STRATEGIC PLANNING COUNCIL AGENDA

Date:	April 27, 2016
Starting Time:	3:30 p.m.
Ending Time:	5:00 p.m.
Place:	**AA-140**

CHAIR: Gonzales

MEMBERS: Barton, Bongolan, Dryden, Falcone, Furch, Gonzales, Holmes, Larson, Laughlin, Lienhart, Moore, Nagtalon, Navarro, Perez, Popielski, San Juan, Sivert, Smiley, Sourbeer, Stockert, Talmo, Titus, Wick

RECORDER: Ashour

		Attachments	Time
I.	**SOUTH CENTER DISCUSSION**	Exhibit 1	1.5 Hours
A.	History of Development of South Center	Exhibit A	
B.	Enrollment Flow review	Exhibit B	
C.	Curriculum Planning Activities		
D.	Building Floor Plan	Exhibit D	
E.	Environmental Impact Report	Exhibit E	
F.	Cost Estimates		
G.	Potential Benefits		
H.	Discussion and Input		

STRATEGIC PLANNING COUNCIL
MEETING MINUTES
April 27, 2016

A Special meeting of the Palomar College Strategic Planning Council scheduled April 27, 2016, was held in AA-140. Interim President Adrian Gonzales called the meeting to order at 3:30 p.m.

ROLL CALL

Present: Barton, Bongolan, Falcone, Furch, Gonzales, Holmes, Larson, Laughlin, Nagtalon, Navarro, Perez, Popielski, Sivert, Smiley, Sourbeer, Stockert, Titus
Absent: Dryden, Lienhart, Moore, San Juan, Talmo, Wick
Guests: Dennis Astl, Laura Gropen, Kendyl Magnuson, Chris Miller, Connie Moise, Wilma Owens
Recorder: Cheryl Ashour

I. SOUTH CENTER DISCUSSION

A. History of Development of South Center

Michelle Barton reviewed the history of the Master Plan 2022 completed in 2002 and the Master Plan Update completed in 2010. She explained how the site of the South Center was selected. She stated that the site is a good location with three high schools from the Poway District close by, as well as many businesses.

Ron Perez discussed the purchase of the site, which consists of one four-story office building, one three-story parking structure, and room for expansion. The construction start and end dates were discussed.

B. Enrollment Flow Review

Michelle Barton reviewed enrollment trends from 2001-01 through 2014-15. She showed the enrollment flow of students in the Palomar District, pointing out the percentage who attend community colleges outside the District. The enrollment flow numbers show a large portion of students from the southern portion of our District enrolling at other community colleges.

C. Curriculum Planning Activities

Dan Sourbeer discussed the academic programs that have the potential to do well at the South Center. He stated there is enthusiasm from the area high schools, especially regarding higher level math and world language courses and STEM. They are willing to work with the District with scheduling. In addition there is a great potential to assist area businesses with its educational and training needs.

D. Building Floor Plan

Ron Perez showed drawings of the building floor plan, discussing what will be offered on each of the four floors. The architect worked with faculty on classroom and lab needs. Portions of the building could be closed off until a decision is made on program offerings, in case special equipment is required. This will enable the building to be completed and opened by the spring or summer of 2018.

E. Environmental Impact Report

Ron Perez stated that the initial Environmental Impact Report (EIR) was released December 2015. Because of the surrounding community's concern with traffic and parking, a revised EIR was recently released and the Governing Board with be presented with the results in June.

F. Cost Estimates

Using the Escondido Center as a model, scenarios were run to show potential revenue and expenditures for a small center, medium center, and large center. In all of the scenarios, the South Center would have a positive ending balance. The staffing needs were reviewed.

G. Potential Benefits

Dan Sourbeer reviewed the potential benefits of establishing a South Center in our District.

H. Discussion and Input

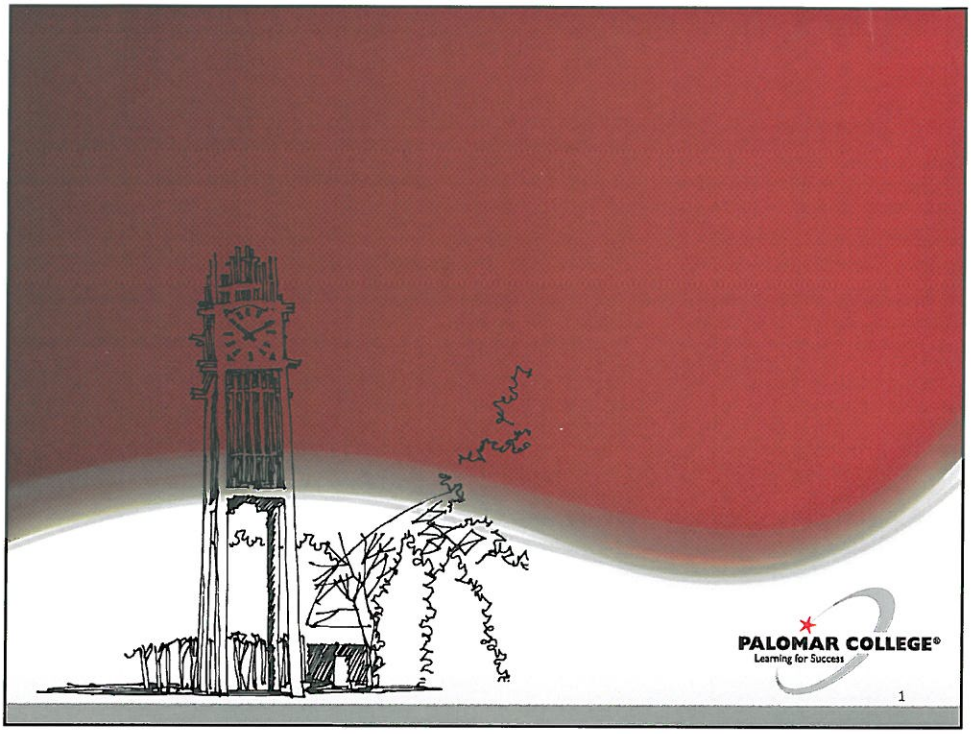
Adrian Gonzales led a discussion of ideas and concerns for the South Center. Some of the subjects covered were:

- The potential number and type of students who may want to attend
- Staffing concerns. Mr. Gonzales stated that it is hoped that new staff will be hired a few months early so that they will be trained and ready to serve students when the South Center opens
- Ensuring that the concerns of ACCJC for the Escondido Center and Camp Pendleton Center are addressed for the South Center as well
- The layout of student services
- The idea of a University Center was discussed, where Palomar would partner with 4 year universities
- Utilizing project based learning with the classroom space. It was pointed out that many high schools and middle schools utilize learning spaces in a creative way and expect the same type of learning opportunity at college. Many faculty spoke of the need to get away from the traditional classroom walls and space.

There was consensus with SPC members to move forward with the South Center. Mr. Gonzales stated that if the Governing Board decides to move forward, it will be important to hire a permanent director so that everything will be ready in time to open in spring of 2018. He encouraged faculty to be involved in the planning of the curriculum and offerings, especially those interested in the University or project based concepts.

I. Adjournment

There being no remaining items, the meeting was adjourned at 5:30 p.m.



