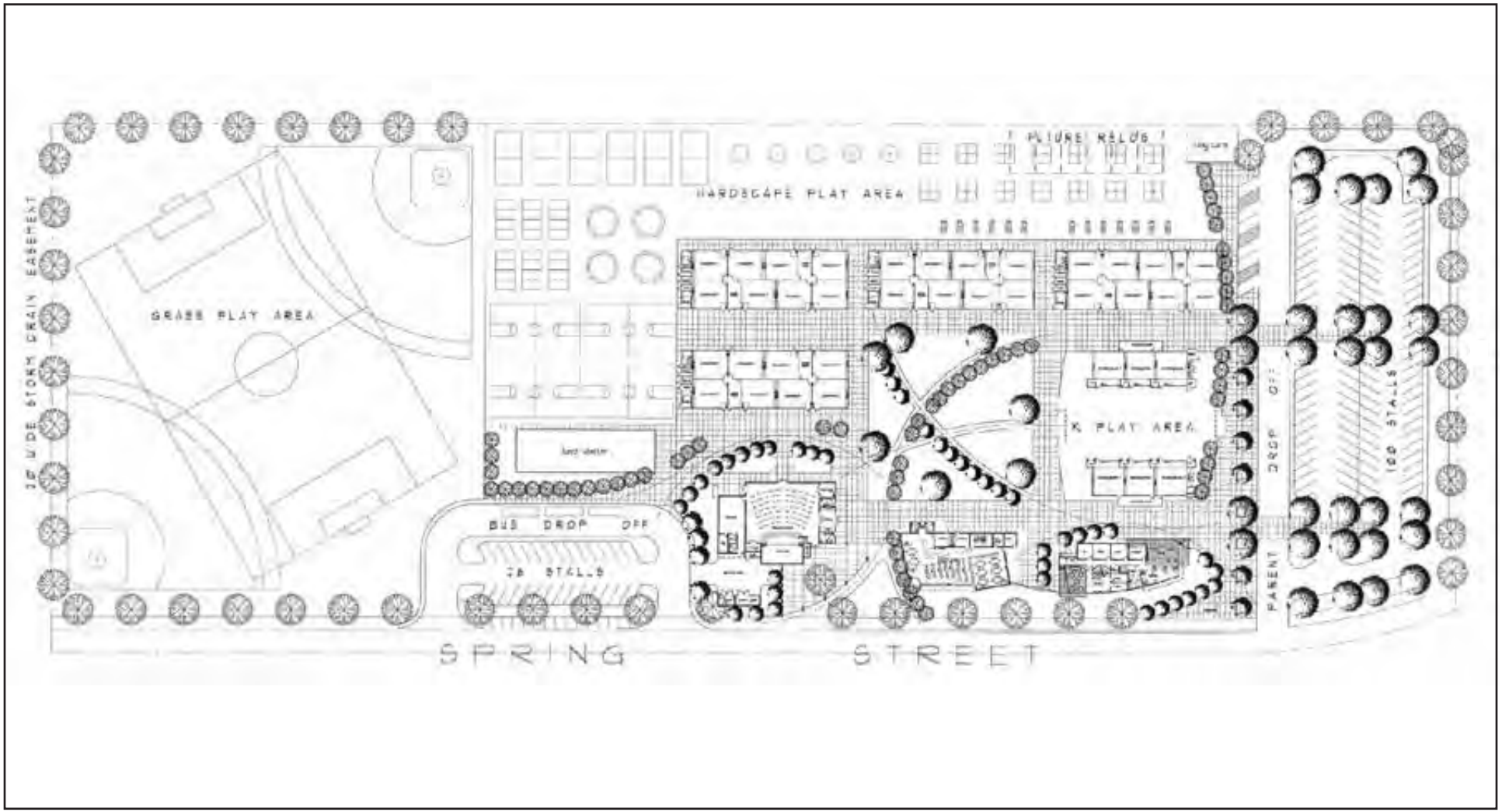
3.2.3 Project Phasing

With the exception of the construction year, all other information is the same as the 2005 Approved Project. Development of the 2005 Approved Project would be completed in one phase with several sub-phases, as described below:

- Acquisition of properties;
- Remediation of property (if necessary);
- Construction of the proposed facilities, including site clearance, excavation, and building construction; and
- Operation of the proposed elementary school.

These sub-phases would not overlap. Development of the proposed project would begin pending approval from the District Governing Board, California Department of Education, Division of the State Architect, and Department of Toxic Substances Control and receipt of required local permits.

Figure 6 - Project Site Plan
2. Environmental Setting



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Scale (Feet)

3. Project Description

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4. Environmental Checklist

4.1 BACKGROUND

1. **Project Title:** Elementary School at 20375 Spring Street

2. **Lead Agency Name and Address:**
   Riverside Unified School District
   3070 Washington Street
   Riverside, CA 92504

3. **Contact Person and Phone Number:**
   Ana Gonzalez, Director, Planning & Development
   (951) 788-7496

4. **Project Location:**
   The proposed project site encompasses the 13.93-acre parcel at 20375 Spring Street, Riverside, CA 92507 (APN 255-170-016)

5. **Project Sponsor's Name and Address:**
   Riverside Unified School District
   3070 Washington Street
   Riverside, CA 92504

6. **General Plan Designation:** Highgrove Area Plan, Medium Density Residential (MDR)

7. **Zoning:** SP (Specific Plan), Spring Mountain Ranch Specific Plan No. 323, Residential

8. **Description of Project**
   The proposed project analyzes the change in circumstances to the existing onsite and surrounding conditions of the approved elementary school project that was initially adopted on January 18, 2005 (State Clearinghouse No. 2004121077).

9. **Surrounding Land Uses and Setting:**
   The project site is located on the 13.93-acre parcel at 20375 Spring Street (Assessor's Parcel Number [APN] 255-170-016) within the Spring Mountain Ranch Specific Plan No. 323 (SMRSP) in the Highgrove area of unincorporated Riverside County, California. The site is bounded by Spring Street then residential homes to the south, residential homes to the east, an aboveground water tank and a Riverside County Flood Control detention basin to the north, and vacant land to the west.

4. Environmental Checklist

Other Public Agencies Whose Approval Is Required: The District would require approval and/or coordination from the following agencies to implement the proposed project:

State

- California Department of Education
- Department of Toxic Substances Control
- Division of the State Architect
- Office of Public School Construction
- State Allocation Board

Regional

- Santa Ana Regional Water Quality Control Board for National Pollutant Discharge Elimination System (NPDES) permit.

Local

- County of Riverside approval of various street and signage improvements, approval for grading and drainage plans, and permit for operation of food facilities.
- County of Riverside Fire Department.

4.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist and analysis provided in Section 5.

☐ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality	☐ Land Use / Planning
☐ Mineral Resources	☐ Noise	☐ Population / Housing
☐ Public Services	☐ Recreation	☐ Transportation / Traffic
☐ Utilities / Service Systems	☐ Mandatory Findings of Significance	

4.3 DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by 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.

Signature	*Date*
Printed Name	*For*

4.4 EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) **Earlier Analyses Used.** Identify and state where they are available for review.

   b) **Impacts Adequately Addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) **Mitigation Measures.** For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

    a) the significance criteria or threshold, if any, used to evaluate each question; and

    b) the mitigation measure identified, if any, to reduce the impact to less than significant.

The environmental checklist and evaluation of potential impacts are provided in Section 5.

4. Environmental Checklist

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5. Environmental Analysis

This section provides a checklist and evaluation of environmental impacts of the change in circumstances to the 2005 Approved Project. Previously adopted mitigation measures in the 2005 Adopted MND that are applicable to the project are identified.

5.1 AESTHETICS

5.1.1 Prior Environmental Findings

The 2005 Adopted MND determined that as the project site was surrounded by citrus orchards to the north and west and by undeveloped land to the south and east, the 2005 Approved Project would not impede the scenic views of any sensitive receptors. As such, project implementation would not affect any scenic views. Moreover, it was determined that no significant areas of habitat or other natural resources that could be considered a visual resource exist at the site, and that implementation of the 2005 Approved Project would not damage any scenic resources within a state scenic highway.

It was also determined that development of the school would be aesthetically consistent and compatible with the characteristics of the surrounding project area as a developing community at the time. The school would include the use of landscape both around the perimeter and in the interior locations of the school grounds, which would help improve the visual character of the project site.

At the time that the 2005 Approved Project was approved, the project site was undeveloped, and it was determined that implementation of the 2005 Approved Project would result in an increased level of light and glare from what was currently experienced at the site. Therefore, four mitigation measures were incorporated as part of the 2005 Approved Project (detailed below in Section 5.1.3).

5. Environmental Analysis

5.1.2 Impacts Associated with the Proposed Project

Would the proposed project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Have a substantial adverse effect on a scenic vista?					X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?					X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X	

Impact Analysis:

a) Have a substantial adverse effect on a scenic vista?

No Impact. Since the original site analysis in 2004 and the Adopted MND in 2005, the area surrounding the project site has been developed with residential uses directly to the east and south of the project site, and an aboveground water tank has been constructed directly north of the project site. However, the proposed one-story buildings of the proposed project would not result in adverse impacts to` any existing scenic resources Therefore, no new significant impacts to scenic vistas would occur, and the level of impact (no impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. Buildings associated with the project are proposed to be one-story in height, and would not result in adverse impacts to scenic resources. Furthermore, according to the California Scenic Highway Mapping System (Caltrans 2017), the proposed project is not near any state scenic highways. No damage to scenic resources would result from the proposed project, and the level of impact (no impact) remains unchanged from that identified in the 2005 Adopted MND.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Since the original site analysis in 2004 and the Adopted MND in 2005, the area surrounding the project site has been developed with residential uses directly to the east and south of the project site, and an aboveground water tank has been constructed directly north of the project site. However, the 2005 Adopted MND found that development of the school would be aesthetically consistent and compatible with the characteristics of the surrounding project area as a developing community. The school would be of quality design and would include the use of landscape both around the perimeter and in the interior locations of the school grounds, which would improve the visual character of the project site. Therefore, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings, and the level of impact (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The proposed project entails construction of school buildings, two parking areas, a grass play area, and hardscape play area with the following light sources: exterior and interior light, security lighting, and parking lot lighting. No high-intensity field lighting would be included as part of the project. Since the original site analysis in 2004 and the Adopted MND in 2005, the area surrounding the project site has been developed with residential uses directly to the east and south of the project site that may be affected by the proposed lighting. However, the project applicant will be required to adhere to the provisions outlined in Mitigation Measures 1, 2, 3, and 4 of the 2005 Adopted MND, which is reproduced at the end of this section. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the Adopted MND.

5.1.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

The following mitigation measures are taken directly from the 2005 Adopted MND. All of the mitigation measures listed below apply to and will be implemented for the proposed project.

1. On-site buildings shall use low reflective glass and building material to keep daytime glare to a minimum.
2. All exterior lights shall be shielded where feasible and focused to minimize spill light into the night sky or adjacent properties.
3. New exterior lighting used for security purposes in the evening would be limited to low wattage energy conserving night lighting.
4. New lights would be situated and arranged so that no direct beam would leave the project site. Luminaries shall be provided with filtering louvers and hoods. During

installation, the luminaries shall be aimed and corrected by a field crew to aim the lights away from viewers.

5.2 AGRICULTURE RESOURCES

5.2.1 Prior Environmental Findings

The 2005 Adopted MND determined that due to the negligible size of the project site; previous acknowledgement that urbanization of the project site outweighs the agricultural impact from development of the SMRSP planning area, including the project site; lack of agricultural use at the project site for approximately two years; and planned intensification of the project area, the 2005 Approved Project would not result in the loss of land in agricultural production, and no farmland, agriculturally-zoned, or Williamson Act land would be affected by implementation of the 2005 Approved Project.

5.2.2 Impacts Associated with the Proposed Project

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

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				**X**	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?					**X**
c) 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?					**X**

Impact Analysis:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The project area is located within a developing area of the Highgrove area. There is no agricultural production currently onsite. Agricultural development currently exists adjacent to the northern and western boundaries of the project site. Since the original site analysis in 2004 and the Adopted MND in 2005, the project site has remained vacant and has not developed for agricultural use. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the Adopted MND.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Spring Mountain Ranch Specific Plan provides an R-1 zoning designation for the project site. The site is not located within an Agricultural Preserve and other Agricultural Preserves in the surrounding area that have filed for a Notice of Non-Renewal and disestablishment. As such, no Williamson Act contracts apply to the project site, and no Williamson Act contract or agricultural zoning conflicts would result from project implementation. Therefore, the level of significance (no impact) remains unchanged from that identified in the Adopted MND.

c) 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?

No Impact. See response to Sections 5.2.2(a) and (b).

5.2.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

No mitigation measures related to agriculture and forestry resources were outlined in the 2005 Adopted MND.

5.3 AIR QUALITY

5.3.1 Prior Environmental Findings

The 2005 Adopted MND determined that the 2005 Approved Project would not involve growth-inducing impacts or cause an exceedance of established population or growth projections, and would not create either short- or long-term significant quantities of criteria pollutants. Emissions generated by the 2005 Approved Project would not exceed SCAQMD's regional significance thresholds or add significantly to any cumulative impact. The 2005 Adopted MND found that construction and operational phase criteria air pollutants generated by the project were less than significant, and no mitigation measures were required. Likewise, the

5. Environmental Analysis

2005 Adopted MND found that the 2005 Approved Project would not expose sensitive receptors to substantial pollutant concentrations.

5.3.1 Impacts Associated with the Proposed Project

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the proposed project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				**X**	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				**X**	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				**X**	
d) Expose sensitive receptors to substantial pollutant concentrations?				**X**	
e) Create objectionable odors affecting a substantial number of people?				**X**	

Impact Analysis:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and

the Adopted MND in 2005. The proposed project would not conflict or obstruct implementation of the AQMP. Therefore, the proposed project is consistent with the impacts identified in 2005 Adopted MND, and the level of impact (less than significant impact) remains unchanged from that previously identified.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the proposed project would not increase construction-related air pollutant emissions and would not result in emissions that would exceed the SCAQMD regional operational-phase significance thresholds. The proposed project is consistent with the impacts identified in 2005 Adopted MND, and the level of impact (less than significant impact) remains unchanged from that previously identified.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The 2005 Adopted MND found that construction and operation of the elementary school would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment. The SoCAB is designated nonattainment for O_3 and $PM_{2.5}$ under the California and National AAQS, nonattainment for PM_{10} under the California AAQS, and nonattainment for lead under the National AAQS (CARB 2016). According to SCAQMD methodology, any project that does not exceed or can be mitigated to less than the daily threshold values would not add significantly to a cumulative impact (SCAQMD 1993). The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the proposed project is consistent with the impacts identified in 2005 Adopted MND, and the level of impact (less than significant impact) remains unchanged from that previously identified.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The 2005 Adopted MND found that construction and operation of the elementary school would not expose sensitive receptors to substantial concentrations of air pollutants. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the proposed project is consistent with the impacts identified in 2005 Adopted MND, and the level of impact (less than significant impact) remains unchanged from that previously identified.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The 2005 Adopted MND found that the only potential odors associated with the 2005 Approved Project would be from the application of asphalt and paint during the construction period. Those odors, if perceptible, are common in the environment and would be of very limited duration. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the proposed project is consistent with the impacts identified in 2005 Adopted MND, and the level of impact (less than significant impact) remains unchanged from that previously identified.

5.3.2 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

No mitigation measures related to air quality were outlined in the 2005 Adopted MND.

5.4 BIOLOGICAL RESOURCES

5.4.1 Prior Environmental Findings

The 2005 Adopted MND determined that the project site was disturbed by its historical agricultural use, but has been fallow since 2000. Existing on-site vegetation generally consisted of seasonal weeds, grasses, and shrubbery that can be classified as "ruderal habitat," i.e., areas where the native vegetation has been removed by mechanical means and weedy non-native annual species predominate. The project site was found to not be located within an area designated as containing natural biotic communities and potential habitat for sensitive wildlife, and removal of developed land would result in less than significant impacts. The project site did not contain any federally protected wetlands as defined by Section 404 of the Clean Water Act, and removal of on-site vegetation would not pose a constraint to the site's development of conflict with any local policies or ordinances.

As part of the SMRSP EIR, a biological resources assessment was prepared for the Spring Mountain Ranch property, which encompasses the project site. The biological assessment indicated that the burrowing owl was not observed on the property; however, it also indicated that the species may occur due to the presence of suitable habitat. Therefore, a mitigation measure was incorporated to ensure that no significant impacts occur to the burrowing owl (detailed below in Section 5.4.3).

5.4.2 Impacts Associated with the Proposed Project

Would the proposed project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?					X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?					X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?					X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?					X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X	

Impact Analysis:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. While no native natural habitat that could support any special status species exists within the project site, the

site is located within the Western Riverside County Multiple Species Habitat Conservation Plan (WR-MSHCP) / Highgrove Area Plan. According to the WR-MSHCP, a habitat assessment is required for the burrowing owl and Nevin's barberry.[2] The 2005 Adopted MND found while that the burrowing owl was not observed on the property, the species may occur due to the presence of suitable habitat. However, the project applicant will be required to adhere to the provisions outlined in Mitigation Measure 5 of the 2005 Adopted MND, which is reproduced at the end of this section. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The project site is undeveloped and is in a rough graded and heavily disturbed state, with on-site vegetation generally consisting of seasonal weeds, grasses, and shrubbery, and does not support native or riparian habitat, sensitive plants, or wildlife species. Implementation of the proposed project would not have a substantial adverse effect on biological resources. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The proposed project site does not contain any federally protected wetlands as defined by Section 404 of the Clean Water Act. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The project does not include modifications to any waterway that would harbor fish, and no established native resident or migratory wildlife corridors or native wildlife nurseries are present on the project site or in its vicinity. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. Removal of on-site vegetation would not pose a constraint to the site's development of conflict with any local policies or ordinances. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

[2] Western Riverside County Multiple Species Habitat Conservation Plan (WR-MSHCP). Highgrove Area Plan. http://www.rctlma.org/Portals/0/mshcp/volume1/sec3.html#3.3.5

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. See response to Sections 5.2.2(a)

5.4.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

The following mitigation measure is taken directly from the 2005 Adopted MND. The mitigation measure listed below applies to and will be implemented for the proposed project.

5. Prior to site preparation activities, a focused survey for burrowing owls shall be prepared for the project site, and if any burrowing owls are located in the construction zone, a qualified biologist shall relocate the owl to a nearby area of suitable habitat, pursuant to CDFG protocol or burrowing owl relocation.

5.5 CULTURAL RESOURCES

5.5.1 Prior Environmental Findings

The 2005 Adopted MND found that the irrigation boxes onsite were not associated with events that have had a significant contribution to the broad patterns of California's history and cultural heritage; are not associated with the lives of persons important in our past; no longer embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or yields information important in prehistory or history. A paleontological records search at the San Bernardino County Museum revealed that the Spring Mountain Ranch property, including the proposed project, site has no documented fossil localities. No significant prehistoric cultural resources, including unique paleontological resources, are known to exist on the project site. The 2005 Adopted MND found that no human remains are known to exist on or near the project site.

The 2005 Adopted MND found that no archaeological sites are known within the project boundaries. While it is highly unlikely that any subsurface cultural resources would be discovered or disturbed, excavation activities may expose undisturbed alluvial soils. One mitigation measure was included to respond to the accidental discovery of cultural resources would reduce potentially significant impacts to less than significant (detailed below in Section 5.5.3).

5. Environmental Analysis

5.5.2 Impacts Associated with the Proposed Project

Would the proposed project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?				X	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X	
d) Disturb any human remains, including those interred outside of formal cemeteries?				X	

Impact Analysis:

a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. No land use changes are proposed as part of the proposed project that would result in new impacts or result in changes to the prior environmental findings. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. No human remains are known to exist on or near the project site. The 2005 Adopted MND found that while no archaeological sites are known within the project boundaries, and that it was highly unlikely that any subsurface cultural resources would be discovered or disturbed, excavation activities may expose undisturbed alluvial soils. The project applicant will be required to adhere to the provisions outlined in Mitigation Measure 6 of the 2005 Adopted MND, which is reproduced at the end of this section. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the Adopted MND.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. See response to Section 5.2.2(b).

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. See response to Section 5.2.2(b).

5.5.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

The following mitigation measure is taken directly from the 2005 Adopted MND. The mitigation measure listed below applies to and will be implemented for the proposed project.

6. Prior to site preparation activities, a focused survey for burrowing owls shall be prepared for the project site, and if any burrowing owls are located in the construction zone, a qualified biologist shall relocate the owl to a nearby area of suitable habitat, pursuant to CDFG protocol or burrowing owl relocation.

5.6 GEOLOGY AND SOILS

5.6.1 Prior Environmental Findings

Impacts related to collapsible soils, regional subsidence, slope instability, and erosion were identified in the 2005 Adopted MND as less than significant after compliance with state and local regulations and standards and established engineering procedures and techniques. No impacts related to landslides or mudflows were identified. The 2005 Adopted MND noted that the Greenfield sandy loam soils that underlies the project site exhibits a low expansion potential; therefore, no significant impact from expansive soils was anticipated. Lastly, the 2005 Adopted MND found that the proposed project site is not located on a geological fault, and is not located within or immediately adjacent to an Earthquake Fault Zone.

5. Environmental Analysis

5.6.2 Impacts Associated with the Proposed Project

Would the proposed project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				**X**	
ii) Strong seismic ground shaking?				**X**	
iii) Seismic-related ground failure, including liquefaction?					**X**
iv) Landslides?					**X**
b) Result in substantial soil erosion or the loss of topsoil?				**X**	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				**X**	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				**X**	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?					**X**
f) Be located on a site that contains an active earthquake fault or fault trace?					**X**
g) Would the project involve the construction, reconstruction, or relocation of any school building on the trace of a geological fault along which surface rupture can reasonably be expected to occur within the life of the school building?					**X**

Impact Analysis:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The 2005 Adopted MND found that the project site is not located within or adjacent to an Earthquake Fault Zone, no known faults cross the site, and no indicators of fault movement on the site. Therefore, ground rupture on the site from surface faulting is not expected during the lifetime of the proposed project. The level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

ii) Strong seismic ground shaking?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The existing school site is not underlain by any active faults. However, there are a number of faults in the area, including the San Jacinto and San Andreas faults. Due to the seismic history of the region, all on-site structures would be designed in accordance with seismic requirements of the California Building Code (CBC), Title 24 California Code of Regulations and would be required to meet the standards of the Division of the State Architect criteria for seismic safety. Compliance with established standards would reduce the risk of structural collapse to a less than significant level. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

iii) Seismic-related ground failure, including liquefaction?

No Impact. The 2005 Adopted MND found that the site is in an area of deep groundwater with low liquefaction susceptible sediments. Groundwater data indicates groundwater depths of 133 to 173 feet below ground surface within the project area. Due to the relatively deep nature of groundwater in the site vicinity, the potential for liquefaction onsite is considered very low. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

iv) Landslides?

No Impact. No landslide hazards would occur, and the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The 2005 Adopted MND identified that a site-specific Storm Water Pollution Prevention Plan (SWPPP) would specify, along with permanent and post-construction measures, Best Management Practices (BMPs) for

temporary erosion control. The BMPs typically include the use of vegetation and mulch to stabilize disturbed areas, and sandbags and temporary catch basins to direct runoff away from disturbed areas and trap sediments on-site. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The project area is located on relatively flat land surrounded predominantly by residential uses. Older alluvial soil deposits underlay the project site. According to the Highgrove Area Plan, Steep Slope Map (Riverside 2014), the project site is situated on a slope angle less than 15 percent; the project site remains not susceptible to slope instability. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The 2005 Adopted MND found that Greenfield sandy loam underlies the project site. This well-drained soil consists mainly of granitic materials. Greenfield sandy loam soils exhibit a low expansion potential; as such, expansive soil hazards would not impact the project site. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. Development of the proposed project would not require the installation of a septic tank or alternative wastewater disposal system. The project would utilize the local sewer system proposed for the Spring Mountain Ranch development. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

f) Be located on a site that contains an active earthquake fault or fault trace?

No Impact. As discussed in 5.6 (a), the proposed project site is not located on a geological fault and there is no reasonable expectation of surface rupture within the life of the school. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

g) Would the project involve the construction, reconstruction, or relocation of any school building on the trace of a geological fault along which surface rupture can reasonably be expected to occur within the life of the school building?

No Impact. The 2005 Adopted MND found that ground rupture on the site from surface faulting is unlikely during the lifetime of the proposed project. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

5.6.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

No mitigation measures related to geology and soils were outlined in the 2005 Adopted MND.

5.7 HAZARDS AND HAZARDOUS MATERIALS

5.7.1 Prior Environmental Findings

The 2005 Adopted MND found that the 2005 Approved Project would not create a significant hazard to the public or the environment related to hazardous materials, provided that the District complied with the required regulations and mitigation measures. Based on the Phase I Environmental Site Assessment and Preliminary Environmental Assessment (PEA), the 2005 Adopted MND determined that hazardous materials impacts at the site and surrounding area were less than significant.

According to the health risk assessment (HRA) prepared for the 2005 Approved Project, the health risks from facilities or other pollution sources within a quarter-mile radius would not result in endangerment of the school population. Carcinogenic and noncarcinogenic hazards were below the significance threshold level.

In accordance with California Education Code Section 17213.1, under the oversight of DTSC, the District would be required to remediate the proposed school site to acceptable levels prior to the development and operation of the school would be allowed. The District would be required to receive a determination of "No Further Action" from DTSC pertaining to environmental investigation and clearance before the project site can be approved for acquisition and construction. DTSC's oversight and stringent review of the project site for use as a public educational facility would ensure that the environmental conditions at the site are safe. Adherence to Section 17213.1 would ensure that potential impacts would be reduced to a less-than-significant level, and no additional mitigation was necessary.

The Santa Ana Pipeline is located within a 100-foot wide northeast-southwest trending easement, west of the proposed school site. The closest approach of the Santa Ana Pipeline is about 330 feet of the project site boundary. The 2005 Adopted MND found that due to the distance from the proposed school site and the amount of earth cover, the potential for physical impact to individuals at the proposed school site from fragments of ruptured pipeline was very low. In addition, no storage tanks or pipelines containing hazardous materials were identified within 1,500 feet of the project site.

5. Environmental Analysis

5.7.2 Impacts Associated with the Proposed Project

Would the proposed project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?				**X**	
b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				**X**	
c) Would operation of the proposed project involve hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?					**X**
d) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				**X**	
e) 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?					**X**
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?					**X**
g) Locate a school within two miles, measured by air line, of that point on an airport runway or potential runway included in an airport master plan that is nearest to the site?					**X**
h) Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the School?					**X**

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
i) Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: a) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; b) freeways and other busy traffic corridors; c) large agricultural operations; and/or d) a rail yard, which might reasonably be anticipated to emit hazardous air emissions, or handle hazardous or acutely hazardous material, substances or waste?				X	
j) Locate a school at: (a) the site of a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed; (b) a hazardous substance release site identified by the State Department of Health Services in a current list adopted pursuant to § 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code; or (c) a site that contains one or more pipelines, situated underground or aboveground, which carry hazardous substances, acutely hazardous materials or hazardous wastes, unless the pipeline is a natural gas line that is used only to supply natural gas to that school or neighborhood"?					X
k) Locate a school within 2,000 feet of a significant disposal of hazardous waste?					X
l) Locate a school on a site containing or underline by naturally occurring hazardous materials?					X
m) Locate a school site near an above-ground water or fuel storage tank or within 1,500 feet of an easement of an above ground or underground pipeline that can pose a safety hazard to the site?				X	
n) Locate a school such that the property line is less than the following distances from the edge of respective power line easements: 1) 100 feet of a 50-133 kV line; 2) 150 feet of a 220-230 kV line; or 3) 350 feet of a 500-550 kV line?					X

5. Environmental Analysis

Impact Analysis:

a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Hazards to the public or the environment arising from routine transport, use, or disposal of hazardous materials were identified as less than significant after regulatory compliance in the 2005 Adopted MND. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The 2005 Adopted MND found that DTSC's oversight and stringent review of the project site for use as a public educational facility would ensure that the environmental conditions at the site are safe. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

c) Would operation of the proposed project involve hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. No school sites currently exist within a one-quarter mile radius of the proposed project site. The nearest school, Highgrove Elementary School, is approximately 0.80-mile northwest of the project site at 690 Center Street. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

d) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. The 2005 Adopted MND found that while project implementation would result in increased traffic volumes, the additional traffic would not contribute to adverse roadway conditions that would significantly affect emergency response or evacuation plans within the site's vicinity. On-site emergency response would be facilitated through the use of fire access lanes providing emergency vehicle with access to the entire campus. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

e) 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?

No Impact. The 2005 Adopted MND found that the proposed project is located in a developing area, and the project site is not located within a wild fire zone. The level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. There are no private airstrips in the vicinity of the project site, and the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

g) Locate a school within two miles, measured by air line, of that point on an airport runway or potential runway included in an airport master plan that is nearest to the site?

No Impact. The distance between the northern property line of the proposed facility and centerline of San Bernardino International Airport runway, the closest airport to the project site, is approximately six miles from the project site. The level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

h) Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the School?

No Impact. The proposed project site is located within an area zoned for residential development. No rail yards, or freeway/busy corridors with an average daily traffic (ADT) in excess of 50,000 vehicles are located within a 500-foot radius of the project site. The estimated distance to the nearest corridor with an ADT in excess of 50,000 vehicles is approximately two miles west. The level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

i) Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: a) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; b) freeways and other busy traffic corridors; c) large agricultural operations; and/or d) a rail yard, which might reasonably be anticipated to emit hazardous air emissions, or handle hazardous or acutely hazardous material, substances or waste?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. The 2005 Adopted MND identified two permitted air emission facilities within a 0.25 mile radius of the project site, including Inland Timber Co, Terry Investment located at 21850 Main Street and Hood Communications located at 21496 Main Street. Due to the nature of these listings, there is low potential for these nearby facilities to adversely affect the project site.

In addition, District adherence to AB 947 to create and maintain a safety plan that specifically addresses pesticide drift and accidental exposure to pesticide that may occur from the citrus orchard to the west would reduce any potential impacts to less than significant. The level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

j) Locate a school at: (a) the site of a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed; (b) a hazardous substance release site identified by the State Department of Health Services in a current list adopted pursuant to § 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code; or (c) a site that contains one or more pipelines, situated underground or aboveground, which carry hazardous substances, acutely hazardous materials or hazardous wastes, unless the pipeline is a natural gas line that is used only to supply natural gas to that school or neighborhood"?

No Impact. The 2005 Adopted MND found that the proposed project site was not identified as a current or former hazardous waste disposal site or solid waste disposal site. In addition, no evidence identifying the site as a hazardous substances release site was found, no high-pressure pipelines or above ground storage tanks were noted on the project site, and the project site does not contain an active or inactive underground storage tank. The level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

k) Locate a school within 2,000 feet of a significant disposal of hazardous waste?

No Impact. The 2005 Adopted MND found that there are no potential off-site sources of contamination within 2,000 feet of the project site, and it is unlikely that the subject property has been impacted by unauthorized releases of hazardous materials or hazardous waste from off-site sources. No new hazardous wastes sites are located within 2,000 feet of the project, and the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

l) Locate a school on a site containing or underline by naturally occurring hazardous materials?

No Impact. The 2005 Adopted MND found that records available from the files of appropriate regulatory agencies did not list the proposed project site as a current or former hazardous waste disposal site or solid waste disposal site. There has been no development on the project site since the 2005 Adopted MND was adopted. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

m) Locate a school site near an above-ground water or fuel storage tank or within 1,500 feet of an easement of an above ground or underground pipeline that can pose a safety hazard to the site?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. The California Department of Education (CDE) regulations (*Title 5, California Code of Regulations, Division 1, Chapter 13, Subchapter 1, School Facilities Construction, Article 2. School Sites, § 14010, Standards for School Site Selection*) requires that a proposed school site "shall not be located near an above-ground fuel or water storage

tank or within 1,500 feet of the easement of an above-ground or underground pipeline that can pose a safety hazard as determined by a risk analysis study, conducted by a competent professional, which may include certification from a local public utility commission."

Aboveground Water Storage Tank

At the time the 2005 Adopted MND was prepared, the Riverside Highland Water Company (RHWC) had proposed constructing the Spring Mountain Ranch Zone 1 Reservoir at the east and south corner of Center Street and Mt. Vernon Avenue. The reservoir has been constructed and as a result, PlaceWorks prepared the "Water Tank Hazard Assessment" to determine if constructed reservoir creates any new hazards for the proposed campus (see Appendix C).

Completed in 2006, the two-million-gallon aboveground water storage tank is located adjacent to the northeast corner of the proposed school site. The water tank facility and access driveway are separated from the school site by a foot concrete block wall, which surrounds the facility on all four sides. The factory coated welded steel tank is equipped with access manways, flexible earthquake resistant piping connections, drains, vents, safety ladders, and a corrosion protection system. The water tank was constructed in accordance with the latest revision of the American Water Works Association (AWWA) Standard D100-05, Welded Carbon Steel Tanks for Water Storage, at the time of installation (AWWA, 2005). This standard requires construction of the tank to be able to withstand ground motion from the maximum credible earthquake. The tank is designed to 1) withstand resistance to overturning, 2) withstand a maximal vertical design acceleration, 3) maintain a sufficient freeboard to minimize sloshing, 4) have a foundation designed to resist anchor bolt uplift and overturning bearing pressure, and 5) have flexible piping connections to avoid release of the tank contents with movement during an earthquake.

The inlet/outlet piping to the tank is 12 inches in diameter and has a flexible expansion connection to resist the stress produced by ground motion from large earthquakes. The tank is inspected daily by on-site personnel and there is no history of leakage from this tank (RHWC, 2017). The tank facility is surrounded on four sides by a 6-8 foot concrete block wall. The access driveway to the facility also separates the facility from the school site by a continuation of the concrete block wall with eventual discharge into the RCFCD's detention basin, thus preventing any release of water from the facility reaching the school site.

Because of the stringent seismic design standards for tank construction in 2006, it is highly unlikely that any releases would occur from the water storage tank during the maximum credible earthquake. However, the worst-case catastrophic release scenario for this analysis is assumed to be a break in the tank's inlet or outlet pipe during a maximum credible earthquake as a result of differential movement resulting in a 12-inch diameter hole where the inlet or outlet piping connects to the side of the tank. It is assumed that a break in the inlet/outlet connection to the tank would result in the release of the entire contents of the tank at maximum volume.

A worst-case flooding analysis was prepared, assuming that that the 2-million-gallon RHWC storage tank would fail as the result of an earthquake. It was assumed that the tank would be full at the time and all of the water in the tank would be released immediately from the bottom of the tank via either the 12-inch inlet/outlet piping or a 1-foot diameter hole. This worst-case analysis is conservative because a catastrophic

failure of the storage tank is highly unlikely. Based on the site configuration, all of the released water would flow to the west and would be contained within the access driveway by the concrete block wall that separates the tank facility from the school site. The water would eventually flow to the northwest and be discharged into the RCFCD's detention basin. The detention basin has the capacity to store 2 million gallons of water, if necessary.

The results indicate that the depth of the water within the access driveway at the maximum release rate would be 0.11 feet, or approximately 1.3 inches. Since the concrete block wall is 6 to 8 feet high, none of the released water would reach or impact the school site. Based on these results, there would be no flooding at the school site in the unlikely event that the water storage tank adjacent to the school site was to fail due to a maximum credible earthquake.

Underground Water Pipelines

The Santa Ana Pipeline is an underground water transmission pipeline that is a part of the California Aqueduct System. The Santa Ana Pipeline is located within a 100-foot wide northeast-southwest trending easement, west of the proposed school site. The closest approach of the Santa Ana Pipeline is about 330 feet of the project site boundary. In support of the previous environmental analysis, J House Environmental (2004) prepared the "Underground Aqueduct Pipeline Risk Analysis." Subsequently, CDE revised its methodology for evaluating pipelines. In addition, the CDE methodology now requires evaluation of all large volume (>12 inches in diameter) water pipelines within 1,500 feet of a school site. The Pipeline Safety Hazard Assessment was prepared to address these changes (PlaceWorks 2018; Appendix B). In addition to the aqueduct, two 12-inch and one 16-inch water lines were identified within 1,500 feet of the proposed campus.

The Santa Ana Pipeline has no history of accidental releases or incidents and is integrity tested every 3 years. The operating pressure of the pipeline is approximately 290 to 310 pounds per square inch with a throughput of approximately 450 to 500 cubic feet per second (cfs). In the vicinity of the proposed school site, the depth of burial of the pipeline is between 8 and 11 feet below ground surface (bgs). The nearest shutoff valve is an automated valve located approximately 15 miles away. It is estimated that the pipeline could be shut down within 30 minutes of an incident.

Potential pipeline flooding impacts were calculated based on the procedures specified in the CDE manual. The release rate was determined by multiplying the pipe area by an assumed velocity of 5 feet per second (fps) for the 12-inch and 16-inch water mains. A release flow rate of 500 cfs was assumed for the Santa Ana Pipeline. The results indicate that water released from a full-flow rupture of any of the large diameter pipelines would not result in water depths at the school site that would pose a significant risk to students and staff.

Hazardous Material Pipelines and Storage Tanks

The State Fire Marshal and the Southern California Gas Company were contacted to identify high-pressure aboveground and underground hazardous storage tanks and pipelines located within a 1,500-foot radius of the project site. Additionally, Leighton Consulting reviewed the California Division of Oil and Gas Field Map to locate oil or gas fields.

- The State Fire Marshal indicated that there are no hazardous pipelines under the California State Fire Marshal's jurisdiction located within a 1,500-foot radius of the project site.
- The Southern California Gas Company did not identify any high-pressure natural gas pipelines located within a 1,500-foot radius of the project site.
- According to the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, Regional Wildcat Map, Number W1-7 (April 7, 1990), no evidence of onsite oil wells or oil-related facilities was observed on the project site.

As no storage tanks or pipelines containing hazardous materials were identified within 1,500 feet of the project site, no impact to students and staff would occur, and no additional mitigation measures are necessary.

5.7.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

The following mitigation measures were taken directly from the 2005 Adopted MND. Mitigation Measures 7 and 10 were satisfied by the actions of the Riverside Highland Water Company subsequent to the approval of the 2005 Adopted MND and are shown in ~~strikeout text~~. The other mitigation measures remain in effect.

~~7. Prior to the opening of the proposed school, or the construction of the reservoir, whichever is later, the District shall verify with the Riverside Highland Water Company that they have either (a) provided a berm at the Spring Mountain Ranch Zone 1 Reservoir access road; the berm shall have a top elevation of two feet higher than the average elevation within the reservoir site, or (b) installed a special gate with water retaining ability.~~

8. Prior to the opening of the proposed school, or the construction of the reservoir, whichever is later, the District shall verify with RHWC that they have adjusted the storm drain size in the lowest reach of the reservoir site to avoid water escaping from the manhole onto the access road. The proposed 24-inch storm drain shall be upsized to a 33-inch diameter pipe.

9. Prior to the opening of the proposed school, or the construction of the reservoir, whichever is later, the District shall verify with RHWC that they have designed block walls around the reservoir with two feet water retaining capability. This would require the filling of all cells of the block wall to a minimum of three feet above the highest elevation on the reservoir site.

~~10. Prior to the opening of the proposed school, or the usage of the reservoir, whichever comes later the District shall verify with RHWC that they have placed a one-quarter inch plate of steel at the lower part of the gate to reduce the opening and to restrict the amount of water escaping from the site onto the access road.~~

11. Prior to the opening of the proposed school, the District shall prepare evacuation plans, health and safety plans, or emergency response training plans that identify the Santa Ana Pipeline and provide site specific management measurements including but not limited to evacuation routes and emergency contact lists.

5.8 HYDROLOGY AND WATER QUALITY

5.8.1 Prior Environmental Findings

The 2005 Adopted MND found that that although buildout of the elementary school would slightly increase the water demand in the city, no groundwater supplies would be extracted or used. Therefore, development of the 2005 Approved Project would not directly or indirectly result in a degradation of groundwater quality, would not deplete groundwater supplies, and would not interfere with groundwater recharge. Water quality impacts were identified in the 2005 Adopted MND as less than significant.

5.8.2 Impacts Associated with the Proposed Project

Would the proposed project:

		Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Issues	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a)	Violate any water quality standards or waste discharge requirements?				X	
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X	
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.				X	
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				X	

Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
e) 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?				X	
f) Otherwise substantially degrade water quality?				X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?					X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?					X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?					X
j) Inundation by seiche, tsunami, or mudflow?					X
k) Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?				X	

Impact Analysis:

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. Drainage and surface water discharge from the proposed project would be typical of an elementary school and would not violate any water quality standards or waste discharge requirements. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. The new school has been proposed in response to need and would reallocate students currently attending other area schools rather than accommodate an entirely new student body. Since the proposed school would largely serve existing students, the net volume increase in ground water pumping would not be significantly altered by the proposed project. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. Implementation of the proposed project would not substantially alter the existing drainage pattern on the site, as drainages would be engineered to maintain the existing pattern of water flows on the site. There has been no development on the project site since the conditions analyzed in the 2005 Adopted MND. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Subsequent to the original approval, stormwater infrastructure has been developed, including the adjacent Riverside County Flood Control Basin into which this site would drain. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

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

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. See item (c), above.

e) 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?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. See item (c), above.

f) Otherwise substantially degrade water quality?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. The proposed project would not degrade water quality on or off the elementary school campus. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the

Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. Based on a review of the FEMA Flood Insurance Rate Map and the Highgrove Area Plan, the site is located outside of a 100-year flood plain. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. The proposed project site is not located within a 100-year flood hazard area. Furthermore, the proposed project would not involve the placement of structures within a 100-year flood hazard area that would impede or redirect flows. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. According to the Highgrove Area Plan Flood Hazards Map, the project site is not located in a dam hazard zone. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. The lack of significant slopes on or near the project site indicates that there is not a significant potential hazard from slope instability, landslides, and debris flows at this site. Therefore, no impact from seiche, tsunamis or mudflows would occur as a result of the proposed project.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

k) Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. Long-term operation of the proposed school would involve minimal application of hazardous materials, which may potentially discharge into the storm drainage system. However, the amounts and use of these

potential stormwater pollutants would be very limited, and the storage, use, and disposal of these materials would be subject to Federal, State, and local health and safety requirements.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

5.8.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

No mitigation measures related to hydrology and water quality were outlined in the 2005 Adopted MND.

5.9 LAND USE AND PLANNING

5.9.1 Prior Environmental Findings

As outlined in the 2005 Adopted MND, the Highgrove Area Plan land use designation is Medium Density Residential, and the zoning designation per the Spring Mountain Ranch Specific Plan No. 323 is R-1 Residential for the project site. According to the SMRSP, schools are allowable uses within the master-planned development, and as a result, the proposed project would be in compliance with the applicable land use plans and regulations.

Agricultural development existed to the north and west of the site, while vacant land was located to the south and east. Development of the proposed elementary school was found to not be inconsistent with the General Plan or zoning designation of the site or surrounding area. Also, the project's construction would not create any new land use barriers, or otherwise divide or disrupt the physical arrangement of the surrounding community.

The project site contains ruderal habitat and is located in a developing residential area. The 2005 Adopted MND found that the burrowing owl was not observed on the property; however, the species may occur due to the presence of suitable habitat. As a result, a focused survey must be completed for the burrowing owl prior to site preparation activities. Implementation of Mitigation Measure 5 of the 2005 Adopted MND (detailed above in Section 5.4.3) would reduce potential impacts to the burrowing owl to a less than significant level.

5.9.2 Impacts Associated with the Proposed Project

Would the proposed project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Physically divide an established community?					X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?					X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X	
d) Conflict with any existing or proposed zoning of surrounding properties such that a potential health or safety risk to students would be created?				X	

Impact Analysis:

a) Physically divide an established community?

No Impact. Construction of the proposed project would not create any new land use barriers, or otherwise divide or disrupt the physical arrangement of the surrounding community. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. According to the SMRSP, schools are allowable uses within the master-planned development, and as a result, the proposed project would be in compliance with the applicable land use plans and regulations. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. The project site is located within the Western Riverside County Multiple Species Habitat Conservation Plan (WR-MSHCP) / Highgrove Area Plan. According to the WR-MSHCP, a habitat assessment is required for the burrowing owl and Nevin's barberry.[3] The 2005 Adopted MND found while that the burrowing owl was not observed on the property, the species may occur due to the presence of suitable habitat. However, the project applicant will be required to adhere to the provisions outlined in Mitigation Measure 5 of the 2005 Adopted MND. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

d) Conflict with any existing or proposed zoning of surrounding properties such that a potential health or safety risk to students would be created?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. Implementation of the proposed project would not conflict with the existing zoning of the surrounding properties such that a potential health or safety risk to students would be created. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

5.9.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

Mitigation Measure 5 from the 2005 Adopted MND (detailed above in Section 5.4.3) applies to impacts related to Land Use and Planning and will be implemented for the proposed project.

5.10 MINERAL RESOURCES

5.10.1 Prior Environmental Findings

The 2005 Adopted MND found that the project site was fully developed and did not contain any mineral resources valuable to the region or the state or identified in the general plan of the County of Riverside.

[3] Western Riverside County Multiple Species Habitat Conservation Plan (WR-MSHCP). Highgrove Area Plan. http://www.rctlma.org/Portals/0/mshcp/volume1/sec3.html#3.3.5

5.10.2 Impacts Associated with the Proposed Project

Would the proposed project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?					X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?					X

Impact Analysis:

a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?

No Impact. According to the County of Riverside General Plan, no known mineral sources that would be of value to the region or the residents of the State have been identified on the project site or within the vicinity of the project site (Riverside 2015). The level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. According to the County of Riverside General Plan, the project site is not designated as a mineral resource recovery site and does not contain any mineral resource recovery areas (Riverside 2015). The level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

5.10.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

No mitigation measures related to mineral resources were outlined in the 2005 Adopted MND.

5. Environmental Analysis

5.11 NOISE

5.11.1 Prior Environmental Findings

The 2005 Adopted MND found that the elementary school would not result in significant noise impacts from stationary sources. Project-related stationary noise sources include hard court and athletic field use, and traffic noise.

Vibration impacts for the 2005 Approved Project were determined to be less than significant, and no impacts from noise associated with the aviation activities at nearby airports would occur.

The 2005 Adopted MND found that though construction of the 2005 Approved Project would not result in a significant noise impact, four mitigation measures were included to minimize noise generated by the project's construction phase (detailed below in Section 5.11.3).

5.11.2 Impacts Associated with the Proposed Project

Would the proposed project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?					X

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?					X

Impact Analysis:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. The 2005 Adopted MND determined that uses are normally acceptable in exterior environment up to 65 dBA CNEL and conditionally acceptable in areas up to 70 dBA CNEL under the state standard; and normally compatible in exterior environment up to 65 dBA CNEL under the County of Riverside standards. These standards have not changed with the adoption of the 2015 County of Riverside General Plan. The 2005 Adopted MND determined that impacts related to on-site stationary noise sources and on-site mobile sources would be less than significant.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. Because the project site is relatively flat, no pile driving, blasting or other vibration intensive activity would be required in the construction effort, and the operations of the proposed project would not involve the use of any vibration intensive activity.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. The 2005 Adopted MND found that mobile source noise levels are below the noise levels the County considers to be acceptable for residential uses and would not result in a significant noise impact to residences along this roadway. Additionally, cumulative noise increases due to development in addition to the 2005 Approved Project would not be considered to result in a significant noise impact.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. The 2005 Adopted MND found that although construction of the proposed project would not result in a significant noise impact, four mitigation measures were included to minimize noise generated by the 2005 Approved Project's construction phase. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Additionally, the project applicant will be required to adhere to the provisions outlined in Mitigation Measures 12 through 15 of the 2005 Adopted MND, which are reproduced at the end of this section. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the Adopted MND.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. Flabob Airport and Riverside Municipal Airport are located approximately five miles and eight miles to the southwest of the project site, respectively. Both of these airports do not generate 65 dBA noise contours that extend in close proximity of the project site. Therefore, as with the 2005 Approved Project, the proposed project would not expose people to excessive noise levels from aircraft noise, and the level of impact (no impact) remains unchanged from that cited in the 2005 Adopted MND.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project is not located in the vicinity of a private airstrip and would not be impacted by private airport operations. Therefore, as with the 2005 Approved Project, the proposed project would not expose people to excessive noise levels from aircraft noise, and the level of impact (no impact) remains unchanged from that cited in the 2005 Adopted MND.

5.11.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

The following mitigation measure is taken directly from the 2005 Adopted MND. The mitigation measure listed below applies to and will be implemented for the proposed project.

12. Prior to construction, the District shall include contract language requiring that the contractor properly maintain and tune all construction equipment to minimize noise emissions.

13. Prior to construction, the District shall include contract language requiring that the contractor fit all equipment with properly operating mufflers, air intake silencers and engine shrouds no less effective than as originally equipped by the manufacturer.

14. Prior to construction, the District shall cause its contractor to locate all stationary noise sources (e.g., generators, compressors, staging areas) as far from residential receptor locations as is feasible.

15. Prior to construction, the District shall provide its contractor a contact name and telephone number of a District Representative to respond in the event of a noise complaint.

5.12 POPULATION AND HOUSING

5.12.1 Prior Environmental Findings

The 2005 Adopted MND found that the 2005 Approved Project entails relocating students currently attending classes at existing local elementary schools to the proposed facility. The 2005 Approved Project would not induce growth to the area, and employment opportunities generated by the school would not stimulate housing demand in the area. The 2005 Adopted MND found that development of the elementary school would not involve any housing displacement or demolition. Furthermore, development would not result in displacement of a substantial number of people and no construction of replacement housing was found to be necessary.

5. Environmental Analysis

5.12.2 Impacts Associated with the Proposed Project

Would the proposed project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?					X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?					X

Impact Analysis:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impacts/No Changes or New Information Requiring Preparation of an EIR. The project site has remained vacant since the analysis in the 2005 Adopted MND. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site has remained vacant since the analysis in the 2005 Adopted MND. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. The project site has remained vacant since the analysis in the 2005 Adopted MND. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

5.12.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

No mitigation measures related to population and housing were outlined in the 2005 Adopted MND.

5.13 PUBLIC SERVICES

5.13.1 Prior Environmental Findings

The 2005 Adopted MND substantiated that no impacts to school, library, and park services would occur as a result of the 2005 Approved Project.

5.13.1.1 FIRE PROTECTION

The 2005 Adopted MND found that the high school would not result in significant impacts related to fire protection and emergency services. Development and operation of the 2005 Approved Project would not involve the use, manufacture, or storage of toxic or otherwise hazardous materials, generate a significant fire hazard, impair fire department access to the site, or result in an increase in population in the project area. In addition, the site plan would be required to be reviewed and approved by the Division of the State Architect and the Riverside County Fire Department (RCFD). The site is located approximately 0.5 mile south of Fire Station #19, and the slight increase in demand for inspection personnel would not negatively impact the ability of the RCFD to provide adequate service. Therefore, the 2005 Adopted MND concluded that no significant environmental impacts would occur.

5.13.1.2 POLICE PROTECTION

The 2005 Adopted MND found that the Riverside County Sheriff (RCS) Jurupa Valley Station located at 7477 Mission Boulevard, approximately 9 miles west of the project site, would provide service to the 2005 Approved Project. An additional deputy assigned as the Community Policing Officer to the Highgrove community would provide additional protective services in the project area. Because the Community Policing Officer would perform many of the services generally provided by the RCS, the need for services from the RCS would be greatly reduced. Therefore, while slightly increasing and changing the nature of services demand at the site, the 2005 Approved Project would not negatively impact the ability of the RCS to provide adequate service.

5. Environmental Analysis

5.13.2 Impacts Associated with the Proposed Project

Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Fire protection?				X	
b) Police protection?				X	
c) Schools?					X
d) Parks?					X
e) Other public facilities?					X

Impact Analysis:

a) Fire protection?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The RCFD provides full service, municipal and wildland fire protection, pre-hospital emergency medical response by paramedics and EMT's, technical rescue services and response to hazardous materials discharges for the County, including the school site.

The project site is still in the service boundary of RCFD Station # 19, located at 469 Center Street, approximately 0.5 mile north of the project site. Project development and operation would not involve the use, manufacture, or storage of toxic or otherwise hazardous materials, generate a significant fire hazard, impair fire department access to the site, or result in an increase in population in the project area. Implementation of the proposed project would not negatively impact the ability of the RCFD to provide adequate service.

Furthermore, the proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Police protection?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The proposed school would still be served by the RCS Jurupa Valley Station located at 7477 Mission Boulevard, approximately 9 miles west of the project site. Although residential development has been built out around the project site since the analysis of the 2005 Adopted MND, given the relative scope and nature of the project, the RCS would continue to have sufficient manpower to serve the project area.

Furthermore, the proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

c) Schools?

No Impact. The new elementary school was previously proposed in response to growth and educational needs within the District boundaries. This school would provide a necessary facility to relieve overcrowding, allow classroom size reductions, and meet student growth projections within the District.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

d) Parks?

No Impact. The objective of the project would be to serve the local community and would not generate substantial population growth in the area. The project would not negatively impact any local or regional parks or increase park usage.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

e) Other public facilities?

No Impact. The proposed project would not require new or altered governmental services for the maintenance of the roadways or other public facilities. Furthermore, the proposed project would entail the construction of a joint-use public library to be operated by the Riverside County Public Library. The library will be available for use to the students, staff, and local community.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

5.13.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

No mitigation measures related to public services were outlined in the 2005 Adopted MND.

5.14 RECREATION

5.14.1 Prior Environmental Findings

The 2005 Adopted MND found that the 2005 Approved Project would not increase the population of the area and was not expected to increase demands on existing park facilities. The 2005 Approved Project would not impact existing parks and would not have an impact on population or housing, therefore, no impact to parks or other recreational facilities would occur. In addition, the proposed elementary school would provide play fields and hard courts on the campus.

Therefore, as concluded in the 2005 Adopted MND, park and recreation impacts were considered to be less than significant and no mitigation measures were necessary.

5.14.2 Impacts Associated with the Proposed Project

Would the proposed project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?					X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?					X

Impact Analysis:

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. Since the proposed project would not impact existing parks and would not have an impact on population or housing, no impact to parks or other recreational facilities would occur. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No Impact. The proposed project, including the construction of recreational facilities, would have no adverse physical effects on the environment. The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

5.14.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

No mitigation measures related to recreation were outlined in the 2005 Adopted MND.

5.15 TRANSPORTATION/TRAFFIC

5.15.1 Prior Environmental Findings

The 2005 Adopted MND concluded the 2005 Approved Project would not result in significant traffic impacts with regard to the capacity of the roadway network and the anticipated levels of service. The 2005 Adopted MND also found that the 2005 Approved Project would not exceed a level of service standard established by the county congestion management agency, and would have no impact on air traffic patterns or safety.

The 2005 Adopted MND found that the increased levels of traffic, the increased number of pedestrians and bicycles, and the increased number of vehicular turning movements at the school entrances and at the nearby intersections would result in an increased number of traffic conflicts and a corresponding increase in the probability of an accident occurring. These impacts could potentially be significant; however, they could be mitigated by constructing Spring Street along the school frontage to the planned half-width plus one eastbound lane (based on the County of Riverside's roadway standards), installing a sidewalk on the north side of Spring Street along the project frontage, installing school area warning signs to notify drivers that they are entering a school zone (with school area speed limit reductions where appropriate), installing four-way stop signs at the intersection of Mount Vernon Avenue and Spring Street, and by painting yellow school crosswalks at the Mount Vernon Avenue/Spring Street intersection. In addition, if the segment of Spring

5. Environmental Analysis

Street between Mount Vernon Avenue and the school site has not been constructed prior the school opening, this roadway link should be constructed with two lanes.