SOUTH CENTER DISCUSSION
SPC 04/28/16

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Overview

- History of Development of South Center
- Enrollment Flow (review)
- Curriculum Planning Activities
- Building Floor Plan
- Environmental Impact Report (EIR)
- Cost Estimates
- Potential Benefits
- Discussion and Input

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HISTORY

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History – Master Plan 2022

- Need for South Center goes back more than 20 years, California Post Secondary Education Commission
- Master Plan 2022 – (completed in 2002) Palomar's first comprehensive long-range Educational and Facilities Master Plan
  - Developed by Educational and Facilities Master Planning Committee (EMFPC)
  - District long-range enrollment forecasts
  - Interviewed all programs and disciplines across campus
  - Established planning assumptions based on input from the campus community (e.g., program growth, lecture/lab courses and distributions)
  - Importantly, formally established a planned district configuration
- The Educational Master Plan drove the development of the Facilities Master Plan

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History – UPDATE Master Plan 2022

- Integrated Planning Model established planning cycles and placed the Master Plan on a 12-year cycle with updates and reviews
- In 2010, Educational Master Planning Task Force established to formally review and update the Educational Master Plan
- Revised planning assumptions and forecasts
  - College still expected to grow, but not as aggressively or as much as the original forecasts
  - All programs interviewed and included in the plan
  - North and South centers discussed in more detail
- South Center not yet purchased, plan maintained South Center as a larger center
  - Based on significant population in the area
  - Instructional needs across the entire district

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History – UPDATE Master Plan 2022

- Projected to come online after the North Center as we had not yet purchased land (but with caveat that it might come on earlier based on several factors and conditions)
- Goals: 1) Attract new students, 2) Self-sustaining
- Mixture of General Education / Career Technical / Basic Skills, with transfer-level education serving as the largest set of offerings
- Suggests considering moving or establishing successful CTE program(s) at the site
- Need to develop a program of instruction in a way that establishes an identity
- As plans move forward to actually open the center the instruction programs would be better defined

Considerations for Planning

- 2002 enrollment flow analyses showed we were losing students to SDCCD
- Curriculum: 88% of courses offered are transfer-level
- Students: 18-20 represents about 35% of our enrollments, but 43% of our FTES
- Students: 18-20 typically enrolling in degree/transfer or leading to transfer coursework
- Idea was to create a core set of offerings that could generate enough FTES to meet center status requirements while at the same time focusing on career technical needs of the community and defining an identity for the center

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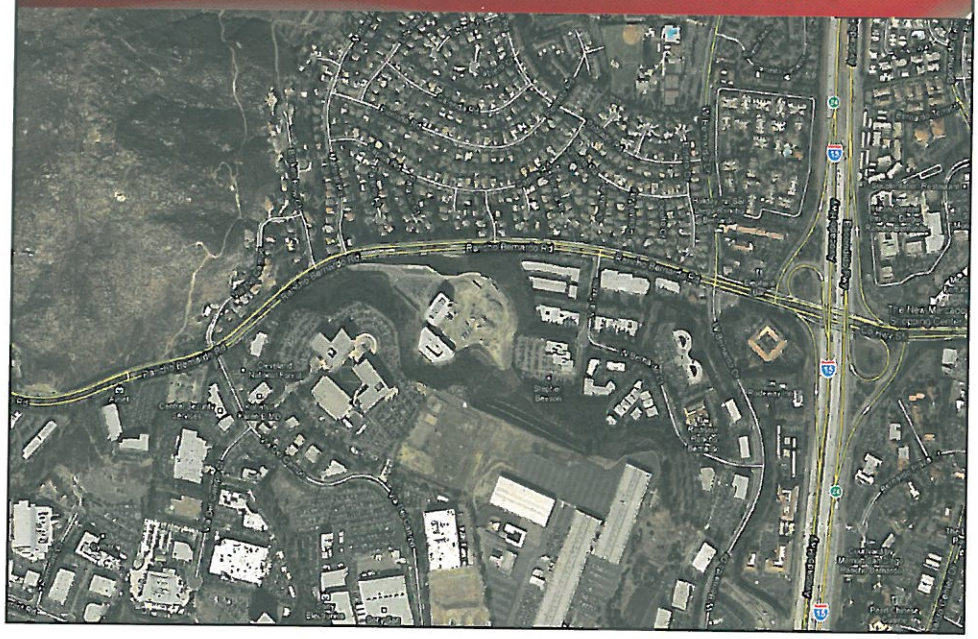
Considerations for Planning

- Job Market Survey – 2016
- Contracted with Cal State Fullerton to conduct an environmental scan for VTEA
- Districtwide with oversampling of businesses in southern portion of district
- Interview includes
  - Industry identification, training and education, emerging trends
  - Education needs (technical, foundational, soft)
  - South Center (meet needs of industry and community)
  - Experience with Palomar
  - Interest in Palomar connections

Purchase of Site and Timeline



Purchase of Site and Timeline

- History and selection of the site
- Site / Building purchased in June 2010
  - Southern portion of district
- Originally designated as a 111,000 sf office building
  - 4-stories
- 3-story parking structure (4 levels of parking)
  - 737 parking stalls
  - Plans to add another 150 (if necessary)
- Construction Start
  - September 2016
- Construction Complete
  - Summer 2018

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ENROLLMENT FLOW STUDY - REVIEW

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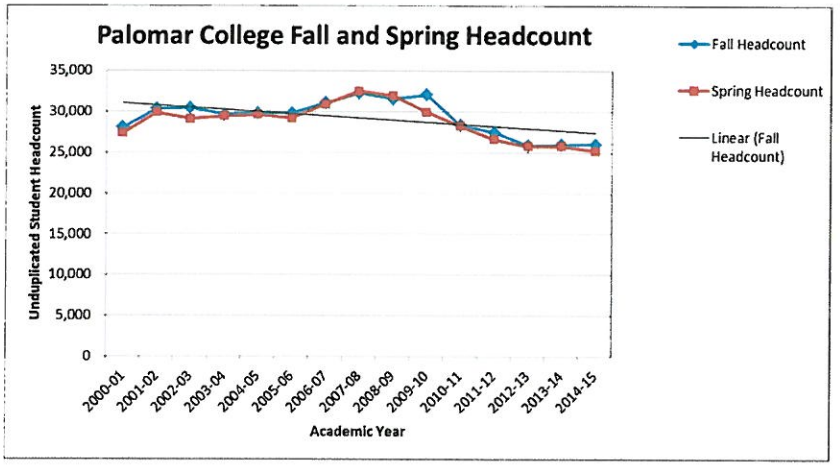
Enrollment Trends



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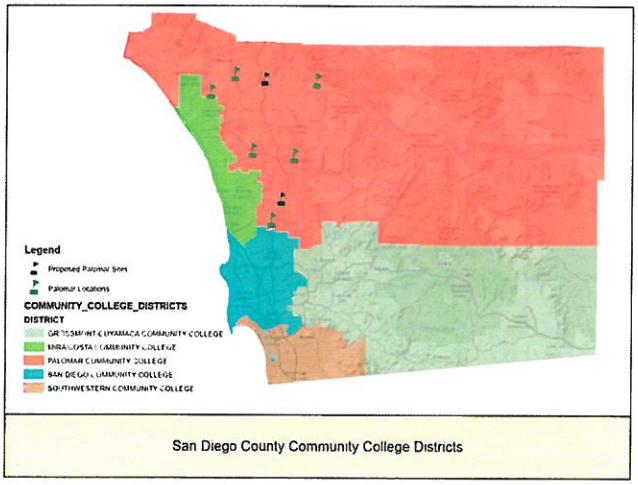
Enrollment Flow



San Diego County Community College Districts

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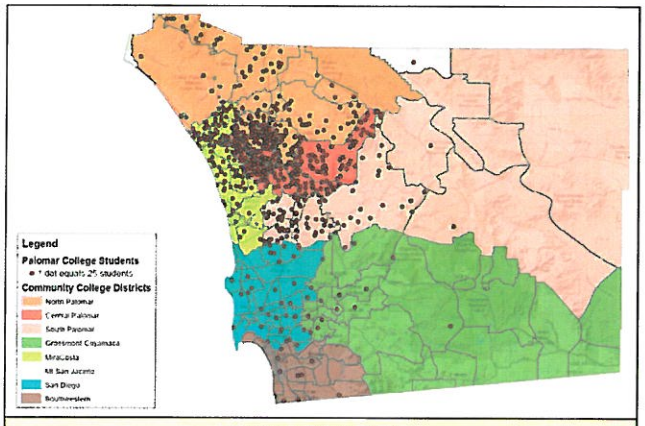
Enrollment Flow



Community College Students
Palomar College
Spring 2015

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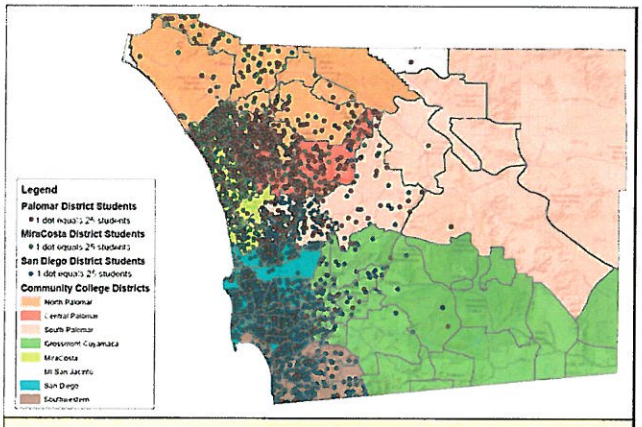
Enrollment Flow



Community College Students
Palomar, MiraCosta, and San Diego Districts
Spring 2015

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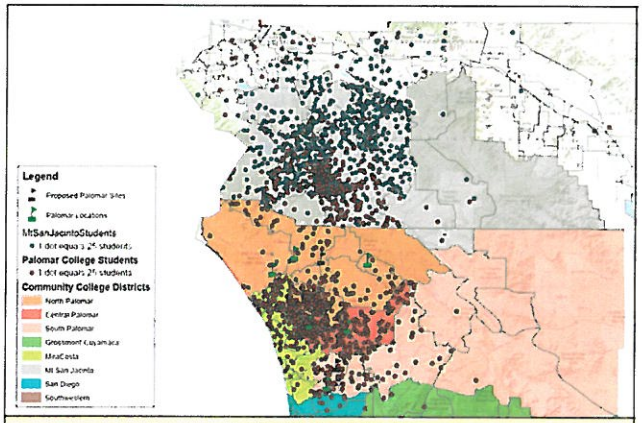
Enrollment Flow



Community College Students
Palomar and Mt San Jacinto Colleges
Spring 2015

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Enrollment Flow

FALL 2014

Palomar College District Community College Students by College of

	Palomar College Region of Residence					
	Central		North		South	
District Attended	Students	Percent	Students	Percent	Students	Percent
GCCCD	66	0.6%	29	0.5%	524	6.5%
Imperial Valley	0	0.0%	1	0.0%	5	0.1%
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Total	11,147	100.0%	6,221	100.0%	8,058	100.0%

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Enrollment Flow

Fall 2002 Free Flow (From Master Plan 2022)			
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Overall NetGain Lost for Palomar			482

Students flowing into Palomar

Students flowing out of Palomar

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Enrollment Flow

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Students flowing into Palomar

Students flowing out of Palomar

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Enrollment Flow

- Key points
  - Palomar serves 59% of the District's residents attending a community college
  - From 2002 to present overall net enrollment flow trends have reversed
  - Over 8,000 residents from Southern portion of district attend a community college; Palomar serves 30% of these students while SDCCD serves 58%
  - MiraCosta now draws more students from Palomar
  - Palomar still attracts students from Mt. San Jacinto; however Mt. San Jacinto is building new comprehensive site off the Interstate 15

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CURRICULUM PLANNING ACTIVITIES

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Academic Programs

- Focus on Palomar College Mission
  - Emphasis on General Education/Transfer core
  - Select Career/Technical programs to support local workforce opportunities
  - Basic Skills
  - Non-credit and not-for-credit, based on community need or requests
- Discussions with Deans, Chairs, and faculty to determine possible offerings and facilities design

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Transfer

- Area A: English Language Communication and Critical Thinking
  - English, Speech, Philosophy
- Area B: Scientific Inquiry and Quantitative Reasoning
  - Biology, Microbiology, Chemistry, Earth Sciences, Mathematics, Zoology, Psychology/Sociology (Statistics)
- Area C: Arts and Humanities
  - American Sign Language, Art, Cinema, Music, World Languages, Humanities
- Area D: Social Sciences
  - American Indian Studies, Anthropology, Chicano Studies, Economics, Family/Consumer Science, History, Philosophy, Political Science, Philosophy, Psychology, Sociology
- Area E: Lifelong Learning and Self-development
  - Child Development, Counseling, Health

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Career and Technical Education

- Accounting
- Business – Administration, Management, Marketing
- Computer Science and Info Technology
- Graphic Communications – Multimedia and Web
- Drafting – AutoCAD
- Other—Culinary, CNA, etc.

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Basic Skills, Non-Credit, and Not-for-Credit Programs

- English
- Mathematics
- Reading
- ESL--Depending on community need
- Non-credit and not-for-credit--Depending on community needs and interests

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Building Floor Plan

PALOMAR COMMUNITY COLLEGE DISTRICT
SOUTH EDUCATION CENTER

Student Services – 1st Floor

- Enrollment Services
  - Admissions
  - Financial Aid
- Counseling Services
  - Academic, Career, Personal Counseling
  - Assessment
  - Psychological Services
- Enhanced Support Services
  - Disability Resources
  - EOPS/CARE/CALWorks
  - TRIO
- Student Affairs
- Student Health Services
- Campus Security

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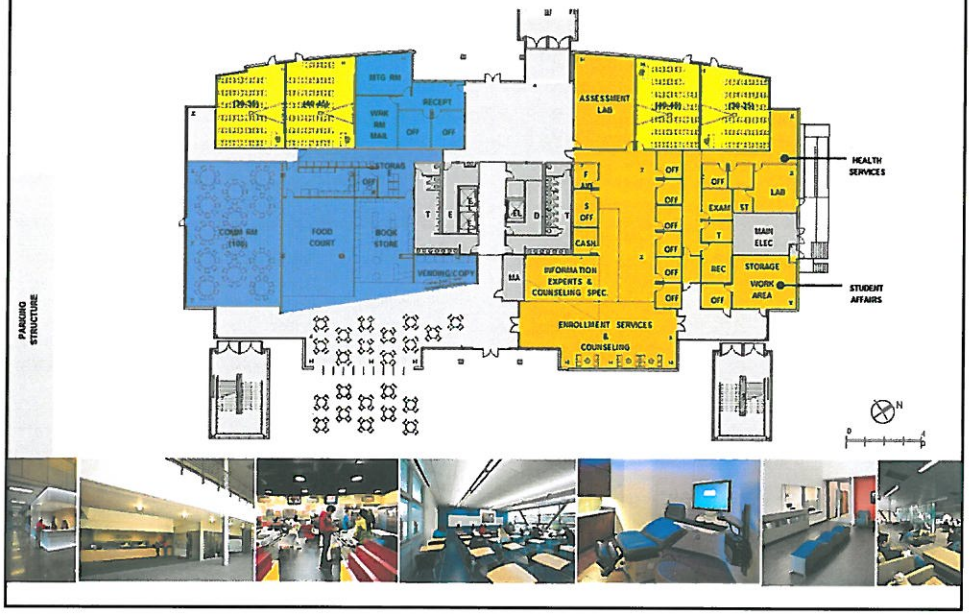
First Floor



Book Store + Food Court + Community Room- 1st Floor

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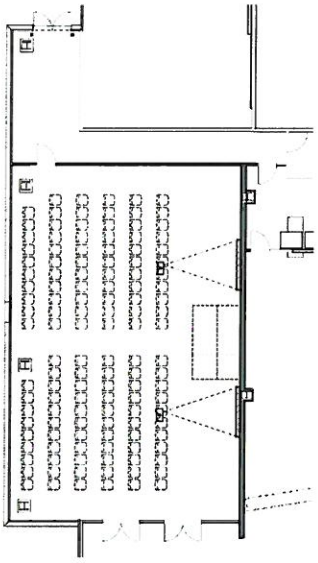
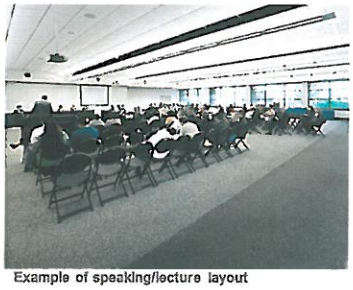
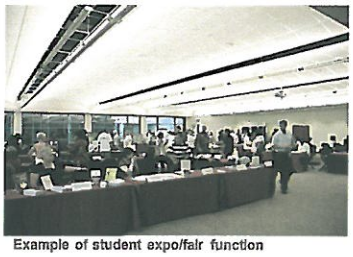
Community Room – 1st Floor





Example of speaking/lecture layout



Example of student expo/fair function

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Community Room – 1st Floor

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Classrooms– 2nd and 3rd Floors