Subsequent to the analysis and mitigation measures proposed in the 2005 Adopted MND, the Spring Street segment between Mount Vernon Avenue and the school site, as well as a sidewalk and curb-and-gutter on the north side of Spring Street along the project frontage, have been constructed. Therefore, Mitigation Measures 16, 17 and 21 of the 2005 Adopted MND have been implemented, and are no longer applicable to the proposed project.

5.15.2 Impacts Associated with the Proposed Project

Would the proposed project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				X	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?					X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X	
e) Result in inadequate emergency access?					X
f) Result in inadequate parking capacity?				X	
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?					X
h) Result in inadequate vehicular access due to less than minimum peripheral visibility at school driveways?					X

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
i) Pose a safety hazard due to the placement of proposed school site adjacent to or near a major arterial roadway or freeway?				X	
j) Place a proposed school site within 1,500 feet of a railroad track easement?					X

Impact Analysis:

a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The school-generated traffic at the beginning of the school day would coincide with the morning commuter peak hour. The school traffic at the end of the school day would, however, occur during the early afternoon generally between 2:00 and 3:00 p.m. when traffic volumes on the roadways are relatively light (as compared to the peak periods). The school would not typically have an impact on the late afternoon commuter peak hour, which occurs generally from 5:00 to 6:00 p.m. The proposed library would have no impacts during the morning peak hour because it would not be open to the public at that time of day.

Construction of the proposed project would generate various levels of truck and automobile traffic throughout the duration of the construction phase, which is expected to take approximately 12 months. The truck trips would be spread out throughout the workday and would generally occur during non-peak traffic periods. This level of construction-related traffic would not result in a significant traffic impact on the existing roadway network.

Furthermore, the proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The traffic analysis in the 2005 Adopted MND indicated that the intersections in the study area that would be impacted by the proposed school would operate at acceptable levels of service, and the project would not exceed a level of service standard established by the county congestion management agency. The proposed

project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The proposed project would have no impact on air traffic patterns or safety. No mitigation measures are necessary.

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

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The increased levels of traffic, the increased number of pedestrians and bicycles, and the increased number of vehicular turning movements at the school entrances and at the nearby intersections would result in an increased number of traffic conflicts and a corresponding increase in the probability of an accident occurring.

The 2005 Adopted MND proposed Mitigation Measures 16 through 21 that when implemented, would reduce the adverse safety impacts to a less-than-significant level. Since the analysis of the 2005 Adopted MND was conducted, a number of roadway improvements have been implemented in the area adjacent to and surrounding the project site.

As stated above, subsequent to the analysis and mitigation measures proposed in the 2005 Adopted MND, the Spring Street segment between Mount Vernon Avenue and the school site, as well as a sidewalk and curb-and-gutter on the north side of Spring Street along the project frontage, have been constructed. Therefore, Mitigation Measures 17 and 21 of the 2005 Adopted MND have been implemented, and are no longer applicable to the proposed project. The mitigation measures that have been completed, and the measures from the 2005 Adopted MND that are still applicable to the proposed project, are detailed below in Section 5.15.3.

Furthermore, the proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

e) Result in inadequate emergency access?

No Impact. The proposed access and circulation features at the school would accommodate emergency ingress and egress by fire trucks, police units, and ambulance/paramedic vehicles. All access features are subject to and must satisfy the District and the County of Riverside design requirements.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

f) Result in inadequate parking capacity?

No Impact. According to a preliminary site plan, the school would include approximately 130 parking spaces, which would accommodate the parking demands for staff parking, parent parking, and public/visitor parking during school hours and community parking for library use during after school operating hours. These parking spaces would be located in two parking lots, one at the east end of the school site and one at the southwest corner of the school campus, both of which would be accessed from Spring Street.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact. The proposed school would be consistent with policies supporting alternative transportation because bike racks would be provided on site, bus loading/unloading zones would be provided on site, and busing would be available to kindergarten through third graders residing beyond 1.25 miles from the school and to fourth through sixth graders residing beyond 2.25 miles from the school. In addition, the Riverside Transit Agency (RTA) operates bus routes along Center Street and Mount Vernon Avenue.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

h) Result in inadequate vehicular access due to less than minimum peripheral visibility at school driveways?

No Impact. The proposed school would be provided with access driveways on the north side of Spring Street east of Mount Vernon Avenue. The street does not have any substantial horizontal or vertical curves in the immediate vicinity of the school site, and therefore, visibility would be adequate in both directions from the driveways.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

i) Pose a safety hazard due to the placement of proposed school site adjacent to or near a major arterial roadway or freeway?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The proposed school site is adjacent to Spring Street, and near Mount Vernon Avenue, directly south of the school site, and approximately one-quarter mile west of the school site, respectively. Neither of these roadways is anticipated to pose a substantial safety hazard relative to the school.

5. Environmental Analysis

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

j) Place a proposed school site within 1,500 feet of a railroad track easement?

No Impact. The nearest railroad tracks are located approximately 1.5 miles west of the school site. The UP Railroad and the BNSF Railroad tracks cross Center Street east of the Riverside Freeway (Interstate 215). The proposed school attendance boundary would be located east of the train tracks and the railroad easement is greater than 1,500 feet from the school

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

5.15.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

The following mitigation measures were taken directly from the 2005 Adopted MND. Mitigation Measures 16, 17 and 21 were satisfied by the actions of the developer subsequent to the approval of the 2005 Adopted MND and are shown in ~~strikeout text~~. The other mitigation measures remain in effect.

~~16. The District shall coordinate with the Developer to construct Spring Street to its planned half-width along the school frontage plus one eastbound lane in accordance with the County of Riverside's roadway standards, subject to approval by the County of Riverside.~~

~~17. The District shall coordinate with the Developer to construct a sidewalk and curb-and-gutter on the north side of Spring Street along the project frontage, subject to approval by the County of Riverside.~~

18. The District shall request the County of Riverside to install standard school zone signs that state "SCHOOL – SPEED LIMIT 25 – WHEN CHILDREN ARE PRESENT" (Installation C, signs W65, R2, and R72 from the Caltrans Traffic Manual) on the south side of Spring Street west of the school site (facing west) and on the north side of Spring Street east of the school site (facing east), if Spring Street has been constructed east of the school. If the speed limit on Spring Street is set at 25 miles per hour, then Advance School symbol signs with a "SCHOOL" plate (Installation A, signs W63 and W65 from the Caltrans Traffic Manual) should be installed instead of the Installation C signs.

19. The District shall request the County of Riverside to install four-way stop signs at the intersection of Mount Vernon Avenue and Spring Street.

20. The District shall request the County of Riverside to paint yellow school crosswalks across all four approaches of the Mount Vernon Avenue/Spring Street intersection.

~~21. The District shall coordinate with the Developer to construct Spring Street between Mount Vernon Avenue and the school site as a two-lane roadway if this link has not been constructed prior the school opening~~

5.16 UTILITIES AND SERVICE SYSTEMS

5.16.1 Prior Environmental Findings

The 2005 Adopted MND analyzed impacts on the wastewater service system and determined that the Riverside Highland Water Company (RHWC) has adequate capacity to serve the 2005 Approved Project. As the development of the 2005 Approved Project would not significantly increase current water usage and wastewater disposal, the proposed water and wastewater treatment facilities would be able to sufficiently provide water and wastewater services for the proposed on-site uses. Furthermore, the Spring Mountain Ranch Specific Plan has taken into account the proposed school use in their development.

The 2005 Adopted MND found that since the school would largely serve students who would otherwise be attending local District schools, and that the project has been accounted for in Spring Mountain Ranch Specific Plan, the net volume increase in water consumption as a result of the project would not be significantly increased above current and projected levels.

It was anticipated that the landfills serving the proposed project site would have sufficient capacity to accommodate the project's solid waste disposal needs, and the project would comply with all Federal, State, and Local statutes and regulations related to solid waste.

5.16.2 Impacts Associated with the Proposed Project

Would the proposed project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?					**X**
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				**X**	

5. Environmental Analysis

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?				x	
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X	

Impact Analysis:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The proposed project would not result in a substantial increase in wastewater generation. Wastewater generated by the proposed project would be typical of an elementary school and would not contain substantial levels of pollutants. The proposed project would not exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (no impact) remains unchanged from that identified in the 2005 Adopted MND.

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

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The new campus would primarily serve students currently enrolled at local District schools and those new students generated from the Spring Mountain Ranch residential community development. The proposed campus would not accommodate an unaccounted for student body. As the development of the proposed

school would not significantly increase current water usage and wastewater disposal, the proposed water and wastewater treatment facilities would be able to sufficiently provide water and wastewater services for the proposed on-site uses. Furthermore, the Spring Mountain Ranch Specific Plan has taken into account the proposed school use in their development. The project would not require the construction of new facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

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

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The proposed project would involve the construction of a new elementary school on approximately 14 acres of fallow land. RUSD would coordinate with the County of Riverside to ensure that all required improvements to the existing storm drainage facilities would be appropriate to the proposed project. The proposed project would include the installation of drainage catch basins that would provide sufficient capacity to accommodate the level of water runoff anticipated upon completion of the proposed facilities. The on-site drainage system would expel water from the site into the existing storm drain system. RUSD would coordinate drainage improvements with the County of Riverside and would be responsible for all required drainage improvements as appropriate.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Spring Mountain Ranch Specific Plan has accounted for the water demand of the proposed project. Development of the proposed elementary school would not result in a substantial increase in population or employment opportunities. Since the school would largely serve students who would otherwise be attending local District schools and the project has been accounted for in Spring Mountain Ranch Specific Plan, the net volume increase in water consumption as a result of the project would not be significantly increased above current and projected levels.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The project would not itself generate population growth in the area; in fact the project would provide support services to the Spring Mountain Ranch master planned development, and the new campus would primarily serve students who would otherwise be attending local District schools. The Spring Mountain Ranch Specific Plan has accounted for wastewater generation from the proposed project. Since the proposed school would largely serve existing students in the District and the Spring Mountain Ranch Specific Plan has accounted for the majority of the project students, the net wastewater flows that would be experienced at the treatment plant would not be significantly altered by the proposed project.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The primary landfill serving the proposed project site would be the Badlands Landfill located at 31125 Ironwood Avenue. El Sobrante and Lamb Canyon landfills could also accept the proposed project's waste.

The net increase in solid waste to area landfills would not be significantly altered by the project. It is anticipated that the landfills serving the proposed project site would have sufficient capacity to accommodate the project's solid waste disposal needs.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. In compliance with Federal, State, and local statutes, the District will coordinate with the Riverside County Waste Management District (RCWD). Additionally, the District will provide trash receptacles at the proposed school site to be used for all solid waste generated by the project. Solid waste generated by the project would be typical of other elementary school facilities and would not contain any significant amount of hazardous waste. The proposed project would comply with all Federal, State, and Local statutes and regulations related to solid waste.

The proposed project has not changed since the original analysis in 2004 of the 2005 Approved Project, and the Adopted MND in 2005. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

5.16.3 Mitigation Measures Identified in the 2005 Adopted MND and Applicable to the Proposed Project

No mitigation measures related to utilities and service systems were outlined in the 2005 Adopted MND.

5.17 MANDATORY FINDINGS OF SIGNIFICANCE

Would the proposed project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring Major MND Revisions	Change in Circumstances Requiring Major MND Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X	
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)				X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X	

Impact Analysis:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The proposed project has not changed since the original analysis in the 2005 Approved Project, and the

5. Environmental Analysis

Adopted MND in 2005 and conditions surrounding the proposed campus have not changed in ways that would create new impacts. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The proposed project has not changed since the original analysis in the 2005 Approved Project, and the Adopted MND in 2005 and conditions surrounding the proposed campus have not changed in ways that would create new or more intense cumulative impacts. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The proposed project has not changed since the original analysis in the 2005 Approved Project, and the Adopted MND in 2005 and conditions surrounding the proposed campus have not changed in ways that would create new or more intense impacts on human beings. Therefore, the level of significance (less than significant impact) remains unchanged from that identified in the 2005 Adopted MND.

6. References

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7. List of Preparers

Riverside Unified School District (Lead Agency)

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7. List of Preparers

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Appendix A 2005 Adopted MND for Helen Keller Elementary School

Appendices

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DRAFT MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY FOR:

HELEN KELLER

ELEMENTARY

(ES NO. 31)

prepared for:

RIVERSIDE UNIFIED SCHOOL DISTRICT

Contact: Janet Dixon, Director of Facilities & Planning& Development

prepared by:

THE PLANNING CENTER

Contact: Dwayne S. Mears, AICP, CEO

DECEMBER 15, 2004

DRAFT MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY FOR:

HELEN KELLER

ELEMENTARY

(ES NO. 31)

prepared for

RIVERSIDE UNIFIED SCHOOL DISTRICT

3070 Washington Street
Riverside, CA 92504
Phone: 951.788.7554

Contact: Janet Dixon, Director of Facilities & Planning& Development

prepared by:

THE PLANNING CENTER

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Contact: Dwayne S. Mears, AICP, CEO

RIV-02.15
DECEMBER 15, 2004

Table of Contents

Table of Contents

List of Figures

List of Tables

1. Introduction

The Riverside Unified School District (District), as the Lead Agency, proposes to acquire a 13.9-acre site to construct and operate Helen Keller Elementary School (ES No. 31). This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines, as amended, to determine if approval of the discretionary actions requested and subsequent development could have a significant impact on the environment. The purposes of this Initial Study, as described in the State CEQA Guidelines Section 15063, are to (1) Provide the lead agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration; (2) Enable the lead agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a negative declaration; and (3) Assist the preparation of an EIR, if one is required. This Initial Study will provide the Riverside Unified School District Governing Board of Education with information to document the potential impacts of the proposed project and determine whether to prepare an Environmental Impact Report, or approve a Negative Declaration or Negative Declaration with mitigation measures.

1.1 PROJECT LOCATION

The proposed project site encompasses Assessors Parcel Number (APN) 255-170-010. The project site is located at the northwest corner of the intersection of East Spring Street and Observation Road within the Spring Mountain Ranch Specific Plan No. 323 (SMRSP) in the Highgrove area of unincorporated Riverside County. Both East Spring Street and Observation Road are unpaved roads. The California Aqueduct Easement is situated west of the project site. Figures 1 and 2, *Regional Location Map* and *Local Vicinity Map*, illustrate the location of the project site in its regional and local contexts, respectively.

1.2 ENVIRONMENTAL SETTING

1.2.1 Existing Land Use

The proposed project site is rectangular and comprised of 13.9 acres of vacant land. Tall grasses and shrubs presently cover the site. While no building structures are situated on the site, there are several active and abandoned irrigation boxes located along the perimeter of the site. The project site is also located within the SMRSP, a residential/ mixed use development project that would include approximately 1,800 dwelling units. While the site is currently vacant, the project site and the surrounding project area are designated for residential development. Figures 3 and 4, *Aerial Photograph* and *Site Photograph*, respectively, show the existing condition of the site and its surroundings.

1.2.2 Surrounding Land Use

The project site is surrounded by agricultural uses and vacant land. As depicted in Figure 4, *Site Photograph*, agricultural development currently exists adjacent to the northern and western boundaries of the project site. As envisioned in the SMRSP, residential uses planned for areas surrounding the project site.

1.3 PROJECT DESCRIPTION

The District, the 14th largest school district in California, has an enrollment of approximately 42,000 students in kindergarten through grade twelve and serves a 92-square mile area including a major portion of the City of Riverside, as well as the Highgrove area within unincorporated Riverside County.

1.3.1 Proposed Land Use

The proposed project entails acquisition of property for the development and operation of a 750-student public elementary school that would serve grades kindergarten through six. Helen Keller Elementary

School is proposed to open in fall 2007. The proposed school is intended to absorb school district growth, including new students generated from SMRSP.

Facilities

The layout of the proposed project is illustrated in Figure 5, *Site Plan.* The front entrance is proposed along Spring Street. Parking is identified along the southwest and east property lines. Structural facilities are located within the center of the site, while the play area (hard- and soft-scape) is proposed within the north and western portion.

The proposed school would be comprised of ten single-story buildings and would be compliant with the American with Disabilities Act of 1990 (ADA) standards and the California Code of Regulations, Title 24. ADA-compliant ramps are proposed throughout the campus to facilitate handicap access into buildings and between campus facilities. The campus would encompass approximately 65,000 square feet of building space would include the following amenities:

- Four classroom buildings
- Two kindergarten classroom buildings
- Administration building
- Library building
- Multi-purpose/ food service building
- Day care

A total of 38 classrooms would be provided (i.e., six kindergarten classrooms and 32 elementary classrooms). Future portable buildings may be placed in the northeast corner of the project site, which may displace some of the hardscape play area.

Outdoor Amenities

The school would include a lunch shelter; playground space, including turf and hardscape; a separate kindergarten play area; and a service yard. Nighttime high-intensity lighting is not proposed for any of the recreational facilities.

Joint Use Facilities

The proposed project entails the construction of a 5,200 sf joint-use community public library to be operated by the Riverside County Public Library. The community library would be available for use to project students and staff during school hours, and the local community after-school hours; the community would not be allowed to use the library during school operating hours.

Vehicle Access and Student Loading Areas

According to District policy, school busing is available for all special education students. Students in grades Kindergarten through three and grades four through six who reside beyond 1.25 miles and 2.25 miles, respectively, from the proposed school would be eligible for home to school/ school to home bus transportation service. Four driveways on Spring Street provide ingress and egress into the project site. Student loading is available onsite at the eastern parking lot, located along the parking lot's western curb and separate from the parking area. The bus loading area is located onsite in the western parking lot accessible from two driveways located on Spring Street. Approximately 130 visitor and faculty parking spaces would be available. The District anticipates most, if not all, students to either be bused or dropped-off at the facility.

Operation

ES No. 31 is proposed to operate on a traditional school calendar. Classes would begin early September and end early/mid June the following year. Summer school may be provided between June and August. Standard hours of operation are between 7:00 a.m. and 4:00 p.m., with classes generally scheduled between the hours of 8:00 and 11:00 a.m. in the morning and 12:00 and 3:00 pm in the afternoon, Monday through Friday.

The joint-use community library would operate during school hours for use by project students and staff and also during after-school hours for use by the community at-large; while, the library closing time has not been determined, it is anticipated to close at 9:00 p.m. School use and public use of the library would be separate; the community would not be allowed to use the library during school operating hours.

1.3.2 Project Phasing

Development of the proposed project would be completed in one phase with several sub-phases, as described below:

- Acquisition of properties;
- Remediation of property (if necessary);
- Construction of the proposed facilities, including site clearance, excavation, and building construction; and
- Operation of the proposed elementary school.

These sub-phases would not overlap. Development of the proposed project would begin pending approval from the District Governing Board, California Department of Education, Division of the State Architect, and Department of Toxic Substances Control and receipt of required local permits.

1.4 EXISTING ZONING AND GENERAL PLAN

The project site is located within the Highgrove Area Plan of unincorporated Riverside County. Land use designation is Medium Density Residential, while the zoning designation is R-1 Residential, as identified in the Spring Mountain Ranch Specific Plan No. 323.

1.5 SCHOOL BOARD ACTION REQUESTED

The Riverside Unified School District is the Lead Agency under CEQA and has the approval authority over the proposed project. The District would require approval and/or coordination from the following responsibility agencies to implement the proposed project.

State

Development costs, including site acquisition, for the proposed project would be funded with 50% of state dollars. As a result, implementation of the proposed project would require the following state department approvals:

- California Department of Education (CDE)
- Department of Toxic Substances Control (DTSC)
- Division of the State Architect (DSA)

- Office of Public School Construction (OPSC)
- State Allocation Board (SAB)

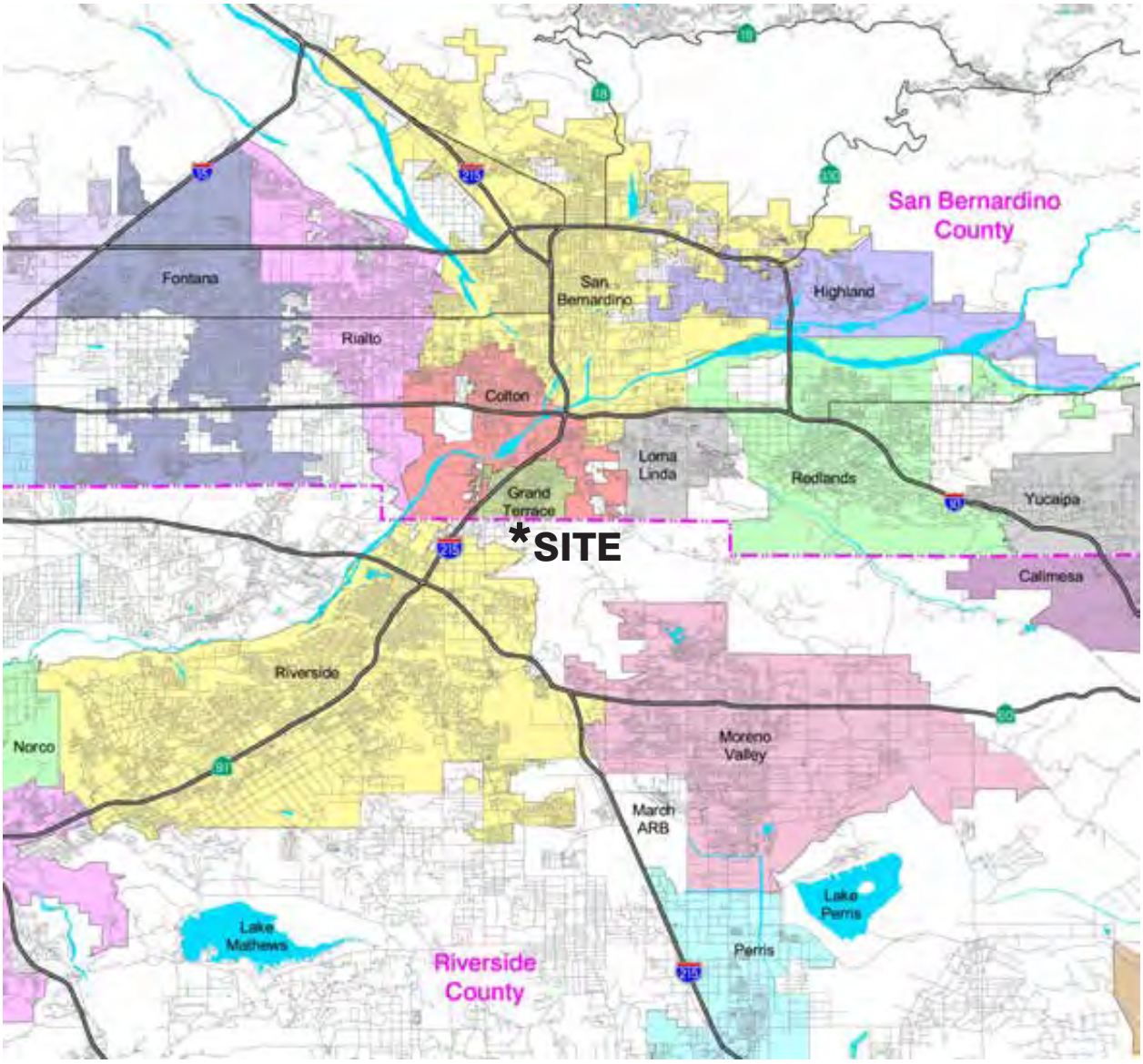
Regional

- Santa Ana Regional Water Quality Control Board for National Pollutant Discharge Elimination System (NPDES) permit

Local

- County of Riverside approval of various street and signage improvements, approval for grading and drainage plans, and permit for operation of food facilities.
- County of Riverside Fire Department approval for fire access and safety standards (emergency access, exit routes, and adequate fire hydrant flow).

Regional Location



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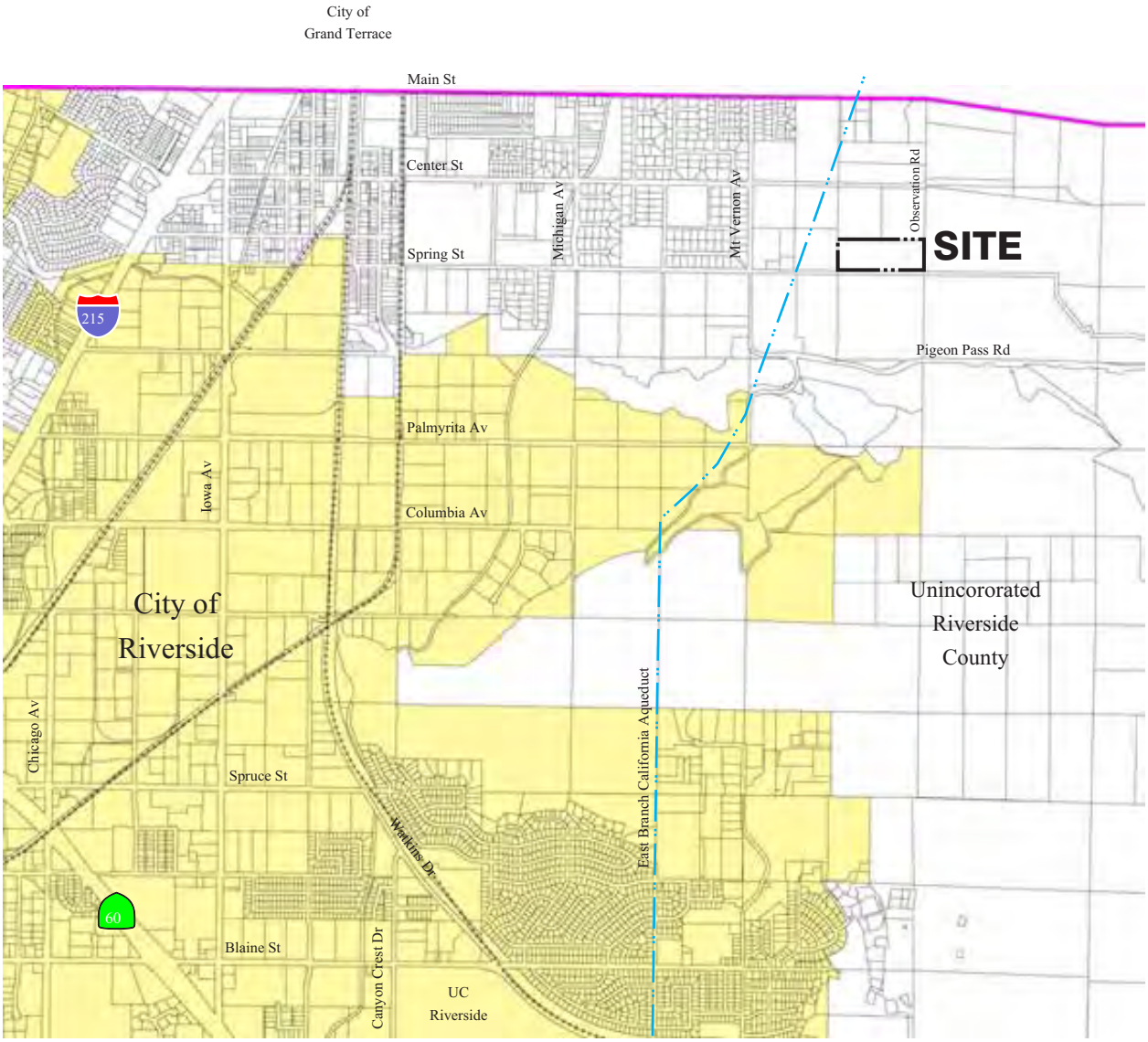
Local Vicinity



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Aerial Photograph

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Site Photographs

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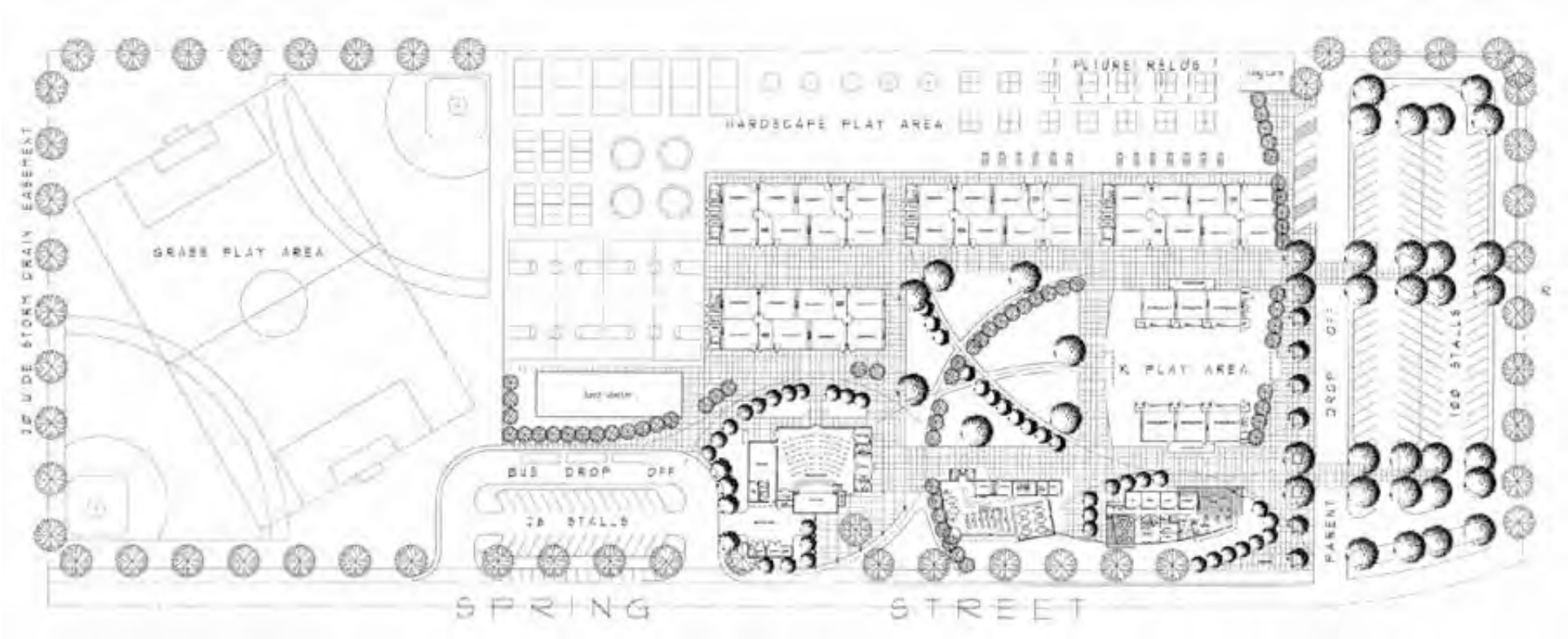
Site Plan



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Source:

Elementary School No. 31 (Helen Keller)

The Planning Center • Figure 5

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2. Environmental Checklist

2.1 BACKGROUND

1. Project Title: Helen Keller Elementary School / Elementary School No. 31

2. Lead Agency Name and Address:

Riverside Unified School District
3070 Washington Street
Riverside, CA 92504

3. Contact Person and Phone Number:

Janet Dixon
951.788.7554

4. Project Location: The proposed project site encompasses Assessors Parcel Number (APN) 255-170-010. The project site is located at the northwest corner of the intersection of East Spring Street and Observation Road within the Spring Mountain Ranch Specific Plan No. 323 in the Highgrove area of unincorporated Riverside County.

5. Project Sponsor's Name and Address:

Riverside Unified School District
3070 Washington Street
Riverside, CA 92504

6. General Plan Designation: Highgrove Area Plan, Medium Density Residential

7. Zoning: Spring Mountain Ranch Specific Plan No. 323, Residential

8. Description of Project

The District proposes acquisition of property for the purpose of constructing and operating Helen Keller Elementary School. The proposed campus would accommodate 750 students kindergarten and first through sixth. The proposed elementary school is expected to open in 2007.

9. Surrounding Land Uses and Setting

The project site is surrounded by agricultural uses and vacant land. The surrounding areas adjacent to the north and west property lines are citrus orchards. The adjacent areas to the east and south are undeveloped.

10.

Other Public Agencies Whose Approval is Required (e.g., permits, financing approval, or participation agreement):

The District would require approval and/or coordination from the following agencies to implement the proposed project.

State

- California Department of Education
- Department of Toxic Substances Control
- Division of the State Architect
- Office of Public School Construction
- State Allocation Board

Regional

- Santa Ana Regional Water Quality Control Board for National Pollutant Discharge Elimination System (NPDES) permit.

Local

- County of Riverside approval of various street and signage improvements, approval for grading and drainage plans, and permit for operation of food facilities.
- County of Riverside Fire Department.

2.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality	☐ Land Use / Planning
☐ Mineral Resources	☐ Noise	☐ Population / Housing
☐ Public Services	☐ Recreation	☐ Transportation / Traffic
☐ Utilities / Service Systems	☐ Mandatory Findings of Significance	

2.3 SPECIAL REQUIREMENTS UNDER THE STATE SCHOOL FACILITY PROGRAM

In additional to general CEQA requirements, projects involving school site acquisition to be funded under the state School Facilities Program must also satisfy several specific requirements established in the California Education Code and California Code of Regulations. The applicable sections of the Education Code and California Code of Regulations are listed below, along with a description of the general topic and the Environmental Checklist section in which each requirement is addressed.

SPECIAL REQUIREMENTS UNDER THE STATE SCHOOL FACILITY PROGRAM

General Topic	Education Code Section	California Code of Regulations Section	Environmental Checklist (See Section 2.4)
Would the project involve the construction, reconstruction, or relocation of any school building on a site subject to moderate to high liquefaction?	*	Title 5 § 14011(i)	Section VI, Geology and Soils, Question "a-iii"
Would the project involve the construction, reconstruction, or relocation of any school building on a site subject to landslides?	*	Title 5 § 14011(i)	Section VI, Geology and Soils, Question "a-iv"
Does the site contain an active earthquake fault or fault trace?	§ 17212 & § 17212.5	Title 5 § 14010(f)	Section VI, Geology and Soils, Question "f"
Would the project involve the construction, reconstruction, or relocation of any school building on the trace of a geological fault along which surface rupture can reasonably be expected to occur within the life of the school building?	§ 17212 & § 17212.5	Title 5 § 14011(f)	Section VI, Geology and Soils, Question "g"
Is the project site the site of a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed?	§ 17213(a)(1)	*	Section VII, Hazards and Hazardous Materials, Question "j-(a)"
Is the project site a hazardous substance release site identified by the State Department of Health Services in a current list adopted pursuant to § 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code?	§ 17213(a)(2)	*	Section VII, Hazards and Hazardous Materials, Question "j-(b)"

SPECIAL REQUIREMENTS UNDER THE STATE SCHOOL FACILITY PROGRAM			
General Topic	**Education Code Section**	**California Code of Regulations Section**	**Environmental Checklist (See Section 2.4)**
Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the School?	§ 17213(c)(1)(C)	*	Section VII, Hazards and Hazardous Materials, Question "h"
Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: a) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; b) freeways and other busy traffic corridors; c) large agricultural operations; and/or d) a rail yard, which might reasonably be anticipated to emit hazardous air emissions, or handle hazardous or acutely hazardous material, substances or waste?	§ 17213(b)	*	Section VII, Hazards and Hazardous Materials, Question "i"
Is the school site an area designated in a city, county, or city and county general plan for agricultural use and zoned for agricultural production, and if so, do neighboring agricultural uses have the potential to result in any public health and safety issues that may affect the pupils and employees at the school site?	§ 17215.5.(a)	*	Section VII, Hazards and Hazardous Materials, Question "i"
Is the proposed school site situated within 2,000 feet of a significant disposal of hazardous waste?	*	Title 5 § 14010(t)	Hazardous Materials, Question "k"
Is the proposed school site a site that contains one or more pipelines, situated underground or aboveground, which carry hazardous substances, acutely hazardous materials or hazardous wastes, unless the pipeline is a natural gas line that is used only to supply natural gas to that school or neighborhood?	§ 17213(a)(3)	*	Section VII, Hazards and Hazardous Materials, Question "j-(c)"
Is the proposed school site located near an above-ground water or fuel storage tank or within 1,500 feet of an easement of an above ground or underground pipeline that can pose a safety hazard to the site?	*	Title 5 § 14010(h)	Section VII, Hazards and Hazardous Materials, Question "m"
Is the proposed school site located on a site containing or underline by naturally occurring hazardous materials?	§ 17213.1(a)	*	Section VII, Hazards and Hazardous Materials, Question "i"
Is the proposed school site located on a site where the property line is less than the following distances from the edge of respective power line easements: 1) 100 feet of a 50-133 kV line; 2) 150 feet of a 220-230 kV line; or 3) 350 feet of a 500-550 kV line?	*	Title 5 § 14010(c)	Section VII, Hazards and Hazardous Materials, Question "n"

SPECIAL REQUIREMENTS UNDER THE STATE SCHOOL FACILITY PROGRAM			
General Topic	**Education Code Section**	**California Code of Regulations Section**	**Environmental Checklist (See Section 2.4)**
Is the proposed school site within two miles, measured by air line, of that point on an airport runway or potential runway included in an airport master plan that is nearest to the site?	§ 17215(a)&(b)	*	Section VII, Hazards and Hazardous Materials, Question "g"
Is the project site subject to flooding or dam inundation?	§ 17212 & § 17212.5	Title 5 § 14011(g)	Section VIII, Hydrology and Water Quality, Question "i"
Would the proposed school conflict with any existing or proposed land uses, such that a potential health or safety risk to students would be created.	*	Title 5 § 14010(m)	Section IX, Land Use and Planning, Question "d"
Is the proposed school site located adjacent to or near a major arterial roadway or freeway whose noise generation may adversely affect the educational program?	*	Title 5 § 14010(e)	Section XI, Noise, Question "a" and/or "e"
Is the proposed school site located adjacent to or near a major arterial roadway or freeway that may pose a safety hazard?	*	Title 5 § 14010(e),	Section XV, Transportation/Traffic, Questions "i"
Are traffic and pedestrian hazards mitigated per Caltrans' "School Area Pedestrian Safety" manual?	*	Title 5 § 14010 (l)	Section XV, Transportation/Traffic, Questions "d" and "i"
Is minimum peripheral visibility maintained for driveways per Caltrans' Highway Design Manual?	*	Title 5 § 14010(k)	Section XV, Transportation/Traffic, Question "h"
Is the proposed school site within 1,500 feet of a railroad track easement?	*	Title 5 § 14010(d)	Section XV, Transportation/Traffic, Question "j"

2.4 EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses", may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). Earlier analyses are discussed in Section XVII at the end of the checklist. In this case, a brief discussion should identify the following:

   a) **Earlier Analysis Used.** Identify and state where they are available for review.

   b) I**mpacts Adequately Addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) **Mitigation Measures.** For effects that are "Less than Significant with Mitigation Measures Incorporated", describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significant.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?		X		
II. AGRICULTURE RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use?			X	
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		X		
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
d) Disturb any human remains, including those interred outside of formal cemeteries?			X	
VI. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Be located on a site that contains an active earthquake fault or fault trace?				X
g) Would the project involve the construction, reconstruction, or relocation of any school building on the trace of a geological fault along which surface rupture can reasonably be expected to occur within the life of the school building?				X
VII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Would operation of the proposed project involve hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
e) 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?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Locate a school within two miles, measured by air line, of that point on an airport runway or potential runway included in an airport master plan that is nearest to the site?				X
h) Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the School?				X
i) Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: a) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; b) freeways and other busy traffic corridors; c) large agricultural operations; and/or d) a rail yard, which might reasonably be anticipated to emit hazardous air emissions, or handle hazardous or acutely hazardous material, substances or waste?			X	

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
j) Locate a school site at: (a) the site of a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed; (b) a hazardous substance release site identified by the State Department of Health Services in a current list adopted pursuant to § 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code; or (c) a site that contains one or more pipelines, situated underground or aboveground, which carry hazardous substances, acutely hazardous materials or hazardous wastes, unless the pipeline is a natural gas line that is used only to supply natural gas to that school or neighborhood"?				X
k) Located a school within 2,000 feet of a significant disposal of hazardous waste?				X
l) Locate a school on a site containing or underline by naturally occurring hazardous materials?				X
m) Locate a school near an above-ground water or fuel storage tank or within 1,500 feet of an easement of an above ground or underground pipeline that can pose a safety hazard to the site?		X		
n) Locate a school such that the property line is less than the following distances from the edge of respective power line easements: 1) 100 feet of a 50-133 kV line; 2) 150 feet of a 220-230 kV line; or 3) 350 feet of a 500-550 kV line?				X
VIII. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
e) 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?			X	
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X
k) Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?			X	
IX. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?			X	
d) Conflict with any existing or proposed zoning of surrounding properties such that a potential health or safety risk to students would be created.		X		
X. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X
XI. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established by the school district, the local general plan, noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose students or staff to excessive noise levels?				X

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X
XII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
XIII. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X
XIV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X
XV. TRANSPORTATION/TRAFFIC. Would the project:				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			X	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		X		
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?			X	

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X
h) Result in inadequate vehicular access due to less than minimum peripheral visibility at school driveways?				X
i) Pose a safety hazard due to the placement of a proposed school site adjacent to or near a major arterial roadway or freeway?			X	
j) Place a proposed school site within 1,500 feet of a railroad track easement?				X
XVI. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?			X	
e) Result in a determination by the waste water 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?			X	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	
XVII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?		X		

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2.5 REFERENCES

No. **Reference**

1. Air Quality Data Statistics, http://www.arb.ca.gov/adam/welcome.html.

2. County of Riverside General Plan, Highgrove Area Plan, October 2003.

3. County of Riverside, Multiple Species Habitat Conservation Plan. Highgrove Area Plan. http://www.rcip.org/mshcpdocs/ vol1/3_3_5.pdf.

4. County of Riverside, Spring Mountain Ranch, Specific Plan No. 323, Environmental Impact Report No. 424, Volumes I and II, November 27,2000.

5. ESRI/FEMA Hazard Information and Awareness, http://mapserver2.esri.com/cgi-bin/hazard.adol?s=0&cd=x&p=1&c=-117.312031,34.015833&d=0, September 9, 2004.

6. Institute of Transportation Engineers, "Trip Generation," 7th Edition, Washington D.C. 2003.

7. J House Environmental, Underground Aqueduct Pipeline Risk Analysis, July 2004.

8. Leighton Consulting, Inc. "Draft Preliminary Environmental Assessment Report, Proposed Helen Keller Elementary School Site," September 17, 2004.

9. Leighton Consulting, Inc. "Geologic Hazards Evaluation, Project No. 600173-002," October 28, 2003.

10. Leighton Consulting, Inc. "Phase I Environmental Site Assessment Report, Project No. 600173-001," November 7, 2003.

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Section 2.4 provided a checklist of environmental impacts. This section provides an evaluation of the impact categories and questions contained in the checklist and identifies mitigation measures, if applicable.

3.1 AESTHETICS

a) Have a substantial adverse effect on a scenic vista?

No Impact. Scenic vistas are generally considered to be greater than one mile from a receptor and generally consist of background receptors. The project site is relatively flat with no apparent slope. Based on the USGS 7.5-minute Topographic Series, San Bernardino South California Quadrangle Map, the surface elevation at the subject property is approximately 1,175 feet above mean sea level. As depicted in Figure 4, *Site Photograph,* the project site is within view of several scenic vistas on a clear day. Backdrop/skyline views of the local area include Blue Mountain and Box Spring Mountains. The foothills of Blue Mountain are situated approximately 700 feet northeast of the project site at elevations rising to approximately 2,400 feet above the valley floor. The foothills of Box Spring Mountains are located approximately one-half mile south of the project site and rise to an elevation of approximately 2,900 feet.

Buildings associated with the project are proposed to be one-story in height. As the project site is surrounded by orchards to the north and west and by undeveloped land to the south and east, the project site would not impede the scenic views of any sensitive receptors. As such, project implementation would not affect any scenic views, and no mitigation measures are necessary.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The predominant visual character of the site consists of vacant land. According to the California Scenic Highway Mapping Program, the proposed project site is not located near a scenic highway. Project construction would likely result in removal of "ruderal habitat," i.e., areas where the native vegetation has been removed by mechanical means. Weedy non-native annual species currently dominate the project site. No significant areas of habitat or other natural resources that could be considered a visual resource exist at the site. Project implementation would not damage any scenic resources within a state scenic highway. Therefore, no mitigation measures are necessary.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. Implementation of the proposed project would alter the existing condition of the project site; the predominant visual character of the site consists of undeveloped land. The site is in a rough graded and heavily disturbed state, with on-site vegetation generally consisting of ruderal habitat. The site is unimproved with no sidewalks along Spring Street or Observation Road. The project's development would not require extensive grading or significant changes in site elevation, and no hillside or hilltop areas would be affected. Areas immediately surrounding the project site are predominantly composed of vacant and agricultural uses. Development of the school would be aesthetically consistent and compatible with the characteristics of the surrounding project area as a developing community. The school would be of quality design and would include the use of landscape both around the perimeter and in the interior locations of the school grounds, which would improve the visual character of the project site. Therefore, the proposed project would not substantially degrade the existing visual character or quality of the site or surrounding area, and impacts would be less than significant. No mitigation measures are necessary.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Less Than Significant Impact With Mitigation Incorporated. The proposed project entails construction of school buildings, two parking areas, a grass play area, and hardscape play area with the following light sources: exterior and interior light, security lighting, and parking lot lighting. No high-intensity field lighting would be included as part of the project. The project site is currently surrounded by vacant and agricultural uses; however would be surrounded by future residential uses.

The lighting proposed for the school would be relatively modest and would not flash or adversely affect any day or nighttime views in the area. However, because the proposed project site is currently undeveloped, implementation of the project would result in an increased level of light and glare from what is currently experienced at the site. While lighting proposed for the project would be relatively modest, to ensure that light and glare impacts remain less than significant, implementation of the following mitigation measures would reduce impacts to less than significant.

Mitigation Measures:

1. On-site buildings shall use low reflective glass and building material to keep daytime glare to a minimum.

2. All exterior lights shall be shielded where feasible and focused to minimize spill light into the night sky or adjacent properties.

3. New exterior lighting used for security purposes in the evening would be limited to low wattage energy conserving night lighting.

4. New lights would be situated and arranged so that no direct beam would leave the project site. Luminaries shall be provided with filtering louvers and hoods. During installation, the luminaries shall be aimed and corrected by a field crew to aim the lights away from viewers.

3.2 AGRICULTURE 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.

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Less Than Significant Impact. According to the Department of Conservation Farmland Mapping and Monitoring Program, the project site is designated as Prime Farmland. The project site, approximately 14 acres in size, is vacant and underlain by Greenfield sandy loam soil, a soil that qualifies for Prime Farmland designation. According to the Preliminary Environmental Assessment conducted by Leighton Consulting, Inc. (See Section 3.7, Hazards and Hazardous Materials), the project site had been cultivated with citrus orchards. Based on historical records and interviews, the site was cultivated from 1953 to 2002.

While the development of the project site into urban uses decreases approximately 14 acres of prime farmland in the unincorporated Highgrove area, this conversion affects a negligible amount of all land designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the area. Furthermore, the project site is located within the Spring Mountain Ranch Specific Plan (SMRSP), which plans for residential uses in the planning area and subsequent conversion of agriculture land for a master planned residential community. The project site and its surrounding area are designated for residential development. As part of the approval of the SMRSP and the SMRSP Environmental Impact Report, a statement of overriding considerations was adopted for the conversion of all Prime Farmland within the SMRSP planning area, including the project site. If the proposed school were not to go forward, the project site would still be developed for other urban uses.

Due to the negligible size of the project site; previous acknowledgement that urbanization of the project site outweighs the agricultural impact from development of the SMRSP planning area, including the project site; lack of agricultural use at the project site for approximately two years; and planned intensification of the project area, the proposed project would result in less than significant impacts, and no mitigation measures are necessary.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Spring Mountain Ranch Specific Plan provides an R-1 zoning designation for the project site. The site is not located within an Agricultural Preserve and other Agricultural Preserves in the surrounding area that have filed for a Notice of Non-Renewal and disestablishment. As such, no Williamson Act contracts apply to the project site, and no Williamson Act contract or agricultural zoning conflicts would result from project implementation. Therefore, no impact would occur, and no mitigation measures are necessary.

c) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

Less Than Significant Impact. The project area is located within a developing area of the Highgrove area. There is no agricultural production currently onsite. Agricultural development currently exists adjacent to the northern and western boundaries of the project site. Single-family residential development envisioned by the SMRSP is planned for the vacant property located adjacent to the eastern and southern boundaries of the project site.

The area located north and west of the project site consists of agricultural land cultivated with citrus orchards. The citrus orchards are located within the developing area of the Highgrove Area Plan and may be further impacted by the development and operation of the proposed project due to operational constraints imposed by urbanization. However, these orchards would be ultimately impacted by its residential zoning designations as designated by the Highgrove Area Plan. If the proposed project were not to go forward, the citrus orchards would still be developed for other urban uses. Due to the planned intensification of the project area, the proposed project would not result in any significant impacts in regards to converting the surrounding areas to non-agricultural uses, and no mitigation measures are necessary.

3.3 AIR QUALITY

The Air Quality section addresses the impacts of the proposed project on ambient air quality and the exposure of people, especially sensitive individuals, to unhealthful pollutant concentrations. Air pollutants of concern include ozone, carbon monoxide, particulate matter, and oxides of nitrogen. This section analyzes the type and quantity of emissions that would be generated by the construction and operation of the proposed project.

Climate/Meteorology

Air quality is affected by both the rate and location of pollutant emissions and by meteorological conditions that influence movement and dispersal of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, provide the link between air pollutant emissions and air quality.

Riverside County is located entirely within the South Coast Air Basin (SCAB). The SCAB incorporates approximately 12,000 square miles within four counties – San Bernardino, Riverside, Los Angeles, and Orange – including some portions of what was previously known as the Southeast Desert Air Basin. In May 1996, the boundaries of the South Coast Air Basin were changed by the California Air Resources Board (CARB) to include the Beaumont-Banning area.

The distinctive climate of the SCAB is determined by its terrain and geographic location. The SCAB is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest and high mountains around the rest of its perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds.

The vertical dispersion of air pollutants in the SCAB is hampered by the presence of persistent temperature inversions. High-pressure systems, such as the semi-permanent high-pressure zone in which the SCAB is located, are characterized by an upper layer of dry air that warms as it descends, restricting the mobility of cooler marine-influenced air near the ground surface, and resulting in the formation of high-level subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer, and together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog.

The atmospheric pollution potential of an area is largely dependent on winds, atmospheric stability, solar radiation, and terrain. The combination of low wind speeds and low-level inversions produces the greatest concentration of air pollutants. On days without inversions, or on days of winds averaging over 15 mph, smog potential is greatly reduced.

Air Quality Regulations, Plans and Policies

The Federal Clean Air Act (FCAA) was passed in 1963 by the U.S. Congress and has been amended several times. The 1970 Clean Air Act Amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including non-attainment requirements for areas not meeting National Ambient Air Quality Standards (NAAQS) and the Prevention of Significant Deterioration (PSD) program. The 1990 Amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the U.S.

In 1988, the State Legislature passed the California Clean Air Act (CCAA), which established California's air quality goals, planning mechanisms, regulatory strategies and standards of progress for the first time. The CCAA provides the State with a comprehensive framework for air quality planning regulation. The CCAA requires attainment of state ambient air quality standards by the earliest practicable date. Attainment Plans are required for air basins in violation of the state ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2) or nitrogen dioxide (NO_2) standards. Preparation of and adherence to Attainment Plans are the responsibility of the local air pollution districts or air quality management districts. State and federal agencies have set ambient air quality standards for certain air pollutants. NAAQS have been established for the following criteria pollutants: CO, O_3, SO_2, NO_2, inhalable particulate matter (PM_{10} and $PM_{2.5}$) and lead (Pb). The state standards for these criteria pollutants are more stringent than the

corresponding federal standards. Table 1 summarizes the state and federal standards.

Table 1
Ambient Air Quality Standards for Criteria Pollutants

Pollutant	*Averaging Time*	*California Standard*	*Federal Primary Standard*	*Pollutant Health and Atmospheric Effects*	*Major Pollutant Sources*
Ozone (O_3)	1 hour	0.09 ppm	0.12 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Motor vehicles.
	8 hours	*	0.08 ppm		
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Classified as a chemical asphyxiant, CO interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm		
Nitrogen Dioxide (NO_2)	Annual Average	*	0.05 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.25 ppm	*		
Sulfur Dioxide (SO_2)	Annual Average	*	0.03 ppm	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	*		
	24 hours	0.04 ppm	0.14 ppm		
Suspended Particulate Matter (PM_{10} $PM_{2.5}$)	Annual Geometric Mean	30 $\mu g/m^3$ (PM_{10})	65μ/m^3 ($PM_{2.5}$)	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
	Annual Arithmetic Mean	*	50 $\mu g/m^3$ (PM_{10})		
	24 hours	50 $\mu g/m^3$ (PM_{10})	150 $\mu g/m^3$ (PM_{10}) 15 $\mu g/m^3$ ($PM_{2.5}$)*		
Lead (Pb)	Monthly	1.5 $\mu g/m^3$	*	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurologic dysfunction (in severe cases).	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	*	1.5 $\mu g/m^3$		
Sulfates (SO_4)	24 hours	25 $\mu g/m^3$	*	Decrease in ventilatory functions; aggravation of asthmatic symptoms; aggravation of cardio-pulmonary disease; vegetation damage; degradation of visibility; property damage.	Industrial processes.

ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter
* = standard has not been established for this pollutant/duration by this entity.

Areas are classified under the Federal Clean Air Act as either "attainment" or "non-attainment" areas for each criteria pollutant based on whether the NAAQS have been achieved or not. SCAB is designated as a non-attainment area for O_3, CO, and PM_{10}.

Existing Air Quality

The proposed Helen Keller Elementary school campus would be located at the north end of Source/Receptor Area (SRA) 23 (Metropolitan Riverside Area). The SRA 23 is one of 38 designated areas under the South Coast Air Quality Management District jurisdiction. The SCAQMD regulates air emissions in the SCAB. The communities within a given SRA are expected to have similar climatology. Additionally, similar traffic levels and the presence of local point sources contribute emissions to these areas. Subsequently, similar ambient air pollutant concentrations are expected within any given SRA. The most current five years of data monitored at these monitoring stations are included in Table 2. The data indicate that the area is sensitive to both ozone and PM_{10} as these standards are violated on a fairly regular basis.

Table 2
Ambient Air Quality Monitoring Summary,
Riverside-Rubidoux Monitoring Station

Pollutant/Standard	*Number of Days Threshold Were Exceeded and Maximum Levels During Such Violations*				
	2000	*2001*	*2002*	*2003*	*2004*[1]
Ozone					
State 1-Hour $\geq$ 0.09 ppm	42	41	56	80	2
Federal 1-Hour > 0.12 ppm	3	7	12	18	0
Federal 8-Hour > 0.08 ppm	26	33	35	62	0
Max. 1-Hour Conc. (ppm)	0.140	0.143	0.155	0.169	0.105
Max. 8-Hour Conc. (ppm)	0.112	0.119	0.124	0.140	0.082
Carbon Monoxide					
State 8-Hour > 9.0 ppm	0	0	0	0	0
Federal 8-Hour $\geq$ 9.5 ppm	0	0	0	0	0
Max. 8-Hour Conc. (ppm)	4.15	3.49	3.09	3.67	2.49
Nitrogen Dioxide					
State 1-Hour $\geq$ 0.25 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.094	0.150	0.098	0.099	0.092
Inhalable Particulates (PM_{10})[3]					
State 24-Hour > 50 $\mu g/m^3$	68	76	81	62	13
Federal 24-Hour > 150 $\mu g/m^3$	0	0	0	0	0
Max. 24-Hour Conc. ($\mu g/m^3$)	139	136	130	164	137

[1] Less than 12 full months of data and may not be representative.
ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter
Source: South Coast Air Quality Management District

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill and the chronically ill, especially those with cardio-respiratory diseases. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods to ambient air are generally short, recreational uses (e.g. running, baseball, basketball) places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered

the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

Agriculture and vacant land surround the project site. No sensitive receptors are located adjacent to the project site.