- Transfer/GE
- Science Labs
- Other

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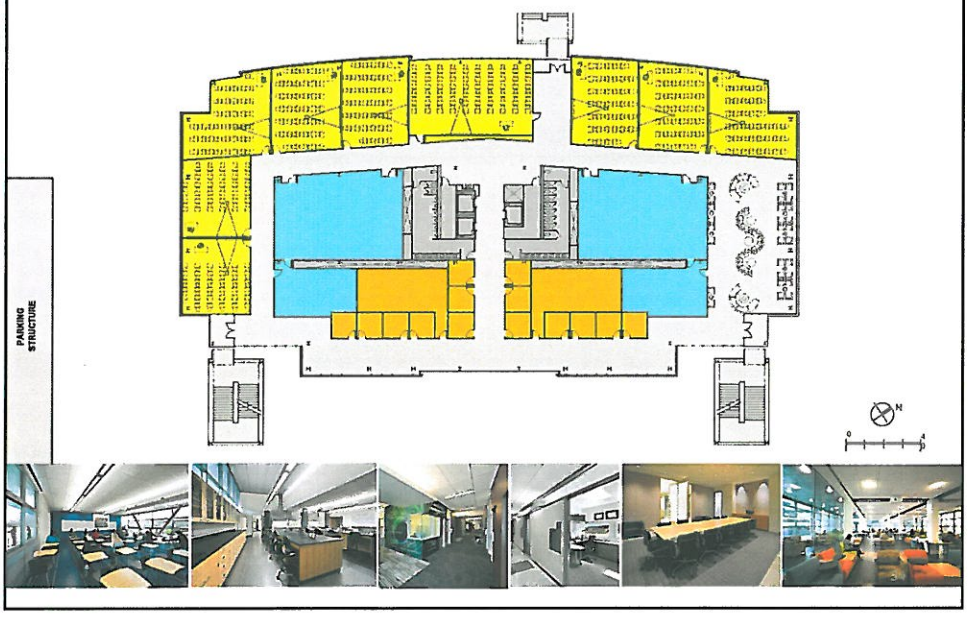
Second and Third Floor



Instructional Support Services, Classrooms, and Computer Labs – 4th Floor

- Library
- TLC
  - Tutoring, workshops, group study, mentoring
- Open computer lab
- Classrooms
- Computer labs

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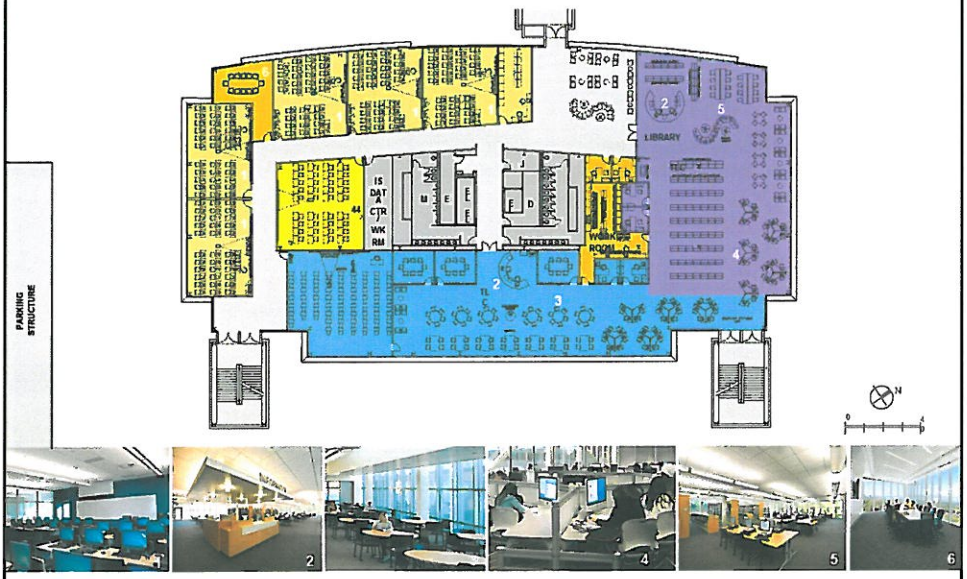
Fourth Floor



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ENVIRONMENTAL IMPACT REPORT

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ENVIRONMENTAL IMPACT REPORT

- What is it?
- California Environmental Quality Act (CEQA)
  - Mandates public agencies to evaluate projects
  - Prevent environmental damage
- Environmental Impact Report (EIR)
  - Notice of Intent
  - Covers environmental impact of proposed project
- Initial EIR
  - October 2015
  - December 2015
  - Community Feedback

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ENVIRONMENTAL IMPACT REPORT

- Revised Second EIR
  - Address Community Concerns
  - March 2016
  - May 2016
- Results
  - Parking
  - Traffic
- Next Steps
  - June 2016, Governing Board Presentation

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COST ESTIMATES

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Cost Estimates

Escondido Center Model - (FY 2014-15)

FTES	1,633
Revenue	
• Apportionment	7,711,922
• Large Center	1,134,123
• Total Revenue	8,846,045
Expenditures	
• Staffing	1,700,000
• Supplies/Utilities	123,000
• Classes	2,000,000
• Total Expenditures	3,823,000
NET	5,023,045

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South Center Cost Estimates

Center Thresholds

- Large Center
  - 1,000 FTES
  - $1,134,123
- Medium Center
  - 750 FTES
  - $850,592
- Small Center
  - 500 FTES
  - $567,062

FTES - 500

Revenue	
• Apportionment	2,373,100
• Small Center	567,062
• Total Revenue	2,940,162
Expenditures	
• Staffing	1,700,000
• Supplies/Utilities	250,000
• Classes	800,000
• Total Expenditures	2,750,000
NET	190,162

South Center Cost Estimates

FTES - 750		**FTES – 1,000**	
Revenue		Revenue	
• Apportionment	3,559,651	• Apportionment	4,746,201
• Medium Center	850,592	• Large Center	1,134,123
• Total Revenue	4,410,243	• Total Revenue	5,880,324
Expenditures		Expenditures	
• Staffing	1,700,000	• Staffing	1,700,000
• Supplies/Utilities	250,000	• Supplies/Utilities	250,000
• Classes	1,200,000	• Classes	1,600,000
• Total Expenditures	3,150,000	• Total Expenditures	3,550,000
NET	1,260,243	NET	2,330,324

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STAFFING NEEDS

- Management / Classified Staff
- Faculty
- Counseling
- Admissions
- Student Health
- College Police
- Facilities
- Information Services
- Library
- Categorical Program Staff

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POTENTIAL BENEFITS

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Potential Benefits

- Part of our Master Plan to serve the community
- High School partnerships
- Business partnerships
- Stabilizing enrollments
- Establishing a foothold to avoid annexation

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DISCUSSION AND INPUT

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Discussion and Input

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THE END!