Methodology

Projected air emissions are calculated using the URBEMIS2002 emissions model distributed by the SCAQMD. The URBEMIS model uses EMFAC2002 emissions factors for vehicle traffic. The calculated emissions of the project are compared to thresholds of significance for individual projects using the South Coast Air Quality Management District (SCAQMD) *CEQA Air Quality Handbook*. The SCAQMD *CEQA Air Quality Handbook* recommends assessing emissions of reactive organic compounds (ROC or ROG) as an indicator of ozone.

Thresholds of Significance

CEQA allows for the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. The SCAQMD has established thresholds of significance for air quality for construction activities and project operation as shown in Table 3 below. (Note that the SCAQMD no longer requires quarterly thresholds for construction emissions as they did in the past.)

Table 3
SCAQMD Threshold Of Significance

Air Pollutant	*Construction Phase*	*Operational Phase*
Reactive Organic Gases (ROG)	75 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Nitrogen Oxides (NO_X)	100 lbs/day	55 lbs/day
Sulfur Oxides (SO_X)	150 lbs/day	150 lbs/day
Particulates (PM_{10})	150 lbs/day	150 lbs/day

California 1 hour and 8 hour CO standards are:

- 1 hour = 20 parts per million
- 8 hour = 9 parts per million

The significance of localized project impacts depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have significant impacts if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. The SCAQMD defines a measurable amount as 1.0 ppm or more for the 1-hour CO concentration or 0.45 ppm or more for the 8-hour CO concentration.

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The proposed project represents the construction and operation of a new elementary school in the unincorporated Highgrove area of Riverside County. The project includes the construction of approximately 65,000 square feet of new structures. The school is intended to absorb school district growth and would not involve growth-inducing impacts or cause an exceedance of established population or growth projections. Furthermore, the project would not create either short- or long-term significant quantities of criteria pollutants. As such, the project is consistent with the goals of AQMP, and no mitigation measures are necessary.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact. The proposed project includes the construction and operation of the new 65,000 square foot elementary school. When complete, the facility would accommodate 750 students. Air pollutant emissions associated with the project could occur over the short-term for site preparation and construction activities to support the proposed land use. In addition, emissions could result from the long-term operation of the completed project.

Short-term Air Quality Impacts

Construction activities would result in the generation of air pollutants. These emissions would primarily be 1) exhaust emissions from powered construction equipment, 2) dust generated from earthmoving, excavation and other construction activities, 3) motor vehicle emissions associated with vehicle trips, and 4) hydrocarbon emissions from the application of asphalt, paints, and coatings.

During construction, the project would be subject to SCAQMD Rule 403 (Fugitive Dust). The SCAQMD Rule 403 does not require a permit for construction activities, per se, but rather, sets forth general and specific requirements for all construction sites (as well as other fugitive dust sources) in the Mojave Desert Air Basin. The general requirement prohibits a person from causing or allowing emissions of fugitive dust from construction (or other fugitive dust source) such that the presence of dust remains visible in the atmosphere beyond the property line of the emissions source. The SCAQMD Rule 403 also prohibits a construction site from causing an incremental PM_{10} concentration impact at the property line of more than 100 micrograms per cubic meter as determined through PM_{10} high-volume sampling, but the concentration standard and associated PM_{10} sampling do not apply if specific measures identified in the rule are implemented and appropriately documented.

The project includes the construction of 65,000 square feet of new structure, approximately 130 parking spaces and new activity areas. Grading and construction activities would consume diesel fuel and thus produce combustion by-products. These construction emissions were estimated using the SCAQMD's Urban Emissions (URBEMIS2002) model (Version 7.4.2) and are included in Table 4. Construction is estimated to begin in July 2006. To allow for the school to open in the fall of 2007, construction is estimated at 12 months.

The construction effort was modeled using default values for elementary schools. The model separates out the grading and building phases as these operations would not be expected to overlap. On the other hand, as a reasonable worst-case, the model does assume that both the construction and painting of the structures and application of asphalt does overlap. The period to apply architectural coatings was extended by fifteen days for a total of 40 days. Note all emissions are less than their respective threshold values, and the impact is less than significant. The model run is included in the appendix.

Table 4
Daily Construction Emissions

Source	Pollutants (lb/day)				
	CO	NO_x	ROG	SO_x	PM_{10}
Site Grading	31.5	34.5	4.3	0.0	5.6
Building Construction	98.0	85.2	73.3	0.0	3.5
Threshold	550	100	75	150	150
Exceeds Threshold	No	No	No	No	No

Long-Term Air Quality Impacts

The major source of long-term air quality impact is typically associated with the emissions produced from project-generated vehicle trips. Stationary sources related to the use of natural gas to meet the heating demand of the proposed structures and landscape maintenance add only minimally to these values.

Based on the Institute of Transportation Engineers' trip generation report, the proposed project would generate as many as 970 average daily trips (ADT). Emissions generated by project-related trips are based on the URBEMIS2002 computer model. Project emissions are included in Table 5. No emissions are projected to exceed their criterion; therefore, no long-term air quality impacts are anticipated as a result of the proposed project.

Table 5
Daily Operational Emissions

Source	Pollutants (lb/day)				
	CO	NO_x	ROG	SO_x	PM_{10}
Mobile Sources	103.7	9.8	8.1	0.1	9.5
Natural Gas	0.3	0.6	0.1	0.0	0.0
Landscape Maintenance	0.4	0.0	0.1	0.0	0.0
Operational Total	104.4	10.4	8.3	0.1	9.5
Threshold	550	100	75	150	150
Exceeds Threshold	No	No	No	No	No

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

Less Than Significant Impact. In accordance with SCAQMD methodology, any project that does not exceed or can be mitigated to less than the daily threshold values does not add significantly to a cumulative impact. Implementation of the noted mitigation for construction would reduce these potential impacts to less than significant and as such, the project does not add significantly to any cumulative impact

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. An impact is also potentially significant if emission levels exceed the State or Federal Ambient Air Quality Standards thereby exposing receptors to substantial pollutant

concentrations. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere; adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations.

Areas of vehicle congestion have the potential to create "pockets" of CO called "hot spots." These pockets have the potential to exceed the State 1-hour standard of 20 ppm or the 8-hour standard of 9.0 ppm. Note that the Federal levels are based on 1- and 8-hour standards of 35 and 9 ppm, respectively. Thus, an exceedance condition will occur based on the State standards prior to exceedance of the Federal standard.

Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersection locations. Typically, the level of service (LOS) at an intersection producing a hot spot is at "D" or worse during the peak hour. Intersection analysis for the Spring Mountain Ranch Specific Plan (which includes the placement of an elementary school within the area) projects that all local intersections will continue to operate at LOS C even with project implementation; no CO hot spots are projected. As such, any potential for a CO impact, or violation of the ambient air quality standards, would be less than significant, and therefore, no mitigation measures are necessary.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. Odors are one of the most obvious forms of air pollution to the general public. Odors can present significant problems for both the source and the surrounding community. Although offensive odors seldom cause physical harm, they can cause agitation, anger and concern to the general public. Most people determine an odor to be offensive (objectionable) if it is sensed longer than the duration of a human breath, typically 2 to 5 seconds.

The only potential odors associated with the project are from the application of asphalt and paint during the construction period. These odors, if perceptible, are common in the environment and would be of very limited duration. Therefore, any odor impacts would not be considered as significant, and no mitigation measures are necessary.

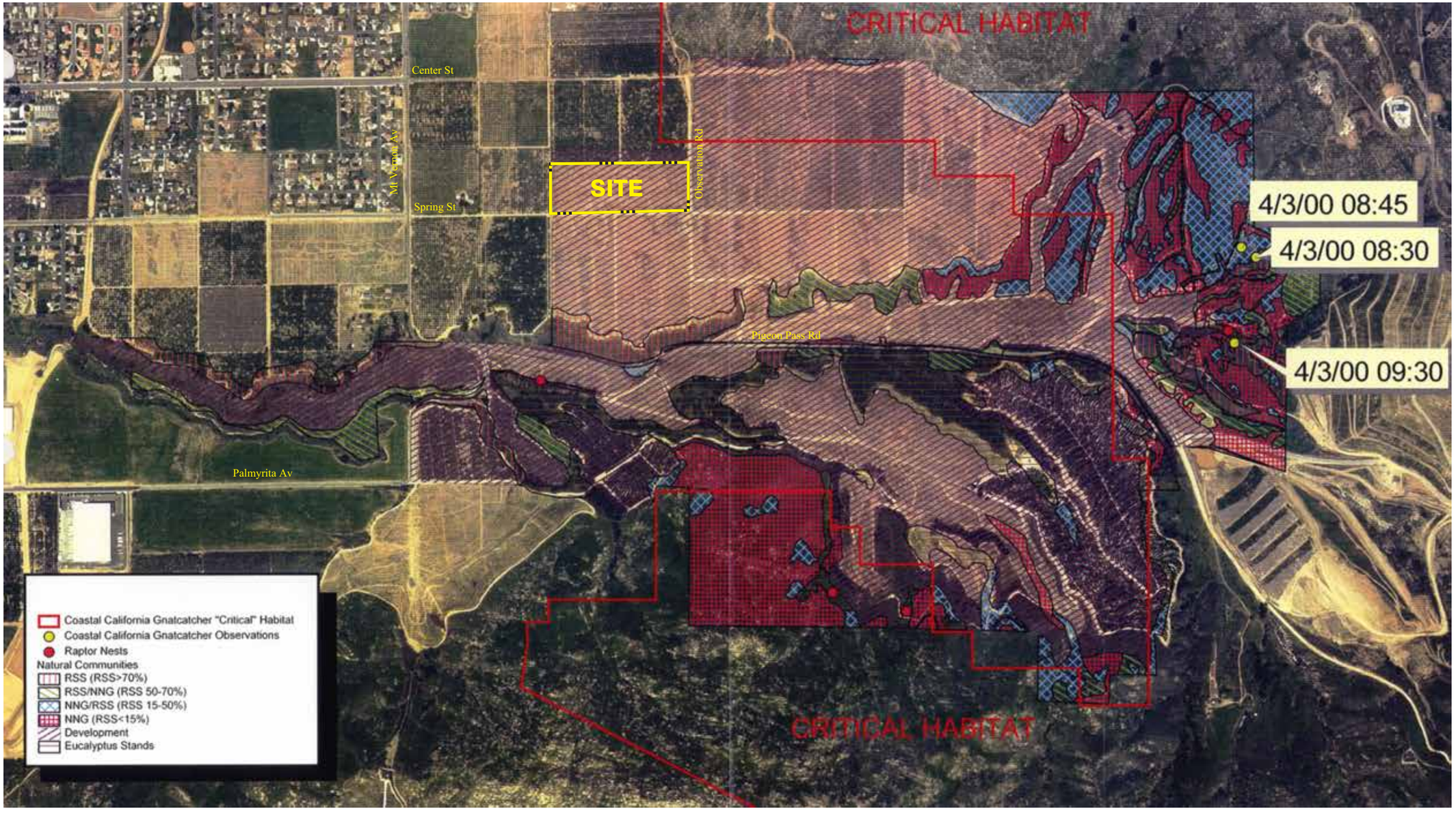
3.4 BIOLOGICAL RESOURCES

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated. As part of the Spring Mountain Ranch Specific Plan EIR,[1] a biological resources assessment was prepared for the Spring Mountain Ranch property, which encompasses the project site; a copy of the Spring Mountain Ranch Biological Resources Assessment is included in the appendix of this document. According to the biological resources assessment, the project site is located in an area identified as "Development," which includes various forms of human disturbances, including active agricultural activities (Figure 6, *Biological Resources Map*). The project site was disturbed by its historical agricultural use, but has been fallow since 2000. Existing on-site vegetation generally consists of seasonal weeds, grasses, and shrubbery that can be classified as "ruderal habitat," i.e., areas where the native vegetation has been removed by mechanical means and weedy non-native annual species predominate.

[1] Spring Mountain Ranch Draft Environmental Impact Report 424, Appendix E, November 27, 2000.

Biological Resources Map



NOT TO SCALE

Source: Michael Brandman Associates

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While no native natural habitat that could support any special status species exists within the project site, the site is located within the Riverside County Multiple Species Habitat Conservation Plan (MSHCP) / Highgrove Area Plan.[2] According to the MSHCP,[3] a habitat assessment is required for the burrowing owl and Nevin's barberry. Results of the biological resources assessment prepared for the Spring Mountain Ranch property indicated that the Nevin's barberry was not observed anywhere within the SMRSP and that the species is not expected to occur due to the lack of suitable habitat. The biological assessment also indicated that the burrowing owl was not observed on the property; however, it also indicated that the species may occur due to the presence of suitable habitat. As a result, a focused survey must be completed for the burrowing owl prior to site preparation activities. Implementation of the mitigation measure below would ensure that no significant impacts occur to the burrowing owl.

Additionally, the project site is located within the Habitat Conservation Plan (HCP) for the Stephens' Kangaroo Rat (SKR) in Western Riverside County. Results of the Spring Mountain Ranch biological resources assessment did not identify SKR within SMRSP; hence, there is a low likelihood that the SKR would utilize the area. Fee compliance with the County of Riverside, per County Ordinance 663, would reduce impacts to less than significant levels. No additional mitigation is required for SKR.

Mitigation Measure:

5. Prior to site preparation activities, a focused survey for burrowing owls shall be prepared for the project site, and if any burrowing owls are located in the construction zone, a qualified biologist shall relocate the owl to a nearby area of suitable habitat, pursuant to CDFG protocol or burrowing owl relocation.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The project site has been historically used for agricultural purposes until 2000. It is undeveloped and is in a rough graded and heavily disturbed state, with on-site vegetation generally consisting of seasonal weeds, grasses, and shrubbery that can be classified as "ruderal habitat." The site does not support native or riparian habitat, sensitive plants, or wildlife species. According to the Spring Mountain Ranch Specific Plan EIR, the project site is characterized as developed. Developed land is not classified as a sensitive natural community. The project site is not located within an area designated as containing natural biotic communities and potential habitat for sensitive wildlife. As such, removal of developed land would result in less than significant impacts. No mitigation measures are necessary.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The proposed project site does not contain any protected wetlands and no protected habitat is located on-site. Therefore, the proposed project would not have an adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act, and no impact on federally protected wetlands would occur from project implementation. No mitigation measures are necessary.

[2] County of Riverside, Multiple Species Habitat Conservation Plan. http://www.rcip.org/mshcpdocs/ vol1/3_3_5.pdf, 11/9/04.

[3] Riverside County Integrated Project (RCIP), Online Custom Reporting, http://tlmacac.tlma.co.riverside.ca.us/PDFlib/rcip/apn_search.asp, Accessed on December 13, 2004.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The project does not include modifications to any waterway that would harbor fish. Because of the rural nature of the surrounding environment, the project site could provide habitat for some mammals, those well-adapted to human-modified habitats such as coyote and raccoon, but because it is surrounded by agricultural or vacant land uses and limited in size, the movement of wildlife species through open spaces areas surrounding the project site would not be curtailed by project development. Furthermore, development of the project site would occur concurrently with the development of the Spring Mountain Ranch area. No established native resident or migratory wildlife corridors or native wildlife nurseries are present on the project site or in its vicinity, and no mitigation measures are necessary.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. On-site vegetation generally consists of non-native weeds and grasses and some shrubbery classified as ruderal habitat. The proposed project entails removal of all on-site vegetation. Removal of on-site vegetation would not pose a constraint to the site's development of conflict with any local policies or ordinances. Therefore, no impact to local policies or ordinances protecting biological resources would result from development of the proposed project, and no mitigation measures are necessary.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less Than Significant Impact With Mitigation Incorporated. The project site contains ruderal habitat and is located in a developing residential area. The project site is located within the MSHCP/Highgrove Area Plan[4] and is characterized as Agricultural Land. According to the MSHCP,[5] a habitat assessment needs to be completed for the burrowing owl and Nevin's barberry. A biological resources assessment was prepared for the Spring Mountain Ranch property, as part of the Spring Mountain Ranch Specific Plan EIR; [6] the Spring Mountain Ranch property includes the project site. Results of the biological assessment indicated that the Nevin's barberry was not observed on the property and that the species is not expected to occur due to the lack of suitable habitat. The biological assessment also indicated that the burrowing owl was not observed on the property; however this species may occur due to the presence of suitable habitat. As a result, a focused survey must be completed for the burrowing owl prior to site preparation activities. Implementation of Mitigation Measure 5 would reduce potential impacts to the burrowing owl to a less than significant level.

Additionally, the project site is located within the HCP for the SKR in Western Riverside County. Results of the Spring Mountain Ranch biological resources assessment did not identify SKR on the Spring Mountain Ranch property; hence, there is a low likelihood that the SKR would utilize the area. Fee compliance with the County of Riverside, per County Ordinance 663, would reduce impacts to less than significant levels. No additional mitigation is required for SKR.

[4] County of Riverside, Multiple Species Habitat Conservation Plan. http://www.rcip.org/mshcpdocs/ vol1/3_3_5.pdf, 11/9/04.

[5] Riverside County Integrated Project (RCIP), Online Custom Reporting, http://tlmacac.tlma.co.riverside.ca.us/PDFlib/rcip/apn_search.asp, Accessed on December 13, 2004.

[6] Spring Mountain Ranch Draft Environmental Impact Report 424, Appendix E, November 27, 2000.

3.5 CULTURAL RESOURCES

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less Than Significant Impact. Section 10564.5 defines historic resources as resources listed or determined to be eligible for listing by the State Historical Resources Commission, a local register of historical resources, or the lead agency. Generally a resource is considered to be "historically significant", if it meets one of the following criteria:

i) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

ii) Is associated with the lives of persons important in our past;

iii) Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

iv) Has yielded, or may be likely to yield, information important in prehistory or history (§15064.5)

No structures or any evidence of a built environment exist on the site, except active and inactive irrigation boxes. The irrigation boxes onsite are not associated with events that have had a significant contribution to the broad patterns of California's history and cultural heritage; are not associated with the lives of persons important in our past; no longer embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or yields information important in prehistory or history.

Research completed for the Spring Mountain Ranch development identified an irrigation feature, Riv-4197-H, located northeast of the terminus of Spring Street. The irrigation feature is two meters wide and consists of large granitic slabs with cement patches on its interior. While it is recorded as a historic alignment, it is not a historic architectural structure,[7] and impacts to the alignment as a result of the proposed project would be less than significant. No mitigation measures are necessary.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant Impact with Mitigation Incorporated. According to CEQA §15064.5 and Public Resources Code §21083.1, the proposed project would be considered to have a significant impact if it would cause a substantial adverse change in the significance of a unique archeological resource (i.e. an artifact, object or site) about which it can be clearly demonstrated that, without adding to the current body of knowledge, there is a high probability that it contains information needed to answer important scientific research questions, has a special and particular quality such as being the oldest or best available example of its type or is directly associated with a scientifically recognized important prehistoric or historic event or person.

Research for the proposed project was investigated through the California Historical Resources Information System. No archaeological sites are known within the project boundaries.[8] While it is highly

[7] Spring Mountain Ranch, Cultural Resources Report, Christopher Drover, 8/27/98.
[8] Spring Mountain Ranch, Cultural Resources Report, Victoria Avalos, 4/21/00.

unlikely that any subsurface cultural resources would be discovered or disturbed, excavation activities may expose undisturbed alluvial soils. Implementation of the below mitigation to respond to the accidental discovery of cultural resources would reduce potentially significant impacts to less than significant.

Mitigation Measure:

6. If historical or unique archeological or paleontological resources are discovered during construction activities, the contractor shall halt construction activities in the immediate area and notify the District. The District shall retain a qualified archeologist/paleontologist to make an immediate evaluation of significance and appropriate treatment of the resource. The qualified archeologist/paleontologist shall recommend the extent of archeological/paleontological monitoring necessary to ensure the protection of any other resources that may be in the area. Construction activities may continue on other parts of the building site while evaluation and treatment of historical or unique archaeological resources takes place. If necessary, the District shall develop appropriate treatment measures in consultation with the Riverside County or other appropriate agencies.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. According to the Spring Mountain Ranch EIR, a paleontological records search at the San Bernardino County Museum revealed that the Spring Mountain Ranch property, including the proposed project, site has no documented fossil localities. No significant prehistoric cultural resources, including unique paleontological resources, are known to exist on the project site. Implementation of Mitigation 5, as included above in Section 3.5 (b), would assure that any potential paleontological impacts resulting from construction efforts would be less than significant. Therefore, no significant impacts would occur as a result of the proposed project, and no mitigation measures are necessary

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. No human remains are known to exist on or near the project site.[9] While the possibility of discovering a Native American burial ground or human remains at the project site is not anticipated, if there is an unexpected discovery of human remains, then the District shall follow guidelines addressed in the Health and Safety Code section 7050.5, which states the following:

> "In the event of discovery and recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with §27460) of Part 3 of Division 2 of Title 3 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative notifies the coroner of the discovery or recognition of the human remains…
>
> "If the coroner determines that the remains are not subject to his or her authority and if the coroner recognized the human remains to be those of a Native American, or had reason to believe that they

[9] Correspondence with Carol Gaubatz, Program Analyst for the Native American Heritage Commission, 10/29/04.

are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission."

In accordance with State Law, no further work in the area of concern (to be determined by the County Coroner and a Qualified Archaeologist) would be permitted until the remains are removed from the site. Once the remains are removed, construction activities can resume. If the remains are of historic origin (non-Native American and of no forensic significance), the District would make the proper arrangements with a Qualified Archaeologist to remove the remains and have them reburied in accordance with current Health and Safety guidelines. If the remains are recent, the Coroner would handle all necessary removal and reburial activities. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

3.6 GEOLOGY AND SOILS

The following analyses are based upon "Geologic Hazard Evaluation, Project No. 600173-002" (Geohazards Evaluation), prepared by Leighton Consulting, Inc. (October 28, 2003. The evaluation is available for review under separate cover at the District office.

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

The site is located on the northern Peninsular Ranges Geomorphic Province of southern California within the central portion of the San Bernardino Valley. The San Bernardino Valley in the site vicinity is underlain by a thick accumulation of alluvial sediments eroded from the granitic and metamorphic rocks in the San Gabriel and San Bernardino Mountains to the northwest and north.

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant Impact. Lateral displacement and uplift of the region has occurred on a series of northwest-trending faults which are thought to be related to the regional tectonic framework. Some of the fault zones have remained active including the San Jacinto Fault zone located approximately two miles to the northeast of the project site and the San Andreas Fault zone located approximately twelve miles to the northeast of the project site. A major earthquake occurring along any of these faults would be capable of generating seismic hazards and strong ground shaking effects at the project sites. However, the project site is not located within or adjacent to an Earthquake Fault Zone, as defined by State of California in the Alquist-Priolo Earthquake Fault Zoning Act. Furthermore, no known faults cross the site, and no indicators of fault movement on the site were observed during the geologic field surveys or on the aerial photographs. Therefore, ground rupture on the site from surface faulting is not expected during the lifetime of the proposed high school. No significant impacts would result from this project, and no mitigation measures are necessary.

ii) Strong seismic ground shaking?

Less Than Significant Impact. There are a number of faults in the southern California area that are considered active and would have an effect on the site in the form of moderate to strong groundshaking should they be the source of an earthquake. This includes the San Jacinto and San Andreas faults, (Please see Section 3.6[a][i]). Based on currently available earthquake and fault information, the estimated Peak Horizontal Ground Accelerations (PHGA) with a 10 percent probability of exceedance in 50 years is approximately 0.78g

(recurrence interval of 475 years). The PHGA with a 10 percent probability of exceedance in 100 years is approximately 0.93g (recurrence interval of 950 years).

Due to the seismic history of the region, all on-site structures would be designed in accordance with seismic requirements of the California Building Code (CBC), Title 24 California Code of Regulations and would be required to meet the standards of the Division of the State Architect criteria for seismic safety. Compliance with established standards would reduce the risk of structural collapse to a less than significant level. Therefore, no significant impacts would result from the development of the proposed project, and no mitigation measures are necessary.

iii) Seismic-related ground failure, including liquefaction?

No Impact. In general, liquefaction is a phenomenon that occurs where there is a loss of strength or stiffness in the soils that can result in the settlement of buildings, ground failures, or other hazards. The Highgrove Area Plan Seismic Hazards Map indicates that the site is in an area of deep groundwater with low liquefaction susceptible sediments. Groundwater data indicates groundwater depths of 133 to 173 feet below ground surface within the project area. Due to the relatively deep nature of groundwater in the site vicinity, the potential for liquefaction onsite is considered very low or nil. As such, no impact would result from the development of the proposed project and no mitigation measures are necessary.

iv) Landslides?

No Impact. Landsliding is a type of erosion in which masses of earth and rock move down slope as a single unit. Susceptibility of slopes to landslides and other forms of slope failure depend on several factors. These are usually present in combination and include, but are not limited to steep slopes, condition of rock and soil materials, presence of water, formational contacts, geologic shear zones, and seismic activity. Seismically induced landslides and other slope failures are common occurrences during and soon after earthquakes.

The project site is situated on a relatively flat alluvial plane. The lack of significant slopes on or near the site indicates that there is not a significant potential hazard from slope instability, landslides, and debris flows at this site. According to the Hazard Section of the Highgrove Area Plan, there are no mapped landslides within the project area and it is not susceptible to slope instability. Therefore, no impact would result from the development of the proposed project, and no mitigation measures are necessary.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Erosion is a normal and inevitable geologic process whereby earthen materials are loosened, worn away, decomposed or dissolved, removed from one place and transported to another location. Precipitation, running water, waves, and wind are all agents of erosion. Ordinarily, erosion proceeds so slowly as to be imperceptible, but when the natural equilibrium of the environment is changed, the rate of erosion can be greatly accelerated. This can create aesthetic as well as engineering problems. Accelerated erosion within an urban area can cause damage by undermining structures, blocking storm sewers, and depositing silt, sand, or mud in roads and tunnels. Eroded materials are eventually deposited into coastal and local waters where the carried silt remains suspended in the water for sometime, constituting a pollutant and altering the normal balance of plant and animal life.

The project site is relatively level and would require minimal grading. Although some erosion would result from grading and construction operations, soil erosion or loss of topsoil would not be significant. Furthermore, the District would be required to obtain all necessary permits and would comply with the Regional Water Quality Control Board's standard mitigation to control erosion impacts. Reduction of erosion potential can be accomplished through a site-specific Storm Water Pollution Prevention Plan (SWPPP), which is required for projects on acre or more under the U.S. Environmental Protection Agency National Pollutant Discharge Elimination System (NPDES) General Construction permit. The District would be required to prepare and implement the SWPPP. The SWPPP would specify, along with permanent and post-construction measures, Best Management Practices (BMPs) for temporary erosion control. The BMPs typically include the use of vegetation and mulch to stabilize disturbed areas, and sandbags and temporary catch basins to direct runoff away from disturbed areas and trap sediments on-site. Therefore, project-related erosion impacts would be less than significant, and no mitigation measures are necessary.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. The project area is located on relatively flat land surrounded predominantly by residential and commercial uses. Older alluvial soil deposits underlay the project site. According to the Highgrove Area Plan, Steep Slope Map, the project site is situated on a slope angle less than 15 percent; the project site is not susceptible to slope instability.

Due to the depth of groundwater and the current water usage, significant differential ground movement due to subsidence and liquefaction is minimal. The school design and structural reinforcement would be submitted to the DSA for approval and would be required to comply with all criteria and geologic/seismic safety design features required by Title 24 California Code of Regulations. As such, impacts would be reduced to less than significant, and no mitigation measures are necessary.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact. Expansive soil, with respect to engineering properties, refers to those soils that, upon wetting and drying, would alternately expand and contract, causing problems for the foundations of buildings and other structures. According to the Spring Mountain Ranch Environmental Impact Report, Greenfield sandy loam underlies the project site. This well-drained soil consists mainly of granitic materials. Greenfield sandy loam soils exhibit a low expansion potential. As such, expansive soil hazards would not impact the project site, and no mitigation measures are necessary.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. Development of the proposed project would not require the installation of a septic tank or alternative wastewater disposal system. The project would utilize the local sewer system proposed for the Spring Mountain Ranch development. Therefore, no impact would result from septic tanks or other on-site wastewater disposal systems, and no mitigation measures are necessary.

f) Be located on a site that contains an active earthquake fault or fault trace?

No Impact. As discussed in 3.6 (a), the proposed project site is not located on a geological fault. There is no reasonable expectation of surface rupture within the life of the school, and no mitigation measures are necessary.

g) Would the project involve the construction, reconstruction, or relocation of any school building on the trace of a geological fault along which surface rupture can reasonably be expected to occur within the life of the school building?

No Impact. A review of the State and County geologic hazard maps indicates that the project site is not located within or immediately adjacent to an Earthquake Fault Zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act. According to the Geohazard Study, the site lies within Seismic Zone 4 of the Seismic Hazard Zone Map for Hospitals and Public Schools in California. Ground rupture on the site from surface faulting is unlikely during the lifetime of the proposed educational facility. Therefore, no impact would occur as a result of the proposed project, and no mitigation measures are necessary.

3.7 HAZARDS AND HAZARDOUS MATERIALS

a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

Less Than Significant Impact. The proposed project entails property acquisition, and construction and operation of an elementary school. While grading and construction activities may involve the limited transport, storage, use or disposal of hazardous materials, such as in the fueling/servicing of construction equipment onsite, activity would be short-term or one-time in nature and would be subject to Federal, State, and local health and safety requirements. Therefore, short-term construction impacts related to this issue would be less than significant.

Long-term operation of the proposed project would involve little transport, storage, use or disposal of hazardous materials. The types of hazardous materials associated with operation of a school would generally be limited to those associated with janitorial, maintenance, and repair activities, such as commercial cleansers, lubricants, paints, etc. Notwithstanding the amount, use of these hazardous materials would be limited to school operations; transport, storage, use, and disposal of these materials would be subject to Federal, State and local health and safety requirements. Such requirements would be incorporated into the design and operation of the school such as providing for and maintaining appropriate storage areas for hazardous materials and installing or affixing appropriate warning signs and labels. Therefore, no significant impacts would occur as a result of the proposed project, and no mitigation measures are necessary.

b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. Based on the nature and use of hazardous materials during operation of the proposed school, as described above, there are no reasonably foreseeable upset and accident conditions that would create a significant hazard to the public due to the release of hazardous materials. In the unlikely event of such an occurrence, school administrators would immediately contact the local police and/or fire department(s) for appropriate emergency response. Procedures for systematic evacuation of students from classrooms and other school facilities are established and practiced regularly.

Under Education Code Section 17213(a), the Department of Toxic Substances Control (DTSC) is the State agency responsible for providing environment review of new and expansion school sites pertaining to on-site and off-site contamination hazards. The District retained Leighton Consulting Inc. (Leighton Consulting) to prepare a Preliminary Endangerment Assessment (PEA) for the project site. The objective of the PEA was to evaluate whether current or past hazardous material or waste management practices at the project site have resulted in a release or threatened release of hazardous materials, or whether

naturally occurring hazardous materials are present, and was available for public review from September 21, 2004 to October 20, 2004.

Although it is not anticipated that operation of the proposed school would create the release of hazardous materials into the environment, the potential exists that site preparation may release such materials. Based on the review of historical aerial photographs and topographic maps, the site was utilized from between 1953 and 2002 for agricultural purposes (orchard). Environmentally persistent pesticides and herbicides may have been applied to the citrus trees grown onsite. Field sampling of the site was conducted to address Chemicals of Potential Concern (COPC) at the proposed school site. For the health risk assessment associated with the PEA, exposure pathways included direct contact with soil and inhalation of impacted airbourne particles. The following bullet points list the results of the PEA investigation:

- Eight carcinogenic polynuclear aromatic hydrocarbons (PAHs) and five carcinogenic organo-chlorine pesticides (OCP) were detected in soil samples collected from the project site. The human health risk for these COPCs (1.99E-04) is above the acceptable risk of one in one million. Therefore, these COPCs pose a significant threat to future students, staff, and community members who will utilize the school facility. The primary area of OCP impacted soil is located in the southeastern and northwestern area of the site. The PAH impacted soils are located in the area of the former 12,000-gallon diesel underground storage tank and pump in the southeastern corner of the site.

- Seven volatile organic compounds were detected in soil samples from the project site. The cumulative cancer risk for benzene and tetrachloroethene (PCE) was calculated to be 3.26E-06, which is above the allowable total lifetime cancer risk of 1E-06. Benzene and PCE were determined to be Chemicals of Concern (COC) for the vapor pathway. Therefore, these COCs would pose a significant threat to future students, staff, and community members who would utilize the school facility, unless these COCs are removed, as discussed below.

- The non-carcinogenic toxicity hazard was calculated for COPCs metals OPCs and PAHs. The cumulative hazard quotient of the COPCS in the soil samples collected from the proposed school site is 6.4E-01. This value is below the acceptable hazard index of 1. As such, these COPCs do not pose a significant threat to future students, staff and community members who will utilize the school facility.

- The highest concentrations of lead detected at the proposed school site was 23 mg/kg. The total lead content in this sample is below the 255 mg/kg threshold, as set by DTSC, therefore, lead does not pose a significant threat to future students, staff and community members who will utilize the school facility.

At the time of this writing, Leighton Consulting recommends that if the proposed project site is to be considered as a school site, then further assessment, as part of a Supplemental Site Investigation under the DTSCs oversight, would be necessary.

In accordance with California Education Code Section 17213.1, under the oversight of DTSC, the District would be required to remediate the proposed school site to acceptable levels prior to the development and operation of the school would be allowed. The District would be required to receive a determination of "No Further Action" from DTSC pertaining to environmental investigation and clearance before the project site can be approved for acquisition and construction. DTSC's oversight and stringent review of the project site for use as a public educational facility would ensure that the environmental conditions at the site are safe. Adherence to Section 17213.1 would ensure that potential impacts would be reduced to a less-than-significant level, and no additional mitigation is necessary.

c) Would operation of the proposed project involve hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The proposed project would involve the development of a new elementary school campus. The facility would not emit hazardous emissions, and no significant amounts of hazardous materials, substances or wastes would be transported, used, or disposed of in conjunction with the proposed facilities. The only hazardous materials at the proposed school is that described above in Section 3.7(a), which would be utilized in small quantities and would be stored in compliance with established State and federal requirements.

No school sites currently exist within a one-quarter mile radius of the proposed project site. The nearest school, Highgrove Elementary School, is approximately 0.80-mile northwest of the project site at 690 Center Street. No impact on emission levels within one-quarter mile of an existing or proposed school would result, and no mitigation measures are necessary.

d) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. While project implementation would result in slightly increased traffic volumes, the additional traffic would not contribute to adverse roadway conditions that would significantly affect emergency response or evacuation plans within the site's vicinity. On-site emergency response would be facilitated through the use of fire access lanes providing emergency vehicle with access to the entire campus. Therefore, no significant impacts would occur as a result of the proposed project, and no mitigation measures are necessary.

e) 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?

No Impact. The proposed project is located in a developing area. According to the Riverside County Environmental Hazards map and the Highgrove Area Plan Wildlife Susceptibility, the project site is not located within a wild fire zone. Therefore, the proposed project would not expose people or structures to a risk of loss, injury or death involving wildland fire. No impact involving wildlands fire hazards would occur as a result of the proposed project, and no mitigation measures are necessary.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project site is not located within the vicinity of a private airstrip. Therefore, no impact would occur as a result of the proposed project, and no mitigation measures are necessary.

g) Locate a school within two miles, measured by air line, of that point on an airport runway or potential runway included in an airport master plan that is nearest to the site?

No Impact. The distance between the northern property line of the proposed facility and centerline of San Bernardino International Airport runway, the closest airport to the project site, is approximately six miles (five nautical miles) from the project site. Section 17215 of the Education Code states that project approval is required by the Department of Transportation, Aeronautics Program if a proposed school site is located within two nautical miles of an airport runway. The proposed elementary school meets the setback required by Section 17215 of the California Education Code. Therefore, no impact would occur as a result of the proposed project, and no mitigation measures are necessary.

h) Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the School?

No Impact. Senate Bill 352 (effective January 1, 2004) requires school districts' to certify reasonable plans to mitigate air quality problems that could create a health hazard from exposure to high levels of criteria pollutants. The proposed project site is located within an area zoned for residential development. No rail yards, or freeway/busy corridors with an average daily traffic (ADT) in excess of 50,000 vehicles are located within a 500-foot radius of the project site. The estimated distance to the nearest corridor with an ADT in excess of 50,000 vehicles is approximately two miles west. Therefore, no impact would occur as a result of the proposed project, and no mitigation measures are necessary.

i) Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: a) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; b) freeways and other busy traffic corridors; c) large agricultural operations; and/or d) a rail yard, which might reasonably be anticipated to emit hazardous air emissions, or handle hazardous or acutely hazardous material, substances or waste?

Less Than Significant Impact. The SCAQMD identified two permitted air emission facilities within ¼ mile radius of the project site, including Inland Timber Co, Terry Investment located at 21850 Main Street and Hood Communications located at 21496 Main Street. Due to the nature of these listings, there is low potential for these nearby facilities to adversely affect the project site and no significant impacts would occur. No mitigation measures are necessary.

Senate Bill 352 (effective January 1, 2004) requires school districts to certify reasonable plans to mitigate air quality problems that may result from being within one-quarter mile of facilities (including agricultural operations, rail yards, and traffic corridors) that handle or emit hazardous substances. The project site is surrounded to the north and to the west by citrus orchards. Assembly Bill 947 (AB 947) authorizes the California Agriculture Commission to apply regulations to the agricultural use of any pesticide for agricultural production within one-quarter mile of a school with respect to the timing, notification, and method of application. This bill authorizes comprehensive school safety plans to include procedures that address pesticide drift and accidental exposure to pesticides. District adherence to AB 947 to create and maintain a safety plan that specifically addresses pesticide drift and accidental exposure to pesticide would reduce any potential impacts to less than significant, and no mitigation measures are necessary.

j) Locate a school at: (a) the site of a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed; (b) a hazardous substance release site identified by the State Department of Health Services in a current list adopted pursuant to § 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code; or (c) a site that contains one or more pipelines, situated underground or aboveground, which carry hazardous substances, acutely hazardous materials or hazardous wastes, unless the pipeline is a natural gas line that is used only to supply natural gas to that school or neighborhood"?

No Impact. Leighton Consulting, through Environmental Database Reports, Inc. (included in the Phase I Appendix), performed a comprehensive review of information pertaining to documented environmental concerns on or in close proximity to the project site. The review of the selected regulatory databases revealed no records of a USEPA Identification Number assigned to the proposed school site. Section 17213 of the California Education Code and Section 21151.8 of the California Public Resources Code prohibit construction of a school upon a current or former hazardous waste disposal site or solid waste disposal site. Records available from the files of appropriate regulatory agencies did not list the

proposed project site as a current or former hazardous waste disposal site or solid waste disposal site. No evidence identifying the site as a hazardous substances release site, as defined by the State Department of Health Services pursuant to Section 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code was discovered.

According to site reconnaissance conducted by Leighton Consulting, no high-pressure pipelines or above ground storage tanks were noted on the project site. According to a review of the California Facility Inventory Database, the project site does not contain an active or inactive underground storage tank. Therefore, no impact would occur as a result of the proposed project, and no mitigation measures are necessary.

k) Locate a school within 2,000 feet of a significant disposal of hazardous waste?

No Impact. A review of selected regulatory agency databases for documented environmental concerns on or in proximity of the subject property was performed by Leighton Consulting through EDR. Based on a site reconnaissance by Leighton Consulting, EDR database search, and aerial photograph review, there are no potential off-site sources of contamination within 2,000 feet of the project site, and it is unlikely that the subject property has been impacted by unauthorized releases of hazardous materials or hazardous waste from off-site sources. No hazardous wastes sites are located within 2,000 feet of the project, and as a result, no impact would occur as a result of the proposed project. No additional mitigation measures are necessary.

l) Locate a school on a site containing or underline by naturally occurring hazardous materials?

No Impact. A review of selected regulatory agency databases for documented environmental concerns on or in proximity of the subject property was performed by Leighton Consulting through EDR. Records available from the files of appropriate regulatory agencies did not list the proposed project site as a current or former hazardous waste disposal site or solid waste disposal site. Therefore, no impact would occur as a result of the proposed project, and no additional mitigation measures are necessary.

m) Locate a school site near an above-ground water or fuel storage tank or within 1,500 feet of an easement of an above ground or underground pipeline that can pose a safety hazard to the site?

Less Than Significant Impact With Mitigation Incorporated. The California Department of Education (CDE) regulations (*Title 5, California Code of Regulations, Division 1, Chapter 13, Subchapter 1, School Facilities Construction, Article 2. School Sites, § 14010, Standards for School Site Selection*) requires that a proposed school site "shall not be located near an above-ground fuel or water storage tank or within 1,500 feet of the easement of an above-ground or underground pipeline that can pose a safety hazard as determined by a risk analysis study, conducted by a competent professional, which may include certification from a local public utility commission."

Aboveground Water Storage Tank

The Riverside Highland Water Company (RHWC) is proposing Spring Mountain Ranch Zone 1 Reservoir at the east and south corner of Center Street and Mt. Vernon Avenue. The proposed water reservoir would be located 23 feet northwest of the proposed project site and would hold up to 1.9 million gallons of water with a nominal dimension of 120 feet in diameter by 24 feet in height. The reservoir would be of welded steel with one 20-inch diameter inlet pipe and one 20-inch diameter booster suction pipe, as well as overflow and drain pipes. The reservoir would be enclosed by six-foot high block walls on all four sides and one four-foot by seven-foot catch basin with a 24-inch storm drain; the catch basin would be located within the enclosure.

At the District's request, a rupture analysis of the reservoir was prepared by RHWC to determine the impact of the reservoir on the proposed school site; a copy of the study is available at the District's office. Results of the rupture analysis indicated that a maximum of 1.25 feet of water would build up within the reservoir area in approximately one hour after rupture occurs and the spill would last about two hours. The analysis also found that the capacity of storm drain pipe connecting the catch basin is limited by the water height within the reservoir. The proposed storm drain connected to the catch basin has varied slopes along the line. The section of the pipe that immediately connects to the catch basin has a steeper slope than the downstream pipe section. In this design, the upstream pipe would accept more water readily than that which the downstream pipe can handle during a spill, resulting in an excess of water being discharged into the road from a manhole located near the storm drain, which is the flattest section of the pipe. As a result, mitigation is necessary to retain escaping water in the event of a rupture within the footprint of the reservoir and to minimize impacts to an acceptable level. The District verify coordinate with RHWC that they have implemented the below mitigation measures to reduce potential impacts to acceptable levels.

Underground Water Pipeline

The Santa Ana Pipeline is an underground water transmission pipeline that is a part of the California Aqueduct System. The Santa Ana Pipeline is located within a 100-foot wide northeast-southwest trending easement, west of the proposed school site. The closest approach of the Santa Ana Pipeline is about 330 feet of the project site boundary. As a result, the District retained J House Environmental to prepare the Pipeline Risk Analysis (Risk Analysis) for the Santa Ana Pipeline.

The 108-inch diameter pre-stressed concrete cylinder pipeline was installed between 1969 and 1973. The pipeline has no history of accidental releases or incidents. The most recent pipeline integrity testing was an eddy-current test performed in 2001. The testing showed the pipeline to be in good condition. The operating pressure of the pipeline is approximately 290 to 310 pounds per square inch with a throughput of approximately 450 to 500 cubic feet per second. In the vicinity of the proposed school site, the depth of burial of the pipeline is between 8 and 11 feet. The nearest shutoff valve is an automated valve located approximately 15 miles away. It is estimated that the pipeline could be shut down within 30 minutes of an incident.

Four types of events are generally recognized as the main causes of pipeline rupture and /or failure: third party dig-ins, corrosion and deterioration, weld or material defects, and ground movement. According to the Risk Analysis, the potential for a compromise in the structural integrity of the subject pipeline due to the aforementioned events is considered low. Furthermore, routine maintenance and inspection of the pipeline would reduce any potential impact to less than significant.

Due to the distance from the proposed school site and the amount of earth cover, the potential for physical impact to individuals at the proposed school site from fragments of ruptured pipeline is very low. Furthermore, a screening-level hydraulic consequence analysis indicated that the proposed school site would not be subject to inundation in the event of failure of the Santa Ana Pipeline. A pipeline rupture would not result in inundation at the school site. To provide an added degree of risk management, J House Environmental recommends that any evacuation plans, health and safety plans, or emergency response training plans that are developed for the proposed Helen Keller Elementary School identify the presence of the Santa Ana Pipeline and provide site specific management measurements including but not limited to: evacuation routes and emergency contact lists. As such, impacts from the Santa Ana Pipeline would be less than significant.

Hazardous Material Pipelines and Storage Tanks

The State Fire Marshal and the Southern California Gas Company were contacted to identify high-pressure aboveground and underground hazardous storage tanks and pipelines located within a 1,500-foot radius of the project site. Additionally, Leighton Consulting reviewed the California Division of Oil and Gas Field Map to locate oil or gas fields.

- The State Fire Marshal indicated that there are no hazardous pipelines under the California State Fire Marshal's jurisdiction located within a 1,500-foot radius of the project site.

- The Southern California Gas Company did not identify any high-pressure natural gas pipelines located within a 1,500-foot radius of the project site.

- According to the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, Regional Wildcat Map, Number W1-7 (April 7, 1990), no evidence of onsite oil wells or oil-related facilities was observed on the project site.

As no storage tanks or pipelines containing hazardous materials were identified within 1,500 feet of the project site, no impact to students and staff would occur, and no additional mitigation measures are necessary.

Mitigation Measure:

7. Prior to the opening of the proposed school, or the construction of the reservoir, whichever is later, the District shall verify with the Riverside Highland Water Company that they have either (a) provided a berm at the Spring Mountain Ranch Zone 1 Reservoir access road; the berm shall have a top elevation of two feet higher than the average elevation within the reservoir site, or (b) installed a special gate with water retaining ability.

8. Prior to the opening of the proposed school, or the construction of the reservoir, whichever is later, the District shall verify with RHWC that they have adjusted the storm drain size in the lowest reach of the reservoir site to avoid water escaping from the manhole onto the access road. The proposed 24-inch storm drain shall be upsized to a 33-inch diameter pipe.

9. Prior to the opening of the proposed school, or the construction of the reservoir, whichever is later, the District shall verify with RHWC that they have designed block walls around the reservoir with two feet water retaining capability. This would require the filling of all cells of the block wall to a minimum of three feet above the highest elevation on the reservoir site.

10. Prior to the opening of the proposed school, or the usage of the reservoir, whichever comes later the District shall verify with RHWC that they have placed a one-quarter-inch plate of steel at the lower part of the gate to reduce the opening and to restrict the amount of water escaping from the site onto the access road.

11. Prior to the opening of the proposed school, the District shall prepare evacuation plans, health and safety plans, or emergency response training plans that identify the Santa Ana Pipeline and provide site specific management measurements including but not limited to evacuation routes and emergency contact lists.

n) Locate a school such that the property line is less than the following distances from the edge of respective power line easements: 1) 100 feet of a 50-133 kV line; 2) 150 feet of a 220-230 kV line; or 3) 350 feet of a 500-550 kV line?

No Impact. According to the EDR report, a 110 kV power line is located approximately 1,000 feet north and east of the project site. This is greater than the 100 ft threshold requirements for 50 to 133 kV power line easements. Furthermore, all utility lines shall be removed or placed underground upon construction of the proposed school. As such, no impact would occur, and no mitigation measure is necessary.

3.8 HYDROLOGY AND WATER QUALITY

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. Drainage and surface water discharge from the proposed project would be typical of an elementary school and would not contain significant quantities of chemicals or other contaminants. However, site preparation could temporarily increase the amount of soil erosion and siltation entering the local storm water drainage system.

The Clean Water Act delineates a national permitting system for point discharges known as the National Pollution Discharge Elimination System (NPDES). NPDES permits typically incorporate specific limitations for point source discharges to ensure that discharges meet permit conditions and protect state-defined water quality standards. In the State of California, nine Regional Water Quality Control Boards (RWQCBs) are responsible for administering the NPDES permitting program and are also responsible for developing NPDES permitting requirements. The NPDES program was expanded in 1987 to include the regulation of storm water runoff originating from municipal, industrial, or construction activities. The Santa Ana Regional Water Quality Control Board is the RWQCB for the project area.

Since the proposed project would be constructed on a site exceeding one-acre of land, the Clean Water Act would require the District to obtain the appropriate NPDES permit from the Santa Ana RWQCB. As part of this permit requirement, a Storm Water Pollution Prevention Plan (SWPPP) and Monitoring Program must be prepared and Best Management Practices (BMPs) must be designed to prevent erosion and siltation during the project's demolition and construction phases. The purpose of the SWPPP is to identify sources of sediments and pollutants that may affect storm water quality, designate use of appropriate selected BMPs at the project site, and construct and implement storm water pollution prevention measures that would reduce water pollution associated with construction. BMPs may also include, but are not limited to, those measures specified in the California Storm Water Best Management Practice Handbook for Municipal, Industrial/Commercial and Construction Activity and those measures identified by any other agency with jurisdiction over the proposed project site. Construction BMPs will comply with all applicable County ordinances and guidance documents. Examples of BMPs that may be incorporated into the SWPPP to minimize impacts resulting from increased erosion include, but are not limited to, the following:

- Preparation of erosion control plans;
- Compliance with local grading codes;
- Construction scheduling;
- Stabilization at construction entrances;
- Silt fencing; Sediment traps;
- Sand bagging;
- Straw bale barriers;
- Check dams;
- Outlet protection;
- Storm drain inlet protection;
- Temporary silt basins;
- Planting of vegetation and/or placement of jutes on graded slopes not scheduled for construction;
- Use of water trucks to prevent dust emissions;
- Covering of all construction material and waste;
- Proper waste handling;
- Development and implementation of a spill prevention/recovery plan;
- Site inspections and BMP maintenance;
- Vehicle and equipment management;
- Tracking;
- Off-site fueling;
- Concrete cleanouts; and,
- Education and training (tailgate storm water education for trades tied to safety meetings).

Site specific BMPs would be established in the SWPPP. The SWPPP serves to help identify the sources of pollution that affect the quality of stormwater discharges and to describe and ensure the implementation of practices to reduce the pollutants in construction stormwater discharges. A Notice of Intent to obtain coverage under the General Permit must be filed with the State Water Resource Control Board. The SWPPP must be completed prior to commencement of construction and be available onsite prior to and for the duration of construction.

Currently, all developments within Riverside County are required to prepare a Water Quality Management Plan (WQMP) for post construction activities, for approval by the Santa Ana RWQCB, detailing applicable post-construction BMPs prior to the approval of any construction permits. Proposed drainage for the site would be engineered to follow the existing drainage patterns. Based on topographic relief, drainage flows in a southwesterly direction. Examples of post-construction BMPs include, but are not limited to, the following:

- Increased building density,
- Use of natural drainage systems,
- Landscaping,
- Roof runoff controls,
- Efficient irrigation, and
- Storm drainage signage.

Site specific BMPs would be established in the WQMP. The proposed project would comply with all applicable rules and regulations to reduce non-storm water discharges by designing, constructing, and operating an on-site drainage system and by developing and implementing a WQMP. The WQMP would include BMPs to identify and reduce sediment and other pollutants in storm water discharges.

Mandatory compliance with NPDES permit requirements through the preparation of both SWPPP and WQMP would ensure that no water quality standards or discharge requirements are violated and reduce impacts on water quality to a less-than-significant level. Therefore, no significant impacts would occur as a result of the proposed project, and no mitigation measures are necessary.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. The proposed project would not deplete or substantially interfere with groundwater supply and recharge. The development of the proposed school would not result in a substantial increase in population or employment opportunities. The new school has been proposed in response to need and would reallocate students currently attending other area schools rather than accommodate an entirely new student body. Since the proposed school would largely serve existing students, the net volume increase in ground water pumping would not be significantly altered by the proposed project.

According to the Leighton site reconnaissance, no groundwater wells were observed onsite, and deep excavation would not occur during construction. The overall water consumption anticipated from the proposed project would not significantly deplete existing groundwater supplies. Therefore, no significant impacts would occur as a result of the proposed project, and no mitigation measures are necessary.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.

Less Than Significant Impact. Urban development has two typical effects on storm runoff hydrology: an increase in total runoff volume, and faster rising and higher peak flows. The increased area of impervious surfaces such as road, parking lots, sidewalks, and building prevents natural infiltration to the soil and thus creates higher runoff volumes. More rapid transport of runoff over smooth artificial surfaces and drainage facilities, combined with the higher volume of runoff causes elevated peak flows. This increase in flows may adversely affect downstream channels.

Based on the topographic data, surface water runoff would generally flow in a southwesterly direction. Implementation of the proposed project would not substantially alter the existing drainage pattern on the site, as drainages would be engineered to maintain the existing pattern of water flows on the site. Erosion and siltation due to wind and rainfall are more likely to occur when soils are exposed. During grading for the proposed project, the soils would continue to be exposed; however, upon completion of grading for the proposed project, the soils would be covered with impervious surfaces or with landscaping, both or which would serve to reduce or prevent erosion and siltation on- and off-site. The project would not involve an alteration of the course of a stream or river.

Implementation of the NPDES permit requirements, as they apply to the site, would reduce potential erosion, siltation and water quality impacts resulting from the project to a less-than-significant level. In addition, the use of landscaping and construction of an on-site drainage system would further reduce potential erosion and siltation impacts of the completed school facilities. Neither development nor operation of the proposed school would create substantial erosion or siltation on- or off-site, and impacts would be less than significant. No mitigation measures are necessary.

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

Less Than Significant Impact. As noted in the previous subsections, implementation of the proposed project would not substantially alter the existing drainage pattern on the site, as drainages would be

engineered to maintain the existing pattern of water flows on the site, and detention basins and structural and non-structural BMPs would be employed on the site to capture and treat runoff to the maximum extent feasible. Additionally, while project implementation would replace the existing pervious soil and vegetation on the site with compacted building pads and structures, no significant increase in urban runoff from the project site would occur. Therefore, implementation of the proposed project would not result in flooding on- or off-site, and impacts would be less than significant. No mitigation measures are necessary.

e) 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?

Less Than Significant Impact. As previously stated, implementation of the proposed project is not anticipated to result in the creation of significant amounts of additional storm water runoff. A portion of runoff from the proposed project site currently flows toward Spring Street to the south.

There are no existing storm water drainage facilities within the project area. However, a master drainage plan has been developed for the Spring Mountain Ranch Area, which includes the construction of underground storm drains to convey storm water flows from the proposed project site. The District would mitigate any drainage impacts through the coordination of drainage improvements with the County of Riverside as appropriate including, but not limited to, storm drainage connections to the proposed, extended, and improved existing drainage on Spring and Center Avenues. Therefore, the proposed project would not exceed the capacity of the existing storm water drainage system, and impacts would be less than significant. No mitigation measures are necessary.

f) Otherwise substantially degrade water quality?

Less Than Significant Impact. The site is underlain by Val Verde tonalite bedrock. Because hard granitic bedrock is expected onsite, a high groundwater table would not occur, dewatering would not be involved, and the quality of groundwater would not be impacted. Additionally, the District would be required to comply with NPDES, develop and implement a SWPPP, and adhere to standard BMPs designed to prevent erosion and siltation during the project's construction phase, thereby effectively precluding potentially significant impacts to surface water bodies.

Long-term operation of the proposed school would involve minimal application of hazardous materials, which could flow into the storm drainage system. For example, implementation of the proposed project may result in the potential for discharge of the following non-point source pollutants: oil, grease, and toxic chemicals from automobiles associated with surface washing of school parking lots, solids from washing of other on-site impervious surfaces (outdoor work areas, lunch shelter areas, and recreational areas), as well as the discharge of sediments, nutrients, and pesticides from turf management and gardening wastewater. The storage, use, and disposal of these materials would be subject to Federal, State, and local health and safety requirements. Furthermore, discharges of urban runoff to the storm drain system is regulated under the County of Riverside's Municipal Separate Storm Sewer Systems (MS4) permit.[10] This permit contains discharge prohibitions, receiving water limitations, and requirements for implementing the County's WQMP. Adherence to the MS4 would reduce urban runoff impacts to less than significant. As such, the potential for the project's operation to result in impacts to water quality is less than significant. Therefore development of the proposed project would not directly or indirectly result in a decrease in water quality, and no significant impacts would result from the proposed project. No mitigation measures are necessary.

[10] Riverside County Flood Control and Water Conservation District, http://www.floodcontrol.co.riverside.ca.us/waterqualitynpdes.asp, 10/18/04.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. Based on a review of the FEMA Flood Insurance Rate Map and the Highgrove Area Plan, the site is located outside of a 100-year flood plain. Therefore, no impact from flooding is expected to occur, and no mitigation measures are necessary.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. As described above, the proposed project site is not located within a 100-year flood hazard area. Furthermore, the proposed project would not involve the placement of structures within a 100-year flood hazard area that would impede or redirect flows. As a result, no impact would occur as a result of the proposed project. No mitigation measures are necessary.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. According to the Highgrove Area Plan Flood Hazards Map, the project site is not located in a dam hazard zone. Therefore, impacts due to flooding are anticipated to be less than significant, and no mitigation measures are necessary.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. Seiching consists of the periodic oscillation of a body of water that may occur during and following an earthquake. Seiches are of concern relative to water storage facilities because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam or other artificial body of water. No large water storage reservoirs are located topographically higher in the immediate vicinity of the site; therefore, seismically induced flooding is not considered to be a potential hazard to the proposed educational facilities at this time.

Tsunamis are a type of earthquake induced flooding that are produced by large-scale sudden disturbances of the sea floor. Tsunami waves interact with the shallow sea floor topography upon approaching a landmass, resulting in an increase in wave height, and a destructive wave surge into low lying coastal areas. Due to the distance of the site from any large body of water, the potential for tsunamis to impact the site is considered negligible.

The site area is on a relatively flat alluvial plane. The lack of significant slopes on or near the site indicates that there is not a significant potential hazard from slope instability, landslides, and debris flows at this site. Therefore, no impact from seiche, tsunamis or mudflows would occur as a result of the proposed project, and no mitigation measures are necessary.

k) Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?

Less Than Significant Impact. Long-term operation of the proposed school would involve minimal application of hazardous materials, which may potentially discharge into the storm drainage system. The types of hazardous materials associated with the operation of the school would generally be limited to the following non-point source pollutants: oil, grease, and toxic chemicals from automobiles associated with surface washing of school parking lots, solids from washing of other on-site impervious surfaces (outdoor work areas, lunch shelter areas, and recreational areas), as well as the discharge of sediments,

nutrients, and pesticides from turf management and gardening wastewater. The amounts and use of these potential stormwater pollutants would be very limited, and the storage, use, and disposal of these materials would be subject to Federal, State, and local health and safety requirements. Furthermore, discharges of urban runoff to the storm drain system are regulated under Riverside County's MS4 permit. This permit contains discharge prohibitions, receiving water limitations, and requirements for implementing the County's WQMP. Adherence to the MS4 would reduce urban runoff impacts to less than significant. No mitigation measures are necessary.

3.9 LAND USE AND PLANNING

a) Physically divide an established community?

No Impact. The proposed project would involve the development of a new elementary school on vacant land. Agricultural development exists to the north and west of the site, while vacant land is located to the south and east. Development of the proposed elementary school would not be inconsistent with the General Plan or zoning designation of the site or surrounding area. Also, the project's construction would not create any new land use barriers, or otherwise divide or disrupt the physical arrangement of the surrounding community. Therefore, no impact would occur as a result of the proposed project, and no mitigation measures are necessary.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The Highgrove Area Plan land use designation is Medium Density Residential, and the zoning designation per the Spring Mountain Ranch Specific Plan No. 323 is R-1 Residential. Note, an elementary school site was proposed in Planning Area 1 of Tract 29597 of the SMRSP, which is identified across from the proposed school site; the proposed school site would replace that proposed in the SMRSP. According to the SMRSP, schools are allowable uses within the master-planned development, and as a result, the proposed project would be in compliance with the applicable land use plans and regulations. The District would not be required to apply for a Conditional use Permit, nor would the project require execution of Government Code Section 53094, which allows the District, by a vote of two-thirds of the governing school board members, to render a city or county zoning ordinance inapplicable. Therefore, no impact to applicable environmental plans or policies would occur as a result of project development, and no mitigation measures are necessary.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Less Than Significant Impact With Mitigation Incorporated. The project site contains ruderal habitat and is located in a developing residential area. The project site is located within the MSHCP/Highgrove Area Plan[11] and is characterized as Agricultural Land. According to the MSHCP,[12] a habitat assessment needs to be completed for the burrowing owl and Nevin's barberry. A biological resources assessment was prepared for the Spring Mountain Ranch property, as part of the Spring Mountain Ranch Specific Plan EIR; [13] the Spring Mountain Ranch property includes the project site. Results of the biological assessment indicated that the Nevin's barberry was not observed on the property and that the species is

[11] County of Riverside, Multiple Species Habitat Conservation Plan. http://www.rcip.org/mshcpdocs/ vol1/3_3_5.pdf, 11/9/04.

[12] Riverside County Integrated Project (RCIP), Online Custom Reporting, http://tlmacac.tlma.co.riverside.ca.us/PDFlib/rcip/apn_search.asp, Accessed on December 13, 2004.

[13] Spring Mountain Ranch Draft Environmental Impact Report 424, Appendix E, November 27, 2000.

not expected to occur due to the lack of suitable habitat. The biological assessment also indicated that the burrowing owl was not observed on the property; however, this species may occur due to the presence of suitable habitat. As a result, a focused survey must be completed for the burrowing owl prior to site preparation activities. Implementation of Mitigation Measure 5 would reduce potential impacts to the burrowing owl to a less than significant level.

Additionally, the project site is located within the HCP for the SKR in Western Riverside County. Results of the Spring Mountain Ranch biological resources assessment did not identify SKR on the Spring Mountain Ranch property; hence, there is a low likelihood that the SKR would utilize the area. Fee compliance with the County of Riverside, per County Ordinance 663, would reduce impacts to less than significant levels. No additional mitigation is required for SKR.

d) Conflict with any existing or proposed zoning of surrounding properties such that a potential health or safety risk to students would be created?

Less Than Significant Impact. The zoning designations adjacent to the school site are residential. The SMRSP indicates that the relationship between schools and residential neighborhoods is a mutually beneficial one and provides provisions for the schools to serve the residential neighborhoods in which they exist. Implementation of the proposed project would not conflict with the existing zoning of the surrounding properties such that a potential health or safety risk to students would be created. As such, no significant impacts would occur as a result of the project's development, and no mitigation measures are necessary.

3.10 MINERAL RESOURCES

a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?

No Impact. According to the County of Riverside General Plan, no known mineral sources that would be of value to the region or the residents of the State have been identified on the project site or within the vicinity of the project site. No impact to mineral resources would result of the project implementation, and no mitigation measures are necessary.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. According to the County of Riverside General Plan, the project site is not designated as a mineral resource recovery site and does not contain any mineral resource recovery areas. Additionally, the project site is not directly adjacent to a designated Surface Mining and Reclamation Act (SMARA) Mineral Resource Zone. Therefore, no impact would occur as a result of the proposed project, and no mitigation measures are necessary.

3.11 NOISE

Background

Sound is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Typical

human hearing can detect changes in sound levels of approximately 3 dBA under normal conditions. Changes of 1 to 3 dBA are detectable under quiet, controlled conditions, and changes of less than 1 dBA are usually indiscernible. A change of 5 dBA is readily discernable to most people in an exterior environment while a change of 10 dBA is usually perceived as a doubling or halving of the noise level.

Noise may be generated from a point source, such as a piece of construction equipment, or from a line source, such as a road containing moving vehicles. Because noise spreads in an ever-widening pattern, the given amount of noise striking an object, such as an eardrum, is reduced with distance from the source. This is known as "spreading loss." The typical spreading loss for point source noise is 6 dBA per doubling of the distance from the noise source.

A line source of noise, such as vehicles proceeding down a roadway, will also be reduced with distance, but the rate of reduction is a function of both distance and the type of terrain over which the noise passes. Hard sites, such as developed areas with paving, reduce noise at a rate of 3 dBA per doubling of the distance, while soft sites, such as undeveloped areas, open space and vegetated areas reduce noise at a rate of 4.5 dBA per doubling of the distance. These represent the extremes, and most areas will actually contain a combination of hard and soft elements with the noise reduction placed somewhere in between these two factors.

Objects that block the line-of-sight attenuate the noise source if the receptor is located within the "shadow" of the blockage (such as behind a sound wall). If a receptor is located behind the wall, but has a view of the source, the wall will do little to reduce the noise. Additionally, a receptor located on the same side of the wall as the noise source may experience an increase in the perceived noise level as the wall will reflect noise back to the receptor compounding the noise.

Several rating scales (or noise "metrics") exist to analyze adverse effects of noise, including traffic-generated noise, on a community. These scales include the equivalent noise level (L_{eq}), the community noise equivalent level (CNEL) and the day/night noise level (Ldn). L_{eq} is a measurement of the sound energy level averaged over a specified time period (usually one hour). L_{eq} represents the amount of variable sound energy received by a receptor over a time interval in a single numerical value. For example, a 1-hour L_{eq} noise level measurement represents the average amount of acoustic energy that occurred in that hour.

Unlike the L_{eq} metric, the CNEL noise metric is based on 24 hours of measurement. CNEL also differs from L_{eq} in that it applies a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when quiet time and sleep disturbance is of particular concern). Noise occurring during the daytime period (7:00 a.m. to 7:00 p.m.) receives no penalty. Noise produced during the evening time period (7:00 p.m. to 10:00 p.m.) is penalized by 5 dBA, while nighttime (10:00 p.m. to 7:00 a.m.) noise is penalized by 10 dBA. The Ldn noise metric is similar to the CNEL metric except that the period from 7:00 p.m. to 10:00 p.m. receives no penalty. Both the CNEL and Ldn metrics yield approximately the same 24-hour value (within 1 dBA) with the CNEL being the more restrictive (i.e., higher) of the two.

State of California Noise Standards

The California Office of Noise Control has set acceptable noise limits for sensitive uses. Sensitive-type land uses, such as schools and homes, are "normally acceptable" in exterior noise environments up to 65 dBA CNEL and "conditionally acceptable" in areas up to 70 dBA CNEL. A "conditionally acceptable" designation implies that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use type is made and needed noise insulation features are incorporated in the design. By comparison, a "normally acceptable" designation indicates that standard construction can occur with no special noise reduction requirements.

County of Riverside Noise Standards

The County of Riverside specifies outdoor and indoor noise limits for various land uses impacted by stationary and mobile noise sources. The noise limits specified in the County's Noise Element are in terms of the Community Noise Equivalent Level (CNEL). The standard states that for residential land use, the exterior noise exposure level shall not exceed 60 CNEL and the interior noise exposure level shall not exceed 45 CNEL. For schools and parks "where quiet is a basis for use" the exterior noise exposure level shall not exceed 70 CNEL. In terms of assessing potential noise generated by non-transportation related sources such as from school playfields and hard courts, the County's 65 dBA Leq noise standard would be used.[14]

Existing Noise Environment

The project includes the construction and operation of an elementary school housing a maximum of 750 students; grades kindergarten through six. The project site is situated north of Spring Street and is currently vacant. The existing surrounding area contains agricultural and vacant land uses.

Field Study

To ascertain the existing noise levels at the project site and adjoining area, field monitoring was conducted on Friday, December 6, 2004 during the morning peak traffic period. The study included three noise readings. The L_{eq}, L_{min}, L_{max}, L_{02}, L_{08}, L_{25} and L_{50} values were recorded[15]. The readings were supplemented with simultaneous vehicle counts. These counts were obtained for modeling purposes (discussed below). The monitoring locations are shown in Figure 7, *Noise Monitoring Locations*, and the readings are included in below Table 6, *Noise Level Measurements*.

Table 6
Noise Level Measurements[1]

Monitoring Location	L_{eq} (dBA)	L_{02} (dBA)	L_{08} (dBA)	L_{25} (dBA)	L_{50} (dBA)	L_{min} (dBA)	L_{max} (dBA)
NR-1 (Spring Street, West of Mt. Vernon Avenue)	55.4	66	56	50.4	48.3	42.9	72.7
NR-2 (Mt. Vernon Avenue, North of Spring Street	71.2	79.6	77	71.9	63.7	46	82.2
NR-3 (Spring Street, East of Mt. Vernon Avenue	50.8	58.9	53.5	50.6	48.8	43.1	62.9

[1] The L_{eq} represents the equivalent sound level and is the numeric value of a constant level that over the given period of time transmits the same amount of acoustic energy as the actual time-varying sound level. The L_{02}, L_{08}, L_{25} and L_{50} are the levels that are exceeded 2, 8, 25 and 50 percent of the time, respectively. Alternatively, these values represent the noise level that would be exceeded for 1, 5, 15 and 30 minutes during a 1-hour period if the reading was extrapolated out to an hour's time. The L_{min} and L_{max} represent the minimum and maximum root-mean-square noise levels obtained over a period of 1 second.

[14] 65 dBA Leq is based on a Letter (January 15, 2004) from Steven T. Uhlman, CIH, JD, Public Health Program Chief regarding the requirements for determining and mitigating non-transportation noise source impacts to residential properties.

[15] L_{eq} value is representative of the equivalent noise level or logarithmic average noise level obtained over the measurement period. The L_{min} and L_{max} represent the minimum and maximum root-mean-square noise levels obtained over a period of one second. The L_{02}, L_{08}, L_{25} and L_{50} represent the values that are exceeded 1, 5, 15 and 30 minutes per hour if the reading was extrapolated out to an hour's duration.

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Figure 7 Noise Monitoring Locations

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NR-1 This reading was obtained along Spring Street approximately 500 feet west of the intersection of Spring Street and Mt. Vernon Avenue. The meter was placed at the property line of a residence twelve feet north of the westbound lane. Traffic traveling along Spring Street and Mt. Vernon Avenue provided the major source of noise. Roadway traffic along Spring Street was minimal with only 4 autos, no medium or heavy trucks during the monitoring period. Other sources of noise included bird chirping. Noise levels are characteristic of suburban and rural areas.

NR-2 The meter was placed 10 feet from the roadway on the east side of Mt. Vernon Avenue. Roadway traffic along this segment of Mt. Vernon Avenue included 87 autos, no medium or heavy trucks. Secondary noise sources include distant train engines and horns as well as airplanes. Noise levels are characteristic of busy arterials. Though Mt. Vernon Avenue does not have high traffic volumes, noise levels of this magnitude is generated by the high vehicle speeds.

NR-3 This reading was obtained along Spring Street east of Mt. Vernon Avenue. The meter was placed approximately 600 feet east of Mt. Vernon and north of the unpaved roadway proximate to an existing rural residence. There was no observed vehicle traffic because the unpaved roadway leads to a private residence and agricultural fields. Noise levels are characteristic of rural areas.

Mobile Source Noise Level Modeling

Noise from motor vehicles is generated by the engine, the interaction between the tires and the road and the exhaust system. The Federal Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the project site. The model uses various parameters including the traffic volume, vehicle mix, and vehicle speed to compute typical equivalent noise levels.

Modeling of Existing Traffic Volumes

In order to assess the potential for mobile-source noise impacts, it is necessary to determine the noise currently generated by vehicles traveling through the project area. Average daily traffic (ADT) volumes were based on the existing daily traffic volumes as discussed in Section 3.15 Traffic/Transportation of this Initial Study. The vehicle mix is based on the vehicle count during the noise monitoring. To determine the CNEL noise level produced by this traffic, the percentage contribution from each hour of traffic was determined from a Riverside County, year 2007 run of the URBEMIS2002 computer model distributed by the California Air Resources Board. The ratio of each hour of traffic to the total daily traffic volume was then calculated.

Table 7, *Existing Noise Levels Along Site Access Roads*, presents the projected noise levels along site access roads in the project area as well as the distances of 25, 50 and 100 feet from the roadway centerline.

Table 7
Existing Noise Levels Along Site Access Roads

Location	Speed (mile)	Existing ADT	dBA CNEL @ 25 Ft.	dBA CNEL @ 50 Ft.	dBA CNEL @ 100 Ft.
Main Street					
West of Mr. Vernon Ave.	25	2300	55.5	52.3	47.4
East of Mr. Vernon Ave.	25	2000	54.9	51.7	46.8
Center St.					
East of Michigan Ave.	40	5000	65.9	62.6	57.8
East of Murphy Ave.	40	5000	65.9	62.6	57.8
East of Mt. Vernon Ave.	40	100	48.9	45.7	40.8
Spring St.					
East of Michigan Ave.	55	1500	63.5	60.3	55.5
East of Murphy Ave.	55	1300	62.9	59.7	54.8
Michigan Ave.					
South of Center St.	25	1400	53.3	50.1	45.3
Murphy Ave.					
South of Center St.	25	600	49.6	46.4	41.6
Mt. Vernon Ave.					
North of Main St.	40	9000	68.4	65.2	60.4
South of Main St.	40	8000	67.9	64.7	59.9
South of Center St.	40	7000	67.3	64.1	59.3
South of Spring St.	40	6000	66.6	63.4	58.6
Pigeon Pass Rd					
East of Mt. Vernon	55	4000	68.4	65.2	60.3

a) Exposure of persons to or generation of noise levels in excess of standards established by the school district, the local general plan, noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact. The proposed project includes the construction and operation of an elementary school. As indicated in the above Regulatory Environment section, schools and residential uses are normally acceptable in exterior environment up to 65 dBA CNEL and conditionally acceptable in areas up to 70 dBA CNEL under the state standard; and normally compatible in exterior environment up to 65 dBA CNEL under the County of Riverside standards.

For on-site project uses and stationary sources, the applicable noise standards include the County's 65 dBA Leq noise standard for non-transportation related noise sources.

On-site Stationary Noise Source

The project includes the construction and operation of a new elementary school. The school includes hard court surfaces to the north of the site and an athletic field to the west of the site. Noise created by children at play on the hard court and field surfaces could be construed as a stationary noise source. On February 3, 1998, The Planning Center Staff obtained noise measurements at the McClay Primary School Center (K-3) located in Pacoima for use in projecting schoolyard noise levels. The McClay facility accommodates approximately 300 pupils of which about 200 are typically on-site at any given time. While the proposed school could include as many as 750 students, these students would not all be engaged in exterior athletic activities at the same time. Additionally, the proposed school is far larger than the McClay facility allowing the children to be spread over a larger area. The hard courts, which are where the majority of noise sources would occur, are located on the southern portion of the project site with intervening school buildings between the noise sensitive residences to the north and the west.

Finally, the McClay facility included only asphalt surfaces and noise propagation over a grassy surface, such as an athletic field, would be subject to further attenuation due to the soft surface. As such, noise from the project would not be expected to exceed that measured at the McClay Primary School Center.

The results of the McClay field study showed an L_{eq} noise level measurement of 74.8 dBA as measured at the fence line. This value was comprised of children ranging in distance from about 3 feet to in excess of 85 feet making any projections of noise attenuation with distance dubious at best. If it is assumed that the noise measurements taken at the McClay facility had an acoustic center at the center of the playground, or about 45 feet from the sound level meter, noise from the children at play equates to about 74 dBA Leq as measured at a distance of 50 feet. Note that this value represents a short-term noise exposure and does not represent a CNEL value. As noted above, the County of Riverside sets an exterior noise standard of 65 dBA Leq and 60 dBA CNEL for residential uses. If it is assumed that the field and hard court areas are used four hours per day, based on a level of 74 dBA Leq, the CNEL is calculated at 66 dBA at 50 feet.

The nearest homes are located to the west of the project along Spring Street and immediately to the southeast of the project site. The residence to the west of the project site is located approximately 500 feet from the athletic field and 700 feet from the hard court activity area. The residence to the southeast of the project site is located approximately 350 feet from the central portion of the hard court activity area approximately 800 feet from the athletic field. In the absence of any walls or objects that obstruct the line of sight, the Leq, from play activities is calculated at 54 dBA (46 dBA CNEL) at the nearest residence to the west of the project site and 57 dBA (49 dBA CNEL). Additionally, on-site structures could serve as partial noise barriers for some residents to the north and east of the project further reducing noise levels at these homes. In all cases, the predicted values are below the County of Riverside standard of 60 dBA CNEL, and the impact is less than significant.

On-site Mobile Source Impacts

An impact may also be significant if the project sites a land use in an incompatible area due to excessive noise. The County General Plan Noise Element notes the use of the 70 dBA CNEL exterior standard and 45 interior standard for schools.

The primary source of noise in the project area is due to local traffic. Spring Street borders the project site to the north. Noise modeling was performed for year 2007 for project traffic along this street that borders the site. The traffic analysis indicates that Spring Street could carry as many as 1,360 ADT north of the project site. Noise modeling calculations show that this volume of traffic would generate a CNEL noise level of 49.4 dBA along Spring Street to where the noise sensitive classrooms are located. The noise sensitive classroom structures would experience noise levels below 70 dBA CNEL. Therefore, no noise sensitive structures would be exposed to 70 dBA CNEL or greater noise levels from Spring Street and a less than significant impact would result from project implementation. No mitigation measures are necessary.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. The proposed project would involve the construction of an elementary school. Because the project site is relatively flat, no pile driving, blasting or other vibration intensive activity would be required in the construction effort. Based on the type of construction equipment that is anticipated to be used (i.e. backhoes, trucks) and the distance between these activities and local residences, vibration and groundborne noise generated by project construction would not result in significant adverse impacts to vibration sensitive receptors. The operations of the proposed project

would not involve the use of any vibration intensive activity. Therefore, no significant adverse impacts related to vibration would result from project development, and no mitigation measures are necessary.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. A project may be significant if it creates a substantial increase in the existing noise levels. Noise impacts can be broken down into three categories. The first is "audible" impacts, which refers to increases in noise level that are perceptible to humans. Audible increases in noise levels generally refer to a change of 3 dBA or more since this level has been found to be barely perceptible in exterior environments. The second category, "potentially audible," refers to a change in noise level between 1 and 3 dBA. This range of noise levels was found to be noticeable to sensitive people in laboratory environments. The last category includes changes in noise level of less than 1 dBA that are typically "inaudible" to the human ear except under quiet conditions in controlled environments. Only "audible" changes in noise levels at sensitive receptor locations are considered potentially significant.

An impact is considered significant if the existing noise levels exceed the objectives of the General Plan (i.e., 65 dBA for residential and noise sensitive areas) and the project were to increase this noise level by 3 dBA CNEL (barely noticeable in an exterior environment).

Mobile Source Noise

The traffic analysis indicates that the project would generate as many as 970 ADT. These trips would be distributed over the network of roadways that access the project site. Table 8, *Existing Vs. With Project Noise Levels Along Site Access Roads*, adds the project-related trips to the existing ADT volumes through the project area. The ratio of autos, medium trucks and heavy trucks is as discussed for the existing setting. Speeds are based on posted speed limits. All modeling assumes hard site conditions. Note that the project could increase mobile-source noise levels by a maximum of 4.3 dBA CNEL along Spring Street east of Mt. Vernon Avenue. Though the resultant noise level along Spring Street would exceed the 3 dBA CNEL threshold, noise levels are below the noise levels the County considers to be acceptable (<60 dBA CNEL) for residential uses and would not result in a significant noise impact to residences along this roadway. Cumulative development in addition to the proposed project would result in a maximum noise increase of 8.5 dBA CNEL along Center Street east of Mt. Vernon Avenue. Though the increase in noise along Center Street would be noticeable, noise levels are below the noise levels the County considers to be acceptable (<60 dBA CNEL) for residential uses. As such, cumulative noise increases are not considered to result in a significant noise impact.

Table 8
Existing Vs. With Project Noise Levels Along Site Access Roads
(Dba cnel at 25 feet)

Location	*Existing*	*2007 No Project*	*2007 With Project*	*Cumulative + Project Increase*	*Project Increase*
Main Street					
West of Mr. Vernon Ave.	55.5	56.6	56.8	+1.3	+0.1
East of Mr. Vernon Ave.	54.9	55.3	55.5	+0.6	+0.2
Center St.					
East of Michigan Ave.	65.9	67.3	67.4	+1.6	+0.1
East of Murphy Ave.	65.9	67.3	67.4	+1.6	+0.1
East of Mt. Vernon Ave.	48.9	56.6	57.4	+8.5	+0.7
Spring St.					
East of Michigan Ave.	63.5	64.7	64.9	+1.5	+0.2
East of Murphy Ave.	62.9	64.7	65.0	+2.2	+0.3
East of Mt. Vernon Ave.	N/A	53.1	57.4	N/A	+4.3
Michigan Ave.					
South of Center St.	53.3	53.6	53.8	+0.4	+0.1
Murphy Ave.					
South of Center St.	49.6	50.0	50.3	0.7	0.3
Mt. Vernon Ave.					
North of Main St.	68.4	69.3	69.3	0.9	0.0
South of Main St.	67.9	68.9	69.0	1.1	0.1
South of Center St.	67.3	68.9	69.0	1.7	0.1
South of Spring St.	66.6	68.2	68.4	1.7	0.2
Pigeon Pass Rd					
East of Mt. Vernon	68.4	70.1	70.3	1.9	0.1

Source: FHWA Highway Traffic Noise Prediction Model, December 2004.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. Noise levels associated with construction activities would be higher than the ambient noise levels in the project area today, but would subside once construction of the proposed project is completed.

Two types of noise impacts could occur during the construction phase. First, the transport of workers and equipment to the construction site would incrementally increase noise levels along site access roadways. Even though there would be a relatively high single event noise exposure potential with passing trucks (a maximum noise level of 86 dBA at 50 feet), the increase in noise would be less than 1 dBA when averaged over a 24-hour period, and would therefore have a less than significant impact on noise receptors along the truck routes.

The second type of impact is related to noise generated by on-site construction operations and local residents would be subject to elevated noise levels due to the operation of on-site construction equipment. Construction activities are carried out in discrete steps, each of which has its own mix of equipment, and consequently its own noise characteristics. These various sequential phases would change the character of the noise levels surrounding the construction site as work progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow noise ranges to be categorized by work phase. Table 9, *Noise Levels Generated By Typical Construction Equipment*, lists typical construction equipment noise levels recommended for noise impact assessment at a distance of 50 feet.

Table 9
Noise Levels Generated by Typical Construction Equipment

Type of Equipment	Range of Sound Levels Measured (dBA at 50 ft.)	Suggested Sound Levels for Analysis (dBA at 50 ft.)
Pile Drivers, 12,000 to 18,000 ft-lb/blow	81 to 96	93
Rock Drills	83 to 99	96
Jack Hammers	75 to 85	82
Pneumatic Tools	78 to 88	85
Pumps	68 to 80	77
Dozers	85 to 90	88
Tractor	77 to 82	80
Front-End Loaders	86 to 90	88
Hydraulic Backhoe	81 to 90	86
Hydraulic Excavators	81 to 90	86
Graders	79 to 89	86
Air Compressors	76 to 86	86
Trucks	81 to 87	86

Source: Noise Control for Buildings and Manufacturing Plants, BBN 1987.

Noise ranges have been found to be similar during all phases of construction, although the actual construction of the structures is typically reduced from the grading efforts. The grading and site preparation phase tends to create the highest noise levels because the noisiest construction equipment is found in the earthmoving equipment category. This category includes excavating machinery (backfillers, bulldozers, draglines, front loaders, etc.) and earthmoving and compacting equipment (compactors, scrapers, graders, etc.). Typical operating cycles may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Noise levels at 50 feet from earthmoving equipment range from 73 to 96 dBA while Leq noise levels range up to about 89 dBA. The later construction of structures is somewhat reduced from this value and the physical presence of the structure may break up line-of-sight noise propagation.

The nearest existing residential units are located approximately 50 feet from the proximate site boundary. Based on an L_{eq} value of 89 dBA as measured at a distance of 50 feet, resultant short-term noise levels could be on the order of 89 dBA L_{eq} at the closest residents when work is performed along the northern perimeter. Residential interior levels could be reduced by over 20 dBA from this value. During the vast majority of the construction period, however, both exterior and interior noise levels would be 20 to 30 dBA lower, due to lower power settings and sound attenuation provided by longer distances and partial blocking.

Construction noise would have a temporary increase in noise of the local area. The County allows noise generated by construction equipment but restricts the hours of occurrence through Section 15.04.020 Construction Noise of the County of Riverside County Codes. Due to the limitation on the hours of construction to the least noise sensitive portions of the day and the temporary nature of construction activities, project related construction noise would not result in a significant noise impact. Following completion of construction activities, noise associated with construction would cease.

Mitigation Measures:

Though construction of the proposed project would not result in a significant noise impact, the following measures are included to minimize noise generated by the project's construction phase.

12. Prior to construction, the District shall include contract language requiring that the contractor properly maintain and tune all construction equipment to minimize noise emissions.

13. Prior to construction, the District shall include contract language requiring that the contractor fit all equipment with properly operating mufflers, air intake silencers and engine shrouds no less effective than as originally equipped by the manufacturer.

14. Prior to construction, the District shall cause its contractor to locate all stationary noise sources (e.g., generators, compressors, staging areas) as far from residential receptor locations as is feasible.

15. Prior to construction, the District shall provide its contractor a contact name and telephone number of a District Representative to respond in the event of a noise complaint.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose students or staff to excessive noise levels?

No Impact. Ontario International Airport is located approximately six to seven miles to the west of the project site. The project site is located within the prevailing flight path but is well beyond the 65 dBA CNEL noise contour. Additionally the project site is located approximately five miles from Flabob Airport. Both of these airports do not generate 65 dBA noise contours that extend in close proximity of the project site. No impact would result from the implementation of the proposed project and no mitigation measures are necessary.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project is not located in the vicinity of a private airstrip and would not be impacted by private airport operations. No impact would result from the implementation of the proposed project, and no mitigation measures are necessary.

3.12 POPULATION AND HOUSING

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. Population impacts are often associated with substantial increases in population from a project. Housing impacts may result directly from construction of new housing units or indirectly from changes in housing demand associated with new non-residential development such as office, manufacturing, and industrial uses that increase employment in an area.

The proposed project entails relocating students currently attending classes at existing local elementary schools to the proposed facility. The proposed project would not induce growth to the area, and employment opportunities generated by the school would not stimulate housing demand in the area. Furthermore, construction of the proposed facility would not require the temporary or permanent relocation of construction workers to the project area. It is anticipated that the construction workforce would be coming from the local or regional area. Therefore, no significant impacts would occur from the construction and operation of the proposed project, and no mitigation measures are necessary.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project entails the construction and operation of an elementary school at a site currently cultivated with agricultural products. No residential development exists at the project site, and the proposed project has no housing component. As a result, no homes would be displaced, and no area residents would be relocated as a result of the project. No mitigation measures are necessary.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. As stated above, development of the proposed project would not result in the demolition of any physical structures. No displacement of people or construction of replacement housing would occur. Therefore, no impact would occur as a result of the proposed project, and no mitigation measures are necessary.

3.13 PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?

Less Than Significant Impact. The Riverside County Fire Department (RCFD) serves the unincorporated areas of Riverside County. Fire Station #19, located at 469 Center Street, would serve the project site and is located approximately one-half mile north of the site. In the event that assistance is requested, Fire Station #38 located at 3590 Rubidoux Boulevard and Fire Station #18 located at 7545 Mission Boulevard would also serve the project site.

Project development and operation would not involve the use, manufacture, or storage of toxic or otherwise hazardous materials, generate a significant fire hazard, impair fire department access to the site, or result in an increase in population in the project area. Implementation of the proposed project would not negatively impact the ability of the RCFD to provide adequate service.

The District would comply with the California Building Code, Division of the State Architect (DSA), and CVFPD requirements for water flow. Additionally, the final site plans and drawings would be given to CVFPD for their review and approval of project fire access and fire protection facilities prior to obtaining final approval from DSA. Therefore, impacts would be reduced to less than significant levels, and no mitigation measures are necessary.

b) Police protection?

Less Than Significant Impact. The proposed school would be served by the Riverside County Sheriff (RCS) Jurupa Valley Station located at 7477 Mission Boulevard, approximately 9 miles west of the project site. Response times vary in accordance with the priority of the call for service. The RCS would provide service to the proposed project.

The RCS is responsible for the enforcement of criminal laws, investigations, and apprehension of suspects. An additional deputy assigned as the Community Policing Officer to the Highgrove community would provide additional protective services in the project area. Because the Community

Policing Officer would perform many of the services generally provided by the RCS, the need for services from the RCS would be greatly reduced.

Police service needs are related to the size of the population and geographic area served, the number and types of calls for service, and other community characteristics. Given the relative scope and nature of the project, the RCS would continue to have sufficient manpower to serve the project area. The proposed elementary school would not create a significant increase in demand for police services on or in the vicinity of the project site. Implementation of the proposed project would not negatively impact the ability of the RCS to provide adequate service. Therefore, no mitigation measures are necessary.

c) Schools?

No Impact. School service needs are related to the size of a residential population, geographic area served, and community characteristics. The new elementary school has been proposed in response to growth and educational needs within the District boundaries. This school would provide a necessary facility to relieve overcrowding, allow classroom size reductions, and meet student growth projections within the District. The proposed project is therefore considered a beneficial and necessary impact, and no mitigation measures are necessary.

d) Parks?

No Impact. The proposed project involves the development of a new elementary school, which would include the construction of open space, i.e., play fields. Typically, demand for parks is created by residential development and/or action that generate an increase in population. The objective of the project would be to serve the local community and would not generate substantial population growth in the area. The project would not negatively impact any local or regional parks or increase park usage. Therefore, no impact would occur to area parks, and no mitigation measures are necessary.

e) Other public facilities

No Impact. The project site is located in an area served by existing infrastructure, including public roadways. The proposed project would not require new or altered governmental services for the maintenance of the roadways or other public facilities. Furthermore, the proposed project would entail the construction of a joint-use public library to be operated by the Riverside County Public Library. The library will be available for use to the students, staff, and local community. The proposed project is therefore considered a beneficial and necessary impact, and no mitigation measures are necessary.

3.14 RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. Development of the proposed elementary school would include construction of play fields and hard courts. The school would not typically utilize or result in the increase use of any existing neighborhood or regional park, or other recreational facility. Development of the project would not increase demand for neighborhood parks. The demand for such parks is related to changes in housing and population. Since the proposed project would not impact existing parks and would not have an impact on population or housing, no impact to parks or other recreational facilities would occur, and no mitigation measures are necessary.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No Impact. The proposed project would include on-site recreational facilities including playfields and hard courts. The demand for recreational facilities created by the proposed project would be satisfied by the on-site facilities and would not require the construction or expansion of any off-site recreational facilities. All play area facilities would be required to meet California's established playground safety standards. The proposed project, including the construction of recreational facilities, would have no adverse physical effects on the environment. No mitigation measures are necessary.

3.15 TRANSPORTATION/TRAFFIC

a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

Less Than Significant Impact. The proposed elementary school would result in an increase in traffic volumes on the roadways in the vicinity of the school site as faculty/staff and parents would be driving to and from the school. The roadways that would be most directly affected by the school traffic include Spring Street, Mount Vernon Avenue, Pigeon Pass Road, Center Street, Main Street, and the future streets that are planned for construction to the east of the school site within the Spring Mountain Ranch Specific Plan area. The trip generation rates and the anticipated volumes of traffic that would be generated by the school are shown in Table 10, *Project Generated Traffic*. The trip rates reflect the values shown in the *Trip Generation* manual (Institute of Transportation Engineers, 7th Edition) for the elementary school land use category.

Table 10
Project Generated Traffic

Category	AM Peak Hour			PM Peak Hour			Daily
	Total	In	Out	Total	In	Out	
TRIP GENERATION RATES							
Trip Rates (per student)	0.42	55%	45%	0.28	45%	55%	1.29
GENERATED TRAFFIC VOLUMES							
Proposed School (750 students)	315	173	142	210	95	115	970

The table indicates that the proposed 750-student school would generate an estimated 315 vehicle trips during the morning peak hour (173 inbound and 142 outbound), 210 trips during the afternoon peak hour (95 inbound and 115 outbound), and a total of 970 trips per day.

It should be noted that the traffic volumes shown in Table 10 do not necessarily introduce new traffic to the overall roadway network but instead represent the volume of traffic that would be re-directed to this school site, because the number of students attending school in the district is a function of the school-age population and the demand for the educational facilities rather than the number of schools or classrooms. As one of the objectives of the proposed school project is to relieve overcrowding at existing schools in the area, including Highgrove Elementary School on Center Street, most of the school-related traffic would be traveling on the street network regardless of the status of the proposed project. In fact, it is likely that the proposed school would result in an overall reduction in traffic because it would result in shorter vehicle trips for students who live closer to the Spring Street site than the school to which they would otherwise be assigned. It would also provide the opportunity for additional students

in the nearby neighborhoods to walk or ride a bike to school, whereas they otherwise would travel by car to another school site. For the traffic impact analysis, it has conservatively been assumed that the site-generated traffic would be new traffic on the roadway network.

It should also be noted that the development of the proposed school would result in an improvement in traffic conditions at the existing schools because there would be a reduction in traffic volumes and traffic congestion on the streets that provide access to these schools. The impacts of the school project were determined by conducting a before-and-after analysis of traffic conditions (with and without the proposed school). The traffic analysis addresses the impacts at eight intersections in the vicinity of the school site. The study area intersections and the types of traffic control at each intersection are listed below.

- Mount Vernon Avenue at Main Street (stop signs on Main Street)
- Mount Vernon Avenue at Center Street (four-way stop signs)
- Mount Vernon Avenue at Spring Street (stop signs on Spring Street)
- Mount Vernon Avenue at Pigeon Pass Road (stop sign on Mt. Vernon Avenue south leg)
- Spring Street at Murphy Avenue (stop sign on Murphy Avenue)
- Spring Street at Michigan Avenue (stop sign on MIchigan Avenue)
- Center Street at Murphy Avenue (stop sign on Murphy Avenue)
- Center Street at Michigan Avenue (four-way stop signs)

The intersections with four-way stop signs were analyzed by calculating the average vehicular delay values and levels of service using the all-way stop methodology from the "Highway Capacity Manual" (Transportation Research Board). The intersections with stop signs only on the minor approaches were analyzed by calculating the volume/capacity ratios and resulting levels of service for each intersection.

Level of service (LOS) is a qualitative indicator of an intersection's operating conditions that is used to represent various degrees of congestion and delay. It is measured from LOS A (excellent conditions) to LOS F (extreme congestion), with LOS A through E considered to be acceptable according to the "2003 Congestion Management Program for Riverside County" (Riverside County Transportation Commission).

The traffic analysis was conducted for existing conditions, for the year 2008 baseline conditions without the proposed school, and for the 2008 scenario with the school-generated traffic. The year 2008 was used as the target year for future conditions as that is the first year anticipated that the school would be operational. The baseline traffic volumes for the year 2008 were estimated by expanding the existing (2004) traffic volumes by a growth factor of 1.08 (two percent growth per year for four years) to account for general area-wide growth and the cumulative impacts of traffic associated with other proposed development projects in the study area. Traffic that would be generated by the proposed Spring Mountain Ranch Specific Plan development was quantified by using traffic data from the "Spring Mountain Ranch Buildout Traffic Study Report" (RKJK and Associates, June 2000). It was assumed for the analysis that 25 percent of the Specific Plan development would occur by the year 2008. The proposed school was included as a component of the Specific Plan traffic study.

The traffic that would be generated by the school was geographically distributed onto the street network by using the following percentages as shown in Table 11, *Geographical Distribution of School Traffic*. This assumption is based on the layout of the study area roadway network and the anticipated distribution of the students' residences.

Table 11
Geographical Distribution Of School Traffic

Mount Vernon Avenue north of Main Street	5%
Mount Vernon Avenue south of Pigeon Pass Road	20%
Pigeon Pass Road east of Mount Vernon Avenue	20%
Center Street west of Michigan Avenue	20%
Spring Street west of Michigan Avenue	5%
Murphy Avenue between Spring Street and Center Street	5%
Michigan Avenue between Spring Street and Center Street	2.5%
Michigan Avenue north of Center Street	2.5%
Main Street west of Mount Vernon Avenue	10%
Main Street east of Mount Vernon Avenue	10%

The average vehicular delay values, the volume/capacity ratios, and the levels of service for the study area intersections are shown in Table 12 for existing conditions, the year 2008 without the school, and 2008 with the school. The calculation sheets for the level of service analysis (as generated by the Highway Capacity Software) are included in the Appendix.

Table 12
Project Impact on Intersection Levels of Service
AM Peak Hour

	Delay Value (or V/C Ratio) & Level of Service				
Intersection	Existing Conditions	2008 Without School	2008 With School	Increase In Delay (sec) or V/C Ratio	Significant Impact
4-WAY STOP INTERSECTIONS (Delay in Seconds/Vehicle)					
Mount Vernon Avenue/Center Street	10.2 – A	13.5 – B	16.7 – C	3.2	No
Center Street/Michigan Avenue	8.7 – A	9.3 – A	9.6 – A	0.3	
INTERSECTIONS WITH STOP SIGNS ONLY ON THE MINOR STREET (Volume/Capacity Ratio)					
Mount Vernon Avenue/Main Street	0.30 – A	0.40 – A	0.44 – A	0.04	No
Mount Vernon Avenue/Spring Street	0.21 – A	0.32 – A	0.46 – A	0.14	No
Mount Vernon Ave/Pigeon Pass Rd	0.31 – A	0.42 – A	0.67 – B	0.25	No
Spring Street/Murphy Avenue	0.06 – A	0.08 – A	0.10 – A	0.02	No
Spring Street/Michigan Avenue	0.09 – A	0.11 – A	0.13 – A	0.02	No
Center Street/Murphy Avenue	0.10 – A	0.12 – A	0.13 – A	0.01	No

The last column of numbers in Table12 indicates the change in delay values or volume/ capacity ratios associated with the project and the final column indicates if the intersection would be significantly impacted by the school traffic. The intersection of Mount Vernon Avenue and Center Street, for example, operates with an average vehicle delay of 10.2 seconds and LOS A for existing conditions. For the year 2008 scenario without the project, this intersection would operate with an average vehicle delay of 13.5 seconds (LOS B), and for the 2008 scenario with the project, the intersection would operate with an average delay value of 16.7 seconds (LOS C), which represents an increase in average vehicle delay of 3.2 seconds.

According to the "2003 Congestion Management Program for Riverside County" (Riverside County Transportation Commission), an intersection would be significantly impacted and would require mitigation if the project would cause the intersection to operate at LOS F. Intersections that are projected to operate at LOS A through E for the future scenario with the project would not require mitigation for traffic operational problems. It has been assumed for the analysis, therefore, that the

school would result in a significant impact if it would change the level of service to an unacceptable LOS F at an intersection that would operate at LOS E or better without the school. The impacts would not be significant at locations that are projected to operate at level of service A through E.

As shown in Table 12, the proposed school project would not have a significant impact at any of the study area intersections during the morning peak hour because all of the intersections are projected to operate at acceptable levels of service A through C. No mitigation measures would be required.

Only the morning peak hour was addressed in the intersection analysis because an elementary school would typically have only minor impacts during the late afternoon commuter peak period. The school-generated traffic at the beginning of the school day would coincide with the morning commuter peak hour. The school traffic at the end of the school day would, however, occur during the early afternoon generally between 2:00 and 3:00 p.m. when traffic volumes on the roadways are relatively light (as compared to the peak periods). The school would not typically have an impact on the late afternoon commuter peak hour, which occurs generally from 5:00 to 6:00 p.m. The afternoon peak hour has not, therefore, been evaluated in detail.

The proposed 5,200 square-foot joint use library would generate an estimated 25 vehicle trips during the afternoon peak hour (assuming an average of 4.7 vehicle trips per 1,000 square feet). This level of additional traffic would not result in a significant impact on the study area roadways as it is minor when compared to the traffic volumes and the capacities on the roadway network. The library would have no impacts during the morning peak hour because it would not be open to the public at that time of day.

Construction of the proposed school would generate various levels of truck and automobile traffic throughout the duration of the construction phase, which is expected to take approximately 12 months. The construction-related traffic includes construction workers traveling to and from the site as well as trucks hauling construction materials to the site and demolition/excavation material away from the site. The construction activities would generate an estimated 40 to 50 workers' trips per day, approximately 20 truck trips per day to deliver construction material, and approximately 10 truck trips per day to remove demolition material from the site. The truck trips would be spread out throughout the workday and would generally occur during non-peak traffic periods. This level of construction-related traffic would not result in a significant traffic impact on the study area roadway network.

The conclusion of the traffic analysis is that the proposed project would result in a less than significant traffic impact with regard to the capacity of the roadway network and the anticipated levels of service. No mitigation measures are necessary

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact. According to the "2003 Congestion Management Program for Riverside County" (Riverside County Transportation Commission), the minimum level of service standard for intersections and segments along the CMP system of highways and roadways is LOS E. As the traffic analysis indicates that the intersections in the study area that would be impacted by the proposed school would operate at acceptable levels of service A through C, the project would not exceed a level of service standard established by the county congestion management agency. No mitigation measures are necessary.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The proposed project would have no impact on air traffic patterns or safety. No mitigation measures are necessary.

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

Less Than Significant With Mitigation Incorporated. The increased levels of traffic, the increased number of pedestrians and bicycles, and the increased number of vehicular turning movements at the school entrances and at the nearby intersections would result in an increased number of traffic conflicts and a corresponding increase in the probability of an accident occurring. These impacts could potentially be significant; however, they could be mitigated by constructing Spring Street along the school frontage to the planned half-width plus one eastbound lane (based on the County of Riverside's roadway standards), installing a sidewalk on the north side of Spring Street along the project frontage, installing school area warning signs to notify drivers that they are entering a school zone (with school area speed limit reductions where appropriate), installing four-way stop signs at the intersection of Mount Vernon Avenue and Spring Street, and by painting yellow school crosswalks at the Mount Vernon Avenue/Spring Street intersection. In addition, if the segment of Spring Street between Mount Vernon Avenue and the school site has not been constructed prior the school opening, this roadway link should be constructed with two lanes. These features are subject to approval by the County of Riverside. The District is currently working with the SMRSP Developer to improve Spring Street to its planned half-width with a sidewalk and curb-and-gutter along the frontage of the campus, as well as improve the entire length of Spring Street between Mount Vernon Avenue and the school site. Implementation of the following mitigation measures would reduce the adverse safety impacts to a less-than-significant level.

Mitigation Measures:

16. The District shall coordinate with the Developer to construct Spring Street to its planned half-width along the school frontage plus one eastbound lane in accordance with the County of Riverside's roadway standards, subject to approval by the County of Riverside.

17. The District shall coordinate with the Developer to construct a sidewalk and curb-and-gutter on the north side of Spring Street along the project frontage, subject to approval by the County of Riverside.

18. The District shall request the County of Riverside to install standard school zone signs that state "SCHOOL – SPEED LIMIT 25 – WHEN CHILDREN ARE PRESENT" (Installation C, signs W65, R2, and R72 from the Caltrans *Traffic Manual*) on the south side of Spring Street west of the school site (facing west) and on the north side of Spring Street east of the school site (facing east), if Spring Street has been constructed east of the school. If the speed limit on Spring Street is set at 25 miles per hour, then Advance School symbol signs with a "SCHOOL" plate (Installation A, signs W63 and W65 from the Caltrans *Traffic Manual*) should be installed instead of the Installation C signs.

19. The District shall request the County of Riverside to install four-way stop signs at the intersection of Mount Vernon Avenue and Spring Street.

20. The District shall request the County of Riverside to paint yellow school crosswalks across all four approaches of the Mount Vernon Avenue/Spring Street intersection.

21. The District shall coordinate with the Developer to construct Spring Street between Mount Vernon Avenue and the school site as a two-lane roadway if this link has not been constructed prior the school opening

e) Result in inadequate emergency access?

No Impact. The proposed access and circulation features at the school would accommodate emergency ingress and egress by fire trucks, police units, and ambulance/paramedic vehicles. All access features are subject to and must satisfy the District and the County of Riverside design requirements. As the site would be provided with adequate emergency access features, no significant impacts are anticipated and no mitigation measures are necessary.

f) Result in inadequate parking capacity?

Less Than Significant Impact. According to a preliminary site plan, the school would include approximately 130 parking spaces, which would accommodate the parking demands for staff parking, parent parking, and public/visitor parking during school hours and community parking for library use during after school operating hours. These parking spaces would be located in two parking lots, one at the east end of the school site and one at the southwest corner of the school campus, both of which would be accessed from Spring Street. In addition, the site would have a passenger drop-off/pick-up area adjacent to the east parking lot along the east side of the school buildings and a bus loading/unloading zone adjacent to the west parking lot along the southwest side of the school buildings. The Riverside County parking requirements indicate that an elementary school should have at least one parking space per classroom, which equates to 38 parking spaces for the proposed school. The 130 parking spaces would, therefore, readily accommodate the school's parking demand on a typical school day. The parking requirement for the library would be 13 spaces, which could readily be accommodated within the proposed parking lot. As the project would be provided with adequate parking capacity, the parking impacts would be less than significant and no mitigation measures are necessary.

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact. The proposed school would be consistent with policies supporting alternative transportation because bike racks would be provided on site, bus loading/unloading zones would be provided on site, and busing would be available to kindergarten through third graders residing beyond 1.25 miles from the school and to fourth through sixth graders residing beyond 2.25 miles from the school. In addition, the Riverside Transit Agency (RTA) operates bus routes along Center Street and Mount Vernon Avenue. The proposed project would not, therefore, conflict with policies, plans, or programs supporting alternative transportation, and no mitigation measures are necessary.

h) Result in inadequate vehicular access due to less than minimum peripheral visibility at school driveways?

No Impact. The proposed school would be provided with access driveways on the north side of Spring Street east of Mount Vernon Avenue. As this street is not expected to have any substantial horizontal or vertical curves in the immediate vicinity of the school site, visibility would be adequate in both directions from the driveways. The design and location of the driveways are subject to review and approval by the County of Riverside and would, therefore, meet or exceed the County's design standards. Therefore, no significant impacts relative to inadequate vehicular access or peripheral visibility at the school's driveway are anticipated, and no mitigation measures are necessary.

i) Pose a safety hazard due to the placement of proposed school site adjacent to or near a major arterial roadway or freeway?

Less Than Significant Impact. The proposed school site is adjacent to Spring Street, which is planned to be a two lane local street. Mount Vernon Avenue, which currently has two lanes, is planned to be a four lane secondary highway in the future and is located approximately one-quarter mile west of the school site. Neither of these roadways is anticipated to pose a substantial safety hazard relative to the school. Roadway related safety hazards would, therefore, be less than significant and no mitigation measures are necessary.

j) Place a proposed school site within 1,500 feet of a railroad track easement?

No Impact. The nearest railroad tracks are located approximately 1.5 miles west of the school site. The UP Railroad and the BNSF Railroad tracks cross Center Street east of the Riverside Freeway (Interstate 215). As the proposed school attendance boundary would be located east of the train tracks and the railroad easement is greater than 1,500 feet from the school, no significant impacts are anticipated and no mitigation measures are necessary.

3.16 UTILITIES AND SERVICE SYSTEMS

a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The proposed project would not result in a substantial increase in wastewater generation. Wastewater generated by the proposed project would be typical of an elementary school and would not contain substantial levels of pollutants. The proposed project would not exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board. Therefore, no impact would result as a result of the proposed project, and no mitigation measures are necessary.

b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. A domestic water system facility plan and a wastewater treatment plan report were developed for the Spring Mountain Ranch Specific Plan. The Riverside Highland Water Company (RHWC) currently operates a domestic water system in the immediate area through a network of distribution mains. A 12" water main is proposed along Spring Street and would be installed as part of the SMRSP. The SMRSP details the management of a new 0.5 million gallon per day (mgd) wastewater treatment plant by the RHWC. The extension of a 10" sewer main is proposed along Spring Street. The District would coordinate with the RHWC and the County of Riverside to utilize the 12" water main and 10" sewer main and to ensure any required improvements to existing water and wastewater treatment facilities as appropriate for the proposed onsite uses of the project are in place in time for the scheduled opening.

The new campus would primarily serve students currently enrolled at local District schools and those new students generated from the Spring Mountain Ranch residential community development. The proposed campus would not accommodate an unaccounted for student body. As the development of the proposed school would not significantly increase current water usage and wastewater disposal, the proposed water and wastewater treatment facilities would be able to sufficiently provide water and wastewater services for the proposed on-site uses. Furthermore, the Spring Mountain Ranch Specific Plan has taken into account the proposed school use in their development. The project would not require the construction of new facilities or expansion of existing facilities, the construction of which

would cause significant environmental effects. Therefore, no significant impacts would occur as a result of the proposed project, and no mitigation measures are necessary.

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

Less Than Significant Impact. The proposed project would involve the construction of a new elementary school on approximately 14 acres of fallow land. The District would coordinate with the County of Riverside to ensure that all required improvements to the existing storm drainage facilities would be appropriate to the proposed project. The proposed project would include the installation of drainage catch basins that would provide sufficient capacity to accommodate the level of water runoff anticipated upon completion of the proposed facilities. The on-site drainage system would expel water from the site into the existing storm drain system. The District would coordinate drainage improvements with the County of Riverside and would be responsible for all required drainage improvements as appropriate. Project implementation would not have a significant impact on the existing storm water drainage system or require new construction or expansion of any storm water drainage facilities. Therefore, no mitigation measures are necessary.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact. The Spring Mountain Ranch Specific Plan has accounted for the water demand of the proposed project.[16] The proposed elementary school would serve 750 students and would consume approximately 8,250[17] gallons of water per day. Development of the proposed elementary school would not result in a substantial increase in population or employment opportunities. Since the school would largely serve students who would otherwise be attending local District schools and the project has been accounted for in Spring Mountain Ranch Specific Plan, the net volume increase in water consumption as a result of the project would not be significantly increased above current and projected levels. The proposed water system would be sufficient to meet project needs, and no significant impacts would occur as a result of project implementation. No mitigation measures are necessary.

e) Result in a determination by the waste water 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?

Less Than Significant Impact. As previously mentioned, a sewer master plan study was conducted for the Spring Mountain Ranch Specific Plan. The ultimate average facility capacity of the wastewater treatment plant is 0.5 MGD and would provide adequate wastewater treatment capacity to service the project site[18].