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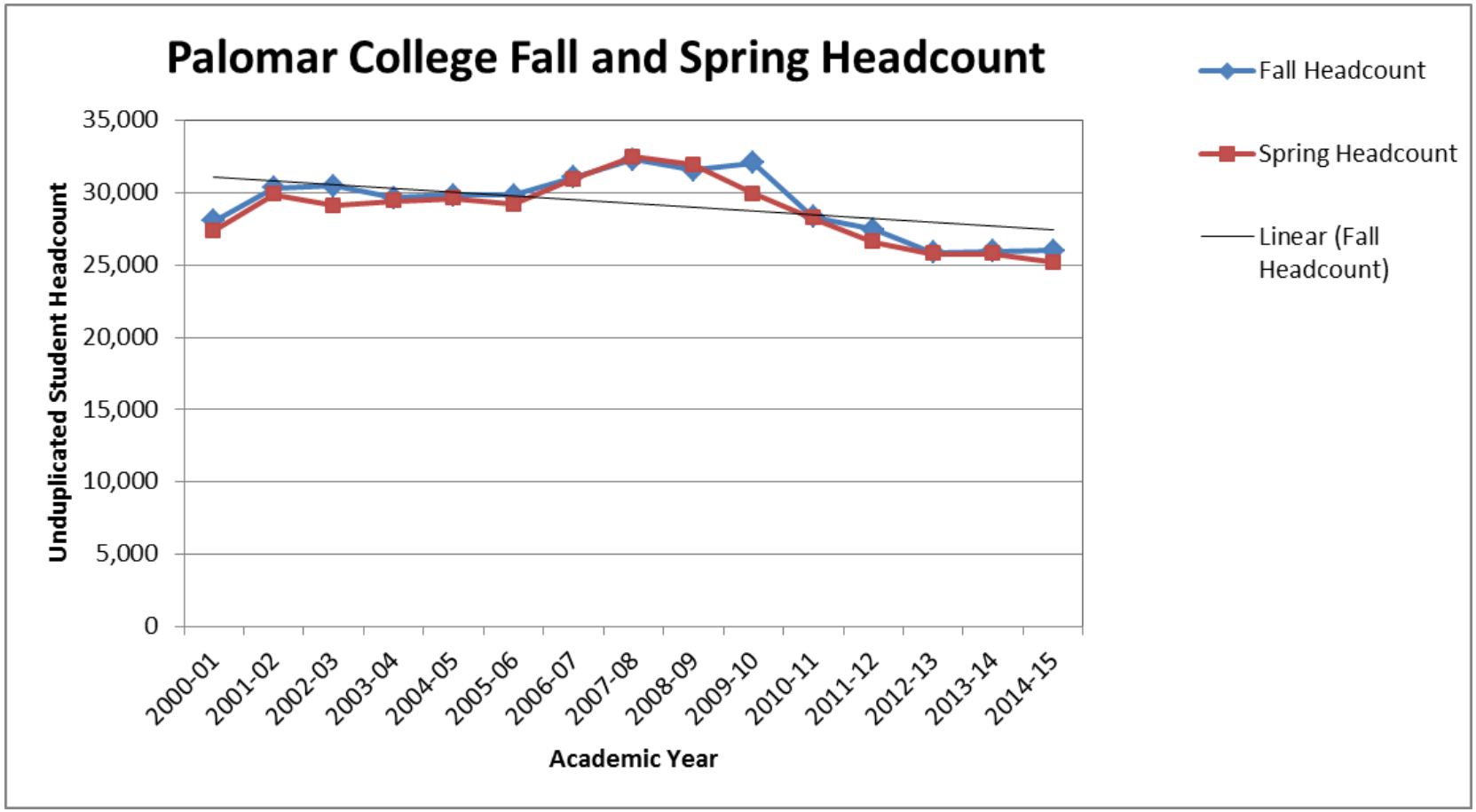
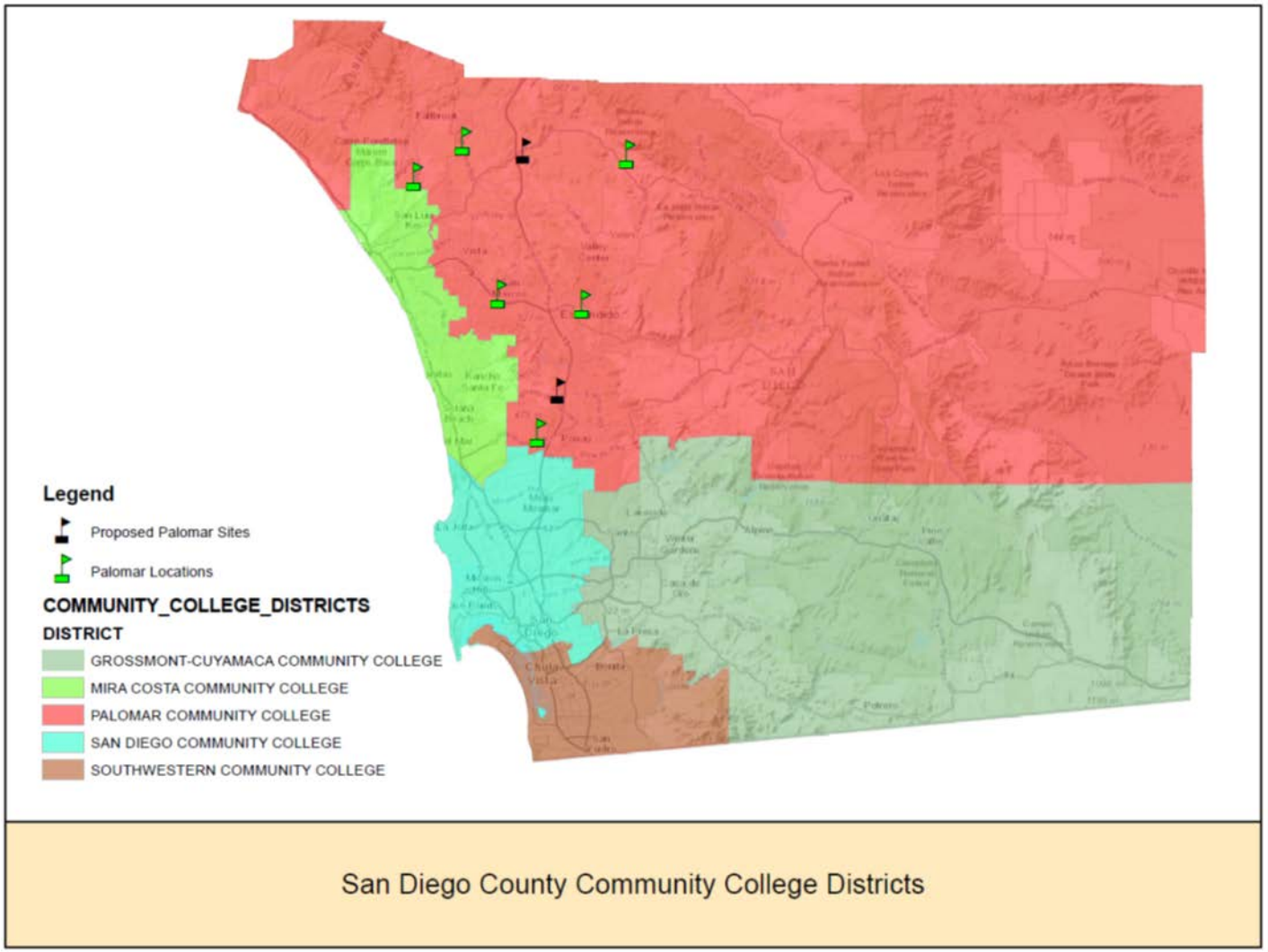
Enrollment Flow and Trends Campus Forum