The proposed elementary school would have a maximum daily enrollment capacity of 750 students who would generate an estimated 7,500[19] gallons of wastewater per day. The project would not itself generate population growth in the area; in fact the project would provide support services to the Spring Mountain Ranch master planned development, and the new campus would primarily serve students who would otherwise be attending local District schools. The Spring Mountain Ranch Specific Plan has accounted for wastewater generation from the proposed project.[20] Since the proposed school would

[16] Environmental Impact Report for Specific Plan No. 323, November 27, 2000.
[17] Consumption rate is wastewater generation rate (10 gallons/day/student) times 110%.
[18] Environmental Impact Report for Specific Plan No. 323, November 27, 2000.
[19] Generation rate is 10 gallons/day/student.
[20] Environmental Impact Report for Specific Plan No. 323, November 27, 2000.

largely serve existing students in the District and the Spring Mountain Ranch Specific Plan has accounted for the majority of the project students, the net wastewater flows that would be experienced at the treatment plant would not be significantly altered by the proposed project. As a result, impacts to wastewater facilities would be less than significant, and no mitigation measures are necessary.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. The primary landfill serving the proposed project site would be the Badlands Landfill located at 31125 Ironwood Avenue. As of June 30, 2004, the landfill had a remaining disposal capacity of approximately 10.5 million tons and is currently permitted to receive 4,000 tons per day (tpd) of refuse [21]. The Badlands Landfill has an expected landfill closure of 2015 and the potential to expand capacity in the future[22]. El Sobrante and Lamb Canyon landfills with remaining capacity of 40.6 million tons, and 13 million tons, respectively could also accept the proposed project's waste.

Solid waste would be generated by the project both on a short-term basis, during the project's construction and demolition phase, and on a long-term basis, through the daily operation of the school. Construction waste would result from excavation of the land and from the construction of new building structures and other campus features. The generation of construction waste would cease once the project's construction is complete. The proposed project entails 65,000 square feet of development which would result in 252,850 pounds of construction waste[23]. This translates to 2.9% of the daily amount of waste permitted at the Badlands Landfill. As such, construction waste generated by the proposed project would have less than significant effects at the landfill.

Operational waste is expected to result in a slightly increased volume of solid waste received at local landfills. The proposed project would result in 375 pounds of waste per day[24]. This translates 0.004 % of the daily waste stream occurring at the landfill. Furthermore, the proposed school facility would, to a large extent, serve students currently attending existing local District schools. Therefore, the project would reallocate existing students rather than accommodate an entirely new student body. Thus, the net increase in solid waste to area landfills would not be significantly altered by the project. It is anticipated that the landfills serving the proposed project site would have sufficient capacity to accommodate the project's solid waste disposal needs. Therefore, no significant impacts would occur as a result of the project, and no mitigation measures are necessary.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact. State Assembly Bill 939 requires all cities and counties to achieve a 50% waste diversion rate by 2000. Unincorporated Riverside County has a 2002 waste diversion rate of 51%. The Riverside County Waste Management Department (RCWD) provides facilities and programs which maintain or exceed all applicable local, State, Federal and land use regulations for the County.

To reduce the amount of waste into local landfills, the District can participate in voluntary recycling programs. RCWD, in partnership with California Integrated Waste Management, promotes KidMAX. KidMAX is a free materials exchange program and is advertised as "the Waste-Not Want Ads for California Institutions.[25] Schools are eligible to utilize KidMAX as a source of supplies, materials, furniture, etc. While the materials exchange program is voluntary, participation is encouraged. Participation in such

[21] Correspondence from Sung Key Ma, Planner IV Riverside County Waste Management Department, October 19, 2004.
[22] Ibid.
[23] Estimated construction generation rate is 3.89 pounds/sq. ft. http://www.epa.gov/epaoswer/hazwaste/sqg/c&d-rpt.pdf 11/1/04.
[24] Estimated generation rate is 0.5 pounds/student/day. http://www.ciwmb.ca.gov/wsatechar/WasteGenRates/WGInstit.htm. 11/4/04.
[25]California Integrated Waste Management Board, http://www.ciwmb.ca.gov/CalMAX/Kidmax.htm 10/19/04.

programs would further reduce solid waste generated from the project site and assist in the County's compliance with AB 939.

In compliance with Federal, State, and local statutes, the District will coordinate with the RCWD. Additionally, the District will provide trash receptacles at the proposed school site to be used for all solid waste generated by the project. Solid waste generated by the project would be typical of other elementary school facilities and would not contain any significant amount of hazardous waste. The proposed project would comply with all Federal, State, and Local statutes and regulations related to solid waste. No significant impacts would result from the proposed project, and no mitigation measures are necessary.

3.17 MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact With Mitigation Incorporated. The project site is located in a developing area currently characterized with agricultural and vacant land uses. The project site is presently vacant consisting of ruderal habitat. There are no streams onsite, and the site has been historically been in agricultural uses. While the potential for the proposed project to unearth significant prehistoric resources and impact to biological species is unlikely, mitigation measures have been proposed in the event of accidental finds. The proposed project would not degrade the quality of the environment. Any potential impacts would be mitigated to a less-than-significant level. No additional mitigation measures are necessary.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less Than Significant Impact. Development of the proposed project would result in potentially significant impacts in the areas of aesthetics, biological resources, cultural resources, noise and traffic, if not mitigated. However, all of the impacts generated by the proposed project would be reduced to less than significant levels with mitigation measures and would not rise to a level of cumulative significance. No cumulatively considerable impacts would result from this project, and no additional mitigation measures are necessary.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact With Mitigation Incorporated. The proposed project related to aesthetics, biological resources, cultural resources, noise, and traffic have potentially significant impacts that would be mitigated to a less-than-significant level. Therefore, the project would have no substantial adverse effects on human beings, either directly or indirectly. No additional mitigation measures are necessary.

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RESPONSE TO COMMENTS AND MITIGATION MONITORING PROGRAM FOR:

HELEN KELLER ELEMENTARY (ES NO. 31)

SCH# 2004121077

submitted to:

RIVERSIDE UNIFIED SCHOOL DISTRICT

Contact: Janet Dixon, Director of Planning & Development

submitted by:

THE PLANNING CENTER

Contact: Dwayne S. Mears, AICP, Principal

JANUARY 18, 2005

RESPONSE TO COMMENTS AND MITIGATION MONITORING PROGRAM FOR:

HELEN KELLER ELEMENTARY (ES NO. 31)

SCH# 2004121077

submitted to:

RIVERSIDE UNIFIED SCHOOL DISTRICT

3070 Washington Street
Riverside, CA 92504
Phone: 951.788.7554

Contact: Janet Dixon, Director of Planning & Development

submitted by:

1580 Metro Drive
Costa Mesa, CA 92626
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THE PLANNING CENTER

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RIV-02.15
JANUARY 18, 2005

Table of Contents

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1. Response to Comments

This section includes all written comments received on the Mitigated Negative Declaration/Initial Study (MND/IS) prepared for Helen Keller Elementary (ES No. 31), State Clearinghouse Number 2004121077 and the Riverside Unified School District's response to each comment.

Comment letters and specific comments are given letters and numbers for reference purposes. Where sections of the MND/IS are excerpted in this document, the sections are shown indented. Changes to the MND/IS text are ***underscored*** and shown in ***bold and italics*** for additions and ~~strikeout~~ for deletions.

A public review period was provided between December 16, 2004 and January 14, 2005. The following lists the agencies and persons that submitted comments on the MND/IS:

Letter Reference	Commenting Person/Agency	Date of Comment	Page No.
A	Native American Heritage Commission	January 14, 2004	7

1. Response to Comments

1.1 Native American Heritage Commission

Native American Heritage Commission

(Insert Page 1 of 4)

Native American Heritage Commission

(Insert Page 2 of 4)

Native American Heritage Commission

(Insert Page 3 of 4)

Native American Heritage Commission

(Insert Page 4 of 4)

1. Response to Comments

Letter A: **Carol Gaubatz, Program Analyst, Native American Heritage Commission, January 14, 2005**

Response A-1 In a letter from the Native American Heritage Commission (Commission), dated October 29, 2004, the Commission indicated that a record search of the sacred land file performed for the proposed project failed to indicate the presence of Native American cultural resources in the immediate project area.

Response A-2 Letters were sent to the list of Native Americans individuals/organizations attached to the October 29, 2004 letter for early consultation. Letters will be sent to those tribes included in the January 14, 2005 comment letter that were not included in the October 29, 2004 letter. The District will follow-up with a telephone call to make sure that the information was received by all of the contacted tribes.

Response A-3 The District understands that the lack of surface evidence of archaeological resources does not preclude the existence of archaeological resources. Mitigation Measure 6 of the proposed project, as identified below, ensures the protection of any accidentally discovered archaeological resources. Additionally, the District will comply with Health and Safety Code section 7050.5 and Public Resources Code 5097.98 in the event of any accidental discovery of human remains are identified.

> Mitigation Measure 6: If historical or unique archeological or paleontological resources are discovered during construction activities, the contractor shall halt construction activities in the immediate area and notify the District. The District shall retain a qualified archeologist/paleontologist to make an immediate evaluation of significance and appropriate treatment of the resource. The qualified archeologist/ paleontologist shall recommend the extent of archeological/paleontological monitoring necessary to ensure the protection of any other resources that may be in the area. Construction activities may continue on other parts of the building site while evaluation and treatment of historical or unique archaeological resources takes place. If necessary, the District shall develop appropriate treatment measures in consultation with the Riverside County or other appropriate agencies.

2. Mitigation Monitoring Program

This monitoring program has been prepared pursuant to Public Resources Code Section 21081.6, which requires adoption of a reporting or monitoring program for projects in which the agency has required changes or adopted mitigation to avoid significant environmental effects. Specific reporting and/or monitoring requirements to be enforced during project implementation must be defined prior to final approval of the project proposal by the responsible decision maker(s).

Each required mitigation measure is listed in the table below and categorized by impact area. Also designated is the phase of the project during which time the measure shall be implemented.

Helen Keller Elementary School (Elementary School No. 31)
Mitigation Monitoring Program

Mitigation Measure	*Phase of Implementation*	*Responsible Monitoring Party*	*Completion Date/Initials*
Aesthetics			
1. On-site buildings shall use low reflective glass and building material to keep daytime glare to a minimum.	During construction	Riverside Unified School District (District) Project Manager	
2. All exterior lights shall be shielded where feasible and focused to minimize spill light into the night sky or adjacent properties.	During construction and operation	District Project Manager	
3. Exterior lighting used for security purposes in the evening shall be limited to low wattage energy conserving night lighting.	During construction and operation	District Project Manager	
4. New lights shall be situated and arranged so that no direct beam would leave the project site. Luminaries shall be provided with filtering louvers and hoods. During installation, the luminaries shall be aimed and corrected by a field crew to aim the lights away from viewers.	During construction and operation	District Project Manager	
Biological Resources			
5. Prior to site preparation activities, a focused survey for burrowing owls shall be prepared for the project site, and if any burrowing owls are located in the construction zone, a qualified biologist shall relocate the owl to a nearby area of suitable habitat, pursuant to CDFG protocol or burrowing owl relocation.	Prior to site preparation activities	District Project Manager in coordination with Project Construction Manager and qualified biologist	

Helen Keller Elementary School (Elementary School No. 31)
Mitigation Monitoring Program

Mitigation Measure	Phase of Implementation	Responsible Monitoring Party	Completion Date/Initials
Cultural Resources			
6. If historical or unique archeological or paleontological resources are discovered during construction activities, the contractor shall halt construction activities in the immediate area and notify the District. The District shall retain a qualified archeologist/paleontologist to make an immediate evaluation of significance and appropriate treatment of the resource. The qualified archeologist/ paleontologist shall recommend the extent of archeological/paleontological monitoring necessary to ensure the protection of any other resources that may be in the area. Construction activities may continue on other parts of the building site while evaluation and treatment of historical or unique archaeological resources takes place. If necessary, the District shall develop appropriate treatment measures in consultation with the Riverside County or other appropriate agencies.	During site preparation, grading, excavation, and construction	District Project Manager in coordination with Project Construction Manager and in consultation with the Riverside County Museum and local Native American entities if buried archaeological resources were found,	
Hazards and Hazardous Materials			
7. Prior to the opening of the proposed school, or the construction of the reservoir, whichever is later, the District shall verify with the Riverside Highland Water Company that they have either (a) provided a berm at the Spring Mountain Ranch Zone 1 Reservoir access road; the berm shall have a top elevation of two feet higher than the average elevation within the reservoir site, or (b) installed a special gate with water retaining ability.	Prior to occupancy	District Project Manager in coordination with Riverside Highland Water Company	
8. Prior to the opening of the proposed school, or the construction of the reservoir, whichever is later, the District shall verify with RHWC that they have adjusted the storm drain size in the lowest reach of the reservoir site to avoid water escaping from the manhole onto the access road. The proposed 24-inch storm drain shall be upsized to a 33-inch diameter pipe.	Prior to occupancy	District Project Manager in coordination with Riverside Highland Water Company	
9. Prior to the opening of the proposed school, or the construction of the reservoir, whichever is later, the District shall verify with RHWC that they have designed block walls around the reservoir with two feet water retaining capability. This would require the filling of all cells of the block wall to a minimum of three feet above the highest elevation on the reservoir site.	Prior to occupancy	District Project Manager in coordination with Riverside Highland Water Company	
10. Prior to the opening of the proposed school, or the usage of the reservoir, whichever comes later the District shall verify with RHWC that they have placed a one-quarter-inch plate of steel at the lower part of the gate to reduce the opening and to restrict the amount of water escaping from the site onto the access road.	Prior to occupancy	District Project Manager in coordination with Riverside Highland Water Company	

Helen Keller Elementary School (Elementary School No. 31)
Mitigation Monitoring Program

Mitigation Measure	*Phase of Implementation*	*Responsible Monitoring Party*	*Completion Date/Initials*
11. Prior to the opening of the proposed school, the District shall prepare evacuation plans, health and safety plans, or emergency response training plans that identify the Santa Ana Pipeline and provide site specific management measurements including but not limited to evacuation routes and emergency contact lists.	Prior to occupancy	District Project Manager	
Noise			
12. Prior to construction, the District shall include contract language requiring that the contractor properly maintain and tune all construction equipment to minimize noise emissions.	Prior to construction	District Project Manager in coordination with the Project Construction Manager	
13. Prior to construction, the District shall include contract language requiring that the contractor fit all equipment with properly operating mufflers, air intake silencers and engine shrouds no less effective than as originally equipped by the manufacturer.	Prior to construction	District Project Manager in coordination with the Project Construction Manager	
14. Prior to construction, the District shall cause its contractor to locate all stationary noise sources (e.g., generators, compressors, staging areas) as far from residential receptor locations as is feasible.	Prior to construction	District Project Manager in coordination with the Project Construction Manager	
15. Prior to construction, the District shall provide it contractor a contact name and telephone number of a District Representative to respond to the complaint in the event of a noise complaint.	Prior to construction	District Project Manager in coordination with the Project Construction Manager	
Transportation/Traffic			
16. The District shall coordinate with the Developer to construct Spring Street to its planned half-width along the school frontage plus one eastbound lane in accordance with the County of Riverside's roadway standards, subject to approval by the County of Riverside.	Prior to occupancy	District Project Manager in coordination with Developer in consultation with the County of Riverside	
17. The District shall coordinate with the Developer to construct a sidewalk and curb-and-gutter on the north side of Spring Street along the project frontage, subject to approval by the County of Riverside.	Prior to occupancy	District Project Manager in coordination with Developer in consultation with the County of Riverside	

Helen Keller Elementary School (Elementary School No. 31)
Mitigation Monitoring Program

Mitigation Measure	*Phase of Implementation*	*Responsible Monitoring Party*	*Completion Date/Initials*
18. The District shall request the County of Riverside to install standard school zone signs that state "SCHOOL – SPEED LIMIT 25 – WHEN CHILDREN ARE PRESENT" (Installation C, signs W65, R2, and R72 from the Caltrans *Traffic Manual*) on the south side of Spring Street west of the school site (facing west) and on the north side of Spring Street east of the school site (facing east), if Spring Street has been constructed east of the school. If the speed limit on Spring Street is set at 25 miles per hour, then Advance School symbol signs with a "SCHOOL" plate (Installation A, signs W63 and W65 from the Caltrans *Traffic Manual*) should be installed instead of the Installation C signs.	Prior to occupancy	District Project Manager in consultation with the County of Riverside	
19. The District shall request the County of Riverside to install four-way stop signs at the intersection of Mount Vernon Avenue and Spring Street.	Prior to occupancy	District Project Manager in consultation with the County of Riverside	
20. The District shall request the County of Riverside to paint yellow school crosswalks across all four approaches of the Mount Vernon Avenue/Spring Street intersection.	During project operation	District Project Manager in consultation with the County of Riverside	
21. The District shall coordinate with the Developer to construct Spring Street between Mount Vernon Avenue and the school site as a two-lane roadway if this link has not been constructed prior the school opening	Prior to occupancy	District Project Manager in coordination with Developer in consultation with the County of Riverside	

Appendix B Water Tank Hazard Assessment

Appendices

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January 2018 | Water Tank Hazard Assessment

Spring Street Elementary School

Riverside Unified School District

Prepared for:

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Project Number RIV-19.0

Table of Contents

List of Figures

Figure

List of Appendices

1. Introduction

1.1 PURPOSE

This report presents the results of a water tank hazard assessment prepared for the Riverside Unified School District (District), which is proposing to construct the Spring Street Elementary School. This assessment evaluates the potential risk of flooding at the school site in the unlikely event that an existing water storage tank located adjacent to northeast corner of the project site catastrophically failed.

1.2 SCHOOL SITE LOCATION

The District is proposing to construct a new elementary school on vacant land on the north side of Spring Street in unincorporated Riverside County, California. The school site is within the Spring Mountain Ranch Specific Plan No. 323 (SMRSP) in the Highgrove are of unincorporated Riverside County. The property is identified by the Riverside County Assessor as Parcel Number 255-170-016, with a size of 13.93 acres, a street address of 20375 Spring Street, and ZIP code of 92507-0126. The site is bounded by the water tank and a Riverside County Flood Control and Water Conservation District (RCFCD) detention basin to the north, residential homes to the east, W. Spring Street to the south, and vacant land to the west. Figure 1 shows the school site location and the surrounding features, including the water tank. Figure 2 shows a closer view of the storage tank and concrete block wall that surrounds the tank site and access road as well as the water flow direction with eventual discharge into the RCFCD detention basin.

1.3 REGULATORY REQUIREMENTS

Under Education Code Section 17251, the California Department of Education (CDE) has authority to approve the acquisition of school sites. The District must obtain CDE approval for sites to receive state funds under the state's School Facilities Program administered by the State Allocation Board. CDE standards and regulations for this process are presented in California Code of Regulations, Title 5, Sections 14010, 14011, and 14012. Information on assessing safety hazard related to water storage tanks is discussed in Section 14010 (h):

> *The site shall not be located near an above-ground water or fuel storage tank or within 1,500 feet of the easement of an above-ground or underground pipeline that can pose a safety hazard as determined by a risk analysis study, conducted by a competent professional, which may include certification from a local public utility commission.*

All large volume (≥12 inches in diameter) water pipelines were evaluated in the *Water Pipeline Safety Hazard Assessment* report prepared by PlaceWorks and dated January 2018.

1.4 ASSESSMENT METHODOLOGY

The CDE has not yet developed a protocol for evaluating safety hazards associated with releases from water storage tanks or reservoirs. However, the CDE has developed risk analysis procedures for evaluating flooding associated with releases from large diameter water pipelines. These procedures are described in CDE's *Guidance Protocol for School Site Pipeline Risk Analysis* (CDE, 2007).

A potential safety issue associated with the siting of a new school down-gradient from a dam, reservoir, or water storage tank is the potential for flood inundation of the school site due to failure of these structures. The most probable cause of failure is a large magnitude earthquake and associated strong ground shaking, which can cause structural damage and a release of impounded water.

This report will focus on the water storage tank owned and operated by Riverside Highland Water Company (RHWC). The center of the tank is approximately 100 feet north of the boundary of the proposed school. The analysis will evaluate the potential for flooding and estimated depth of water at the school site if the tank was to catastrophically fail.

Although no specific criteria have been established by the CDE as a threshold of significance for flooding at a school site, a water depth of 12 inches or greater is a trigger that could warrant further evaluation (CDE, 2007).

2. Hazard Assessment

2.1 WATER TANK LOCATION AND OPERATIONAL DATA

There is a two-million-gallon aboveground water storage tank located adjacent to the northeast corner of the proposed school site. The water tank facility and access driveway is separated from the school site by a concrete block wall, which surrounds the facility on all four sides. The tank location and school site are shown on Figures 1 and 2. Agency correspondence is provided in Appendix A.

The water storage tank is owned and operated by Riverside Highland Water Company (RHWC). The RHWC provides domestic and irrigation water to the City of Grand Terrace, portions of the City of Colton, and portions of unincorporated areas of the Counties of San Bernardino and Riverside. Tank information was provided by Mr. Craig Gudgeon, Distribution Superintendent (RHWC, 2017).

The 2-million gallon storage tank was installed in 2006 and is constructed of steel with a diameter of 130 feet and a height of 24 feet. The factory coated welded steel tank is equipped with access manways, flexible earthquake resistant piping connections, drains, vents, safety ladders, and a corrosion protection system. The water tank was constructed in accordance with the latest revision of the American Water Works Association (AWWA) Standard D100-05, *Welded Carbon Steel Tanks for Water Storage,* at the time of installation (AWWA, 2005). This standard requires construction of the tank to be able to withstand ground motion from the maximum credible earthquake. The tank is designed to 1) withstand resistance to overturning, 2) withstand a maximal vertical design acceleration, 3) maintain a sufficient freeboard to minimize sloshing, 4) have a foundation designed to resist anchor bolt uplift and overturning bearing pressure, and 5) have flexible piping connections to avoid release of the tank contents with movement during an earthquake.

The inlet/outlet piping to the tank is 12 inches in diameter and has a flexible expansion connection to resist the stress produced by ground motion from large earthquakes. The tank is inspected daily by on-site personnel and there is no history of leakage from this tank (RHWC, 2017). The tank facility is surrounded on four sides by a 6-8 foot concrete block wall. The access driveway to the facility also separates the facility from the school site by a continuation of the concrete block wall with eventual discharge into the RCFCD's detention basin, thus preventing any release of water from the facility reaching the school site.

Because of the stringent seismic design standards for tank construction in 2006, it is highly unlikely that any releases would occur from the water storage tank during the maximum credible earthquake. However, the worst-case catastrophic release scenario for this analysis is assumed to be a break in the tank's inlet or outlet pipe during a maximum credible earthquake as a result of differential movement resulting in a 12-inch diameter hole where the inlet or outlet piping connects to the side of the tank. It is assumed that a break in the inlet/outlet connection to the tank would result in the release of the entire contents of the tank at maximum volume.

2.2 LAND USE AND TERRAIN

The surrounding land use is primarily residential in various stages of development. To the north are the RHWC's water tank facility and the RCFCD's detention basin. Vacant land is present to the west but will be subject to future residential development. The topographic gradient slopes gently (about 40 feet in 1,300 feet or 3%) to the west. Thus, the proposed school site is cross gradient of the tank site. A topographic map has been included in Appendix B. If a release were to occur, the water would drain to the west bounded by the concrete block wall into the RCFCD's detention basin, which is approximately 34 feet below the tank site and 10 to 15 feet below the adjacent grade of the school site. A more detailed analysis is presented in Section 3.1.

2.3 WATER TANK FAILURE RATES

Large water storage tanks typically do not fail catastrophically, even when subject to very strong ground shaking associated with an earthquake. But failure of these tanks could have consequences in terms of flooding at downstream locations. The most likely failure scenario is a piping break at the connection to the tanks. The following section reviews how steel storage tanks have fared during California earthquakes and potential failure modes.

Failure Modes for Steel Storage Tanks

Potential failure modes specific to steel storage tanks include:

Shell Buckling Mode – One of the most common causes of damage in steel tanks, this involves the outward buckling of the bottom shell course, a phenomenon known as "elephant foot". This has occasionally resulted in the loss of tank contents and, in some cases, total collapse of the tank.

Anchorage Failure – Many steel tanks have hold-down bolts, straps, or chairs that may result in anchor pullout, stretching, or failure during an earthquake. However, failure of an anchor does not necessarily lead to loss of tank contents.

Hydrostatic Pressure Failure – Tensile hoop stresses can increase due to shaking-induced pressures between the fluid and the tank, leading to splitting and leakage. Although no welded steel tanks have actually ruptured, large tensile hoop stresses can contribute to the likelihood of elephant foot buckling near the base of the tank.

Roof and Miscellaneous Steel Damage – A sloshing motion of the tank contents during an earthquake (known as a seiche) can cause upward pressure on the roof for full or nearly full tanks. New seismic codes that require a significant amount of freeboard reduce this potential impact. In past earthquakes, damage has occurred to the joints between the walls and the cone foots, with spillage of tank contents over the top of the wall. Lateral movement and rotation from ground shaking can also result in broken guides, ladders, or other appurtenances attached between the roof and the bottom plate. However, roof damage or broken appurtenances usually do not lead to a loss of more than one third of the tank's contents.

Foundation Failure – Soil failure due to liquefaction, slope instability, or excessive differential settlement as a result of an earthquake can cause severe distortion, cracking, or leakage at the tank bottom or foundation.

Connecting Pipe Failure – One of the more common causes of loss of tank contents during earthquakes is the fracture of piping at connections to the tank. This generally results from large vertical displacements of the tank caused by tank buckling, wall uplift, or foundation failure, but can also occur with horizontal displacement of the tanks. Piping failure can also lead to extensive scour of the foundation materials. The seismic requirement for flexible piping connections reduces this potential impact.

Failure Rates of Tanks During Earthquakes

American Lifelines Alliance (ALA, 2001) evaluated the seismic performance of 424 tanks during the following earthquakes:

- 1933 Long Beach
- 1952 Kern County
- 1964 Alaska
- 1971 San Fernando
- 1979 Imperial Valley
- 1983 Coalinga
- 1989 Loma Prieta
- 1992 Landers
- 1994 Northridge

Each tank was assigned one of five damage states:

- Damage State 1: No damage
- Damage State 2: Slight damage – damage to roof, minor loss of content, minor shell damage, damage to attached pipes, no elephant foot failure
- Damage State 3: Moderate damage – elephant foot buckling with no leak or minor loss of contents
- Damage State 4: Extensive damage – elephant foot buckling with major loss of contents, severe damage
- Damage State 5: Complete (collapse) damage – total failure, tank collapse

The peak ground acceleration (PGA) for each earthquake also was reported and fragility curves were developed, which relate PGA to the probability of reaching or exceeding a particular damage state. For this analysis, a damage state of 4 or 5 was considered to be relevant for the catastrophic release scenario, because damage states of 1 through 3 would result in leakage that would be released slowly without causing significant flooding.

According to the United States Geological Survey Interactive Aggregation Website (2018), the maximum credible earthquake (i.e., 2% exceedance probability in 50 years) at the site was determined to have a peak ground acceleration (PGA) of 0.95g. This corresponds with an earthquake that has the potential to cause severe damage to water facilities (PGA$\geq$0.5g). The site is not located in an Alquist Priolo fault rupture hazard zone. The nearest known active earthquake fault is the San Jacinto Fault, San Bernardino Section, which is approximately 2.2 miles northeast of the school site.

For a PGA value of 0.90g (slightly lower than the maximum credible earthquake at the site), the ALA damage matrix showed that eight steel water tanks exposed to this level of ground shaking resulted in a Damage State of 4 (extensive damage) for three tanks and none of the tanks exhibited complete collapse (Damage State 5). However, it should be noted that most of the storage tanks in the database were old and not anchored or designed to current earthquake standards. Anchoring of the foundations and retrofitting to meet current seismic standards would reduce this risk. Since RHWC did not provide any information on the tanks, the current status of the tanks is unknown.

A more detailed review of the database of water tanks subject to California earthquakes cited above shows that an anchored steel storage tank subject to a PGA of 0.90g or 1.2g could experience slight damage (Damage State 2), but would not result in any leakage or loss of contents. This prediction is also conservative because the water storage tank north of the school site was designed in accordance with AWWA and seismic standards and would likely not experience any leakage or damage in the event of a maximum credible earthquake.

A site-specific water tank failure assessment was also conducted for this tank. Assuming an upper-bound earthquake at the site has a return period of 2,475 years, or a 2% chance of exceedance in 50 years, this is equivalent to a 4.0×10^{-4} probability of occurring in a given year. According to the ALA's study of tank damage during earthquakes, steel water tanks exposed to a PGA associated with the upper-bound earthquake at the site (0.95g) could result in severe damage (damage state 4) but not total failure (damage state 5). Conservatively assuming that severe damage would result in the loss of the entire contents of the water tank and there is a 37.5% probability of this occurring with an upper-bound earthquake, the probability that the water tank would catastrophically fail given the upper-bound earthquake occurs at the site is predicted to be $4.0 \times 10^{-4} \times 0.375 = 1.5 \times 10^{-4}$. This is equivalent to once every 6,666 years. It should again be noted that the ALA's database includes tanks that are older and not subject to recent AWWA and seismic standards; therefore, the probability of a maximum credible earthquake resulting in a release of water at the tank site would be much lower than this estimate.

3. Consequence Analysis

In the unlikely event that the 2-million-gallon aboveground water storage tank experienced a release during the maximum credible earthquake, an important question to be answered is where the water would flow that is released from the tanks. A flooding analysis was conducted to answer this question and to determine if students and staff at the school site would be impacted.

3.1 WATER TANK FLOODING ANALYSIS

For this worst-case analysis, it was assumed that that the 2-million-gallon RHWC storage tank would fail as the result of an earthquake. It was assumed that the tank would be full at the time and all of the water in the tank would be released immediately from the bottom of the tank via either the 12-inch inlet/outlet piping or a 1-foot diameter hole. This worst-case analysis is conservative because a catastrophic failure of the storage tank is highly unlikely. The analysis provided in Section 2.3 shows that the ground shaking that occurs with the maximum credible earthquake in the vicinity of the water tank site would most likely not result in catastrophic tank failure.

The water release impacts were modeled, using the methodology and calculations described in detail in Appendix B. For the modeling analysis, it was conservatively assumed that the 12-inch inlet/outlet piping to the tank would break and release all the water from the tank. A 1-foot diameter hole at the bottom of the tank would result in the same release rate. Based on the site configuration, all of the released water would flow to the west and would be contained within the access driveway by the concrete block wall that separates the tank facility from the school site (Figure 2). The water would eventually flow to the northwest and be discharged into the RCFCD's detention basin. The detention basin has the capacity to store 2 million gallons of water, if necessary.

The release rate varies over time as the water level in the tank decreases, with a maximum flow rate of 19.3 cubic feet per second (cfs). The tank would be completely emptied in approximately 8.33 hours. However, RHWC personnel would respond quickly and most likely stop flow from the tank within an hour. The capacity of the access driveway to contain the released water was also calculated assuming the access driveway acts as a rectangular ditch since it is bounded on all sides by a concrete block wall. The calculations are contained in Appendix B.

The results indicate that the depth of the water within the access driveway at the maximum release rate would be 0.11 feet, or approximately 1.3 inches. Since the concrete block wall is 6 to 8 feet high, none of the released water would reach or impact the school site. Based on these results, there would be no flooding at the school site in the unlikely event that the water storage tank adjacent to the school site was to fail due to a maximum credible earthquake.

The mitigation measures that were proposed in the 2005 Adopted Mitigated Negative Declaration (MND) were also evaluated to determine whether these conditions were met after the RHWC water storage tank facility was constructed in 2006. The water tank facility is entirely enclosed with a concrete block wall and the access driveway is also enclosed by a concrete block wall so that there is no possibility of any released water entering the school site. A special gate at the entrance of the tank facility is not necessary since the concrete block wall that extends along the border with the school site would prevent any released water from entering the school. It is not known whether the proposed 24-inch storm drain at the lowest reach of the reservoir site was upgraded to a larger size, but any water escaping from the manhole onto the access road would be contained within the confines of the concrete block wall and would not impact the school site.

4. Summary and Recommendations

4.1 SUMMARY

- Riverside Highland Water Company (RHWC) owns and operates a 2-million-gallon aboveground water storage tank located adjacent and north of the school site.
- The steel storage tank was constructed in 2006 to AWWA standards and is 130 feet in diameter with a height of 24 feet.
- The school site and water tank site are not located in an Alquist Priolo fault rupture hazard zone; the upper-bound earthquake for the water tank site was predicted to have a peak ground acceleration (PGA) of 0.95g.
- The probability that the tank would catastrophically fail due to ground shaking from the upper-bound earthquake was conservatively estimated to be 1.5×10^{-4}, or approximately once every 6,700 years.
- A worst-case analysis was conducted, assuming that the 12-inch inlet/outlet connection to the water tank ruptured or that a 1-foot diameter hole occurred during a maximum credible earthquake and all the water in the tank was released when the tank was at its maximum storage capacity.
- Based on the model results provided in Appendix B, the released water would flow to the west and northwest along the access driveway which is bounded by a concrete block wall and eventually discharge into the RCFCD's detention basin.
- The access driveway can easily accommodate the released water at the maximum flow rate. Therefore, no water would reach the school site.
- The results of this analysis show that a release from the RHWC storage tank due to a maximum credible earthquake would not result in a safety hazard to students and staff at the proposed Spring Street Elementary School.

4.2 RECOMMENDATIONS

- Although it is highly unlikely that any released water from a catastrophic failure of the RHWC storage tank could reach the school site, it is recommended that the school's emergency response and evacuation plan address the possibility of water releases from this storage tank and identify potential evacuation routes (i.e., to the south).
- Contact names for the water agency (Riverside Highland Water Company) should be maintained with the emergency response plan in case the school needs to report leakage or malfunctions of the storage tank.
- A copy of this report should be kept with the school's emergency response plan so that potential flow paths and evacuation routes can be determined in the unlikely event of accidental releases from this tank.

5. References

1. American Lifelines Alliance (ALA), 2001. *Seismic Fragility Formulations for Water Systems, Part 1 – Guideline.* April 2001.
2. American Water Works Association (AWWA), 2005. *Welded Carbon Steel Tanks for Water Storage.* Standard ANSI/AWWA D100-05.
3. California Department of Education (CDE), 2000. Resources for School Facilities Planning, School Selection and Approval Guide. Prepared by School Facilities Planning Division, CDE, Sacramento, CA.
4. CDE, 2007. Guidance Protocol for School Site Pipeline Risk Analysis, Prepared by URS Corporation. February, 2007.
5. Jeffers & Associates, 2006. Modified Manning's Equation Solver. Version 3.0.
6. PlaceWorks, 2018. *Water Pipeline Safety Hazard Assessment for Helen Keller Elementary School.* Dated January 2018.
7. Riverside Highland Water Company (RHWC), 2017. Tank information provided by Mr. Craig Gudgeon, Distribution Superintendent, for RHWC to Ms. Robyn Chaconas, Project Engineer, for PlaceWorks. Dated December 20, 2017.
8. United States Geological Survey, 2018. Unified Hazards Tool. Website accessed January 15, 2018 at https://earthquake.usgs.gov/hazards/interactive/.
9. Water Research Foundation (WRF), 2012. *Recent Earthquakes: Implications for U.S. Water Utilities.* Prepared by John Eidinger, G&E Engineering Systems Inc. and Craig A. Davis, Los Angeles Department of Water & Power.

Figures

Figure 1 - School Site and Water Tank Location

Source: Google Earth Pro, 2018

Figure 2 - Water Storage Tank and Flow Direction

Project Boundary

Water Flow and Direction

0 50
Scale (Feet)

Source: Google Earth Pro, 2018

PlaceWorks

Appendix A. Agency Correspondence

From: Craig Gudgeon
To: Robyn Chaconas
Subject: RE: Water Tank/Pipeline Information Request
Date: Wednesday, December 20, 2017 8:36:39 AM

Hello Robyn,

I have not forgotten about you.

Here is the tank information:

Steel tank at 24' high, Diameter at 130'
12" inlet/outlet
Built in 2006
Built to AWWA Standards.

12" Piping info to follow very shortly.

Craig Gudgeon
Distribution Superintendent
Riverside Highland Water Company

From: Robyn Chaconas [mailto:rchaconas@placeworks.com]
Sent: Monday, November 20, 2017 11:08 AM
To: cgudgeon@rhwco.com
Subject: Water Tank/Pipeline Information Request

Hi Craig,

Thank you for your time today. Attached is the request letter as discussed.

Please contact me with any questions,

ROBYN CHACONAS
Project Engineer

700 S. Flower Street, Suite 600, Los Angeles, CA 90017
213.623.1443 | rchaconas@placeworks.com | placeworks.com

From: Craig Gudgeon
To: Robyn Chaconas
Subject: RE: Water Tank/Pipeline Information Request
Date: Wednesday, December 20, 2017 8:44:44 AM

Pipeline info…

12" pipeline into Reservoir site from Center Street
12 & 16" pipeline runs East & West on Center Street
All pipe material is PVC except the first 30' out of Reservoir and Booster Station…that pipe material is CMC&L.
Drive by inspection is on the daily.
No leak history as of today.
Pipeline installation date was 2006.

Ver, very sorry for delay. It will not happen again and thank you for your patience,

Craig Gudgeon
Distribution Superintendent
Riverside Highland Water Company

From: Robyn Chaconas [mailto:rchaconas@placeworks.com]
Sent: Monday, November 20, 2017 11:08 AM
To: cgudgeon@rhwco.com
Subject: Water Tank/Pipeline Information Request

Hi Craig,

Thank you for your time today. Attached is the request letter as discussed.

Please contact me with any questions,

ROBYN CHACONAS
Project Engineer

700 S. Flower Street, Suite 600, Los Angeles, CA 90017
213.623.1443 | rchaconas@placeworks.com | placeworks.com

From:	Robyn Chaconas
To:	Eric Longenecker
Subject:	FW: Water Tank/Pipeline Information Request
Date:	Wednesday, January 3, 2018 2:09:31 PM

From: Craig Gudgeon [mailto:cgudgeon@rhwco.com]
Sent: Wednesday, January 03, 2018 1:57 PM
To: Robyn Chaconas <rchaconas@placeworks.com>
Subject: RE: Water Tank/Pipeline Information Request

1178.90'

From: Robyn Chaconas [mailto:rchaconas@placeworks.com]
Sent: Wednesday, January 3, 2018 1:56 PM
To: Craig Gudgeon <cgudgeon@rhwco.com>
Subject: RE: Water Tank/Pipeline Information Request

Hi Craig,

Do you know the elevation of the bottom of the tank?

Thank you,

ROBYN CHACONAS
Project Engineer

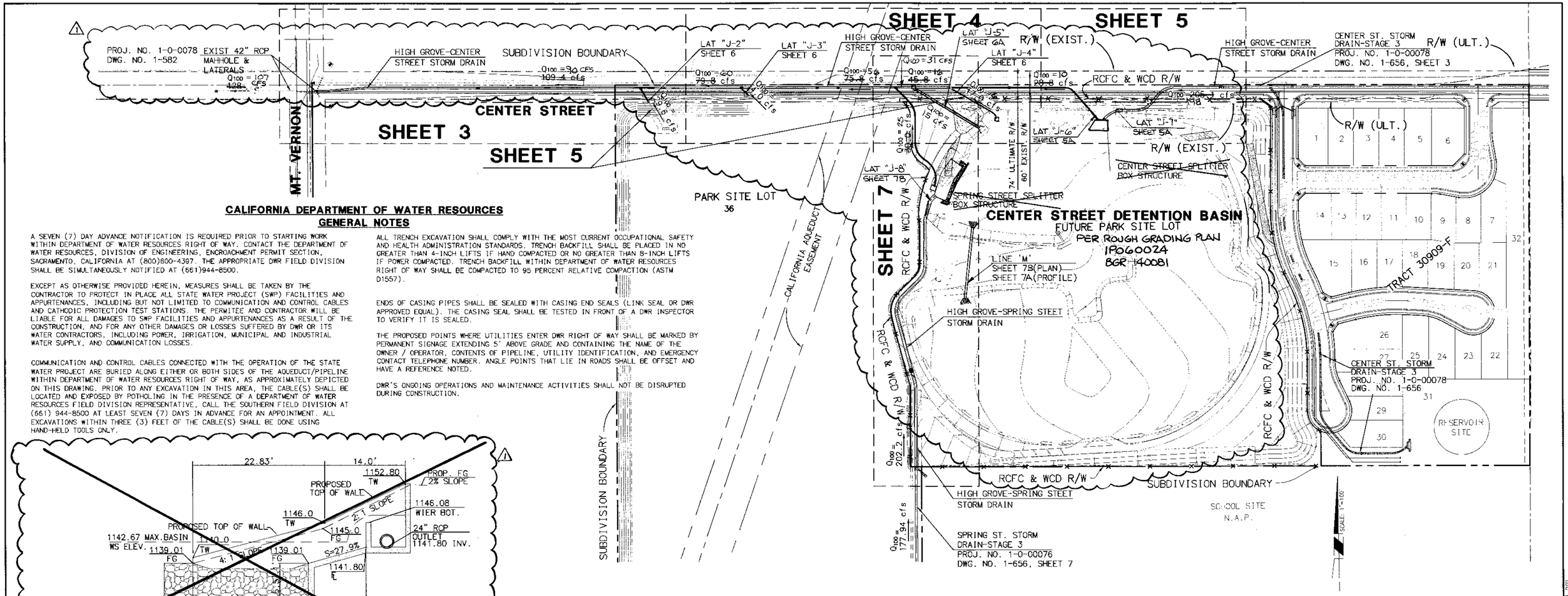
700 S. Flower Street, Suite 600, Los Angeles, CA 90017
213.623.1443 | rchaconas@placeworks.com | placeworks.com

From: Robyn Chaconas
Sent: Wednesday, December 20, 2017 11:24 AM
To: 'Craig Gudgeon' <cgudgeon@rhwco.com>
Subject: RE: Water Tank/Pipeline Information Request

A simple map showing the approx. pipeline locations on an aerial map would be helpful, just to clarify the the approx. locations and extents of the pipelines along Center St.

Thank you,

From: Craig Gudgeon [mailto:cgudgeon@rhwco.com]
Sent: Wednesday, December 20, 2017 10:59 AM
To: Robyn Chaconas <rchaconas@placeworks.com>



CALIFORNIA DEPARTMENT OF WATER RESOURCES GENERAL NOTES

A SEVEN (7) DAY ADVANCE NOTIFICATION IS REQUIRED PRIOR TO STARTING WORK WITHIN DEPARTMENT OF WATER RESOURCES RIGHT OF WAY. CONTACT THE DEPARTMENT OF WATER RESOURCES, DIVISION OF ENGINEERING, ENCROACHMENT PERMIT SECTION, SACRAMENTO, CALIFORNIA AT (800)600-4397. THE APPROPRIATE DWR FIELD DIVISION SHALL BE SIMULTANEOUSLY NOTIFIED AT (661)944-8500.

EXCEPT AS OTHERWISE PROVIDED HEREIN, MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT IN PLACE ALL STATE WATER PROJECT (SWP) FACILITIES AND APPURTENANCES, INCLUDING BUT NOT LIMITED TO COMMUNICATION AND CONTROL CABLES AND CATHODIC PROTECTION TEST STATIONS. THE PERMITEE AND CONTRACTOR WILL BE LIABLE FOR ALL DAMAGES TO SWP FACILITIES AND APPURTENANCES AS A RESULT OF THE CONSTRUCTION, AND FOR ANY OTHER DAMAGES OR LOSSES SUFFERED BY DWR OR ITS WATER CONTRACTORS, INCLUDING POWER, IRRIGATION, MUNICIPAL AND INDUSTRIAL WATER SUPPLY, AND COMMUNICATION LOSSES.

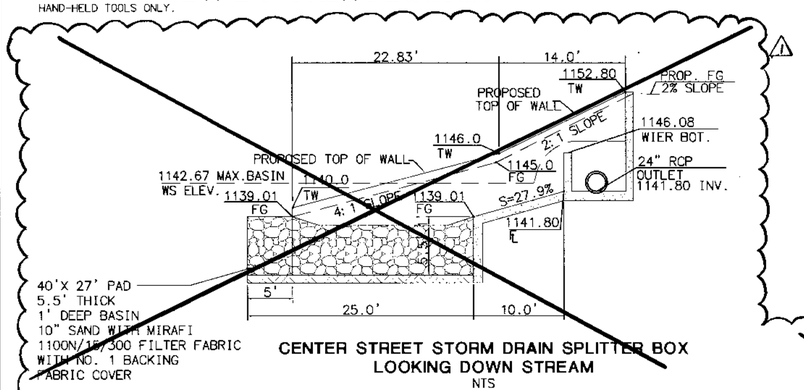
COMMUNICATION AND CONTROL CABLES CONNECTED WITH THE OPERATION OF THE STATE WATER PROJECT ARE BURIED ALONG EITHER OR BOTH SIDES OF THE AQUEDUCT/PIPELINE WITHIN DEPARTMENT OF WATER RESOURCES RIGHT OF WAY, AS APPROXIMATELY DEPICTED ON THIS DRAWING. PRIOR TO ANY EXCAVATION IN THIS AREA, THE CABLE(S) SHALL BE LOCATED AND EXPOSED BY POTHOLING IN THE PRESENCE OF A DEPARTMENT OF WATER RESOURCES FIELD DIVISION REPRESENTATIVE, CALL THE SOUTHERN FIELD DIVISION AT (661) 944-8500 AT LEAST SEVEN (7) DAYS IN ADVANCE FOR AN APPOINTMENT. ALL EXCAVATIONS WITHIN THREE (3) FEET OF THE CABLE(S) SHALL BE DONE USING HAND-HELD TOOLS ONLY.

ALL TRENCH EXCAVATION SHALL COMPLY WITH THE MOST CURRENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STANDARDS. TRENCH BACKFILL SHALL BE PLACED IN NO GREATER THAN 4-INCH LIFTS IF HAND COMPACTED OR NO GREATER THAN 8-INCH LIFTS IF POWER COMPACTED. TRENCH BACKFILL WITHIN DEPARTMENT OF WATER RESOURCES RIGHT OF WAY SHALL BE COMPACTED TO 95 PERCENT RELATIVE COMPACTION (ASTM D1557).

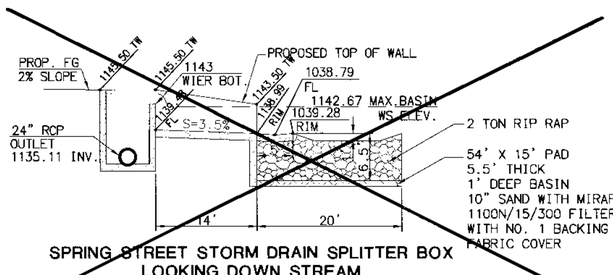
ENDS OF CASING PIPES SHALL BE SEALED WITH CASING END SEALS (LINK SEAL OR DWR APPROVED EQUAL). THE CASING SEAL SHALL BE TESTED IN FRONT OF A DWR INSPECTOR TO VERIFY IT IS SEALED.

THE PROPOSED POINTS WHERE UTILITIES ENTER DWR RIGHT OF WAY SHALL BE MARKED BY PERMANENT SIGNAGE EXTENDING 5' ABOVE GRADE AND CONTAINING THE NAME OF THE OWNER / OPERATOR, CONTENTS OF PIPELINE, UTILITY IDENTIFICATION, AND EMERGENCY CONTACT TELEPHONE NUMBER. ANGLE POINTS THAT LIE IN ROADS SHALL BE OFFSET AND HAVE A REFERENCE NOTED.

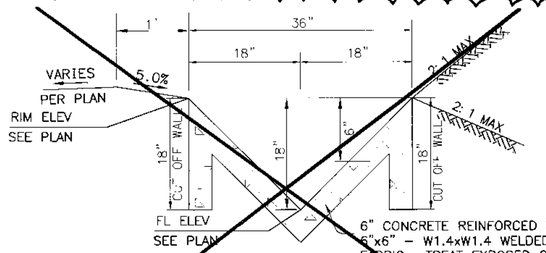
DWR'S ONGOING OPERATIONS AND MAINTENANCE ACTIVITIES SHALL NOT BE DISRUPTED DURING CONSTRUCTION.



CENTER STREET STORM DRAIN SPLITTER BOX
LOOKING DOWN STREAM
NTS



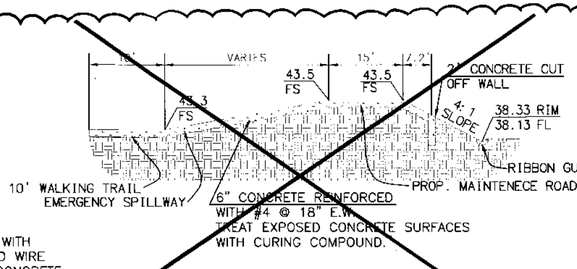
SPRING STREET STORM DRAIN SPLITTER BOX
LOOKING DOWN STREAM
NTS



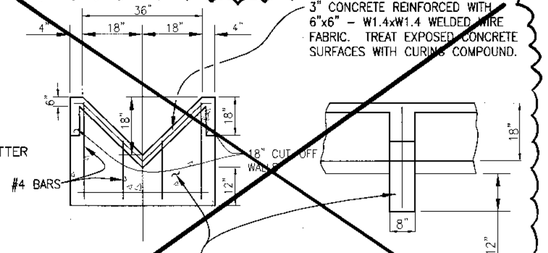
NOTE: GROUND TO BE PRE-WETTED TO THE SATISFACTION OF THE GRADING INSPECTOR PRIOR TO PLACEMENT OF CONCRETE.

6" CONCRETE REINFORCED WITH 6"x6" – W1.4xW1.4 WELDED WIRE FABRIC. TREAT EXPOSED CONCRETE SURFACES WITH CURING COMPOUND.

DETAIL 'C' BROW DITCH (4)
NOT TO SCALE
PLAN VIEW ON SHEET 14



X-SECTION C-C
N.T.S.
PLAN VIEW ON SHEET 14



DETAIL 'B' – DOWNDRAIN & ANCHOR (2)
NOT TO SCALE
PLAN VIEW ON SHEET 14

MS 4083

DIG ALERT
DIAL TOLL FREE 1-800-227-2600
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

BENCHMARK: 601-1-68
NGVD29 ELEVATION = 633.410' AS PUBLISHED BY RIVERSIDE COUNTY. NAVD88 ELEVATION = 635.900' AS CONVERTED USING MOS/NATIONAL GEODETIC SURVEY) VERTCON PROGRAM.
THIS PLAN USES THE NAVD88 ELEVATIONS, (NGVD 29 INCLUDED FOR REFERENCE) DESCRIPTION: BRONZE MONUMENT DISK AT THE NORTH END OF THE WEST HEADWALL OF A CONCRETE CULVERT UNDER THE RAILWAY AND OVER THE ATSF R.R. FROM THE CENTER ST. CROSSING AT HIGHGROVE BETWEEN THE SCE PLANT AND THE IOWA AVE. OFF RAMP OF THE RIVERSIDE FREEWAY.

JOHN D. TANNER III — No. 60132 — Exp. 06/30/08 — CIVIL — STATE OF CALIFORNIA

RBF CONSULTING — PLANNING ■ DESIGN ■ CONSTRUCTION
40810 COUNTY CENTER DRIVE, TEMECULA, CALIFORNIA 92591-4679
951.676.8042 • FAX 951.676.7240 • www.RBF.com
PREPARED BY: JOHN D. TANNER III — R.C.E. NO. 60132
EXP. DATE: 06/30/08
DATE: 7/3/07

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE
1	DETAILS REMOVED INDEX UPDATED	DK	4/3/07

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: _____ DATE: 9/6/07
APPROVED BY: _____ DATE: 9-11-2007

ALAN D. FRENCH — No. 45702 — Exp. 12/31/08 — CIVIL — STATE OF CALIFORNIA

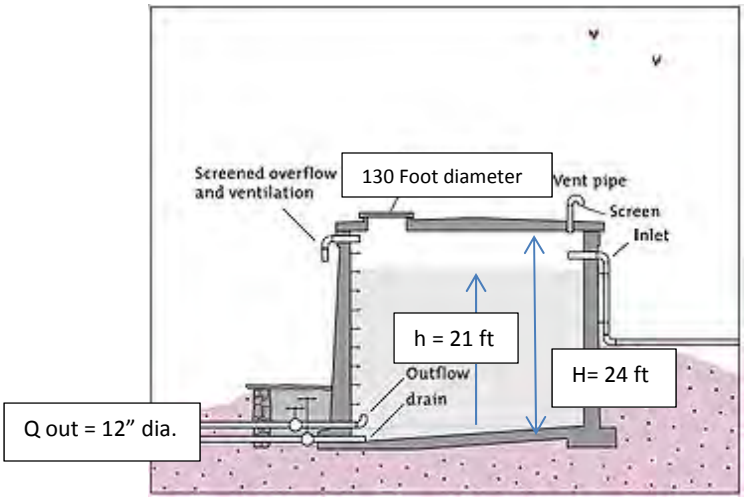
COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY: _____ DATE: 8-20-07
ALAN D. FRENCH
_____ DATE: 8/2/07

HIGH GROVE-CENTER ST STAGE 2 & SPRING STREET STAGE 2 STORM DRAINS
INDEX SHEET

PROJECT NO. 1-0-00078 1-0-00076
DRAWING NO. 1-653
SHEET NO. 2 OF 17

Appendix B. Water Storage Tank Release Calculations

FLOW RATE FROM WATER TANK



Assume 3 feet of freeboard for seismic considerations to prevent tank damage

With maximum water height of 21 feet, the total tank volume is 2.1 million gallons

Water Tank Cross Section: $A_R = 1/4\pi D^2 = 1/4\pi(130)^2 = 13{,}273\ ft^2$

Piping Outlet Cross Section: $A_P = 1/4\pi D^2 = 1/4\pi(1)^2 = 0.785\ ft^2$

Flow Rate Equation from Piping Rupture:

$$Q = CA\sqrt{2gh}$$

Where Q = flow rate (cfs)
C = orifice coefficient (0.67)
A = area of opening (ft^2)
G = gravitational acceleration (32.2 ft/s^2)
h = water height above opening (ft)

$$dh = -\frac{Qdt}{A_R} = \frac{CA_P\sqrt{2gh}}{A_R}\,dt$$

$$\frac{A_R dh}{CA_P\sqrt{2gh}} = \frac{-13{,}273\,dh}{(0.67)(.785)\sqrt{(2)(32.2)h}} = dt$$

$$-3251\,h^{-1/2}\,dh = dt$$

$$-3251\int_H^h h^{-1/2}\,dh = \int_0^t dt$$

$$-3251\left(\frac{h^{1/2}}{-1/2H}\right) = t$$

$$-6502\,(h^{\frac{1}{2}} - H^{\frac{1}{2}}) = t$$

$$h = \left(H^{\frac{1}{2}} - \left(\frac{t}{6502}\right)\right)^2$$

H = 21 feet

Then h = $(4.58 – 1.5E\text{-}04t)^2$

$$Q = (0.67)(0.785)\sqrt{(2)(32.2)}\,[4.58 - 1.5^{-04}(t)] = 19.3 - 6.33E - 04t$$

Then peak flow = 19.3 cfs at t = 0

RUNOFF FROM SITE

Runoff from site is based on the following:

Outflow from storage tank: Q = 19.3 – 6.33E-04t (cfs)

The results are provided in the following spreadsheet.

OUTFLOW FROM TANK

Time (min)	Outflow (cfs)
0	19.3
5	19.1
10	18.9
15	18.7
20	18.5
25	18.4
30	18.2
35	18.0
40	17.8
45	17.6
50	17.4
55	17.2
65	16.8
70	16.6
75	16.5
80	16.3
85	16.1
90	15.9
95	15.7
100	15.5
105	15.3
110	15.1
115	14.9
120	14.7

Time (min)	Outflow (cfs)
125	14.6
130	14.4
135	14.2
140	14.0
145	13.8
150	13.6
155	13.4
160	13.2
165	13.0
170	12.8
175	12.7
180	12.5
185	12.3
190	12.1
195	11.9
200	11.7
205	11.5
210	11.3
215	11.1
220	10.9
225	10.8
230	10.6
235	10.4
240	10.2

Time (min)	Outflow (cfs)
245	10.0
250	9.8
255	9.6
260	9.4
265	9.2
270	9.0
275	8.9
280	8.7
285	8.5
290	8.3
295	8.1
300	7.9
305	7.7
310	7.5
315	7.3
320	7.1
325	7.0
330	6.8
335	6.6
340	6.4
345	6.2
350	6.0
355	5.8
360	5.6

Time (min)	Outflow (cfs)
365	5.4
370	5.2
375	5.1
380	4.9
385	4.7
390	4.5
395	4.3
400	4.1
405	3.9
410	3.7
415	3.5
420	3.3
425	3.2
430	3.0
435	2.8
440	2.6
445	2.4
450	2.2
455	2.0
460	1.8
465	1.6
470	1.4
475	1.3
480	1.1
485	0.9
490	0.7
495	0.5
500	0.3

Time to empty tank - 8 hours and 20 minutes

CALCULATE FLOW IN ACCESS DRIVEWAY TO DETENTION BASIN

Access Driveway - Rectangular Ditch

Top Width =	35	feet			
Bottom Width =	35	feet			
Depth =	0.11	feet			
Fall =	6	feet	per	100	feet of distance
Grade =	0.06	, or	6.0%		
n Factor =	0.016				

Area of cross-section =	3.85	square feet
Wetted Perimeter =	35.22	feet
Hydraulic Radius =	0.109313	
Velocity =	5.201	feet per second

Calculated Ditch Capacity = 20.0 cubic feet per second

Flow Direction

Appendix C Updated Water Pipeline Safety Hazard Assessment

Appendices

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January 2018 | Pipeline Safety Hazard Assessment

Spring Street Elementary School

Riverside Unified School District

Prepared for:

Riverside Unified School District
Contact: Ana Gonzalez, Director, Planning and Development
3070 Washington Street
Riverside, California 92504
951.788.5640

Prepared by:

PlaceWorks
Contact: Steve Bush, PE, Senior Engineer
1625 Shattuck Avenue, Suite 300
Berkeley, California 94709
510.848.3815
info@placeworks.com
www.placeworks.com

Project Number RIV-19

Table of Contents

Table of Contents

List of Figures

Figure

List of Tables

Table

List of Appendices

1. Introduction

1.1 PURPOSE

This report presents the results of a Water Pipeline Safety Hazard Assessment (WPSHA) prepared for the Riverside Unified School District (District), which is proposing to construct an elementary school at 20375 Spring Street. The WPSHA is an update to the previously prepared report by J. House Environmental – *Underground Aqueduct Pipeline Risk Analysis* that was completed in 2004 (Proposed Elementary School #31, Highgrove). Based on the previous Pipeline Risk Analysis, the California Department of Water Resources' (DWR's) 108-inch diameter Santa Ana Pipeline is located approximately 338 feet west of the proposed school site. Since the 2004 report was prepared, the California Department of Education (CDE) has revised their methodology for evaluating pipelines (CDE, 2007). In addition, the CDE methodology now requires evaluation of all large volume (≥12 inches in diameter) water pipelines within 1,500 feet of a school site. The WPSHA evaluates potential flooding impacts to the school site from all large volume water pipelines.

1.2 SCHOOL SITE LOCATION

The District is proposing to construct a new elementary school on vacant land on the north side of Spring Street in an unincorporated portion of Riverside County, California. The school property is identified by the Riverside County Assessor as parcel number 255-170-016, with a size of 13.93 acres, a street address of 20375 Spring Street, and ZIP code of 92507-0126. The site is bounded by Spring Street then residential homes to the south, residential homes to the east, the Riverside Highland Water Company (RHWC) water tank site and a Riverside County Flood Control and Water Conservation District (RCFCWCD) detention basin to the north, and vacant land to the west (Figure 1). The 100-foot wide DWR California Aqueduct easement is located approximately 338 feet west of the northwestern corner of the project site.

1.3 REGULATORY REQUIREMENTS

Under Education Code Section 17251, the CDE has authority to approve acquisition of proposed school sites. The school district must obtain CDE approval for sites to receive state funds under the state's School Facilities Program administered by the State Allocation Board. CDE standards and regulations for this process are presented in California Code of Regulations (CCR), Title 5, Sections 14010, 14011, and 14012. Information on assessing safety hazard related to pipelines is discussed in Section 14010 (h):

> *The site shall not be located near an above-ground water or fuel storage tank or within 1,500 feet of the easement of an above-ground or underground pipeline that can pose a safety hazard as determined by a risk analysis study, conducted by a competent professional, which may include certification from a local public utility commission.*

No high pressure natural gas pipelines or hazardous liquid pipelines were identified within 1,500 feet of the school site (NPMS, 2018). The CDE's School Site Selection and Approval Guide also contain provisions for evaluating high-pressure water pipelines:

> *To ensure the protection of students, faculty, and school property if the proposed school site is within 1,500 feet of the easement of an aboveground or underground pipeline that can pose a safety hazard, the school district should obtain the following information from the pipeline owner and operator:*
>
> - *Pipeline alignment, size, type of pipe, depth of cover*
> - *Operating water pressures in pipelines near the proposed school site*
> - *Estimated volume of water that might be released from the pipeline should a rupture occur on the site*
> - *Owner's assessment of the structural condition of the pipeline.*

1.4 REPORT OBJECTIVES

To meet the requirements of CCR Title 5 Sections 14010 (d) and (h) and CDE's policy on pipelines, this WPSHA is designed to meet the following objectives:

- Identify all high pressure/large volume water pipelines within 1,500 feet of the proposed school site and evaluate the potential for flooding, and
- Where appropriate, identify and develop mitigation measures to reduce flooding impacts to acceptable levels.

1.5 ASSESSMENT METHODOLOGY

The CDE also has developed risk analysis procedures for evaluating flooding associated with releases from large diameter water pipelines, as described in CDE's Guidance Protocol for School Site Pipeline Risk Analysis (CDE, 2007). A safety issue associated with large diameter water pipelines is the potential for flooding. Also, releases from underground water pipelines can cause subterranean erosion of saturated soil, leading to subsidence or formation of a sinkhole. The most likely cause of failure is a large magnitude earthquake and associated strong ground shaking.

Although no specific criteria have been established by the CDE as a threshold of significance for flooding at a school site, a water depth of 12 inches or greater is a trigger that could warrant further evaluation (CDE, 2007).

2. Hazard Assessment

2.1 PIPELINE IDENTIFICATION

Based on plans provided from the Riverside Highland Water Company (RHWC), the California Department of Water Resources (DWR) and the previously completed Pipeline Risk Analysis (J. House Environmental, 2004), there are four high volume (≥12 inch diameter) water pipelines within 1,500 feet of the project site. The pipeline locations are shown on Figure 1, and summarized in Table 1.

Table 1 Water Pipelines

Pipeline Diameter	Pipeline Location	Material of Construction	Agency
108-inch	338 feet west in 100-foot wide easement (Santa Ana Pipeline)	Pre-stressed Concrete Cylinder Pipe	Department of Water Resources
12-inch	100 feet north, from water tank site to Center Street along future road Autumn Gold Court	Polyvinyl Chloride (PVC)	Riverside Highland Water Company (RHWC)
16-inch	Approximately 800 feet north along Center Street	PVC	RHWC
12-inch	Approximately 810 feet north along Center Street	PVC	RHWC

2.2 LAND USE AND TERRAIN

Surrounding land use consists of residential housing to the south and east, the RHWC water tank site and RCFCWCD detention basin to the north, and vacant land to the west. The project site terrain is relatively flat with a gradual 3 percent slope (about 40 feet in 1,300 feet) down towards the northwest. Thus, the proposed school site is up-gradient from the DWR California Aqueduct Easement. A topographic map has been included in Appendix A.

2.3 SANTA ANA PIPELINE RISK ANALYSIS

The CDE requires that the risk of releases from high volume (≥12 inches) water pipelines be evaluated. The CDE Guidance Protocol for School Pipeline Risk Analysis provides a methodology for evaluating the potential for flooding. A probability analysis is not required.

The Santa Ana Pipeline is an underground water transmission pipeline that is a part of the California Aqueduct System. The Santa Ana Pipeline is located within a 100-foot wide northeast-southwest trending easement, west of the proposed school site. The closest approach of the Santa Ana Pipeline is about 338 feet of the project site boundary. The 108-inch diameter pre-stressed concrete cylinder pipeline (PCCP) was installed between 1969 and 1973. The pipeline has no history of accidental releases or incidents and is integrity tested every 3 years. The operating pressure of the pipeline is approximately 290 to 310 pounds per square inch with a throughput of approximately 450 to 500 cubic feet per second (cfs). In the vicinity of the

proposed school site, the depth of burial of the pipeline is between 8 and 11 feet below ground surface (bgs). The nearest shutoff valve is an automated valve located approximately 15 miles away. It is estimated that the pipeline could be shut down within 30 minutes of an incident.

Four types of events are generally recognized as the main causes of pipeline rupture and /or failure: third party dig-ins, corrosion and deterioration, weld or material defects, and ground movement. Large diameter PCCPs are not typically subject to catastrophic failure. They are constructed with a concrete core, a thin steel cylinder, high tensile pre-stressing wires, and a mortar coating. Signs of failure (broken wires or concrete spalling) manifest as small leaks over an average of 10 years prior to water reaching the surface. Because the pipeline is regularly inspected, signs of leakage would be detected and the pipeline would be repaired prior to reaching the catastrophic failure state.

Third party damage by outside forces (i.e., construction activity, utility trenching, and subsurface excavation) is another common cause of pipeline breaks. The likelihood of third party damage is based on the level of development in a given area and the depth of burial of the pipeline. There would be no excavation or construction activity in the 100-foot wide permanent easement near the project site other than DWR maintenance activities. Also, since the pipeline is buried between 8 to 11 feet bgs, the likelihood of third party damage near the school site is minimal. Therefore, the potential for a compromise in the structural integrity of the subject pipeline due to the aforementioned events is considered low.

2.4 WATER PIPELINE FLOODING ANALYSIS

Release impacts were calculated based on the procedures specified in the CDE manual. The release rate was determined by multiplying the pipe area by an assumed velocity of 5 feet per second (fps) for the 12-inch and 16-inch water mains. A release flow rate of 500 cfs was assumed for the Santa Ana Pipeline. Currently, none of the RHWC water mains are within paved streets with curbing, although current development in the area will result in curbed streets in the future. However, to be conservative, it was assumed that the pipelines are located in streets with no curbing to contain released water. The Santa Ana Pipeline is within a 100-foot wide easement. Therefore, the CDE guidance modeling approach for the RHWC water mains and the Santa Ana Pipeline assumes that all of the released water at a maximum flow rate reaches the surface and forms a circular pool with a water depth of 12 inches. The surface pooling results are provided in Table 2.

Table 2 Water Pipeline Flooding Analysis – Pooling

Pipeline Diameter	Pipeline Location	Release Rate (cfs)	Impact Distance for Circular Pool (ft)	Distance from School Site (ft)	Potentially Impacts School Site?
108-inch	338 feet west in 100-foot wide easement (Santa Ana Pipeline)	500	219 ft radius	338	No
12-inch	100 feet north, from water tank site to Center Street along future road Autumn Gold Court	3.93	19 ft radius	100	No
16-inch	Approximately 800 feet north along Center Street	6.98	26 ft radius	800	No
12-inch	Approximately 810 feet north along Center Street	3.93	19 ft radius	800	No

The results indicate that water released from a full-flow rupture of any of the large diameter pipelines would not result in flooding at the school site. For this worst-case analysis, it was conservatively assumed that all of the water flowing through the pipelines at their maximum capacity would reach the surface. Only a portion of the water released from the pipelines would reach the surface given that the RHWC pipelines are buried at least 3 feet bgs and the Santa Ana Pipeline is buried at least 8 feet bgs. In addition, no credit was taken for the existing surface topography, which slopes away from the project site, and the future presence of curbing and storm drains along the Center Street.

2.5 SUMMARY AND RECOMMENDATIONS

If a rupture or leak should occur in the RHWC water mains or the Santa Ana Pipeline within 1,500 feet of the school site, the results of the flooding analysis indicate that the released water would not result in water depths at the school site that would pose a significant risk to students and staff.

Even though the impact of pipeline releases was found to be less than significant, it is recommended that the school's emergency response and evacuation plan address the possibility of water pipeline releases and identify potential evacuation routes. Also, contact names and numbers for the water agencies (Department of Water Resources and Riverside Highland Water Company) should be maintained with the emergency response plan in case the school needs to report pipeline releases. A map of the pipeline locations and emergency contact information should be kept with the school's emergency response plan.

3. References

California Department of Education (CDE), 2000. Resources for School Facilities Planning, School Selection and Approval Guide. Prepared by School Facilities Planning Division, CDE, Sacramento, CA.

_____. 2007. Guidance Protocol for School Site Pipeline Risk Analysis, Prepared by URS Corporation. February, 2007.

J. House Environmental, 2004. *Underground Aqueduct Pipeline Risk Analysis, Proposed Elementary School #31, Highgrove, Riverside County*. Dated July 2004.

National Pipeline Mapping System (NPMS), 2018. Gas Transmissions and Hazardous Liquids Pipeline Map produced by the NPMS Public Viewer at https://pvnpms.phmsa.dot.gov/PublicViewer/. Accessed on January 25, 2018.

Riverside County Flood Control and Water District (RCFCWD), 2007. Detention Basin Rough Grading Plan, Drawing No. 1-653. Dated September 11, 2007.

Riverside Highland Water Company (RHWC), 2017. Tank information provided by Mr. Craig Gudgeon, Distribution Superintendent, for RHWC to Ms. Robyn Chaconas, Project Engineer, for PlaceWorks. Dated December 20, 2017.

US Environmental Protection Agency (USEPA), 2016. ALOHA (Areal Locations of Hazardous Atmospheres) computer model, Version 5.4.7, at USEPA website: http://www.epa.gov/emergencies/content/cameo/aloha.htm.

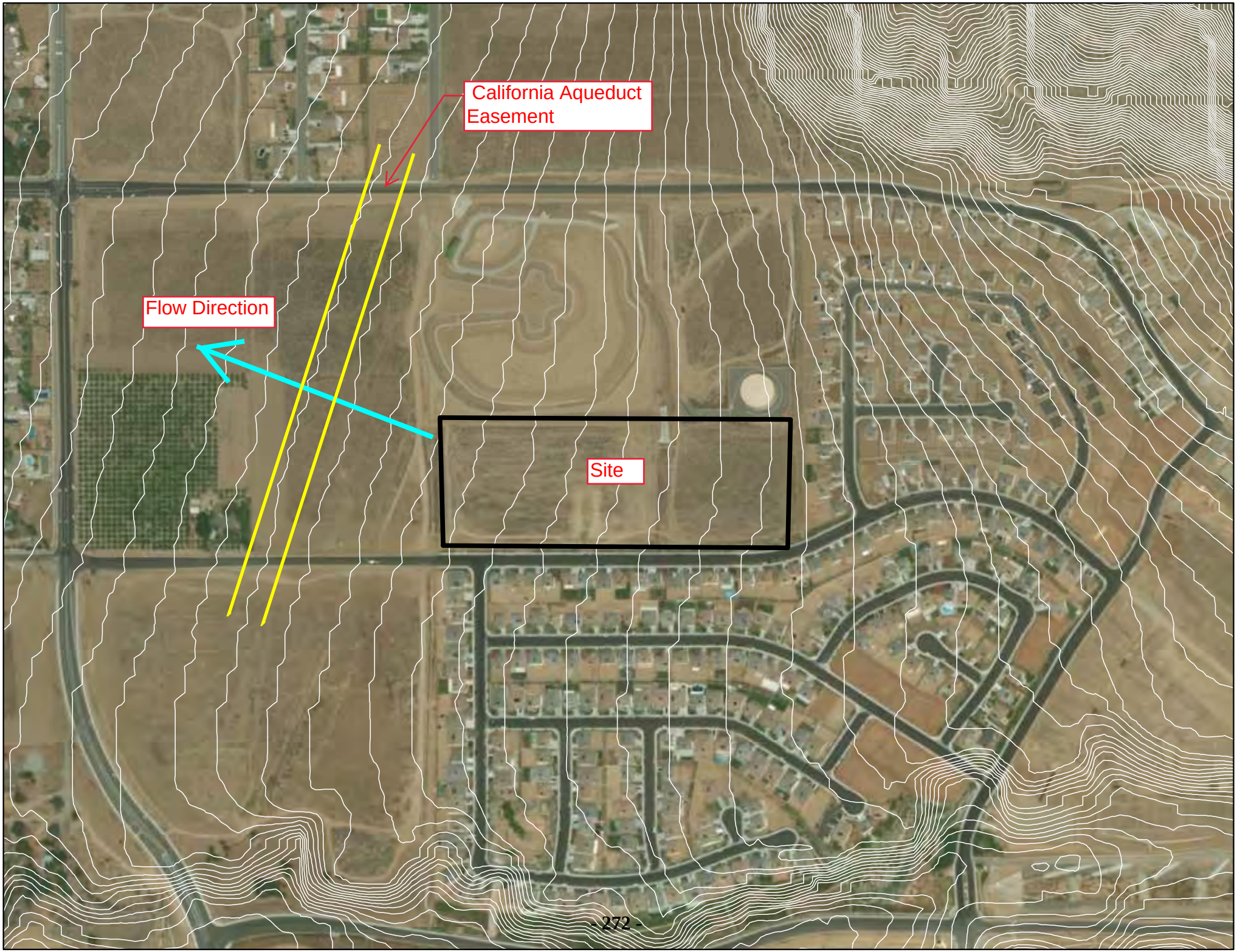
Appendix A. Water Analysis

Table A

Water Pipeline Analysis

Helen Keller Elementary School - Riverside Unified School District

Pooling						
Pipeline Diameter (in)	Pipeline Location	Release Rate (cfs)	Release Volume (ft^3)	Radius of Circular Pool (ft)	Distance from School Site (ft)	Potentially Impacts School Site?
12	Autumn Gold Court	3.93	1,178	19	100	No
16	Center Street	6.98	2,094	26	800	No
12	Center Street	3.93	1,178	19	800	No
108	Aqueduct Easement	500.0	150,000	219	330	No


California Aqueduct Easement
Flow Direction
Site

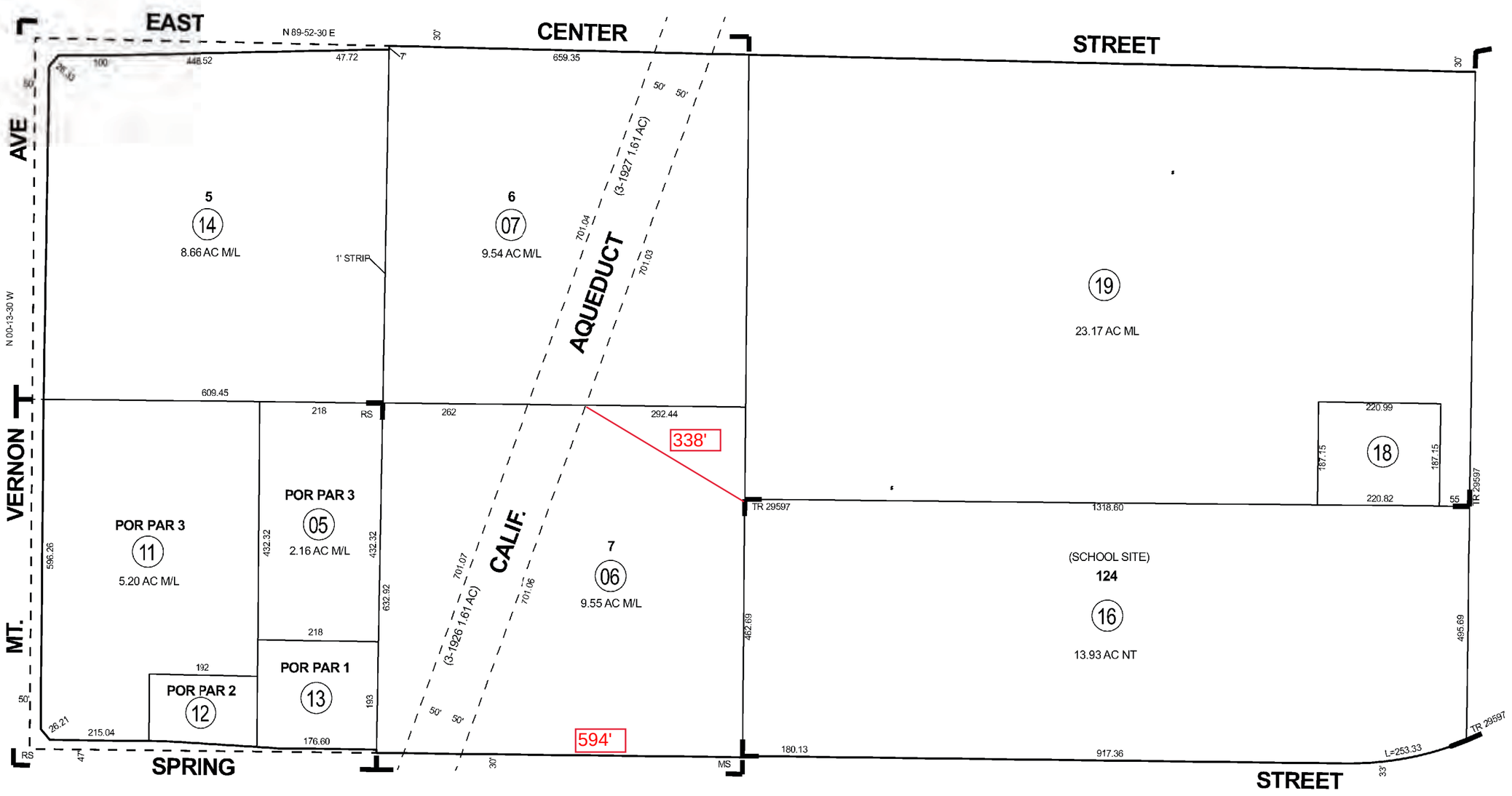
THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN. ASSESSOR'S PARCEL MAY NOT COMPLY WITH LOCAL LOT-SPLIT OR BUILDING SITE ORDINANCES.

POR. SE1/4, NW1/4, SEC. 9 T. 2S, R. 4W

TRA 088-001

255-17

12-31



N
W E
S

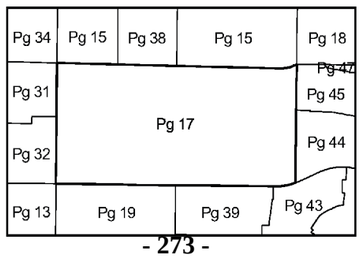
1 " = 200 '

Legend
- Lot Lines
- Right-Of-Way
- Old Lot Lines
- Reference R.O.W
- Other Easements
- Lease Area
- Subdivision Tic Mark

ASSESSOR'S MAP BK255 PG. 17
Riverside County, Calif.

jasantos

Data
MB 41/76
RD. MAP CO. SUR. 618-A
CAL. AQUEDUCT N-14-P-0017
RS 1/41



Map Reference
MB 8/66 SB MURPHY SUB.
RS 40/22
MB 447/51 - 62 TRACT MAP NO. 29597

Mar 2016

Date	Old Number	New Number
11/8/2007	2	11,ST
11/8/2007	3	12,ST
11/8/2007	4	13,ST
4/10/2009	1	14,ST
1/6/2015	10	15,ST
2/5/2016	15,180-28	180-29
2/5/2016	180-29	16,PGS.44-47
2/8/2016	9	17,18
2/8/2016	8,17	19

Appendix B. Agency Correspondence

From: Craig Gudgeon
To: Robyn Chaconas
Subject: RE: Water Tank/Pipeline Information Request
Date: Wednesday, December 20, 2017 8:44:44 AM

Pipeline info…

12" pipeline into Reservoir site from Center Street
12 & 16" pipeline runs East & West on Center Street
All pipe material is PVC except the first 30' out of Reservoir and Booster Station…that pipe material is CMC&L. CML&C = Cement-mortar lined and coated steel pipe
Drive by inspection is on the daily.
No leak history as of today.
Pipeline installation date was 2006.

Ver, very sorry for delay. It will not happen again and thank you for your patience,

Craig Gudgeon
Distribution Superintendent
Riverside Highland Water Company

From: Robyn Chaconas [mailto:rchaconas@placeworks.com]
Sent: Monday, November 20, 2017 11:08 AM
To: cgudgeon@rhwco.com
Subject: Water Tank/Pipeline Information Request

Hi Craig,

Thank you for your time today. Attached is the request letter as discussed.

Please contact me with any questions,

ROBYN CHACONAS
Project Engineer

700 S. Flower Street, Suite 600, Los Angeles, CA 90017
213.623.1443 | rchaconas@placeworks.com | placeworks.com

Legend

- Gas Transmission Pipelines
- Hazardous Liquid Pipelines

500 m
1000 ft

Pipelines depicted on this map represent gas transmission and hazardous liquid lines only. Gas gathering and gas distribution systems are not represented.

This map should never be used as a substitute for contacting a one-call center prior to excavation activities. Please call 811 before any digging occurs.

Questions regarding this map or its contents can be directed to npms@dot.gov.

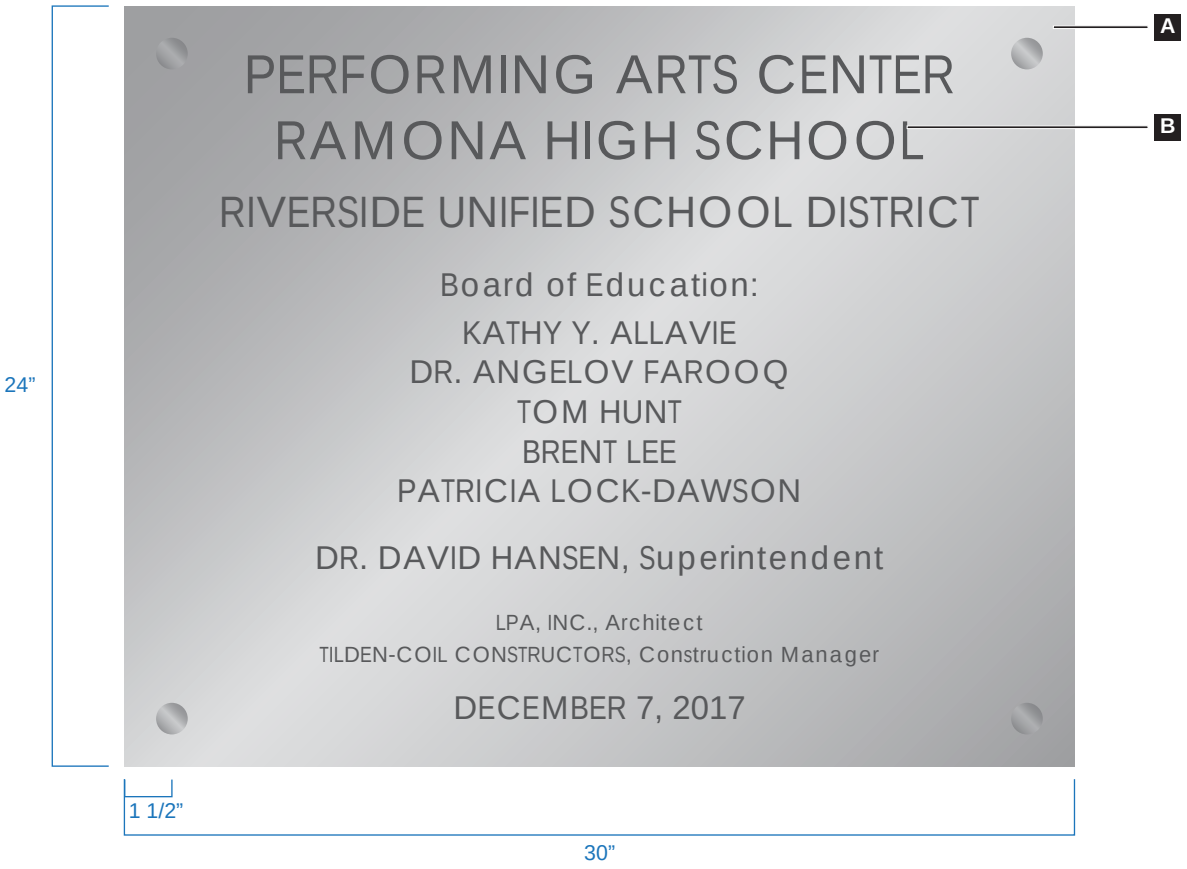
Projection: Geographic

Datum: NAD83

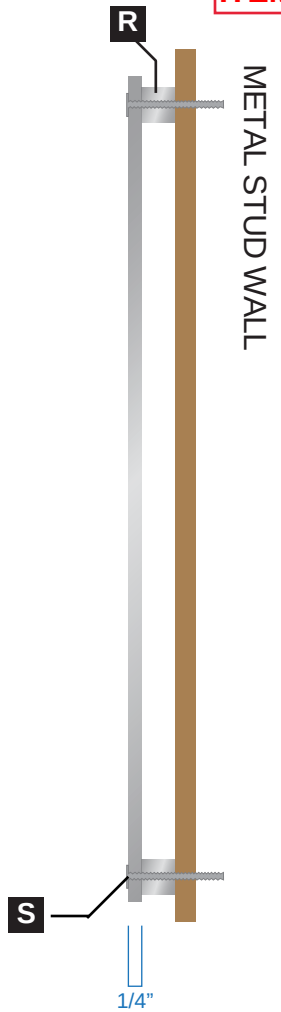
Map produced by the Public Viewer application at www.npms.phmsa.dot.gov

Date Printed: Jan 25, 2018

ITEM No. 8



CUSTOM ALUM SIGN



MOUNTING DETAIL

This print reflects the information furnished within your specifications, and is for your review. Your signature is our authorization to begin production. Signature: _____Date:_____
PLEASE NOTE: No production will begin without complete approval of each drawing. A cover or transmittal sheet will not be accepted as complete approval. Typical lead time for all signs, regardless of materials used or quantity required, is 6-8* weeks from the date a complete approval (for signs and accompanying sign schedule) is received. *Custom fabrication lead times can extend to 10 weeks.

ARCHITECTURAL SIGN IDENTITY
P.O. Box 550
San Jacinto, CA 92581
951.654.4350 Lic.773134

REV	BY	DATE	DESCRIPTION
E			
D			
C			
B			
A			

BY	AT	P/M	AT	DATE	APRIL 2, 2018

PROJECT: RAMONA HS
CLIENT: RIVERSIDE USD
TITLE: PO

COLORS:

1 CLEAR ANODIZED

MATERIALS: INTERIOR/EXTERIOR

A 1/4” CLEAR ANODIZED ALUMINUM PLATE

B ETCHED TEXT (BLACK FILL)

MATERIALS: MOUNTING

R 1 1/2” SPACER

S 1” DIAMETER ALUMINUM STANDOFF WITH 1/4” THICK STANDOFF CAP

T 1/2” DIAMETER EPOXY ANCHOR

NOTES:

1. Font: Century Gothic
2. Grind smooth all edges.

5 1/2”

FROM HIGHEST POINT TO LOWEST POINT

(SIGNATURE IS AT THIS SIZE TO GIVE THE EFFECT OF 3” LETTERING, TO MATCH EXISTING QUOTE.)

EXISTING CONDITIONS

EXISTING LETTERS TO BE MOVED HIGHER, TO MAKE ROOM FOR NEW SIGNATURE.

This print reflects the information furnished within your specifications, and is for your review. Your signature is our authorization to begin production. Signature: _____Date:_____
PLEASE NOTE: No production will begin without complete approval of each drawing. A cover or transmittal sheet will not be accepted as complete approval. Typical lead time for all signs, regardless of materials used or quantity required, is 6-8* weeks from the date a complete approval (for signs and accompanying sign schedule) is received. *Custom fabrication lead times can extend to 10 weeks.

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951.654.4350 Lic.773134

REV	BY	DATE	DESCRIPTION
E			
D			
C			
B			
A			

BY	AT	P/M	AT	DATE	APRIL 2, 2018

PROJECT: RAMONA HS
CLIENT: RIVERSIDE USD
TITLE: PO

COLORS:
1 BRUSHED SATIN

MATERIALS: INTERIOR/EXTERIOR
A 3” FLAT STAINLESS STEEL LETTERS

MATERIALS: MOUNTING
R BLIND STUD MOUNT

NOTES:
1. Font: Custom Signature

Due to Building Closure - Meeting will be rescheduled

RIVERSIDE UNIFIED SCHOOL DISTRICT
OPERATIONS DIVISION

Operations Board Subcommittee Meeting
May 24, 2018
2:00 p.m. – 4:00 p.m.
Conference Room 3
3380 14th St., Riverside, CA 92501

AGENDA

As required by Government Code 54957.5, agenda materials can be reviewed by the public at the District's Administrative Offices, Reception Area, First Floor, 3380 Fourteenth Street, Riverside, California.

Call Meeting to Order

Public Input

The subcommittee will consider requests from the public to comment. Comments should be limited to three minutes or less. If you wish to address the subcommittee concerning an item already on the agenda, please indicate your desire to do so on a provided card. You will have an opportunity to speak prior to the subcommittee's deliberation on that item.

Pursuant to Section 54954.2 of the Government Code, no action or discussion shall be undertaken on any item not appearing on the posted agenda, except that members of the Subcommittee or staff may briefly respond to statements made or questioned posed by persons exercising their public testimony rights. Discussion of items brought forward that are not on the agenda shall be considered for future agendas by the Subcommittee Chair.

Action/Discussion Items

The following agenda items will be discussed and the subcommittee members may choose to introduce and pass a motion as desired.

1. **Approval of Minutes**
   The subcommittee will be asked to approve the minutes of the April 26, 2018, meeting.

2. **Woodcrest Elementary School Riverside County Sewer Community Facilities District (CFD)**
   Staff will present an update on the Van Buren Sewer Expansion project.

3. **Change Proceedings for Community Facilities District (CFD) No. 21, Improvement Area No. 1 and Improvement Area No. Area 3**
   RUSD Financial Advisor will review the change proceedings process with the committee.

4. **Formation of Community Facilities District (CFD) No. 34 – Rivera**
   RUSD Financial Advisor and Bond Counsel will review CFD No. 34 formation process with the subcommittee

5. **Formation of Community Facilities District (CFD) No. 35 – KB Homes Primrose**
RUSD Financial Advisor and Bond Counsel will review the CFD No. 35 formation process with the subcommittee.

6. **Measure O Citizens' Oversight Committee Recruitment**
Staff will provide an update on the application process and timeline for new committee members to join the Measure O Citizens' Bond Oversight Committee.

The application (English and Spanish) is posted on the District's website, Measure O Home page: http://www.riversideunified.org/our_district/r_u_s_d_facilities_bond/measure_o_home.

7. **Solar Power Purchase Agreement (PPA) Update**
Staff will provide an update on the Solar Power Purchase Agreement negotiations for the three Southern California Edison (SCE) schools (Lake Mathews, Woodcrest, and Highgrove Elementary Schools). There have been significant changes in the last 90 days of SCEs rate structures that have had adverse impacts on the current proposals. Attached is a detailed analysis by Sage Renewables.

8. **Ramona High School Performing Arts Center Dedication Plaque, Maxine Frost Dedication**
Staff will present revised lettering for the Ramona High School Performing Arts Center dedication plaque per the subcommittee's input, and present options for memorializing the re-naming the Center in honor of Maxine Frost.

9. **Schedule of Meetings**
The subcommittee's next meeting has been scheduled for Friday, June 15, 2018 at 2:30 p.m. in Conference Room 3, 3380 14th Street, Riverside, CA 92501.

Conclusion

Subcommittee Members Comments

Adjournment

RIVERSIDE UNIFIED SCHOOL DISTRICT
OPERATIONS DIVISION

Operations Board Subcommittee Meeting
May 24, 2018
2:00 p.m. – 4:00 p.m.
Conference Room 3
3380 14th St., Riverside, CA 92501

A G E N D A

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Call Meeting to Order

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Conclusion

Subcommittee Members Comments

Adjournment

Riverside Unified School District
Operations Division
Operations Board Subcommittee Meeting
April 26, 2018
2: 00 p.m. – 4:00 p.m.
Conference Room 3
3380 14th St., Riverside, CA 92501

MINUTES

CALLED TO ORDER: 2:04 p.m. by Mr. Lee

PRESENT: Brent Lee and Tom Hunt, Board Members, and Sergio San Martin, Assistant Superintendent, Operations.

Also present were Ana Gonzalez, Director, Planning and Development; Ken Mueller, Director, Maintenance and Operations; Kevin Hauser, Facilities Planning Assistant Director; Daniel Rodriguez, Facilities Projects Assistant Director; Gaby Adame, Facilities Analyst; Anthony Rice, Principal, Lincoln High School; Michael West, Martin Luther King High School Principal; Harlan Kistler, Wrestling Coach, Martin Luther King High School; Rachel Bramlet, Principal, Riverside Adult School; John Tibbles, Assistant Principal, Ramona High School; Richard Prince, Communications Relations Manager, Brian Jaramillo and Tom Lance, Pastor, The Grove Community Church; Kim Byrens, Bond Counsel, Best Best & Krieger; Adam Bauer, Financial Advisor, Fieldman Rolapp & Associates; Robert Hensley, WLC Architects, Darla Monks, Community Member, and Lizette Delgado, (Recorder).

Public Input

Darla Monks and Harlan Kistler spoke to the Subcommittee regarding the Martin Luther King High School Wrestling Room project.

Action/Discussion Items

1. **Approval of Minutes**
   Mr. Hunt moved and Mr. Lee seconded to approve the minutes of the March 29, 2018, meeting, as presented.

2. **The Grove Community Church Developer Fees Waiver**
   Staff presented a request from The Grove Community Church to waive developer fees for their Transitional Homeless Housing Project for the subcommittee's review.

   The subcommittee briefly discussed the item and agreed to support the request. Staff will present the request to the Board of Education for approval at the June 5, 2018, regularly scheduled meeting.

3. **Community Facilities District (CFD) Formation Process**
   RUSD Financial Advisor, Adam Bauer, and Bond Counsel, Kim Byrens, reviewed the CFD formation process with the subcommittee and stated the need to set up standards on how a CFD should be treated.

   Recommendation was made, supported by staff, to limit the formation of CFDs to projects 70

units or greater beginning July 1, 2018. The subcommittee agreed with the recommendation and requested that the information be posted on the District's website, Developer Fees page.

4. Martin Luther King High School Wrestling Room

Staff presented a preliminary conceptual plan and site request for a proposed modular building to address the current needs for a Wrestling Room at Martin Luther King High School. The cost of the project is estimated to be $1.5 million and it will be funded through Community Facilities Districts funds. Estimated project schedule: April 2018 – January 2019.

The subcommittee discussed the information presented and asked staff to present the project for the Board of Education's approval at a future meeting.

5. Martin Luther King High School – Proposed Traffic and Pedestrian Circulation Plan

Staff presented a preliminary conceptual traffic and pedestrian circulation plan for the Martin Luther King High School campus. The proposed plan included a new ingress/egress campus access from Van Buren Boulevard, new overflow parking lot, student drop-off area, and pedestrian/student safe route access plan. The project will required the Department of the State Architect's approval. The cost of the project is estimated to be $3,999,516.00, and it will be funded through Measure O funds. Estimated project schedule: May 2018 – March 2020.

The subcommittee discussed the information presented. Subcomittee members asked staff and architects to update the conceptual design to incorporate the suggestions made by the subcommittee and to continue negotiations with the City of Riverside regarding a new traffic light on Van Buren Boulevard. Staff was also asked to present an update on the project at a future Measure O Projects Update Board Study Session.

6. Proposed School Auto Shop –Abraham Lincoln High School

Staff presented a preliminary conceptual plan and site request to develop a proposed Auto Shop at the Abraham Lincoln High School campus. The program is a partnership between Lincoln High School and Riverside Adult School, and it will be funded through Career and Technical Education and Riverside Adult School funds. Schools' principals shared aspects of the program.

The proposed building to house the Auto Shop, is a 48' x 40' steel building that will include three permanent lifts, two portable lifts, and a classroom. The building is insulated and has a Heating, Ventilation, and Air Conditioning (HVAC) system. The project's cost estimate is $679,323.00. Estimated project schedule: April 2018 – January 2019.

The subcommittee discussed briefly the information presented and approved the project.

7. California Environmental Quality Act (CEQA) Addendum (20375 Spring Street Site)

Staff presented the California Environmental Quality Act (CEQA) Addendum Report for the 20375 Spring Street, Riverside, CA, Project Site in the Highgrove Spring Mountain Ranch area for the subcommittee's review and informed the subcommittee that on January 18, 2005, the District adopted the Helen Keller Elementary School Mitigated Negative Declaration (MND) Report for a proposed new Elementary School. Pursuant to CEQA and the State CEQA Guidelines, this Addendum focuses on the proposed changes to the project that might cause a change in the conclusions of the 2005 adopted MND, and any change in circumstances or new

information of substantial importance that would substantially change the conclusions of the previous environmental documents.

The subcommittee was informed that, per report findings, there were no new or substantially greater significant impacts identified. The report will be presented for the Board of Education's approval at the June 5, 2018, regularly scheduled meeting.

8. Ramona High School Theater Dedication Plaque

Staff presented the revised dedication plaque and the revised William Shakespeare's quote at the Ramona High School Theater for the subcommittee's review.

The subcommittee discussed the design of a standard dedication plaque to be used for all projects. Board Member Hunt will work with Board Member Allavie on the details for the wording and design for the plaque and will send the revisions to staff.

The revised William Shakespeare's quote was approved as presented.

9. Schedule of Meetings

The subcommittee's next meeting has been scheduled for Thursday, May 24, 2018 at 2:00 p.m., in Conference Room 1, 3380 14th Street, Riverside, CA 92501.

Conclusion

Subcommittee Members Comments

There were no comments from subcommittee members.

Adjournment

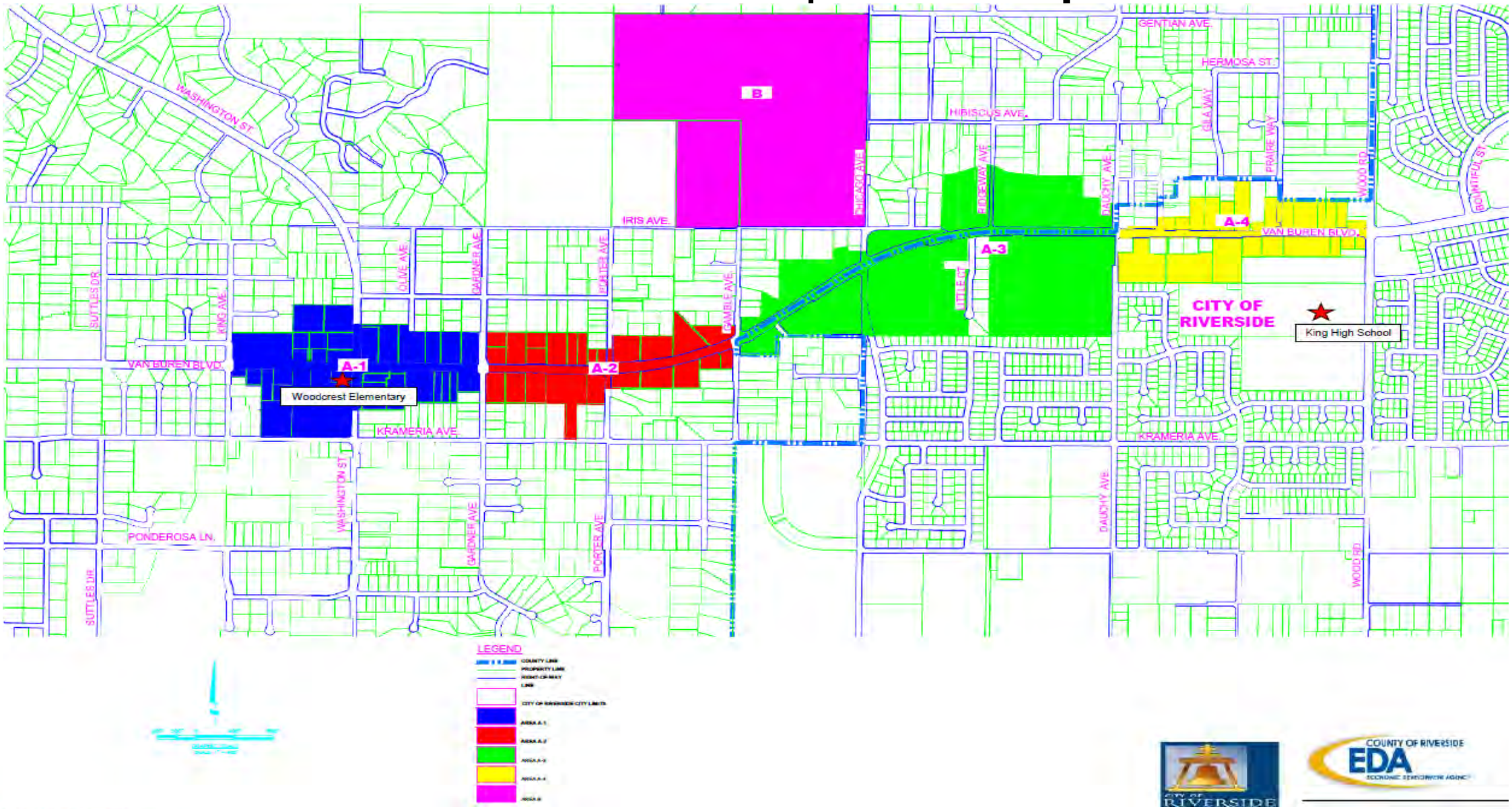
Meeting was adjourned at 3:57 p.m.

RUSD
Innovation in Education

VAN BUREN SEWER EXPANSION PROJECT

Operations Board Subcommittee Meeting
May 24, 2018

Van Buren Sewer Expansion Map



From Wood Rd. to King Ave

Total Assessment **Cost***

APN	Acres	Ownership	Per Acre Lien	EDU Lien	Front Footage Lien	Flow Lien
273150017	3.26	RUSD	$ 248,631.67	$ 366,942.63	$ 209,819.24	$ 88,123.67
273150018	6.28	RUSD	$ 478,959.17	$ 706,871.07	$ 401,668.81	$ 88,123.67
			$ 727,590.84	**$1,073,813.70**	**$ 611,488.05**	**$ 176,247.34**

General Accepted Methods

1) Per Acre Lien-Spreading cost per parcel size (acreage)
2) EDU Lien-Based on land use, i.e. commercial vs single family use
3) Front Footage Lien-Cost per linear foot for the frontage length of property
4) Flow Lien-Metering flow of actual use

**Based on a 13.9M Bond, includes 40% contingency (may not reflect actual cost)*

Annual Cost Based on 30 Year Bond*

AC Annual Principal	EDU Lien Annual Principal	Front Footage Annual Principal	Flow Annual Principal
$ 8,573.51	$ 12,653.19	$ 7,235.15	$ 3,038.75
$ 16,515.83	$ 24,374.86	$ 13,850.65	$ 3,038.75
$ 25,089.34	**$ 37,028.05**	**$ 21,085.80**	**$ 6,077.50**

**Based on a 13.9M Bond, includes 40% contingency (may not reflect actual cost)*

Next Steps

1) County to initiate formation process and determine who will participate in CFD Boundary

2) County to provide RUSD probable fees district would pay

3) Ballot Vote – June 2019

4) Sale of Bonds (Bond is approx. 13.9M, includes 40% contingency)

5) Project completion is approximately 2 years from Bond Sale

Items No. 3, No. 4, and No. 5

RUSD
Innovation in Education

Operations Committee Presentation

Community Facilities Districts Nos. 21 IAs 1 & 3, 34 and 35

Adam Bauer
Chief Executive Officer/ President
Fieldman, Rolapp & Associates, Inc.
Tel: 949.660.7303 Cell: 949.295.5735
abauer@fieldman.com

Active CFDs

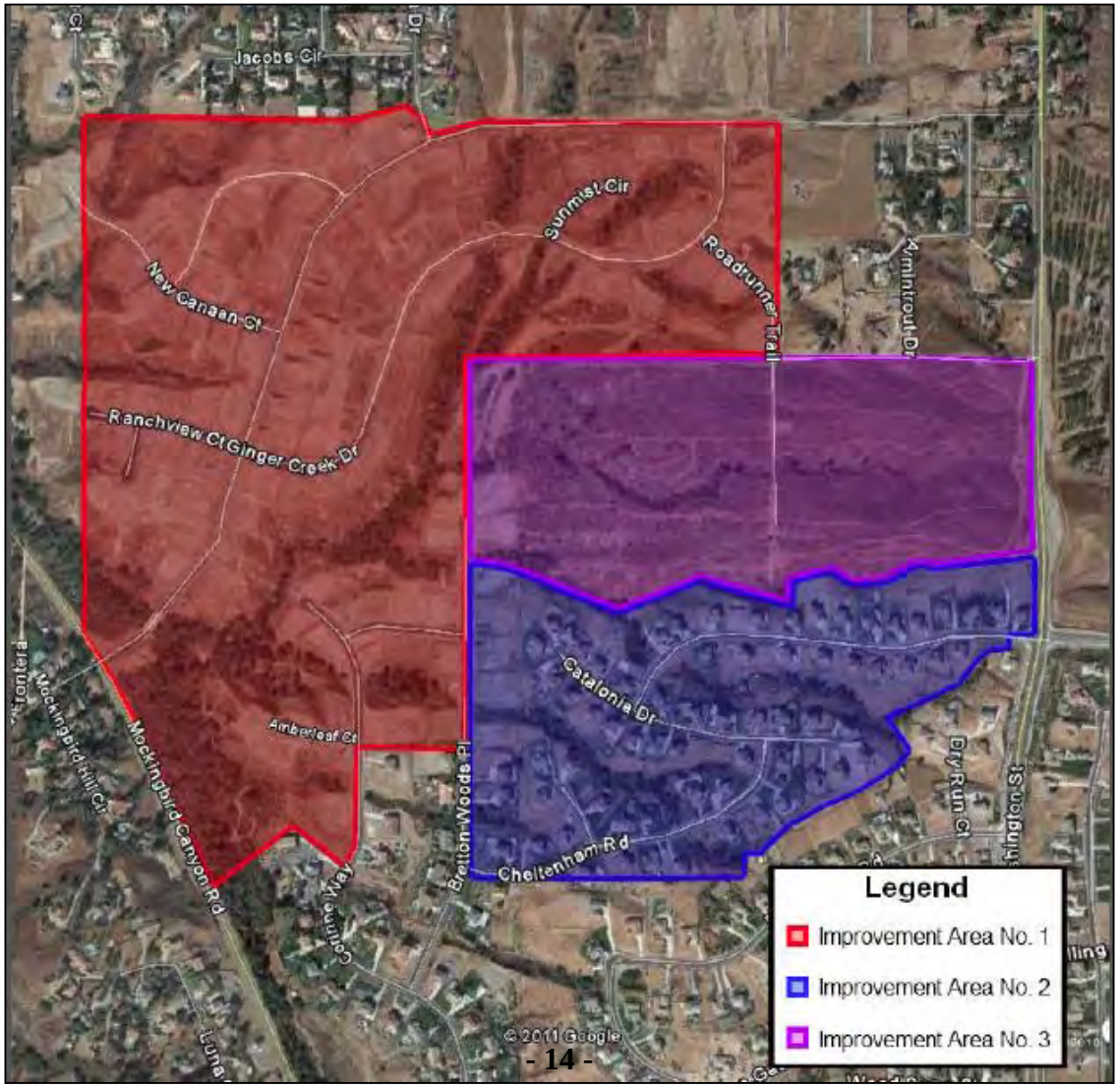
					Formation Activities			Financing Activities		
CFD No.	Name	Tracts	Landowner	No. of Units	Operations Committee Meeting	Resolution of Intention	Resolution of Formation	Finance Committee Meeting	Resolution of Issuance	Notes
21 IA 1 & 3	NA	NA	Several		5/24/2018	7/17/2018	8/21/2018	TBD	TBD	Amend term of Special Tax and eliminate annual escalator
29 IA 1	NA	NA	MRF Groves Development and Spring Mountain Investments	138	3/16/2018	4/17/2018	6/5/2018	TBD	TBD	CFD Formation
29 IA 2	NA	NA	MRF Groves Development and Spring Mountain Investments	72	3/16/2018	4/17/2018	6/5/2018	TBD	TBD	CFD Formation
32	Citrus Heights	36390	Lennar Homes	343	NA			2/23/2018	4/17/2018	1st Bond Sale complete, closing 5/17
34	Rivera (formally Alamo Grove)	33253	RSI Communities	71	5/24/2018	7/17/2018	8/21/2018	TBD	TBD	CFD Formation
35	Primrose	37219	KB Homes	63	5/24/2018	7/17/2018	8/21/2018	TBD	TBD	CFD Formation
36	Hawthorne Heights	37032	Steven Walker Communities	54	TBD	TBD	TBD	TBD	TBD	CFD Formation

Provided by Fieldman, Rolapp & Associates, Inc.
Last Updated: May 17, 2018

Map of CFDs Being Considered

Source: David Taussig & Associates

Map of CFD No. 21



Source: David Taussig & Associates

CFD No. 21 IA 1 & 3 - Action Items

- Project goals:
  - Eliminate 2% annual escalator
  - Extend term of levy from FY 2045-46 to 2060-61

- July 17, 2018 School Board Meeting:
  - Adoption of Resolution of Consideration which:
    i. Establishes boundaries
    ii. Designates CFD name
    iii. Identifies facilities
    iv. Declares intention to change CFD, levy tax and issue bonds
    v. Establishes voting procedures
    vi. Approves amendment to RMA for CFD
    vii. Accept & file to petition of the landowner
  - Adoption of Resolution to Intention to Incur Bonded Indebtedness in an amount not to exceed for CFD
  - Call hearing for change proceedings

- August 21, 2018 School Board Meeting:
  - Consider Resolution Amending Special Taxes

Map of CFD No. 34 (Rivera)

Source: David Taussig & Associates

CFD No. 34 (Rivera) - Action Items

- Project goal:
  - Form Community Facilities District
  - Provide funds for RUSD Facilities in the estimated amount of $1,033,042
  - Provide funds for City Facilities in the estimated amount of $609,929
- July 17, 2018 School Board Meeting:
  - Adoption of Resolution of Intention to Incur Bonded Indebtedness in an amount not to exceed for CFD
  - Adoption of Resolution of Intention for CFD which:
    i. Establishes boundaries
    ii. Designates CFD name
    iii. Identifies facilities
    iv. Declares intention to form CFD, levy tax and issue bonds
    v. Establishes voting procedures
    vi. Approves RMA for CFD
    vii. Accept & file to petition of the landowner
- August 21, 2018 School Board Meeting:
  - Adoption of Resolution of Formation for CFD
  - Approved CFDs Mitigation Agreement
  - Approve JCFA

Map of CFD No. 35 (Primrose)

Source: David Taussig & Associates

CFD No. 35 (Primrose) - Action Items

- Project goal:
  - Form Community Facilities District
  - Provide funds for RUSD Facilities in the estimated amount of $872,044
- July 17, 2018 School Board Meeting:
  - Adoption of Resolution of Intention to Incur Bonded Indebtedness in an amount not to exceed for CFD
  - Adoption of Resolution of Intention for CFD which:
    i. Establishes boundaries
    ii. Designates CFD name
    iii. Identifies facilities
    iv. Declares intention to form CFD, levy tax and issue bonds
    v. Establishes voting procedures
    vi. Approves RMA for CFD
    vii. Accept & file to petition of the landowner
- August 21, 2018 School Board Meeting:
  - Adoption of Resolution of Formation for CFD
  - Approved CFDs Mitigation Agreement
  - Approve JCFA

BEST BEST & KRIEGER LLP
ATTORNEYS AT LAW

Memorandum

TO: Board of Education of Riverside Unified School District

FROM: Best Best & Krieger LLP

DATE: June 5, 2018

RE: Change Proceedings for Community Facilities District No. 21

Bridgewalk 64, LLC and Far West Industries (the "Developers"), the owners of property within Improvement Area No. 1 and Improvement Area No. 3 (the "Improvement Areas") of Community Facilities District No. 21 ("CFD No. 21), have approached the School District regarding revising the Rates and Method of Apportionment of Special Tax (the "Rates and Method of Apportionment") for the Improvement Areas.