March 16, 2016

Enrollment Trends

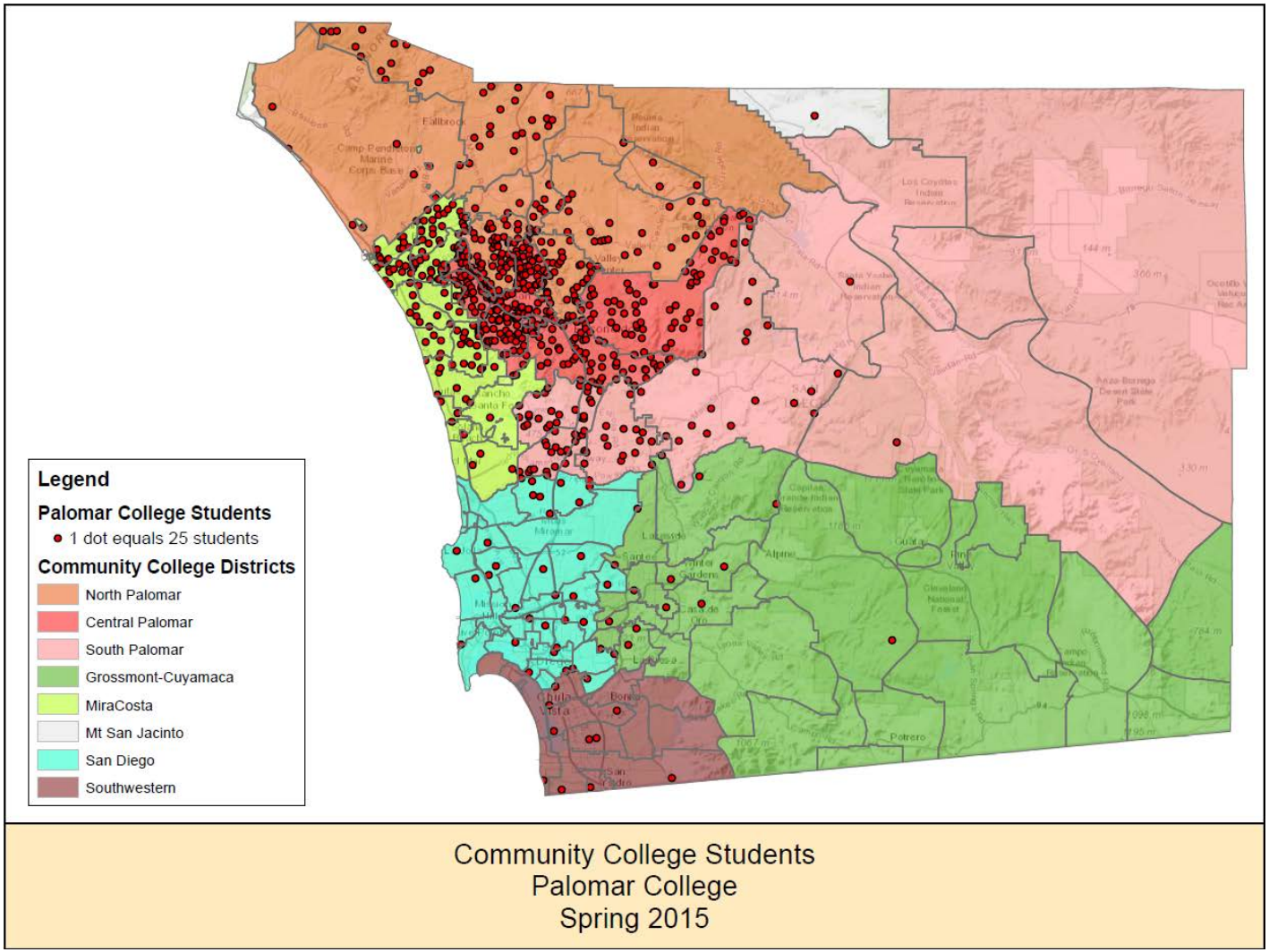


Enrollment Flow



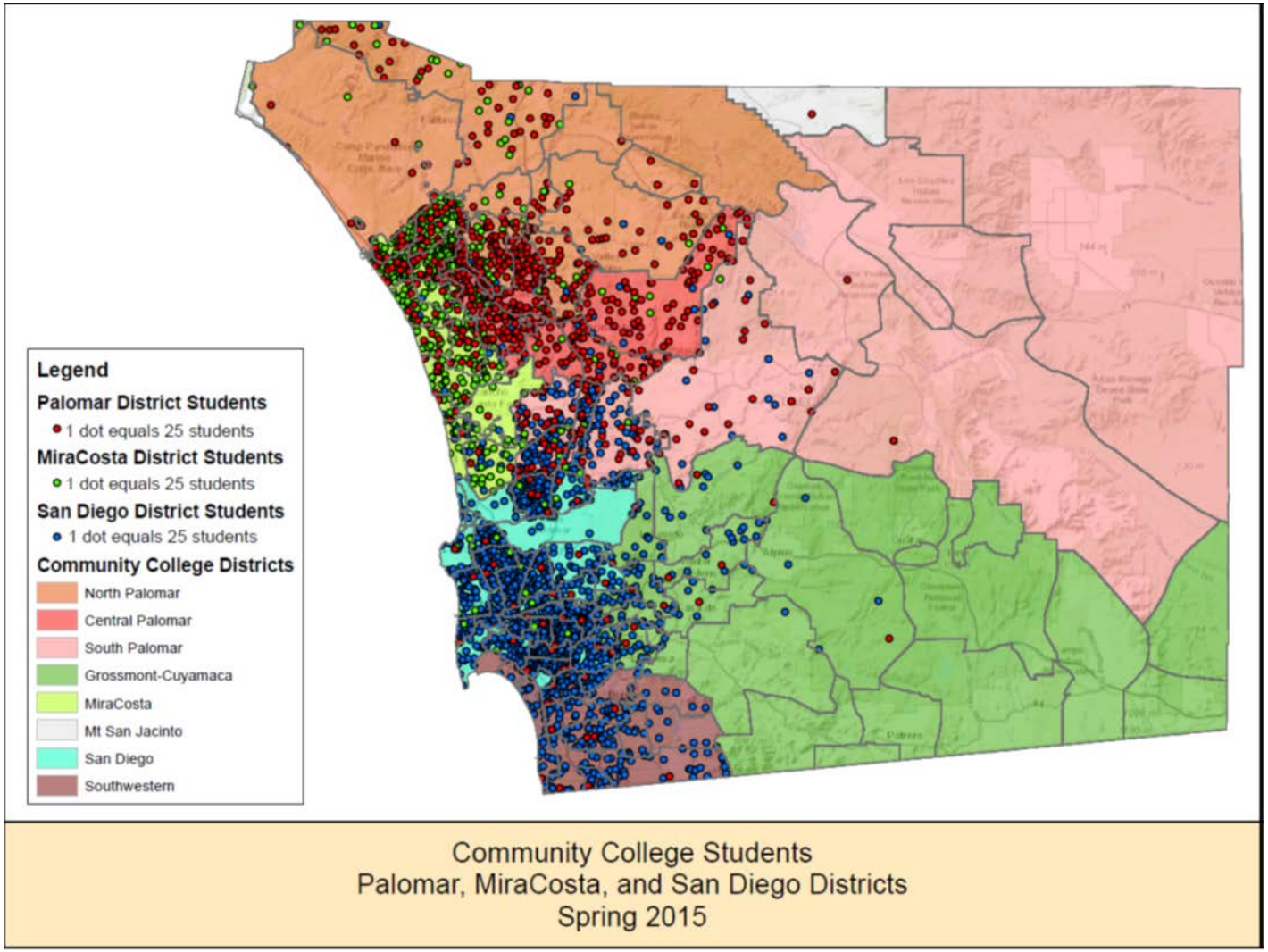
San Diego County Community College Districts

Enrollment Flow



Community College Students
Palomar College
Spring 2015

Enrollment Flow



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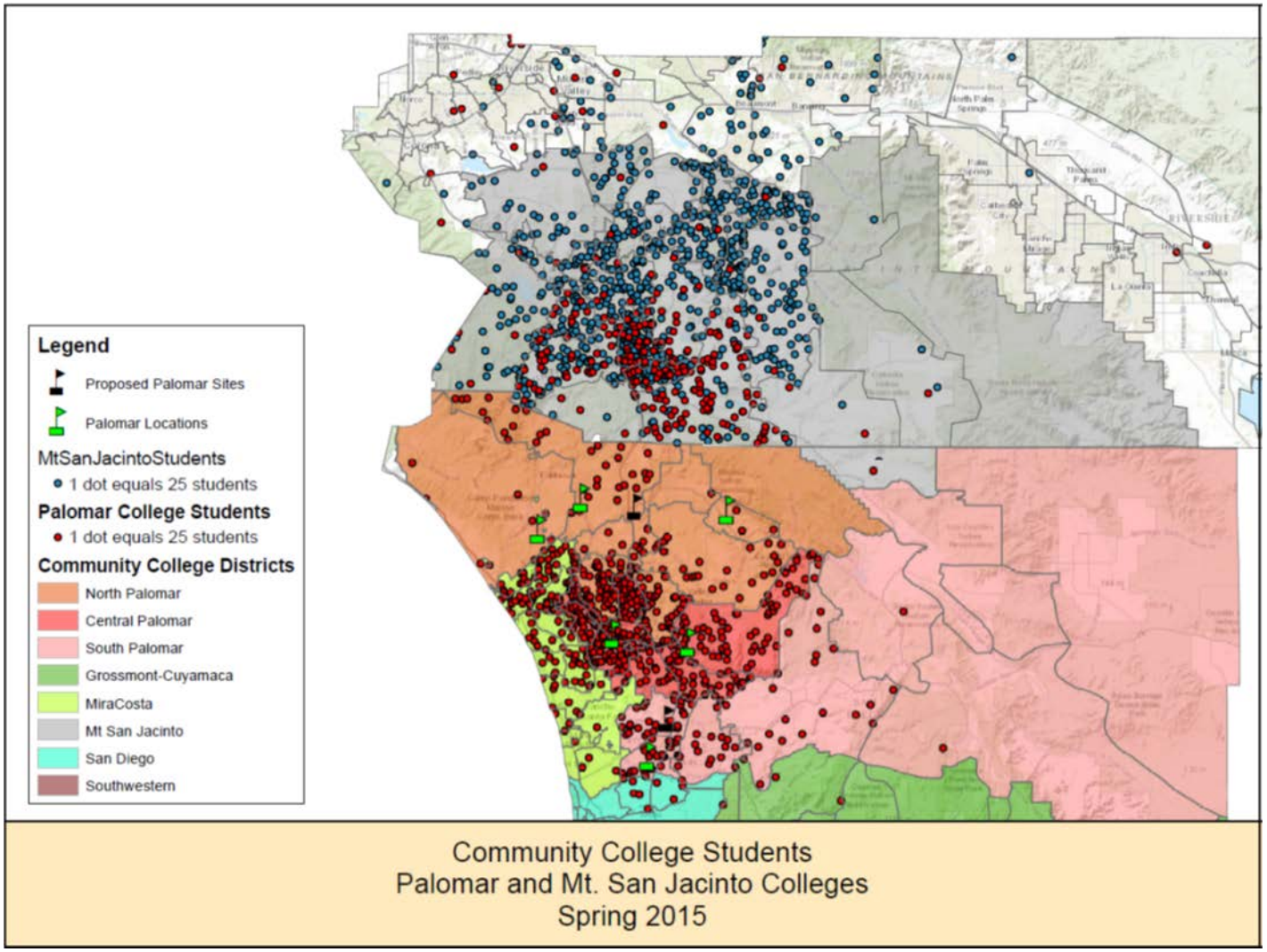