At its June 5, 2018 meeting the Board of Education will be asked to approve a Resolution of Consideration. The Resolution of Consideration provides for the revision of the Rates and Method of Apportionment of Special Tax (the "Amended Rates and Method of Apportionment"). The revisions include (i) the deletion of the annual escalator of 2% on the Maximum Special Tax, as defined in the Rates and Method of Apportionment, and (ii) extension of the term of the Special Tax to enable the District to issue bonds within the Improvement Areas in an amount sufficient to finance the design, construction and acquisition of public facilities for the Improvement Areas, or to pay the costs of the provision, construction and acquisition of such public facilities and/or to accumulate funds therefor. The types of public facilities to be financed by CFD No. 21 will not be modified. The changes in the Amended Rates and Method of Apportionment shall not apply to Improvement Area No. 2 of the District. The Resolution of Consideration calls a public hearing regarding the proposed changes to the Rate and Method of Apportionment for July 17, 2018.

Should you have any questions, someone from our office will be present at the meeting for your convenience.

BEST BEST & KRIEGER LLP
ATTORNEYS AT LAW

Memorandum

TO: Board of Education of Riverside Unified School District

FROM: Best Best & Krieger LLP

DATE: June 5, 2018

RE: Initiation of Proceedings to Form Proposed Community Facilities District No. 34

RSI Communities California LLC, a Delaware limited liability company and Project Royal, LP, a Delaware limited partnership (the "Developers"), the owners and developers of Tract No. 33253, which comprises all of the land in the proposed community facilities district, has approached the School District regarding the formation of Community Facilities District No. 34 ("CFD No. 34") to finance certain facilities of the School District and the City of Riverside. Tract No. 33253 has 71 single-family detached residential units.

The Board of Education will be asked to approve a Resolution of Intention, a Resolution Declaring Necessity and a Resolution Approving a Mitigation Agreement with the Developers.

The Resolution of Intention declares intention to establish CFD No. 34 and, among other things, describes the types of facilities that will be financed with the special taxes and bond proceeds, describes the rate and method of apportionment of the special taxes to be levied on the properties within CFD No. 34 and calls a public hearing on the formation for July 17, 2018.

The Resolution Declaring Necessity authorizes CFD No. 34 to incur a bonded indebtedness in an amount not to exceed $3,250,000 to fund public facilities of the School District and the City and calls a public hearing on July 17, 2018 relating to the authorization of CFD No. 34 to incur such bonded indebtedness.

School Facilities to be provided with the proceeds of the sale of the bonds include elementary school, middle school or high school facilities, or other school facilities of a district-wide nature. The School District will receive a net amount from the sale of bonds of CFD No. 34 of approximately $1,033,042.

City Facilities to be provided include aquatic facility improvements, regional park improvements, trails, traffic and railroad signals, transportation improvements and water and sewer improvements. The City will receive a net amount from the sale of bonds of CFD No. 34 of approximately $609,928.

Per State law, the funding for the School District Facilities must be greater than that for the City.

The Resolution Approving a Mitigation Agreement authorizes the District to enter into a Mitigation Agreement with the Developer pursuant to which the District will receive 167% of Level 2 Mitigation Fees upon issuance of the sale of bonds of CFD No. 34.

Should you have any questions, someone from our office will be present at the meeting for your convenience.

BEST BEST & KRIEGER LLP
ATTORNEYS AT LAW

Memorandum

TO: Board of Education of Riverside Unified School District

FROM: Best Best & Krieger LLP

DATE: June 5, 2018

RE: Initiation of Proceedings to Form Proposed Community Facilities District No. 35

KB Home Coastal, Inc. (the "Developer"), the owner and developer of Tract No. 37219, which comprises all of the land in the proposed community facilities district, has approached the School District regarding the formation of Community Facilities District No. 35 ("CFD No. 35") to finance certain facilities of the School District and the City of Riverside. Tract No. 37219 has 63 single-family detached residential units.

The Board of Education will be asked to approve a Resolution of Intention, a Resolution Declaring Necessity and a Resolution Approving a Mitigation Agreement with the Developer.

The Resolution of Intention declares intention to establish CFD No. 35 and, among other things, describes the types of facilities that will be financed with the special taxes and bond proceeds, describes the rate and method of apportionment of the special taxes to be levied on the properties within CFD No. 35 and calls a public hearing on the formation for July 17, 2018.

The Resolution Declaring Necessity authorizes CFD No. 35 to incur a bonded indebtedness in an amount not to exceed $1,820,000 to fund public facilities of the School District and calls a public hearing on July 17, 2018 relating to the authorization of CFD No. 35 to incur such bonded indebtedness.

School Facilities to be provided with the proceeds of the sale of the bonds include elementary school, middle school or high school facilities, including furniture, fixtures and equipment therefor, acquisition, construction, expansion, relocation, rehabilitation, leasing or purchasing of school facilities and improvements and the sites therefor and facilities which are appurtenant thereto, including, but not limited to, athletic and recreation facilities, child care facilities, administrative facilities and permanent or relocatable classrooms, and transportation facilities. The School District will receive a net amount from the sale of bonds of CFD No. 35 of approximately $872,044.

The Resolution Approving a Mitigation Agreement authorizes the District to enter into a Mitigation Agreement with the Developer pursuant to which the District will receive 167% of Level 2 Mitigation Fees upon issuance of the sale of bonds of CFD No. 35.

Should you have any questions, someone from our office will be present at the meeting for your convenience.

RIVERSIDE UNIFIED SCHOOL DISTRICT
APPLICATION FOR INDEPENDENT CITIZENS' OVERSIGHT COMMITTEE

The Board of Education of the Riverside Unified School District is seeking qualified, interested individuals to serve on a committee of community leaders which will serve as the Independent Citizens' Oversight Committee ("COC") for the implementation of the District's Measure O school facilities bond program.

Proposition 39 Bond Election
On November 8, 2016, voters residing within the Riverside Unified School District passed Measure O. Measure O is a $392,000,000 bond measure that authorizes funding for needed repairs, upgrades, and new construction projects to the District's schools. Proposition 39 required a 55% supermajority for approval; Measure O was passed by 70.44 %.

Establishment of a Citizens' Oversight Committee
After a bond authorized under Proposition 39 is passed, state law requires that the Riverside Unified School District Board of Education appoint an Independent Citizens' Oversight Committee to work with the District.

Committee Responsibilities
In accordance with Education Code Section 15278(b), the Citizens' Oversight Committee shall:

- Inform the public concerning the District's expenditure of bond proceeds of Measure O.
- Review expenditure reports produced by the District to ensure that Measure O bond proceeds were expended only for the purposes set forth in Measure O; and
- Present to the Board in public session, an annual written report outlining their activities and conclusions regarding the expenditure of bond proceeds of Measure O.

The Bylaws which govern the Citizens' Oversight Committee are attached to this Application.

Appointment of Committee Members
All appointments will be made by the Board from applications submitted to the District. The Committee shall consist of at least seven (7) members appointed by the Board from a list of candidates submitting written applications, and based on criteria established by Prop 39, to wit:

- One (1) member shall be the parent or guardian of a child enrolled in the District.
- One (1) member shall be both a parent or guardian of a child enrolled in the District and active in a parent-teacher organization, such as the P.T.A. or a school site council.
- One (1) member active in a business organization representing the business community located in the District.
- One (1) member active in a senior citizens' organization.
- One (1) member active in a bona-fide taxpayers association.
- Two (2) members of the community at-large.

Time Commitment and Term
Initial appointments will be staggered, such that some of the initial appointees will be appointed to serve one full two-year term. The other initial appointments will serve a one-year term, but will be eligible for reappointment by the Board for a second and third two-year term. The Committee shall meet at least once a year, but shall not meet more frequently than quarterly.

Would You be Interested in Serving?
If you wish to serve on this important committee, please review the committee Bylaws for more information about the committee's role and responsibilities and complete the attached application. Completed applications should be sent to Riverside Unified School District by 4:30 PM on June 8, 2018.

Completed applications must be received at
Riverside Unified School District
Sergio San Martin, Asst. Superintendent, Operations
3380 14th Street, Riverside, CA 92501
no later than at 4:30 pm, June 8, 2018.

If you have any questions, please contact Ana Gonzalez, Director of Planning and Development at (**951) 788-7496, ext. 84003.**

It is the policy of the Riverside Unified School District not to unlawfully discriminate on the basis of sex, sexual orientation, gender, ethnic group identification, race, ancestry, national origin, color, religion, marital status, age or mental or physical disability in the educational programs or activities which it operates.

RIVERSIDE UNIFIED SCHOOL DISTRICT
APPLICATION FOR INDEPENDENT CITIZENS' OVERSIGHT COMMITTEE

(Please Print or Type)

Name: _____

Address: _____

_____

Home Phone: _____ Work Phone: _____

FAX #: _____ E-Mail: _____

RUSD Trustee Area (see attached map): _____

Why do you want to serve on the Measure O Independent Citizens' Oversight Committee?

Do you have any special area of expertise or experience that you think would be helpful to the committee?

If you have served on other school district, city or community committees please list and briefly describe your role:

I would be able to represent the following constituencies in the District: *(check all that apply)*

☐ **Business Representative** – Active in a business organization representing local business

Organization:_____

☐ **Senior Citizen Group Representative** - Active member in a senior citizens' organization.

Organization:_____

☐ **Taxpayer Organization Member** - Active in a bona fide taxpayers' association.

Organization:_____

☐ **Parent or Guardian of Child Enrolled in District**.

Child's Name and School:_____

Child's Name and School:_____

☐ **Parent /Guardian of Child Enrolled in District & Active in a Parent-Teacher Organization**

Child's Name and School:_____

Child's Name and School:_____

Organization:_____

☐ **At-Large Community Member** – Resident of the Riverside Unified School District.

*Name:*_____

*Name:*_____

Please note any additional information you feel should be considered as part of your application:

_____

_____

	YES	NO
1. Are you an employee of the District?*		
2. Are you a vendor, contractor, or consultant to the school district?*		
3. Do you have conflicts that would preclude your attending quarterly meetings?		
4. Do you know of any reason, such as a potential conflict of interest, which would adversely affect your ability to serve on the Independent Citizens' Oversight Committee?*		
5. Are you willing to comply with the ethics code included in the bylaws?		

(*Employees, vendors, contractors, and consultants of the Riverside Unified School District are prohibited by law from being members of the Citizens' Oversight Committee. Employment which could result in becoming a contractor or subcontractor to the district would also be a potential conflict.)

Signature of Applicant

All answers and statements in this document are true and complete to the best of my knowledge.

Signature_____ Date_____

Completed applications must be received at
Riverside Unified School District
Sergio San Martin, Asst. Superintendent, Operations
3380 14th Street, Riverside, CA 92501
no later than at 4:30 pm, June 8, 2018

If you have any questions, please contact Ana Gonzalez, Director of Planning and Development at (**951) 788-7496, ext. 84003**

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Subject: **REC Solar PV Proposal Review Update**

Client: Riverside Unified School District

Prepared by: Sage Renewable Energy Consulting, Inc.

Date: Wednesday, May 9, 2018

1 Executive Summary

This memorandum outlines an independent analysis performed by Sage Renewable Energy Consulting, Inc. ("Sage") for the Riverside Unified School District (RUSD, or "District") to evaluate an updated solar photovoltaic (PV) proposal from REC Solar. Important findings are:

1. The combination of significant changes to SCE rate structures which will reduce the value of energy produced by solar PV systems, and REC's updated pricing in response to recent market changes and changes to the system design at Highgrove Elementary, result in negative cumulative and net present value cash flow from the project.
2. Proposed system sizing at Highgrove would result in overproduction, and negatively effects the financial performance. Sage conducted modeling based on an optimized system that would not result in overproduction at that site, but assumed PPA price would remain constant.
3. If the District decides to purchase the PV system in year-10, a near-zero cumulative project cash flow is expected for a 3-site portfolio.
4. If the District decides to alter its portfolio, Sage recommends keeping Lake Matthews and Highgrove Elementary Schools, as they have a high probability of net positive cash flow under a PPA buyout in year-10 scenario. Woodcrest is not feasible when analyzed individually.

Section 6, below, includes all detailed findings of this evaluation, and Section 3 outlines key assumptions used.

2 Overview

RUSD originally contracted Sage to explore the possibility of implementing solar PV generation facilities at several District facilities. The study concluded that the three District schools located in Southern California Edison (SCE) territory could develop solar projects that would likely generate utility savings for the District. In late 2017, Sage assisted RUSD in developing and managing a Request for Proposals (RFP) for solar projects that was released on September 22, 2017. The RFP was conducted under CA Government Code 4217.10 *et seq*., which allows flexibility selection of a vendor for the PV project. The RFP solicited solar proposals for turnkey design-build services, operations and maintenance ("O&M"), and performance guarantees ("PeGu") with both District purchase or third-party owned and operated Power Purchase Agreement ("PPA") financing options. Sage and District staff conducted a mandatory preproposal conference and site walk on September 29, 2017, with sixteen vendors in attendance. On October 20th, seven proposals were submitted, from which REC Solar (REC) was chosen as the top-ranked vendor based on their proposal and subsequent interview process.

2.1 Analysis Goals

1. Conduct a detailed evaluation and 25-year financial modeling of REC Solar's updated PPA proposal utilizing latest SCE proposed tariff information.

2.2 Market Changes Affecting Solar PV Pricing and Financial Performance

Southern California Edison (SCE) has submitted a General Rate Case (a set of proposed rates and time-of-use (TOU) schedules) to the California Public Utilities Commission (CPUC). These rates differ significantly from the rates Sage and the proposers used to model savings to the District. Since Sage submitted interconnect applications for the solar projects prior to the TOU grandfathering deadline in December 2017, the District will be able to keep their current TOU periods, which will increase electric bill savings until the mandatory opt-out date of January 1st, 2028.

Recently effective Section 201 Trade Case solar import tariffs, which put a tax on imported solar cells and modules, as well as new import tariffs on aluminum and steel, have increased solar PV project costs to the extent that some solar projects are currently not profitable.

Lastly, the tax reform passed in December 2017 reduces corporate tax liability and the appetite for tax-equity investment somewhat. This has increased the cost of tax-equity investment, an essential part of PPA financing, which in turn, increases the price of PPA contracts.

2.3 District Requested Design Changes

Due to changes to Highgrove Elementary School (ES), including new buildings and a revised layout of the parking lot structure on the southwest side of campus, an updated solar photovoltaic layout is required. REC has provided two layout options (named A and B) which were analyzed in this update to the project financial modeling.

2.4 REC Solar Updated System Sizing and PPA Rates

Due to new Section 201 solar tariffs, federal tax reform, and the District-requested changes to the solar layouts, REC has re-evaluated its proposal and submitted updated Power Purchase Agreement (PPA) rates. Additionally, they switched from 345-Watt modules to 350-Watt modules, which resulted in new system sizes and guaranteed production. The updated proposals are what Sage has analyzed and used to project District savings throughout the 25-year PPA term.

2.5 Work Performed

1. Acquired and reviewed in detail recent SCE electricity consumption data and load profiles.
2. Acquired and reviewed updated REC pricing, system production data and solar layout proposal for Highgrove.
3. Modeled proposed SCE tariffs for "Do-Nothing" and PV scenarios.
4. Conducted detailed mathematical modeling and statistical projection of District savings.
5. Summarized the results of the updated project evaluation in this memorandum.

3 Key Assumptions

Below are the major modeling assumptions that were made in this evaluation:

- *Solar PV system sizing and production are based on current annual consumption. An average solar system yield for Riverside vicinity of 1,729 kWh/kWp, using medium efficiency, fixed tilt, 96-cell PV modules was assumed for Sage's modeling of Lake Matthews and Woodcrest ES. An average solar system yield of yield of 1694 kWh/kWp, using medium efficiency, fixed tilt, 72-cell PV modules was used in REC's revised photovoltaic site layout. Sage used estimated production data provided by REC for Highgrove in the tariff modeling, resized to 95% of the current electrical usage.*
- *Tariff structure was forecasted based on SCE's General Rate Case (described further in section 5.1). If solar is installed, District will inherit their current time-of-use periods with associated rates. If solar is not installed, customer will not be grandfathered and must transition to new TOU periods and rates. It is assumed these rates will be effective immediately when the solar is interconnected on the scheduled date of 12/31/2018.*
- *The value of solar energy changes when the TOU grandfathering period ends and a different rate schedule is applied; a percent change of -22% was calculated on a per-site basis, through a weighted average based on the kW size of the PV system.*
- *Net Energy Metering (NEM) 2.0 is used to calculate the electric bill when solar is present. Credits are given to the District when electric exports to the grid are received. We conservatively assume that these credits will not be valued when NEM 2.0 ends, at the end of 2038, and the next NEM program begins. A value change of -8.8% was calculated based on these assumptions.*
- *REC's revised PPA prices were used to compute the estimated total PPA price the District will be paying. Please see section 4 for a breakdown of their revised prices.*
- *The remaining assumptions employed in our modeling reflect trends seen in the electric utility industry and data accumulated through RFP procurement. Please see table 3-1 below for a summary.*

Table 3-1: Modeling Assumptions

Utility Information	
Utility Data Source	SCE
Expected Annual Electric Consumption	1,177,000 kWh
Annual Electricity Consumption Escalator	0%
Expected Annual Electric Cost, Year-1	$217,000
Expected Average Cost of Electricity	$0.1845 per kWh
Solar PV Information	
Total System Size	718.2 kW DC (proposed) / 661.5 kW DC (optimized production)
Year-1 Estimated PV Production	1,205,600 kWh (proposed) / 1,138,000 kWh (optimized)
Average PV Yield	1,720 kWh/kW DC

System Production Degradation, per Year	0.50%
Financial Information	
Fixed Upfront Soft Costs & Contingencies	$15,000
PPA Price	Per REC's updated proposal in Section 4
PPA Price Escalator	0%
PPA Term	25 Years
PPA Asset Management	$0.50 per kW DC
NEM 2.0 Export Energy Rate	Full retail rate, minus non-bypassable charges, for 20 years
NEM "3.0" Export Energy Rate	Zero
Annual Utility Inflation Rate	3.0%
Tariff Value Risk Change, per Year	-0.5%
NPV Discount Rate	2.0%

Both REC and Sage used Helioscope to model solar production values. In this analysis, Sage resized REC's production values for Highgrove, and Sage's Helioscope models were used for Lake Matthews and Woodcrest. Table 3-2 below summarizes the assumptions of both Helioscope models. Both assume that the photovoltaic system lifetime is 25 years.

Table 3-2: Solar Facility Production Projection Assumptions

Sage Analysis - Solar Production Information	
Solar Insolation Data	NREL TMY, 10km grid
Shading Assumption	Minimal based on site visits and siting
Soiling Assumption	Moderate, seasonal soiling
PV Panels used in Helioscope	Yingli YL310P-35b, 310W, 72 cell, polycrystalline
Inverters used in Helioscope	SMA Sunny Tripower string inverters (10, 12, 15, & 24 kW)
REC Analysis - Solar Production Information	
Solar Insolation Data	NREL TMY (Prospector), 10km grid
Shading Assumption	Minimal shading based on proposed site layout
Soiling Assumption	Minimal, seasonal soiling
PV Panels used in Helioscope	REC TwinPeak, 350W, 72 cell, multicrystalline
Inverters used in Helioscope	Yaskawa Solectria Solar string inverters (36, 50 kW)

4 Updated REC Proposal Portfolio

Table 4-1 below shows original versus updated system sizing and PPA energy pricing from REC due to the changes mentioned in Section 2.

Table 4-1: Revised System Size and PPA Pricing

System Information			PPA Proposal			
Site Name	Original Proposal PV Capacity (kW DC)	Updated PV Capacity (kW DC)	Original PPA Price ($/kWh)	Revised PPA Price ($/kWh)	Calculated Value of PV Energy on New SCE GRC ($/kWh)	
Highgrove ES	235.98	239.4	$0.1558	$0.1608	$0.1021	Option A
				$0.1613	$0.1023	Option B
Lake Matthews ES	298.08	302.4	$0.1380	$0.1441	$0.1064	
Woodcrest ES	173.88	176.4	$0.1803	$0.1888	$0.1129	

REC also updated their PPA buyout options and early termination values, which allow the District to purchase the system at various points throughout the PPA term or terminate the agreement per the contractual terms. Early buyout scenarios were modeled by Sage and summarized in Section 6. The modification in early buyout prices are summarized in Table 4-2 below.

Table 4-2: REC Updated Pricing – PPA Buyout Values

Site Info	REC Proposal					
Site Name	Original Buyout Options			Updated Buyout Options		
	$, Year-10	$, Year 15	$, Year 20	$, Year-10	$, Year-15	$, Year-20
Highgrove ES	$439,131	$326,590	$196,478	$426,722	$311,358	$174,330
Lake Matthews ES	$506,328	$377,842	$228,473	$491,085	$358,710	$201,409
Woodcrest ES	$352,777	$260,749	$155,640	$339,696	$245,451	$135,864

Note: Updated buyout values shown for Highgrove are for Option A only, since they are similar and Option A would be recommended.

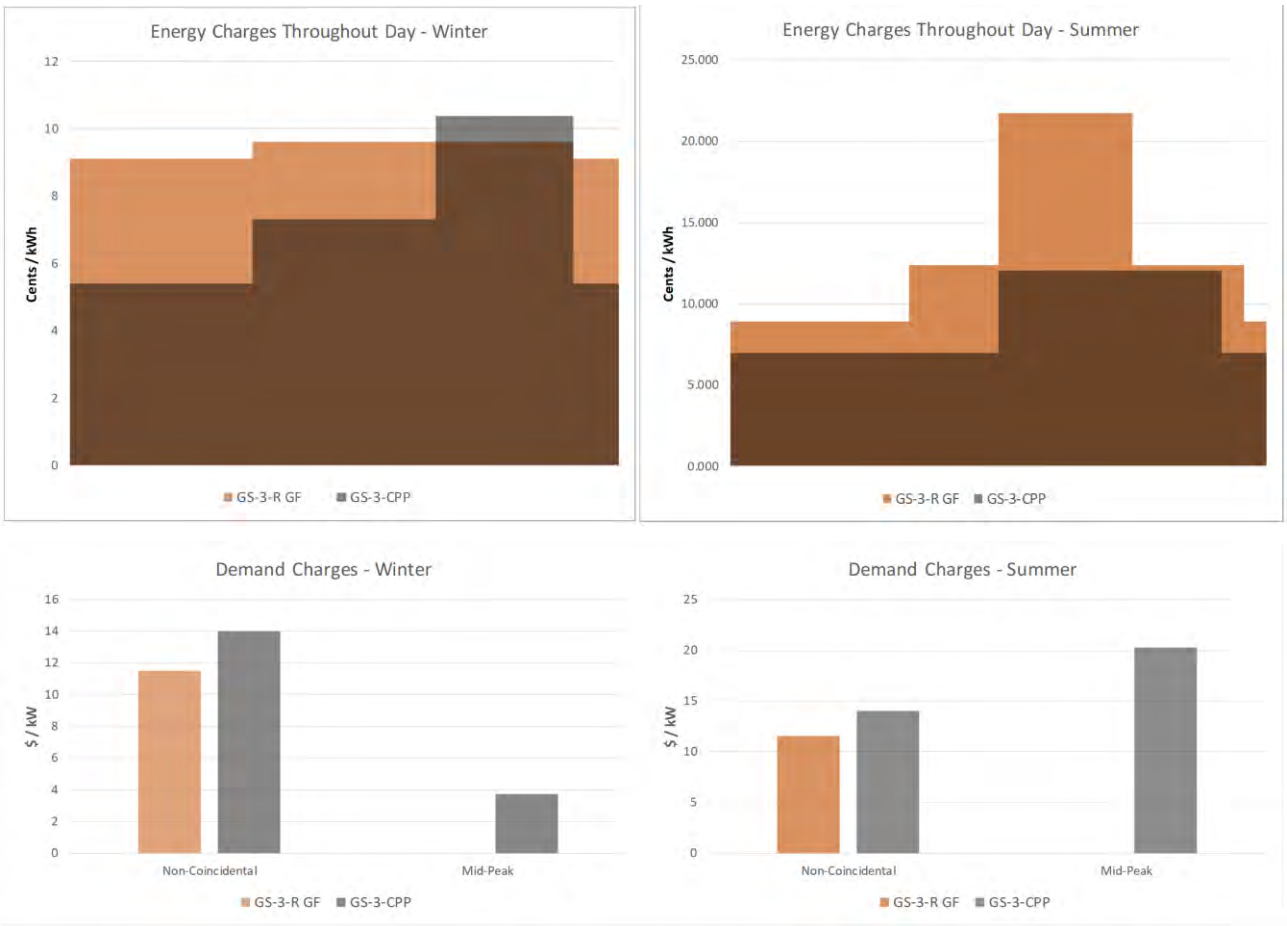
5 Current Regulatory Impacts

This section outlines the market changes that affect the financial feasibility of the RUSD solar project. Alterations to rate schedules will reduce the value of energy generated by solar PV systems. Tariffs and tax reforms alter the financial feasibility from the perspective of the solar provider, REC. These recent regulatory changes have had severe repercussions to this solar project.

5.1 Southern California Edison General Rate Case

The Southern California Edison (SCE) General Rate Case (GRC) is a proposed set of electric rate schedules that differ dramatically from current tariffs. Under the current tariffs, energy is most expensive during the mid-day period (noon to 6pm), when solar is producing energy and able to offset the District's electric usage. In the GRC tariffs, this period is shifted to the late afternoon (4 to 9pm), when solar is producing much less and after-school programs are utilizing energy from SCE's grid. The collection of Charts 5-1 below outline the changes in energy costs (charged on a per kWh usage) and demand costs (charged on a peak kW power usage throughout the month). The dark-grey bars represent the proposed rates the District would pay without implementing solar (i.e. non-solar tariff), while the orange bars represent the grandfathered rate schedule if solar is implemented (i.e. Option R or solar tariff; grandfathering to be explained in the next section).

Charts 5-1: Comparison of Current Tariffs with GRC Tariffs



The solar tariff, Option R, is comprised of high energy rates and relatively low demand rates compared to the non-solar tariff. These attributes, plus the mid-day peak period, are helpful for solar. However, the difference in energy rates between time of use periods has decreased significantly, and hence a decrease in savings during the periods solar is producing is observed.

5.2 Time of Use Grandfathering

The California Public Utilities Commission (CPUC) issued a decision in January 2017, that created grandfathering of existing Time of Use (TOU) periods in PG&E, SCE, and SDG&E territories for solar PV customers.

This is in response to California's three major public utilities shifting summer "peak" energy cost periods from midafternoon to early evening. Solar PV systems generate most of their power and bill savings during summer afternoons. By shifting the summer peak period to early evening after solar PV has stopped producing power, the energy cost savings generated by solar PV are reduced. Sage has modeled a loss of value from the proposed TOU period changes from 10% to as much as 30%, depending on the rate schedule PV system design and site energy usage patterns.

In the January 2017 rulemaking, the CPUC created terms and conditions for customers to be eligible for ten years of grandfathering on current TOU periods. It stated that customers had to submit an initial interconnection application by January 31, 2017, and complete installation by July 31, 2017 for non-school customers and December 31, 2017 for schools.

A new TOU decision issued by the CPUC on October 26, 2017 eliminates the construction deadline and opens up a new interconnection application period until December 31, 2017. Under this new decision, the City can install an eligible system at any time and receive TOU period grandfathering through July 31, 2027.

Because interconnection applications were submitted for the District, the value of the proposed PV systems increased by 22% relative to not grandfathered systems. However, TOU grandfathering only lasts until July 31, 2027, after which the TOU schedule will revert to the TOU periods in place at that time. Sage has included this drop in energy value in its modeling projections.

5.3 201 Trade Case Tariffs

In January of 2018, the Trump Administration placed tariffs on solar cell and module imports, which last for 4 years (spanning the schedule of construction for the RUSD project). The proclamation adds a 30% tax in the first year to solar imports, which declines 5% each following year, and exempts 2.5 gigawatts of cells per year from the tax. Since REC fabricates its panels in Singapore, it is subject to this tax and thus must endure increased costs which result in increased PPA prices.

5.4 Steel & Aluminum Tariffs

In March of 2018, the Trump Administration put tariffs on steel and aluminum imports. These tariffs affect about 45% of total steel and aluminum imports, with certain countries such as Canada and Mexico exempted. The 25% tax on steel and 10% tax on aluminum drive up beam and wiring costs for solar projects, increasing PPA prices.

5.5 Federal Tax Reform

In December of 2017, the federal government passed a tax reform that reduced the corporate tax rate to 21% and included BEAT provisions. The combination of these changes reduced tax equity appetite in the U.S. market and created uncertainty as to tax liability for large, multinational corporations. The result is a softening of the tax equity marketing and associated increase in tax equity returns requirements. An increase in tax-equity financing costs results in increased PPA prices.

6 Summary of Findings

The following are the results of the analysis:

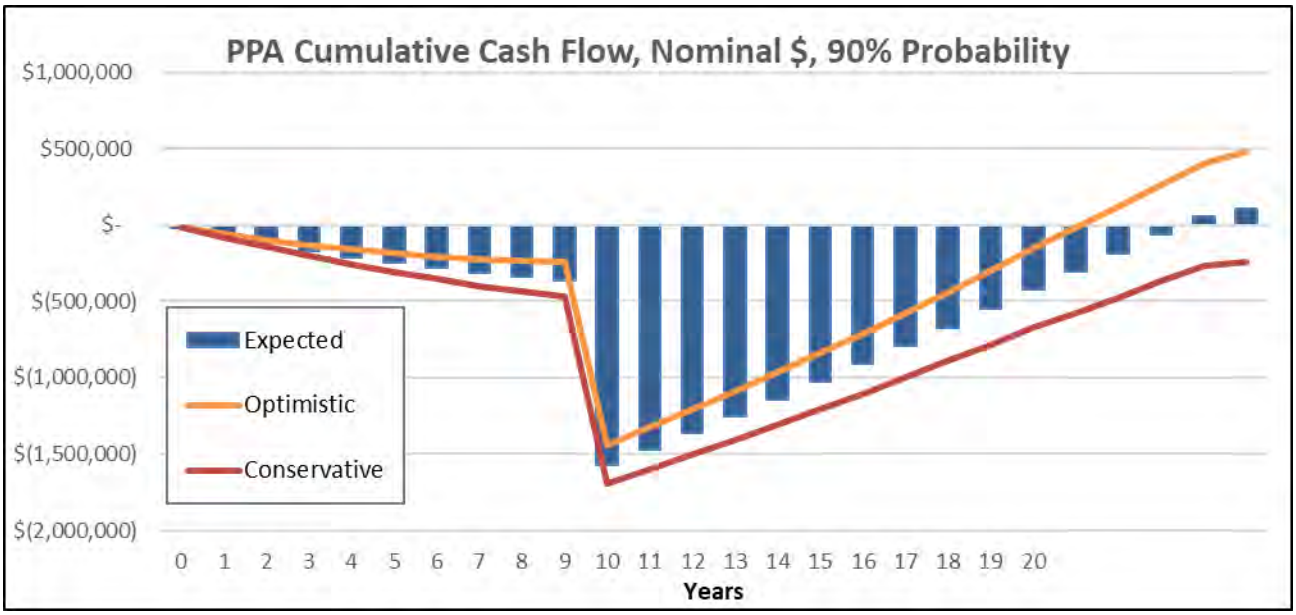
1. With the new changes outlined in Section 5, the RUSD project is only net positive under one financing scenario: PPA contract with a buyout in Year-10. Even so, the project cash flow in this scenario becomes positive within the last couple years of the assumed system lifetime (25 years). This scenario produces the best financials for the District because of the extended amount of time the District owns the solar system (for 15 of the 25 years) and the increased savings from paying less for solar (outlined in detail in Table 6-2 below).
2. NPV's for all scenarios have decreased from the previous modeling conducted for RUSD and are negative for both Highgrove and Woodcrest.
3. If the District decides to move forward with this project as proposed, Sage recommends choosing REC's Option A layout for Highgrove Elementary School, which has greater 25-year NPV, and modifying system size to reduce possibility of overproduction.
4. When analyzing individual sites, Lake Matthews and the resized Highgrove are the only sites where the expected NPV of the site is positive in Year-25. Sage recommends speaking with REC about the option of developing only these sites. Table 6-1 below summarizes the NPV's for each of the sites under a PPA with a Buyout in Year-10.

Table 6-1: PPA Buyout Year-10 NPV's, per site

25-Year NPV, 2% Discount Rate; PPA Buyout Year-10	
Highgrove, Option A	$20,230
Lake Matthews	$74,376
Woodcrest	($105,365)

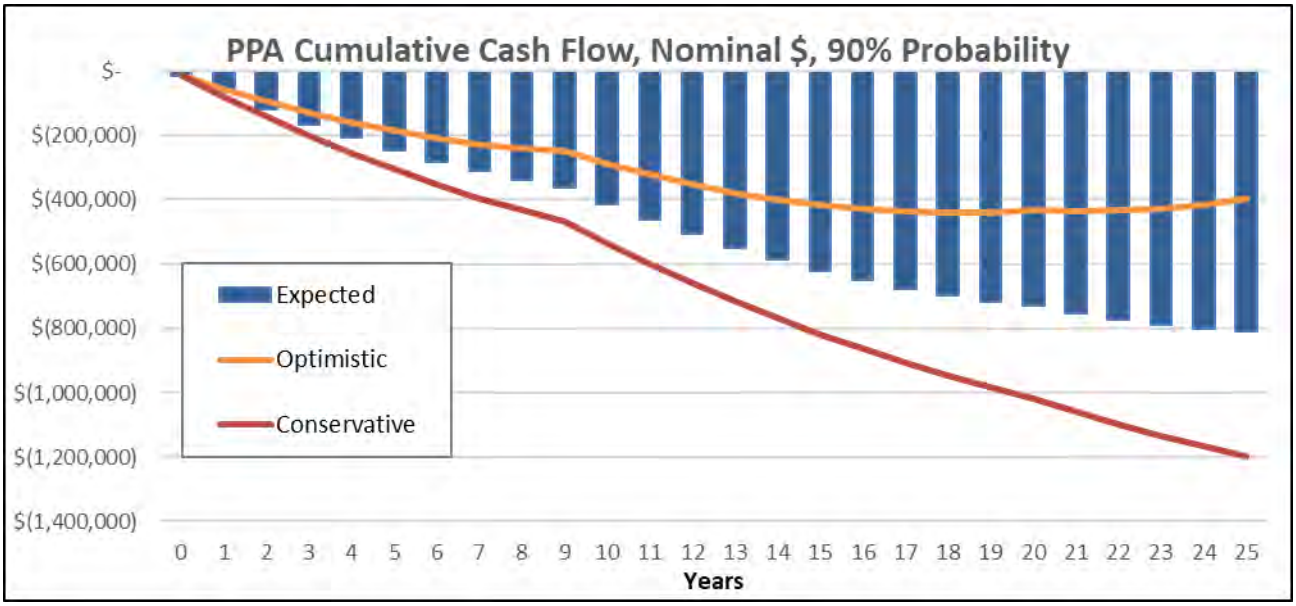
5. Attachment B & C outline the financials of each scenario with cash-flows for the 25-year analysis, assuming a 3-site portfolio. Graph 6-1 below displays the cumulative cash flow for a PPA with a buyout in year-10, showing the statistical spread of possibilities as the lined curves.

Graph 6-1: PPA Buyout Year-10 Cumulative Project Cash Flow



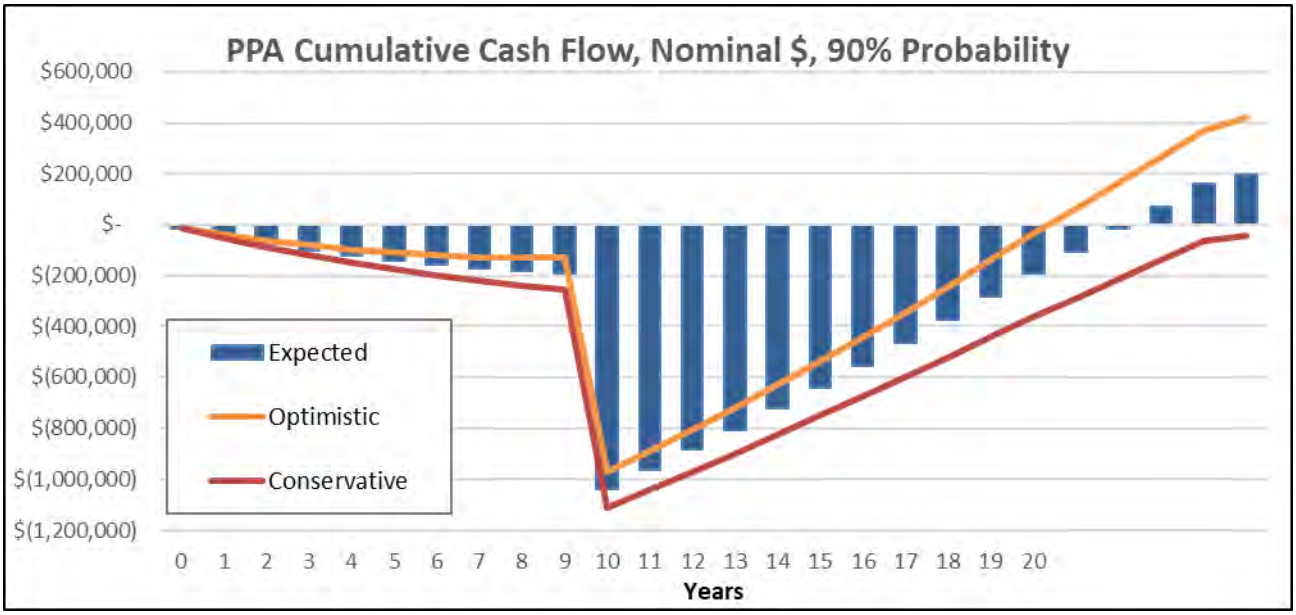
6. Graph 6-2 below portrays the cumulative project cash flow under the current PPA scenario, where the District stays in the contract throughout the lifetime of the PV system. Statistically, there is a negligible chance that the will have a positive cash flow in year-25.

Graph 6-2: PPA Cumulative Project Cash Flow



7. In order to obtain zero net present value in the 25-year PPA scenario, a minimum weighted PPA rate of $0.1462 is needed. The weighted PPA rate for REC's updated proposal is $0.1679 and hence leads to a negative NPV.
8. Another determinant of the feasibility of a project is the cumulative project savings; however, this metric does not take into account inflation. In order to obtain zero net project savings by the end of the PV system lifetime, a minimum weighted PPA rate of $0.1703 is needed. REC's PPA price is under this value, and thus the projected cumulative project savings is positive.
9. Graph 6-3 below displays the 25-year cumulative project cash flow for a portfolio consisting of Lake Matthews and Highgrove only. It is expected to obtain a positive nominal cumulative cash flow by year-23 and has a 90% chance of netting positive in year-25.

Graph 6-3: PPA Buyout Year-10 Cumulative Project Cash Flow, Lake Matt./Highgrove Portfolio



10. If the District buys out the PPA and takes ownership of the system, there will be operation & maintenance, insurance, and inverter replacement costs. Sage has included these costs in this project modeling.
11. If the District decides not to implement this solar PV project, electric bill costs are projected to increase for Highgrove & Woodcrest, while decreasing for Lake Matthews per the anticipated changes to SCE rates. Table 6-2 below summarizes the District costs under different scenarios: current cost (prior to SCE GRC implemented), "Do-Nothing" (post-SCE GRC, no solar), and the PV scenario (post-SCE GRC, with solar, District financed). The post-PV costs outlined in column 4 are the energy costs the District would pay SCE if the systems are purchase outright.

Table 6-2: Summary of Energy Costs, Multiple Scenarios

Cost of Energy				
Site Name	Current Cost ($/kWh)	"Do-Nothing" Cost ($/kWh)	Post-PV Cost ($/kWh)	REC PPA Price ($/kWh)
Highgrove ES	$0.19	$0.20	$0.093	$0.1608
Lake Matthews ES	$0.20	$0.17	$0.075	$0.1613
Woodcrest ES	$0.16	$0.19	$0.095	$0.1888

12. Table 6-3 below summarizes the findings that Sage has compiled from the output of our modeling.

Table 6-3: Summary of Findings Across Scenarios

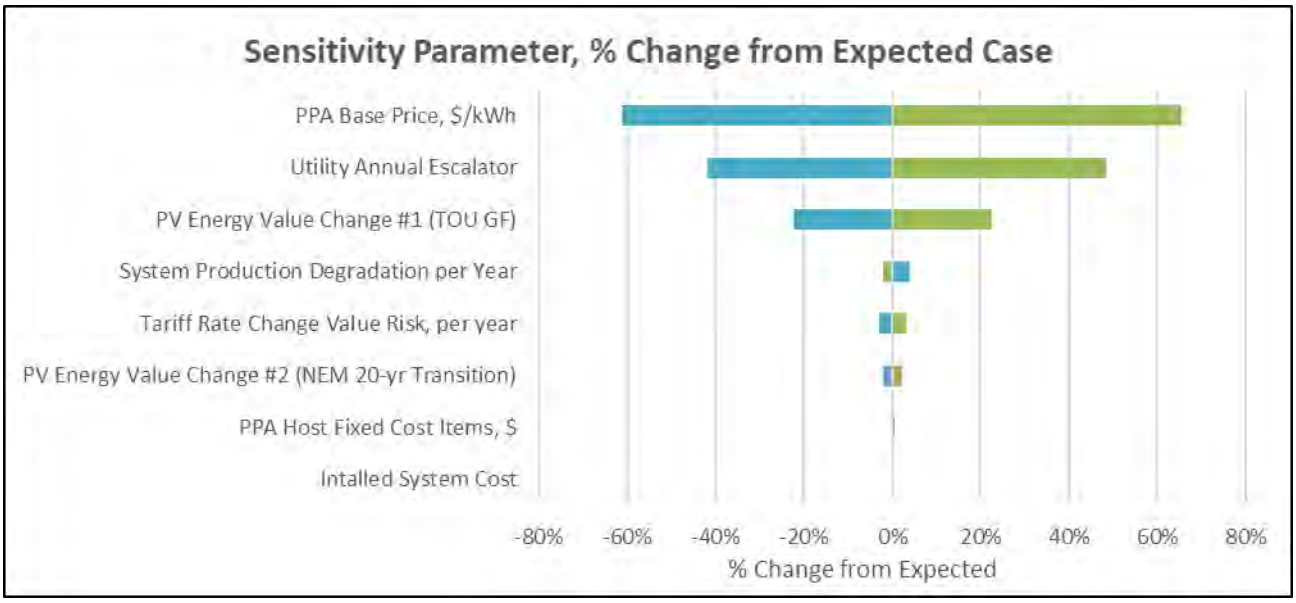
Metric	Scenario			
	25-Year PPA	PPA Buyout Year-10	PPA Buyout Year-15	PPA Buyout Year-20
Total 25-Year Savings, Nominal $	($792,121)	$122,236	($313,773)	($659,744)
Simple Payback	>25 Years	23.5 Years	>25 Years	>25 Years
Net Present Value, 2% Discount Rate	($663,560)	($144,550)	($401,907)	($595,583)
System Size	661.5 kW DC			
Environmental Benefits, 25-Year	10,000 Tons of eCO_2			

7 Sensitivity Analysis

Sage conducts a statistical sensitivity analysis. The top-8 most significant parameters are shown in the charts below. These 8 parameters are what account for most of the variability in the financial outcome of a project and are important to analyze on an individual basis.

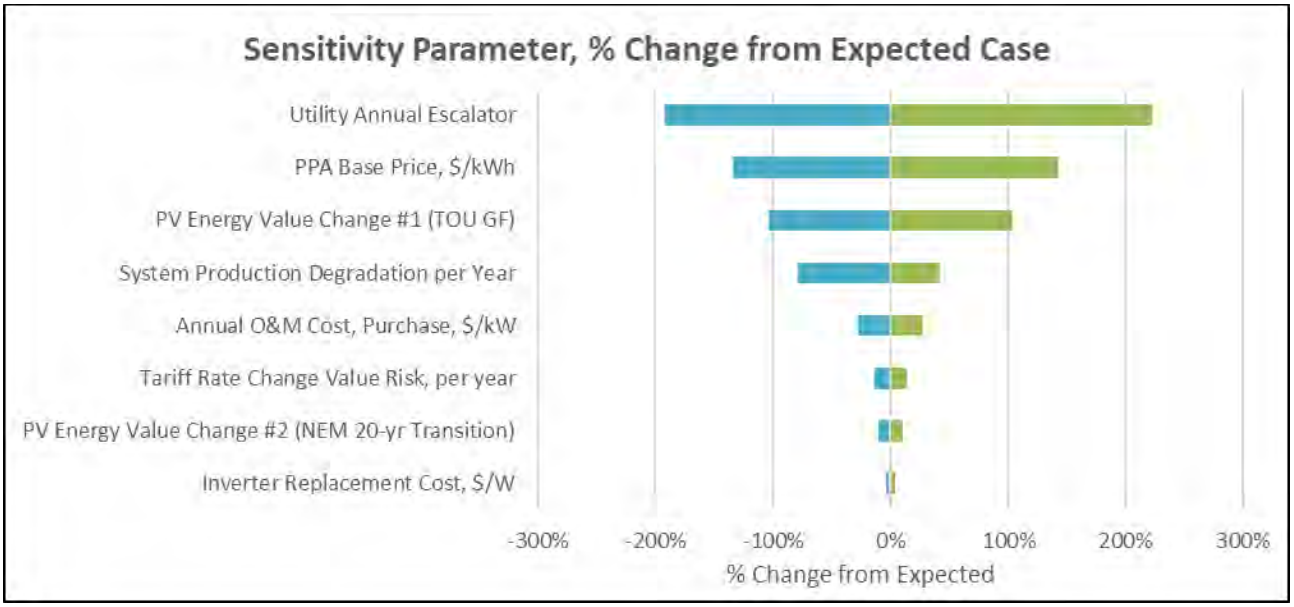
In Chart 7-1, we see that the PPA base price is what drives the financials of the project under a 25-year PPA scenario. The Utility Annual Escalator, the percentage by which the average cost of electricity increases per year, is a sensitive parameter that has been calculated from a 38-year average to be approximately 3%. Due to the recent changes in the SCE GRC, the TOU grandfathering value of energy decrease in year-10 accounts for a significant portion of the variability.

Chart 7-1: Sensitivity Analysis, 25-Year PPA Scenario



In Chart 7-2, we see a similar tornado chart as in 7-1, but for the "PPA Buyout Year-10" scenario. Due to the District owning the system for 15 of the 25 years, other factors such as the 'Annual O&M Cost' and 'Inverter Replacement Cost' are dominant in the top-8 most significant parameters.

Chart 7-2: Sensitivity Analysis, PPA Buyout Year-10 Scenario



8 Next Steps

Sage recommends the District start with the first recommendation, below. If an acceptable option is not viable, pursue one of the three following scenarios (#s 2-4):

1. Review findings with REC and determine if there are options for reducing PPA rates. Some potential options may include evaluating a PPA rate escalator that is below expected utility rate inflation, extending the term of the PPA, or including a Proposition 39 or other grant prepayment to bringdown PPA rates.
2. Negotiate an updated PPA pricing with REC for a two-site portfolio containing only Lake Matthews ES and Highgrove ES. Consider a buyout in year-10 to increase savings over the lifetime of the project.
    a. This is the District's "best-value" scenario, leading to the largest NPV and District savings at the end of the PV lifetime.
    b. The District must fund a $490k buyout in year-10 and arrange for operation and maintenance contracting, funding for inverter replacement, asset management, and decommissioning for the remainder of the PV system lifetime.
3. Enter into a PPA contract with REC with the intention of buying the system in year-10.
    a. If the District decides to implement solar at all sites, this scenario produces the best value.
    b. The District must fund a $1.26M buyout in year-10 and arrange for operation and maintenance contracting, funding for inverter replacement, asset management, and decommissioning for the remainder of the PV system lifetime.
4. Consider abandoning at PPA contract at this time due to the high risk of a negative financial outcome.

Attachment A

Updated REC Proposal Materials

Original Bid - 345W mods, tariffs excluded, Highgrove array over planned building

Site	Sys Size	Guar. Yield	PPA Rate	Buyout Options			Termination Values		
	kW DC	kWh, yr1	$/kWh	$, yr10	$, yr15	$, yr20	$, yr10	$, yr15	$, yr20
Highgrove	235.98	402,052	$0.1558	$439,131	$326,590	$196,478	$441,646	$314,905	$171,374
Lake Matthews	298.08	512,231	$0.1380	$506,328	$377,842	$228,473	$509,505	$364,693	$199,579
Woodcrest	173.88	291,321	$0.1803	$352,777	$260,749	$155,640	$352,777	$260,749	$135,480
NET	**707.94**	**1,205,604**	**$0.1542**	**$1,298,236**	**$965,181**	**$580,590**	**$1,303,928**	**$940,347**	**$506,432**

Bid Refresh - 350W mods, tariffs included, Highgrove redesigned for new bldg.s

Site	Sys Size	Guar. Yield	PPA Rate	Buyout Options			Termination Values		
	kW DC	kWh, yr1	$/kWh	$, yr10	$, yr15	$, yr20	$, yr10	$, yr15	$, yr20
Highgrove (OptA)	239.4	403,290	$0.1608	$426,722	$311,358	$174,330	$452,721	$324,754	$178,232
Highgrove (OptB)	239.4	402,052	$0.1613	$426,725	$311,362	$174,333	$452,725	$324,758	$178,235
Lake Matthews	302.4	512,231	$0.1441	$491,085	$358,710	$201,409	$521,043	$374,165	$205,918
Woodcrest	176.4	291,321	$0.1888	$339,696	$245,451	$135,864	$360,209	$255,943	$138,899
NET	**718.2**	**1,205,604**	**$0.1606**	**$1,257,506**	**$915,523**	**$511,606**	**$1,333,977**	**$954,866**	**$523,052**

% Change (+ is increase, - is decrease)

Site	Sys Size	Guar. Yield	PPA Rate	Buyout Options			Termination Values		
Highgrove (OptA)	1.4%	0.3%	3.2%	-2.8%	-4.7%	-11.3%	2.5%	3.1%	4.0%
Highgrove (OptB)	1.4%	0.0%	3.5%	-2.8%	-4.7%	-11.3%	2.5%	3.1%	4.0%
Lake Matthews	1.4%	0.0%	4.4%	-3.0%	-5.1%	-11.8%	2.3%	2.6%	3.2%
Woodcrest	1.4%	0.0%	4.7%	-3.7%	-5.9%	-12.7%	2.1%	-1.8%	2.5%

Design 4_REC350W Riverside USD - Highgrove Elementary School, 690 Center St, Riverside, CA

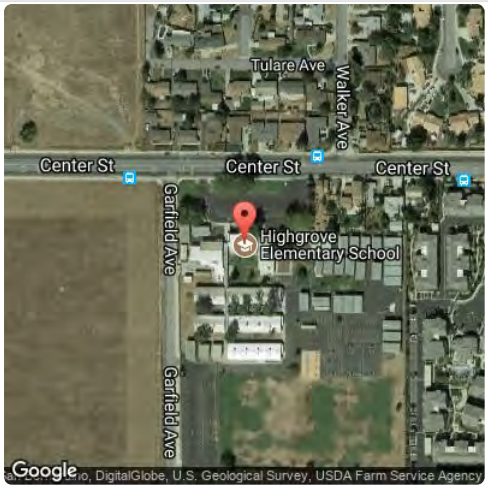
Report

Project Name	Riverside USD - Highgrove Elementary School
Project Address	690 Center St, Riverside, CA
Prepared By	Mohanathan VC mohanathan.vc@lnttechservices.com

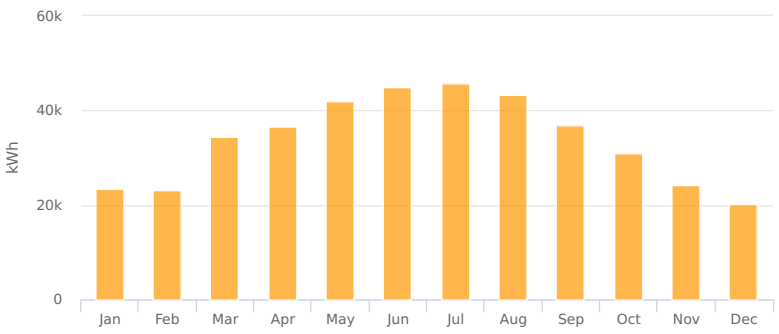
System Metrics

Design	Design 4_REC350W
Module DC Nameplate	239.4 kW
Inverter AC Nameplate	186.0 kW Load Ratio: 1.29
Annual Production	405.7 MWh
Performance Ratio	81.2%
kWh/kWp	1,694.8
Weather Dataset	TMY, 10km grid (34.05,-117.35), NREL (prospector)
Simulator Version	967eea5018-afaa9155f7-9bea7d5241-9a72f5df27

Project Location

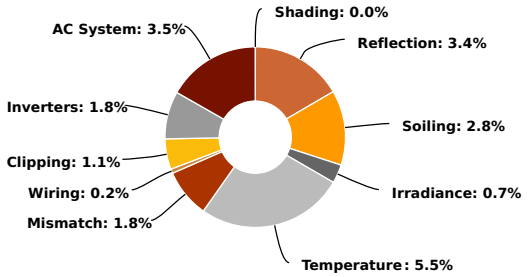


Monthly Production



Month	GHI (kWh/m²)	POA (kWh/m²)	Shaded (kWh/m²)	Nameplate (kWh)	Grid (kWh)
January	103.8	112.8	112.8	25,366.4	23,516.5
February	105.8	111.7	111.7	25,339.6	23,169.8
March	163.2	169.5	169.5	38,819.3	34,437.1
April	186.4	190.2	190.2	42,286.0	36,490.0
May	226.1	227.7	227.6	49,134.0	42,053.0
June	236.8	237.7	237.7	55,046.9	44,862.0
July	246.8	247.8	247.8	55,302.2	45,825.3
August	223.9	227.3	227.3	52,526.9	43,407.7
September	188.3	194.4	194.4	43,122.5	36,796.9
October	145.9	154.1	154.1	35,142.4	30,946.1
November	109.3	117.9	117.9	26,616.9	24,151.8
December	88.3	96.2	96.2	21,547.4	20,068.2

Sources of System Loss



Annual Production

	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	2,024.7	
	Adjusted Global Horizontal Irradiance	2,024.7	0.0%
	POA Irradiance	2,087.3	3.1%
	Shaded Irradiance	2,087.2	0.0%
	Irradiance after Reflection	2,015.6	-3.4%
	Irradiance after Soiling	1,959.5	-2.8%
	Total Collector Irradiance	**1,959.5**	**0.0%**
Energy (kWh)	Nameplate	470,250.4	
	Output at Irradiance Levels	466,985.8	-0.7%
	Output at Cell Temperature Derate	441,448.8	-5.5%
	Output After Mismatch	433,476.7	-1.8%
	Optimal DC Output	432,779.2	-0.2%
	Constrained DC Output	427,882.5	-1.1%
	Inverter Output	420,307.0	-1.8%
	Energy to Grid	**405,724.0**	**-3.5%**
Temperature Metrics			
	Avg. Operating Ambient Temp		18.7 °C
	Avg. Operating Cell Temp		29.5 °C
Simulation Metrics			
	Operating Hours		4664
	Solved Hours		4664

Condition Set

Description	CS_REC_350W											
Weather Dataset	TMY, 10km grid (34.05,-117.35), NREL (prospector)											
Solar Angle Location	Project Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Diffusion Model											
Temperature Model Parameters	Rack Type	U_{const}	U_{wind}									
	Fixed Tilt	29	0									
	Flush Mount	20	0									
	East-West	29	0									
	Carport	29	0									
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	1	1	1	4.5	7.5	1	4.5	1	4.5	1	1	1
Irradiation Variance	4%											
Cell Temperature Spread	4° C											
Module Binning Range	-1% to 1.428%											
AC System Derate	3.50%											
Module Characterizations	Module	Characterization										
	REC 350TP2S 72.NOV2017 (REC)	REC_350TP2S_72_20171123.PAN, PAN										
Component Characterizations	Device	Characterization										
	PVI 36TL-480 (Solectria Renewables)	CEC Efficiency Curve 2015-09-05										
	PVI 50TL 2-22-2017 (Solectria (Yaskawa Solectria Solar))	Default Characterization										

Components

Component	Name	Count
Inverters	PVI 36TL-480 (Solectria Renewables)	1 (36.0 kW)
Inverters	PVI 50TL 2-22-2017 (Solectria (Yaskawa Solectria Solar))	3 (150.0 kW)
Transformer	Primary Side: 208Y/120V , Secondary: 480Y/277V	1
AC Panels	1 input AC Panel	1
AC Panels	3 input AC Panel	1
AC Home Runs	3 AWG (Copper)	1 (482.1 ft)
AC Home Runs	1 AWG (Copper)	1 (2,220.8 ft)
AC Home Runs	350 MCM (Copper)	1 (930.7 ft)
AC Home Runs	400 MCM (Copper)	3 (6,290.3 ft)
Strings	10 AWG (Copper)	38 (2,664.1 ft)
Module	REC, REC 350TP2S 72.NOV2017 (350W)	684 (239.4 kW)

Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	12	18-18	Along Racking
Wiring Zone 2	12	18-18	Along Racking

Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Carport 2	Carport	Portrait (Vertical)	5°	180°	0.1 ft	6x3	10	180	63.0 kW
Carport 3	Carport	Portrait (Vertical)	5°	269.1°	0.1 ft	6x3	10	180	63.0 kW
Carport 1	Carport	Portrait (Vertical)	5°	180°	0.1 ft	6x3	10	180	63.0 kW
Carport 4	Carport	Portrait (Vertical)	5°	180°	0.1 ft	6x3	8	144	50.4 kW

Detailed Layout

Design 4.1_REC350W Riverside USD - Highgrove Elementary School, 690 Center St, Riverside, CA

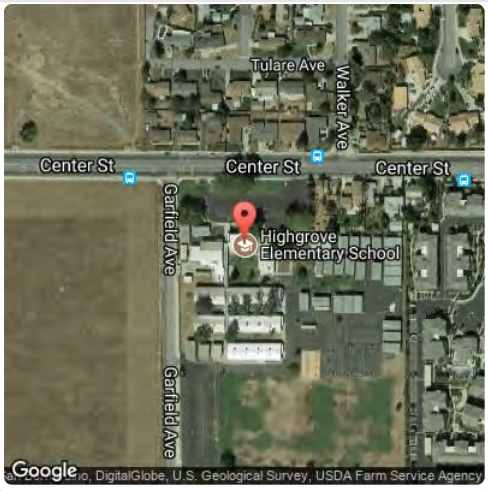
Report

Project Name	Riverside USD - Highgrove Elementary School
Project Address	690 Center St, Riverside, CA
Prepared By	Mohanathan VC mohanathan.vc@lnttechservices.com

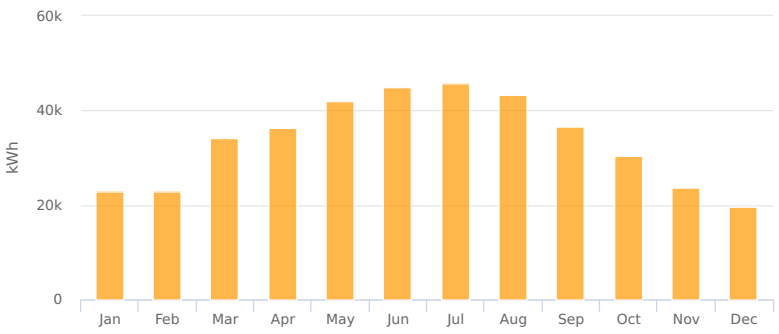
System Metrics

Design	Design 4.1_REC350W
Module DC Nameplate	239.4 kW
Inverter AC Nameplate	186.0 kW Load Ratio: 1.29
Annual Production	402.6 MWh
Performance Ratio	81.2%
kWh/kWp	1,681.9
Weather Dataset	TMY, 10km grid (34.05,-117.35), NREL (prospector)
Simulator Version	967eea5018-afaa9155f7-9bea7d5241-9a72f5df27

Project Location

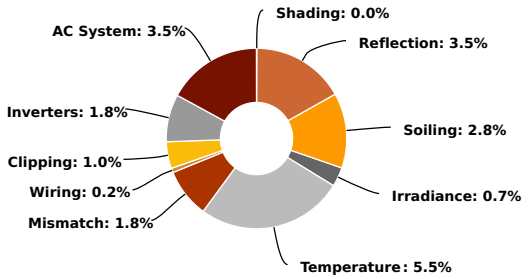


Monthly Production



Month	GHI (kWh/m²)	POA (kWh/m²)	Shaded (kWh/m²)	Nameplate (kWh)	Grid (kWh)
January	103.8	110.3	110.2	24,753.1	22,938.2
February	105.8	110.0	110.0	24,916.0	22,782.7
March	163.2	167.9	167.8	38,416.3	34,171.3
April	186.4	189.7	189.7	42,151.1	36,446.0
May	226.1	227.5	227.5	49,101.6	42,050.3
June	236.8	238.2	238.2	55,153.8	44,983.2
July	246.8	247.7	247.6	55,274.7	45,828.0
August	223.9	226.4	226.4	52,310.2	43,295.6
September	188.3	192.6	192.6	42,707.5	36,485.1
October	145.9	152.0	151.9	34,615.5	30,502.1
November	109.3	115.6	115.5	26,040.0	23,619.1
December	88.3	93.9	93.9	20,987.2	19,536.9

Sources of System Loss



Annual Production

	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	2,024.7	
	Adjusted Global Horizontal Irradiance	2,024.7	0.0%
	POA Irradiance	2,071.8	2.3%
	Shaded Irradiance	2,071.4	0.0%
	Irradiance after Reflection	1,999.4	-3.5%
	Irradiance after Soiling	1,943.6	-2.8%
	Total Collector Irradiance	**1,943.6**	**0.0%**
Energy (kWh)	Nameplate	466,427.0	
	Output at Irradiance Levels	463,099.8	-0.7%
	Output at Cell Temperature Derate	437,829.5	-5.5%
	Output After Mismatch	429,851.7	-1.8%
	Optimal DC Output	429,159.4	-0.2%
	Constrained DC Output	424,889.7	-1.0%
	Inverter Output	417,393.0	-1.8%
	Energy to Grid	**402,639.0**	**-3.5%**
Temperature Metrics			
	Avg. Operating Ambient Temp		18.7 °C
	Avg. Operating Cell Temp		29.4 °C
Simulation Metrics			
	Operating Hours		4664
	Solved Hours		4664

Condition Set

Description	CS_REC_350W											
Weather Dataset	TMY, 10km grid (34.05,-117.35), NREL (prospector)											
Solar Angle Location	Project Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Diffusion Model											
Temperature Model Parameters	Rack Type			U_{const}			U_{wind}					
	Fixed Tilt			29			0					
	Flush Mount			20			0					
	East-West			29			0					
	Carport			29			0					
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	1	1	1	4.5	7.5	1	4.5	1	4.5	1	1	1
Irradiation Variance	4%											
Cell Temperature Spread	4° C											
Module Binning Range	-1% to 1.428%											
AC System Derate	3.50%											
Module Characterizations	Module					Characterization						
	REC 350TP2S 72.NOV2017 (REC)					REC_350TP2S_72_20171123.PAN, PAN						
Component Characterizations	Device					Characterization						
	PVI 36TL-480 (Solectria Renewables)					CEC Efficiency Curve 2015-09-05						
	PVI 50TL 2-22-2017 (Solectria (Yaskawa Solectria Solar))					Default Characterization						

Components

Component	Name	Count
Inverters	PVI 36TL-480 (Solectria Renewables)	1 (36.0 kW)
Inverters	PVI 50TL 2-22-2017 (Solectria (Yaskawa Solectria Solar))	3 (150.0 kW)
Transformer	Primary Side: 208Y/120V , Secondary: 480Y/277V	1
AC Panels	1 input AC Panel	1
AC Panels	3 input AC Panel	1
AC Home Runs	3 AWG (Copper)	1 (1,249.1 ft)
AC Home Runs	1 AWG (Copper)	1 (1,999.0 ft)
AC Home Runs	350 MCM (Copper)	1 (915.0 ft)
AC Home Runs	400 MCM (Copper)	3 (6,064.4 ft)
Strings	10 AWG (Copper)	38 (2,716.7 ft)
Module	REC, REC 350TP2S 72.NOV2017 (350W)	684 (239.4 kW)

Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	12	18-18	Along Racking
Wiring Zone 2	12	18-18	Along Racking

Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Carport 2	Carport	Portrait (Vertical)	5°	180°	0.1 ft	6x3	10	180	63.0 kW
Carport 3	Carport	Portrait (Vertical)	5°	269.1°	0.1 ft	6x3	10	180	63.0 kW
Carport 4	Carport	Portrait (Vertical)	5°	269.1°	0.1 ft	6x3	8	144	50.4 kW
Carport 1	Carport	Portrait (Vertical)	5°	180°	0.1 ft	6x3	10	180	63.0 kW

Detailed Layout

Attachment B

Financial & Environmental Summary

SAGE RENEWABLES

25-year Financial-Environmental Summary

Riverside Unified School District Solar PV Project

SAGE RENEWABLES

Assumptions

System Assumptions	
System Size	661.5 kW DC
PV Yield, Yr 1	1,720 kWh/kW
PV Production, Yr 1	1,138,000 kWh
Annual Electricity Consumption	1,181,000 kWh
Incentives/Rebates	$0.0000 per kWh
NEM 2.0 Ends	1/1/2039
Historical Blended Utility Energy Cost	$0.1873 per kWh
SCE GRC Blended Utility Energy Cost, Year-1	$0.1871 per kWh

Financing Assumptions	
NPV Discount Rate Investments	2.00%
REC PPA	
PPA Contract Term	25.0 years
PPA Base Price (Weighted Average)	$0.1606 per kWh
PPA Annual Rate Escalator	0.00%
PPA Buyout Year Options	10, 15, 20
PV Energy Summary	
Avoided Value of Solar Year-1 ($/kWh)	$0.1134 per kWh
25-Year Average Avoided Value of Solar ($/kWh)	$0.1653 per kWh

Financial Performance Analysis

25-Year Project Financial Performance

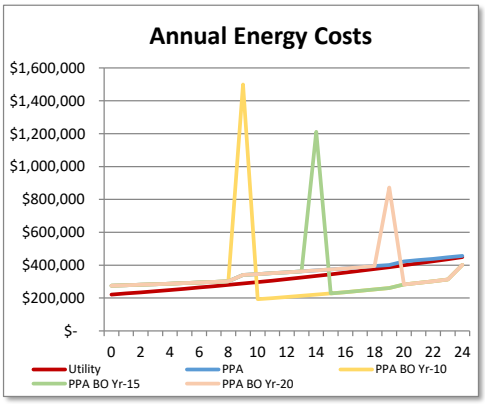
	No PV (Utility Only)	PV PPA Financed	PV PPA Buyout (Yr-10)	PV PPA Buyout (Yr-15)	PV PPA Buyout (Yr-20)
Energy Cost, Nominal $	$8,057,000	$8,849,619	$7,935,262	$8,371,271	$8,717,241
Project Development Costs $	$0	$15,000	$15,000	$15,000	$15,000
Savings vs. Utility, Nominal $	$0	-$792,121	$122,236	-$313,773	-$659,744
Simple Payback	N/A	>25 Years	23.5 years	>25 Years	>25 Years
Project IRR	N/A	N/A	$0	$0	$0
Lifetime Energy Savings @ 2% D.	$0	-$807,121	$107,236	-$328,773	-$674,744
Net Present Value @ 2% D.R.	$0	-$663,560	-$144,550	-$401,907	-$595,583

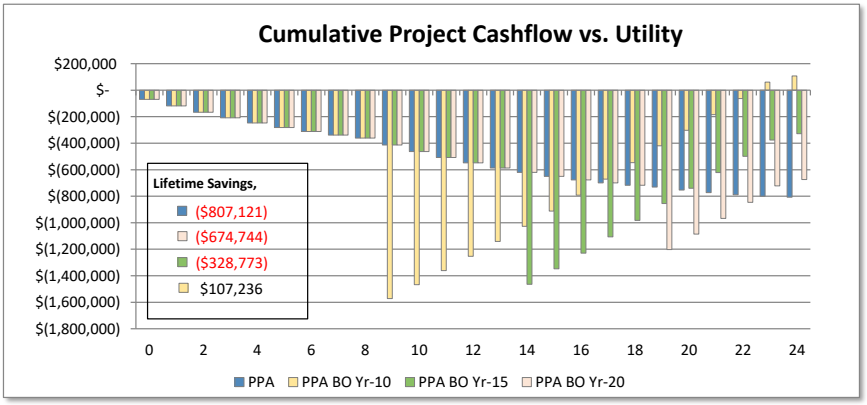
Energy Cost and Savings Over Time

Cumulative Energy Cost, Nominal $, Not Including Development Cost

	No PV (Utility Only)	PV PPA Financed		PV PPA Buyout (Yr-10)		PV PPA Buyout (Yr-15)		PV PPA Buyout (Yr-20)	
	Utility	PPA	Savings	PPA	Savings	PPA	Savings	PPA	Savings
Year 1	$221,000	$275,000	-24.4%	$275,000	-24.4%	$275,000	-24%	$275,000	-24%
Year 5	$1,173,000	$1,406,000	-19.9%	$1,406,000	-19.9%	$1,406,000	-20%	$1,406,000	-20%
Year 10	$2,534,000	$2,932,000	-15.7%	$4,090,000	-61.4%	$2,932,000	-16%	$2,932,000	-16%
Year 15	$4,110,000	$4,716,000	-14.7%	$5,123,000	-24.6%	$5,559,000	-35%	$4,716,000	-15%
Year 20	$5,938,000	$6,654,000	-12.1%	$6,343,000	-6.8%	$6,779,000	-14%	$7,125,000	-20%
Year 25	$8,057,000	$8,850,000	-9.8%	$7,935,000	1.5%	$8,371,000	-4%	$8,717,000	-8%
Year 30	$10,514,000	$11,306,000	-7.5%	$10,392,000	1.2%	$10,828,000	-3%	$11,174,000	-6%

Financial Performance Charts





Environmental Analysis

CO_2 Offset per Year (Avg)	400 Tons per Year
CO_2 Offset Total	9,000 Tons Total
Passenger Car Emissions	60 Equivalent Cars
Equivalent Trees Planted	71,000 Trees

Attachment C

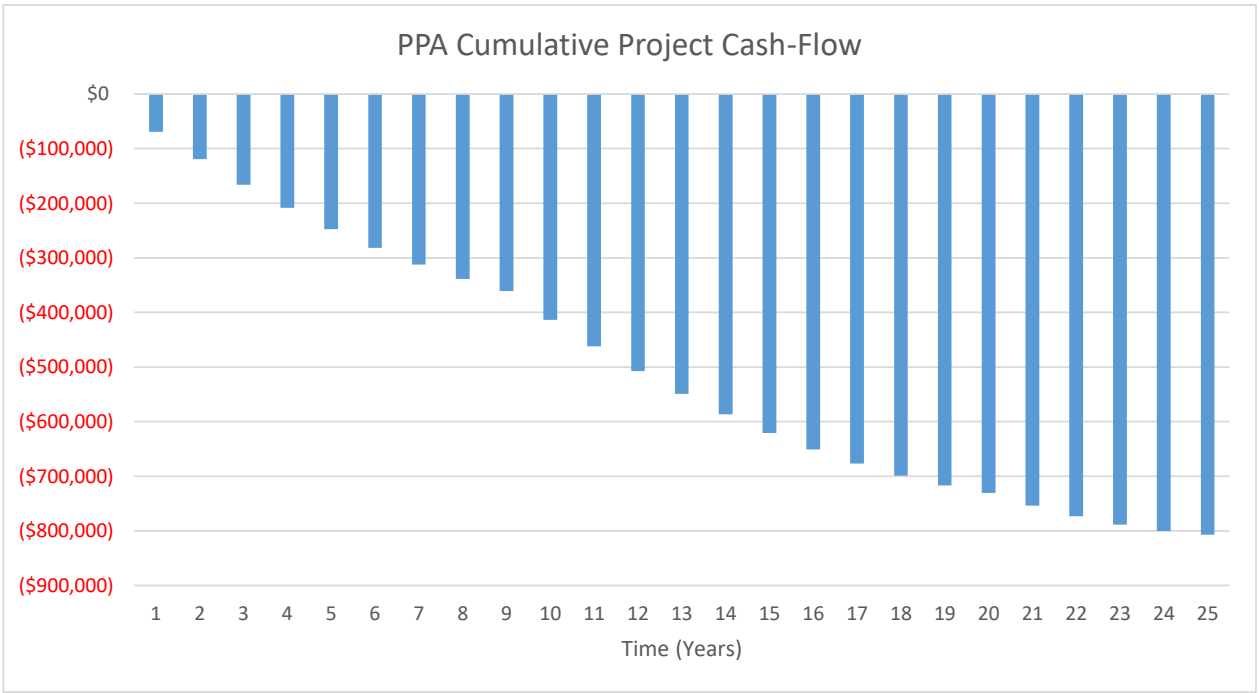
Cash Flow Tables

SAGE RENEWABLES

25-Year Cash Flow - NEM 2.0 Assumptions, PPA Financed

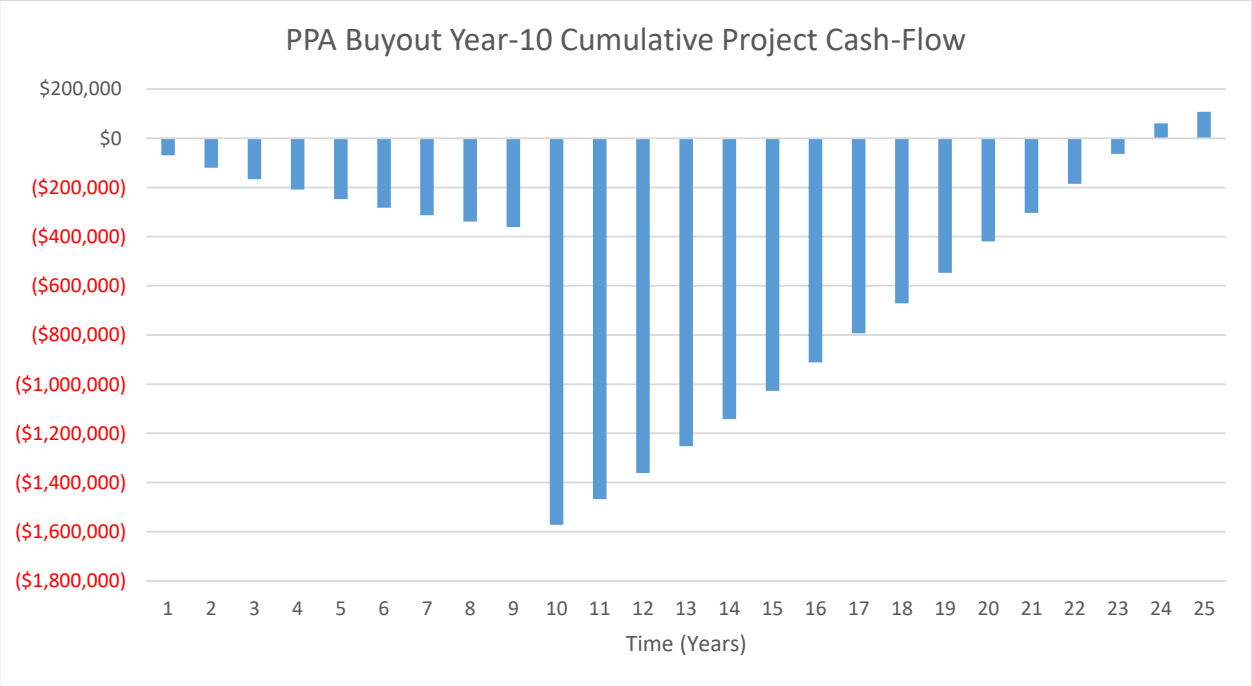
PPA-Financed

Year	Estimated Utility Usage (kWh)	Annual Estimated Utility Cost w/o PV	Utility Energy Cost w/PV	Cost of PPA Payments	PV Operating Costs	Net Annual Savings	Cumulative Project Cash Flow
0	$0	$0	$0	$0	$0	$0	($15,000)
1	1,181,000	$221,000	$92,000	182,800	$331	($54,130)	($69,130)
2	1,181,000	$227,630	$95,755	181,886	$341	($50,351)	($119,481)
3	1,181,000	$234,459	$99,644	180,976	$351	($46,512)	($165,994)
4	1,181,000	$241,493	$103,673	180,071	$361	($42,613)	($208,607)
5	1,181,000	$248,737	$107,846	179,171	$372	($38,652)	($247,259)
6	1,181,000	$256,200	$112,168	178,275	$383	($34,627)	($281,886)
7	1,181,000	$263,886	$116,644	177,384	$395	($30,537)	($312,423)
8	1,181,000	$271,802	$121,278	176,497	$407	($26,380)	($338,802)
9	1,181,000	$279,956	$126,077	175,614	$419	($22,154)	($360,957)
10	1,181,000	$288,355	$165,654	174,736	$432	($52,467)	($413,424)
11	1,181,000	$297,006	$171,570	173,863	$445	($48,871)	($462,295)
12	1,181,000	$305,916	$177,684	172,993	$458	($45,220)	($507,515)
13	1,181,000	$315,093	$184,003	172,128	$472	($41,510)	($549,025)
14	1,181,000	$324,546	$190,534	171,268	$486	($37,742)	($586,767)
15	1,181,000	$334,282	$197,284	170,411	$500	($33,913)	($620,680)
16	1,181,000	$344,311	$204,259	169,559	$515	($30,022)	($650,702)
17	1,181,000	$354,640	$211,466	168,711	$531	($26,068)	($676,771)
18	1,181,000	$365,279	$218,914	167,868	$547	($22,050)	($698,820)
19	1,181,000	$376,238	$226,610	167,029	$563	($17,964)	($716,785)
20	1,181,000	$387,525	$234,562	166,193	$580	($13,811)	($730,596)
21	1,181,000	$399,151	$256,602	165,362	$597	($23,411)	($754,007)
22	1,181,000	$411,125	$265,399	164,536	$615	($19,425)	($773,432)
23	1,181,000	$423,459	$274,485	163,713	$634	($15,373)	($788,805)
24	1,181,000	$436,163	$283,868	162,894	$653	($11,253)	($800,058)
25	1,181,000	$449,247	$293,559	162,080	$672	($7,063)	($807,121)



PPA-Financed; Buyout Year-10

Year	Estimated Utility Usage (kWh)	Annual Estimated Utility Cost w/o PV	Utility Energy Cost w/PV	Cost of PPA Payments	PV Operating Costs	Net Annual Savings	Cumulative Project Cash Flow
0	$0	$0	$0	$0	$0	$0	($15,000)
1	1,181,000	$221,000	$92,000	182,800	$331	($54,130)	($69,130)
2	1,181,000	$227,630	$95,755	181,886	$341	($50,351)	($119,481)
3	1,181,000	$234,459	$99,644	180,976	$351	($46,512)	($165,994)
4	1,181,000	$241,493	$103,673	180,071	$361	($42,613)	($208,607)
5	1,181,000	$248,737	$107,846	179,171	$372	($38,652)	($247,259)
6	1,181,000	$256,200	$112,168	178,275	$383	($34,627)	($281,886)
7	1,181,000	$263,886	$116,644	177,384	$395	($30,537)	($312,423)
8	1,181,000	$271,802	$121,278	176,497	$407	($26,380)	($338,802)
9	1,181,000	$279,956	$126,077	175,614	$419	($22,154)	($360,957)
10	1,181,000	$288,355	$165,654	174,736	$1,158,789	($1,210,825)	($1,571,781)
11	1,181,000	$297,006	$171,570	-	$21,486	$103,950	($1,467,831)
12	1,181,000	$305,916	$177,684	-	$21,911	$106,320	($1,361,511)
13	1,181,000	$315,093	$184,003	-	$22,351	$108,738	($1,252,773)
14	1,181,000	$324,546	$190,534	-	$22,807	$111,205	($1,141,568)
15	1,181,000	$334,282	$197,284	-	$23,278	$113,720	($1,027,848)
16	1,181,000	$344,311	$204,259	-	$23,766	$116,286	($911,561)
17	1,181,000	$354,640	$211,466	-	$24,270	$118,903	($792,658)
18	1,181,000	$365,279	$218,914	-	$24,792	$121,573	($671,085)
19	1,181,000	$376,238	$226,610	-	$25,331	$124,296	($546,789)
20	1,181,000	$387,525	$234,562	-	$25,889	$127,074	($419,715)
21	1,181,000	$399,151	$256,602	-	$26,465	$116,084	($303,631)
22	1,181,000	$411,125	$265,399	-	$27,061	$118,665	($184,966)
23	1,181,000	$423,459	$274,485	-	$27,676	$121,298	($63,668)
24	1,181,000	$436,163	$283,868	-	$28,312	$123,983	$60,314
25	1,181,000	$449,247	$293,559	-	$108,767	$46,922	$107,236

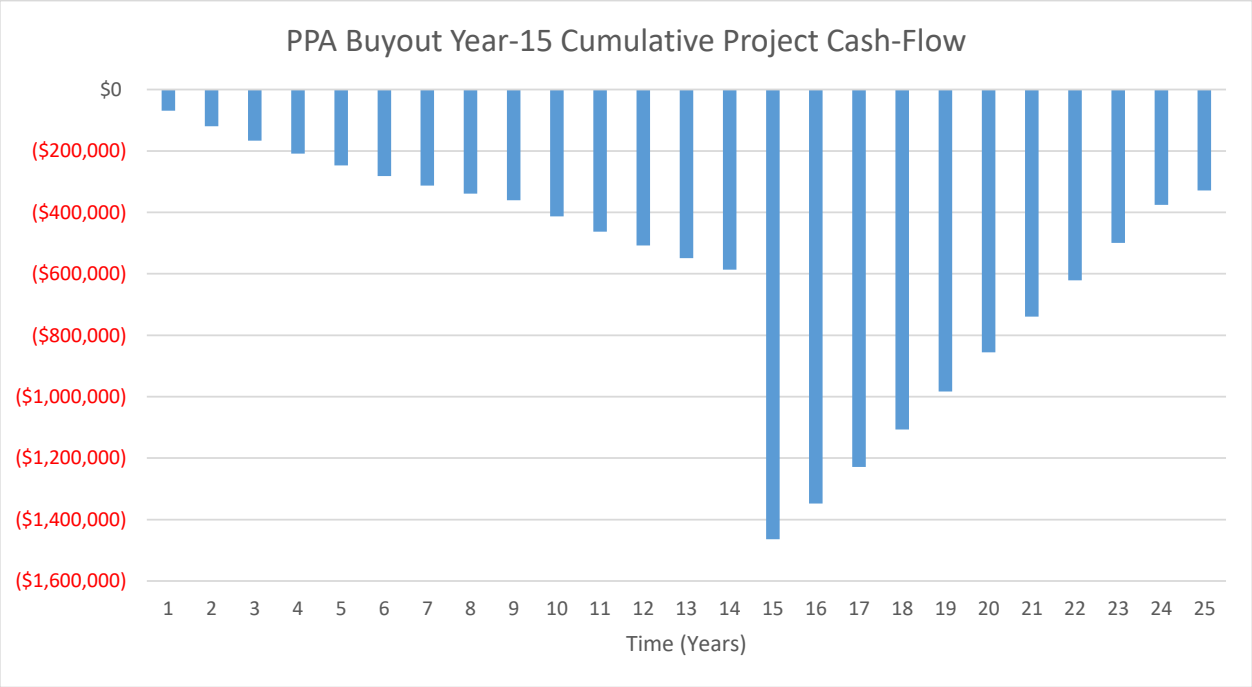


SAGE RENEWABLES

25-Year Cash Flow - NEM 2.0 Assumptions, PPA Financed

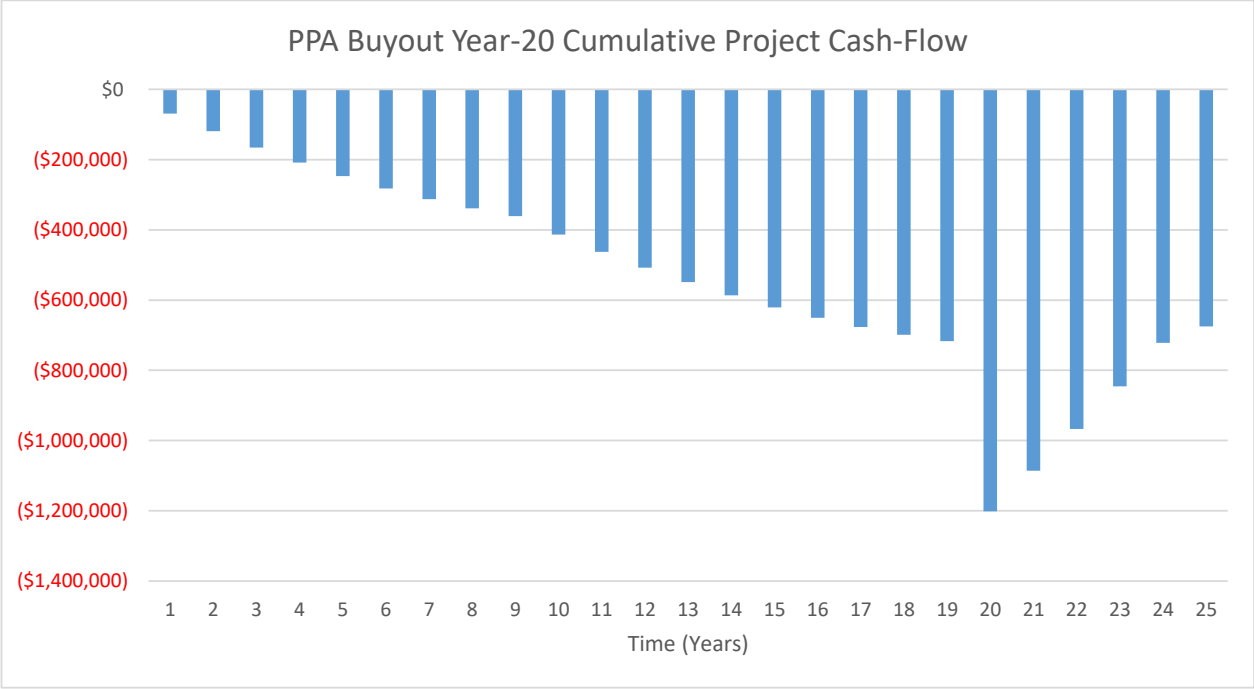
PPA-Financed; Buyout Year-15

Year	Estimated Utility Usage (kWh)	Annual Estimated Utility Cost w/o PV	Utility Energy Cost w/PV	Cost of PPA Payments	PV Operating Costs	Net Annual Savings	Cumulative Project Cash Flow
0	$0	$0	$0	$0	$0	$0	($15,000)
1	1,181,000	$221,000	$92,000	182,800	$331	($54,130)	($69,130)
2	1,181,000	$227,630	$95,755	181,886	$341	($50,351)	($119,481)
3	1,181,000	$234,459	$99,644	180,976	$351	($46,512)	($165,994)
4	1,181,000	$241,493	$103,673	180,071	$361	($42,613)	($208,607)
5	1,181,000	$248,737	$107,846	179,171	$372	($38,652)	($247,259)
6	1,181,000	$256,200	$112,168	178,275	$383	($34,627)	($281,886)
7	1,181,000	$263,886	$116,644	177,384	$395	($30,537)	($312,423)
8	1,181,000	$271,802	$121,278	176,497	$407	($26,380)	($338,802)
9	1,181,000	$279,956	$126,077	175,614	$419	($22,154)	($360,957)
10	1,181,000	$288,355	$165,654	174,736	$432	($52,467)	($413,424)
11	1,181,000	$297,006	$171,570	173,863	$445	($48,871)	($462,295)
12	1,181,000	$305,916	$177,684	172,993	$458	($45,220)	($507,515)
13	1,181,000	$315,093	$184,003	172,128	$472	($41,510)	($549,025)
14	1,181,000	$324,546	$190,534	171,268	$486	($37,742)	($586,767)
15	1,181,000	$334,282	$197,284	170,411	$843,678	($877,090)	($1,463,857)
16	1,181,000	$344,311	$204,259	-	$23,766	$116,286	($1,347,571)
17	1,181,000	$354,640	$211,466	-	$24,270	$118,903	($1,228,667)
18	1,181,000	$365,279	$218,914	-	$24,792	$121,573	($1,107,094)
19	1,181,000	$376,238	$226,610	-	$25,331	$124,296	($982,798)
20	1,181,000	$387,525	$234,562	-	$25,889	$127,074	($855,724)
21	1,181,000	$399,151	$256,602	-	$26,465	$116,084	($739,641)
22	1,181,000	$411,125	$265,399	-	$27,061	$118,665	($620,975)
23	1,181,000	$423,459	$274,485	-	$27,676	$121,298	($499,678)
24	1,181,000	$436,163	$283,868	-	$28,312	$123,983	($375,695)
25	1,181,000	$449,247	$293,559	-	$108,767	$46,922	($328,773)



PPA-Financed; Buyout Year-20

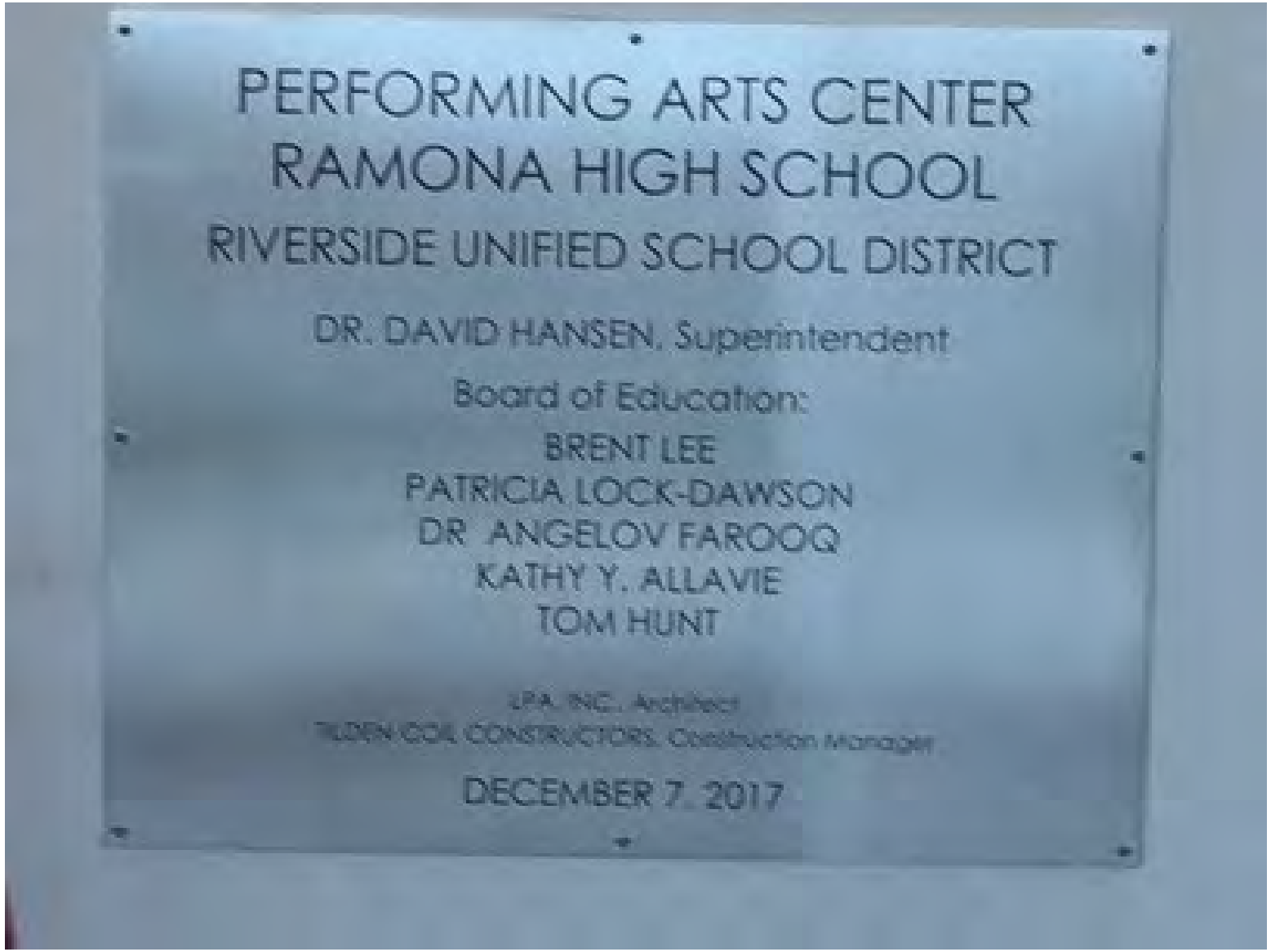
Year	Estimated Utility Usage (kWh)	Annual Estimated Utility Cost w/o PV	Utility Energy Cost w/PV	Cost of PPA Payments	PV Operating Costs	Net Annual Savings	Cumulative Project Cash Flow
0	$0	$0	$0	$0	$0	$0	($15,000)
1	1,181,000	$221,000	$92,000	182,800	$331	($54,130)	($69,130)
2	1,181,000	$227,630	$95,755	181,886	$341	($50,351)	($119,481)
3	1,181,000	$234,459	$99,644	180,976	$351	($46,512)	($165,994)
4	1,181,000	$241,493	$103,673	180,071	$361	($42,613)	($208,607)
5	1,181,000	$248,737	$107,846	179,171	$372	($38,652)	($247,259)
6	1,181,000	$256,200	$112,168	178,275	$383	($34,627)	($281,886)
7	1,181,000	$263,886	$116,644	177,384	$395	($30,537)	($312,423)
8	1,181,000	$271,802	$121,278	176,497	$407	($26,380)	($338,802)
9	1,181,000	$279,956	$126,077	175,614	$419	($22,154)	($360,957)
10	1,181,000	$288,355	$165,654	174,736	$432	($52,467)	($413,424)
11	1,181,000	$297,006	$171,570	173,863	$445	($48,871)	($462,295)
12	1,181,000	$305,916	$177,684	172,993	$458	($45,220)	($507,515)
13	1,181,000	$315,093	$184,003	172,128	$472	($41,510)	($549,025)
14	1,181,000	$324,546	$190,534	171,268	$486	($37,742)	($586,767)
15	1,181,000	$334,282	$197,284	170,411	$500	($33,913)	($620,680)
16	1,181,000	$344,311	$204,259	169,559	$515	($30,022)	($650,702)
17	1,181,000	$354,640	$211,466	168,711	$531	($26,068)	($676,771)
18	1,181,000	$365,279	$218,914	167,868	$547	($22,050)	($698,820)
19	1,181,000	$376,238	$226,610	167,029	$563	($17,964)	($716,785)
20	1,181,000	$387,525	$234,562	166,193	$471,679	($484,910)	($1,201,694)
21	1,181,000	$399,151	$256,602	-	$26,465	$116,084	($1,085,611)
22	1,181,000	$411,125	$265,399	-	$27,061	$118,665	($966,946)
23	1,181,000	$423,459	$274,485	-	$27,676	$121,298	($845,648)
24	1,181,000	$436,163	$283,868	-	$28,312	$123,983	($721,665)
25	1,181,000	$449,247	$293,559	-	$108,767	$46,922	($674,744)



RUSD
Innovation in Education

RAMONA HIGH SCHOOL DEDICATION PLAQUE
MAXINE FROST PERFORMING ARTS CENTER LETTERING

Operations Board Subcommittee Meeting
May 24, 2018


PERFORMING ARTS CENTER
RAMONA HIGH SCHOOL
RIVERSIDE UNIFIED SCHOOL DISTRICT
DR. DAVID HANSEN, Superintendent
Board of Education:
BRENT LEE
PATRICIA LOCK-DAWSON
DR ANGELOV FAROOQ
KATHY Y. ALLAVIE
TOM HUNT
LPA, INC., Architect
TILDEN-COIL CONSTRUCTORS, Construction Manager
DECEMBER 7, 2017


RAMONA HIGH SCHOOL
PERFORMING ARTS CENTER
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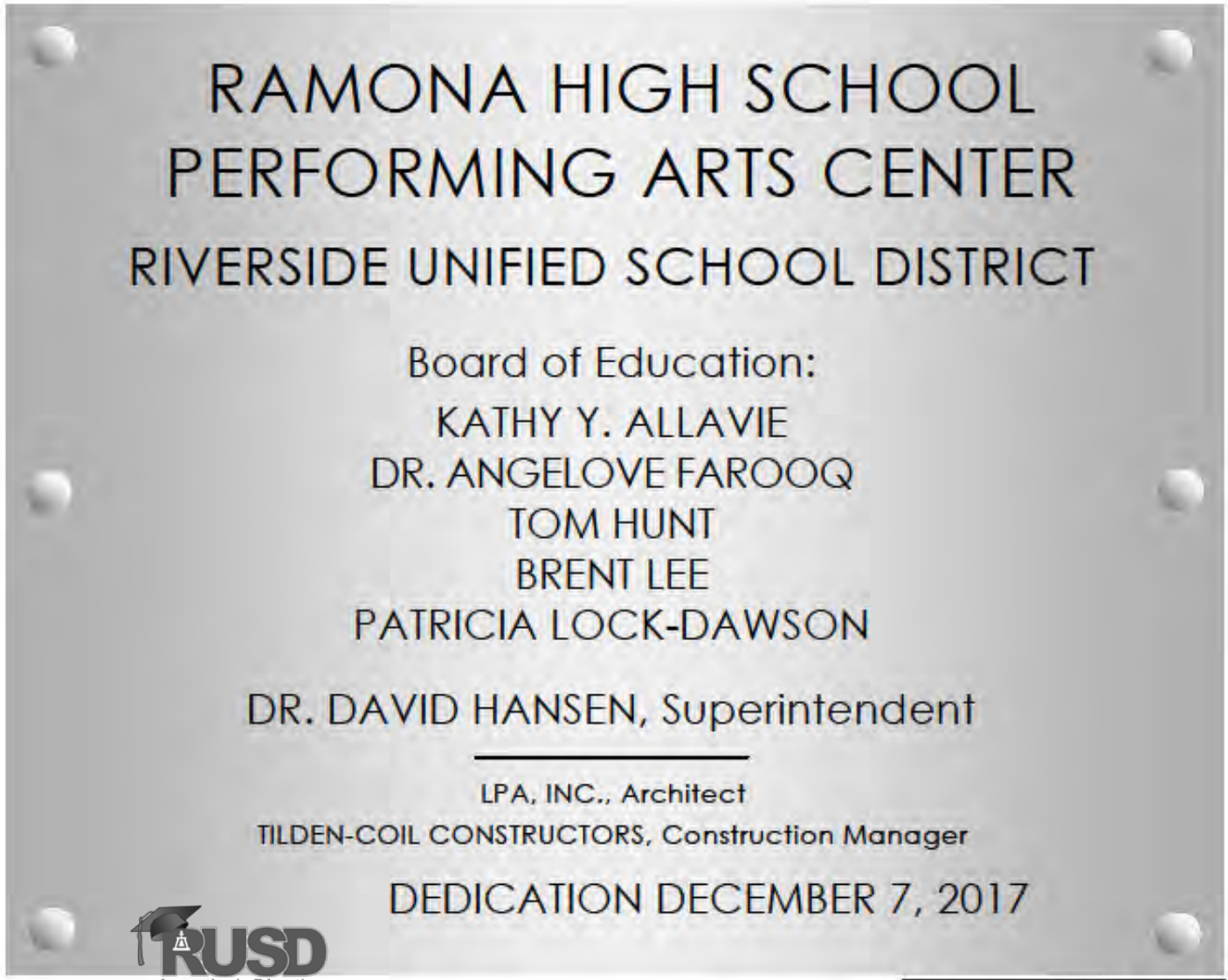
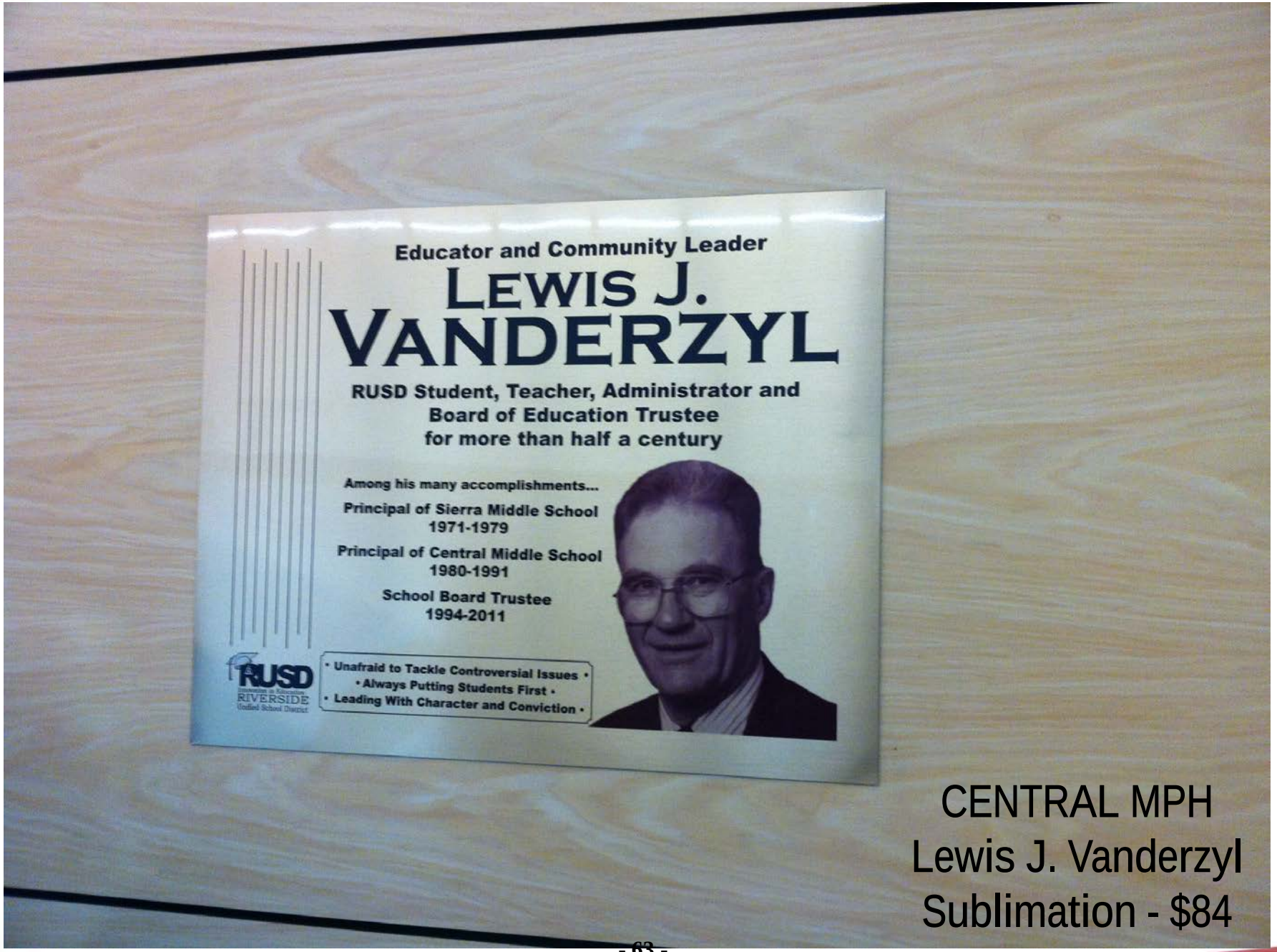
RUSD
Innovation in Education
DECEMBER 7, 2017
RAMONA HS DEDICATION PLAQUE 1.0
5.7.18 KH


RAMONA HIGH SCHOOL
PERFORMING ARTS CENTER
RIVERSIDE UNIFIED SCHOOL DISTRICT
Board of Education:
KATHY Y. ALLAVIE
DR. ANGELOVE FAROOQ
TOM HUNT
BRENT LEE
PATRICIA LOCK-DAWSON
DR. DAVID HANSEN, Superintendent
LPA, INC., Architect
TILDEN-COIL CONSTRUCTORS, Construction Manager
DEDICATION DECEMBER 7, 2017
RUSD
Innovation in Education
RAMONA HS DEDICATION PLAQUE 2.0
5.7.18 KH


Proposed location for
Maxine Frost Dedication


LEWIS J. VANDERZYL
MULTIPURPOSE HALL
Welcome
Leadership Team Meeting
RASM Social



CENTRAL MPH
Lewis J. Vanderzyl
Sublimation - $84

Ardie Bailor shadow box
Pachappa Library

Box built in house, lettering
by PenPoint Graphics

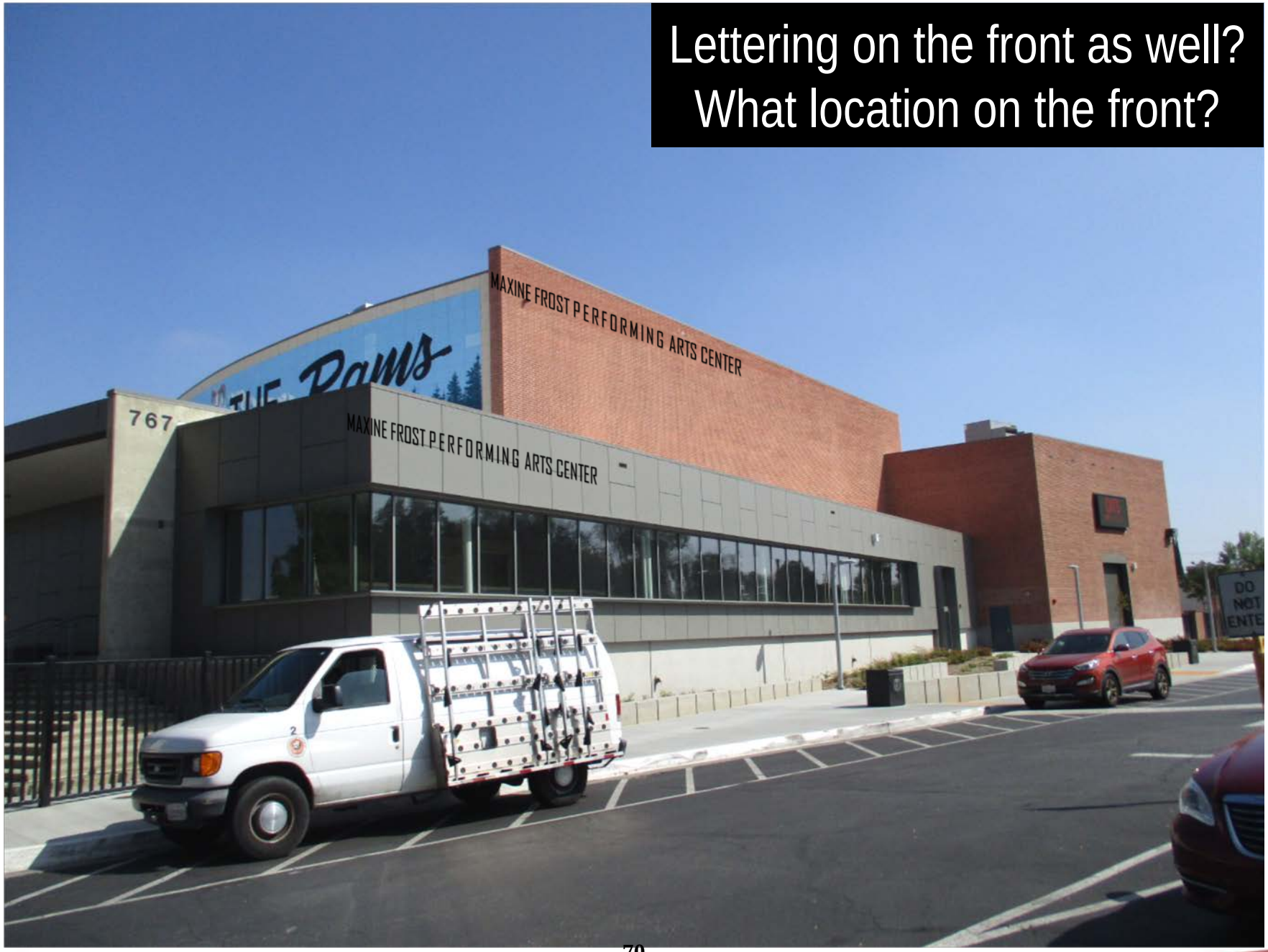

1958
1962
1963
Martin Luther King, Jr. delivers his "I Have a Dream" speech at the March on Washington.
1964
President Lyndon B. Johnson signs the Civil Rights Act prohibiting discrimination.
1965
Lowell Elementary School, serving mostly African-American and Mexican-American students, is burned. Parents ask the School Board to integrate Riverside schools.
Arthur L. Littleworth leads successful effort, making Riverside the first large district in the nation to integrate voluntarily.
Congress passes the Voting Rights Act eliminating restrictions aimed at black voters.
Riverside Polytechnic High School opens a new campus on its current site; sale of old Poly to Riverside City College funds construction of new Poly and John W. North High School.
1968
President Lyndon B. Johnson signs the Fair Housing Act of 1968, making racial discrimination in housing illegal.
1972
Arthur L. Littleworth retires from the RUSD Board of Education after 14 years.
1976
Arthur L. Littleworth is named first president of the Mission Inn Foundation.
1977
The Mission Inn is designated a National Historic Landmark during Littleworth's term as Mission Inn Foundation president.
1987
U.S. Supreme Court names Arthur L. Littleworth Special Master (judge) to decide a case between the states of Arkansas and Kansas over water rights. The trial lasted over 19 years.
1992
The Mission Inn reopens after a seven-year renovation.
2001
In 2001 and 2003, Littleworth is named one of the "Top 100 lawyers California."
Arthur L. Littleworth co-authors
Water, a comprehensive guide to the issue
affecting the use of water in the state.
California Water II is published in 2008.


ARTHUR LITTLEWORTH THEATER
FINE ARTS


ARTHUR LITTLEWORTH
THEATER
CHEVROLET

Exterior lettering type requested by site


HOME OF THE Rams
MAXINE FROST PERFORMING ARTS CENTER
TICKETS


Lettering on the front as well?
What location on the front?
MAXINE FROST PERFORMING ARTS CENTER
767
MAXINE FROST PERFORMING ARTS CENTER
DO NOT


MAXINE FROST PERFORMING ARTS CENTER
CATS
MAY 3 4 8 5