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Students flowing into Palomar

Students flowing out of Palomar

GOVERNING BOARD PRESENTATION

August 2014

SOUTH EDUCATION CENTER

PALOMAR COLLEGE
Learning for Success

LPA
INTEGRATED DESIGN

AGENDA

- South Center
  - Introduction
  - Operations
- Site Layout
  - Logistics
- Instructional Programs
  - Course Offerings
  - FTES Generation
- Student Services
  - Overview of Services
- Timelines
  - Center Status Application
  - Construction
  - Scheduled Opening
- Funding Plan
  - Escondido Center Model

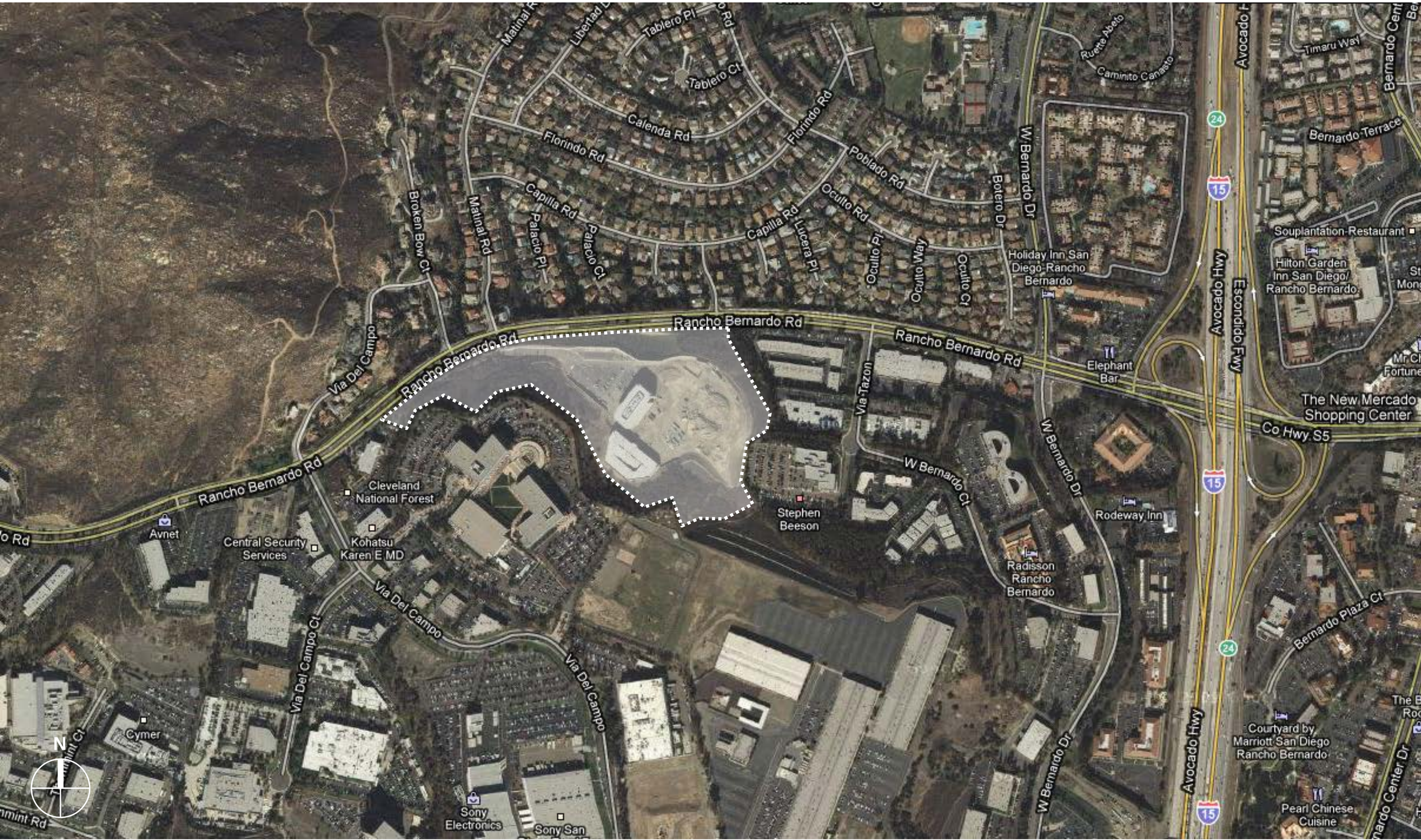
SITE

LPA
INTEGRATED DESIGN

LOCATION

PALOMAR COLLEGE
SOUTH EDUCATION CENTER

LPA
INTEGRATED DESIGN



ARIEL – PROPERY BOUNDARY

PALOMAR COLLEGE
SOUTH EDUCATION CENTER

LPA
INTEGRATED DESIGN

LANDSCAPE DESIGN

PALOMAR COLLEGE
SOUTH EDUCATION CENTER

LPA
INTEGRATED DESIGN

EXTERIOR BUILDING DESIGN

PALOMAR COLLEGE
SOUTH EDUCATION CENTER

LPA
INTEGRATED DESIGN

EXTERIOR BUILDING DESIGN

PALOMAR COLLEGE
SOUTH EDUCATION CENTER

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INTEGRATED DESIGN

PROGRAMS & SERVICES

PALOMAR COMMUNITY COLLEGE DISTRICT
SOUTH EDUCATION CENTER

PALOMAR COLLEGE
Learning for Success

LPA
INTEGRATED DESIGN

STUDENT SERVICES – FIRST FLOOR

- Enrollment Services
  - Admissions
  - Financial Aid
- Counseling Services
  - Academic, Career, Personal Counseling
  - Assessment
  - Psychological Services
- Enhanced Support Services
  - Disability Resources
  - EOPS/CARE/CALWorks
  - TRIO
- Student Affairs
- Student Health Services
- Campus Security

BOOKSTORE + FOOD COURT + COMMUNITY ROOM – FIRST FLOOR

PALOMAR COLLEGE
SOUTH EDUCATION CENTER

LPA
INTEGRATED DESIGN

COMMUNITY ROOM – FIRST FLOOR

PALOMAR COLLEGE
SOUTH EDUCATION CENTER

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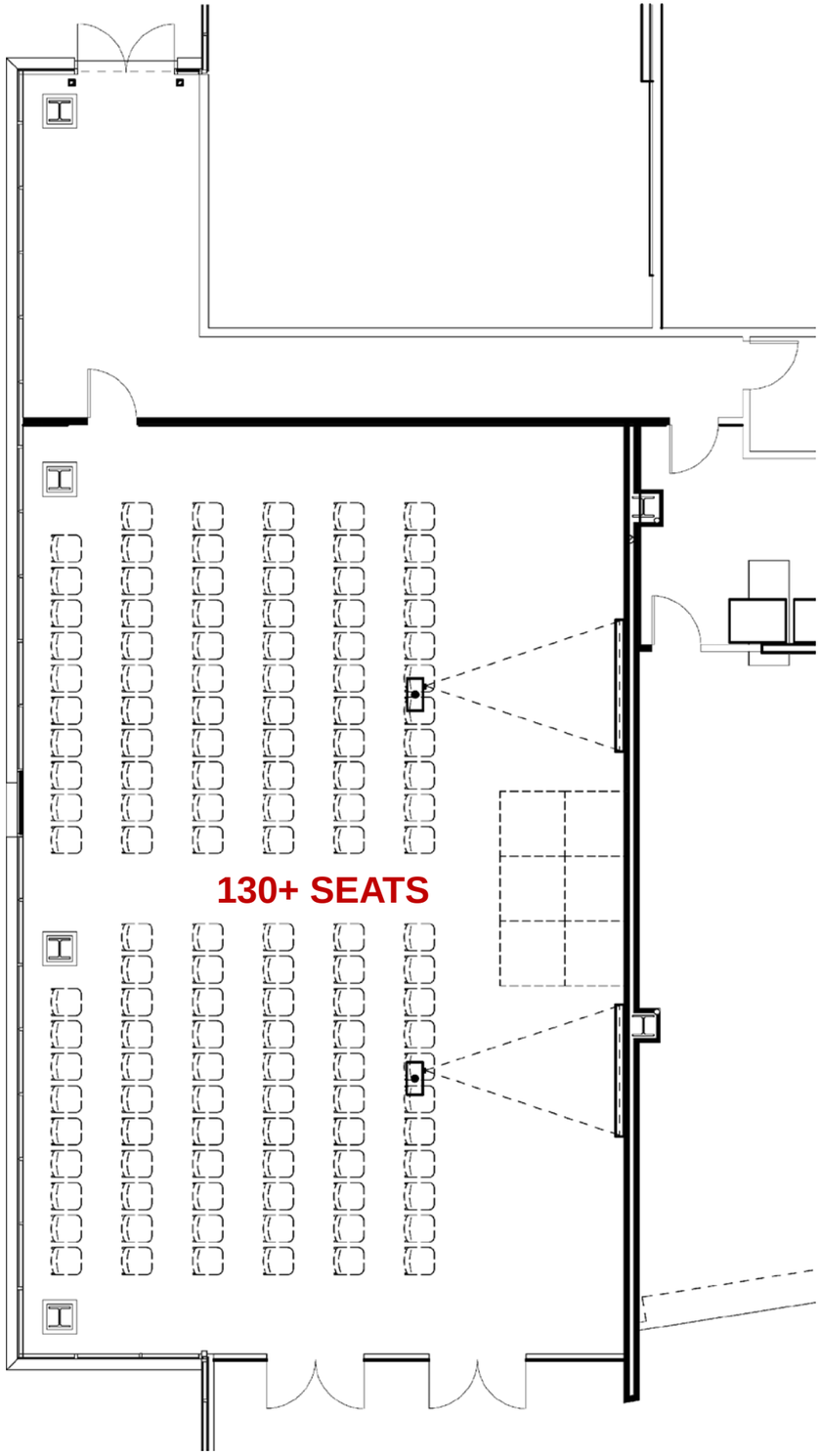


Example of speaking/lecture layout

Example of student expo/fair function

COMMUNITY ROOM – FIRST FLOOR

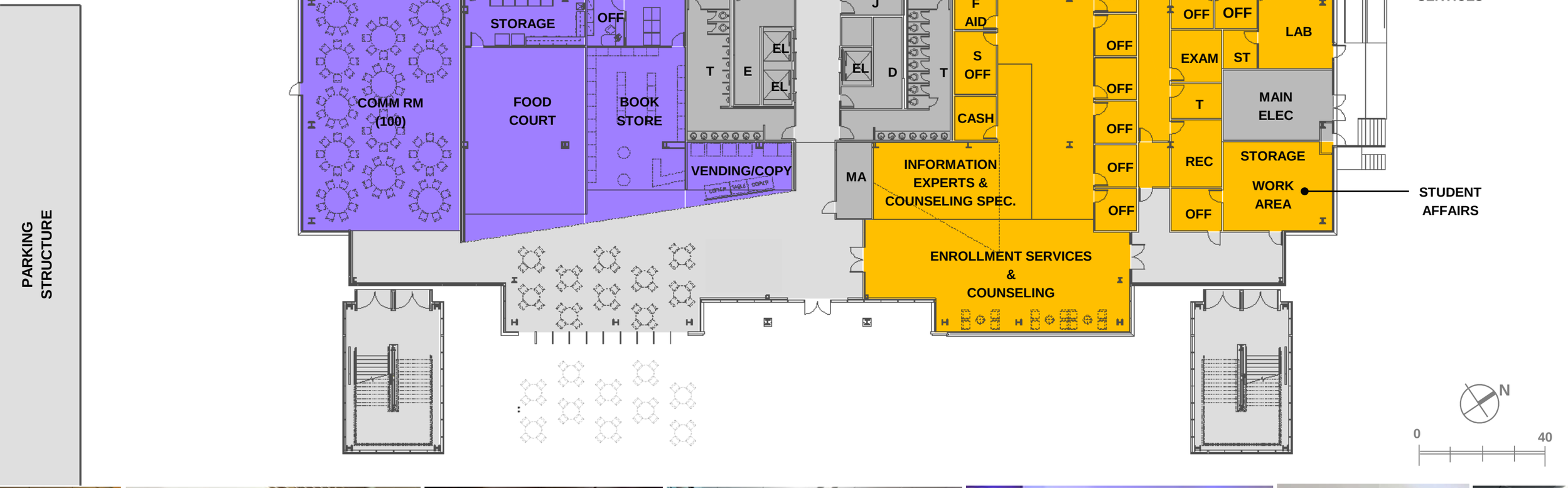
PALOMAR COLLEGE
SOUTH EDUCATION CENTER

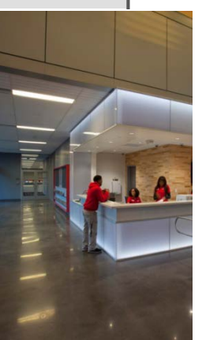
LPA
INTEGRATED DESIGN

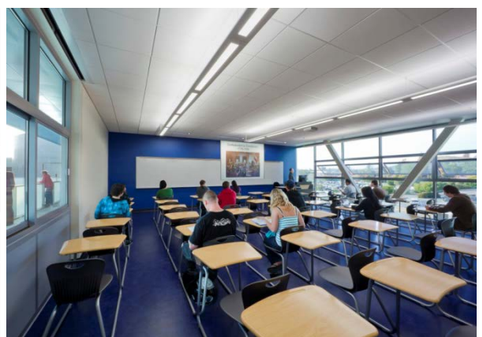
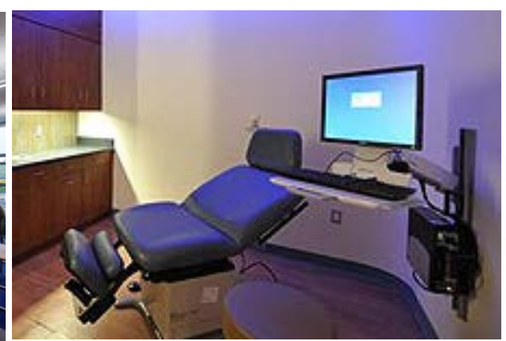
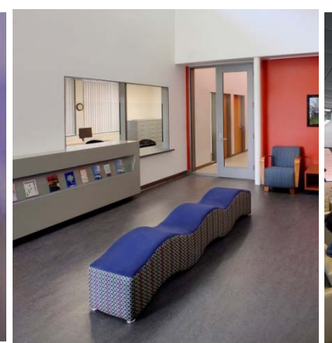
FIRST FLOOR

PALOMAR COLLEGE
SOUTH EDUCATION CENTER

LPA INTEGRATED DESIGN






- Focus on Palomar College Mission
  - Emphasis on General Education/Transfer core
  - Select Career/Technical programs to support local workforce opportunities
  - Basic Skills
  - Non-credit and not-for-credit, based on community need or requests

SCHEDULING CONSIDERATIONS

- Generate 1,000 FTES
- 350-400 classes per academic year
- 32 classrooms
  - 23 Lecture, 5 computer labs,
    4 science labs
- Scheduling capacity
  - 240 classes per week (mornings and evenings)
- Seating capacity
  - 1,094 per scheduling block
- Alternate scheduling patterns
  - 12-week term option
  - Later morning start to avoid traffic

- Area A: English Language Communication and Critical Thinking
    - English, Speech, Philosophy

- Area B: Scientific Inquiry and Quantitative Reasoning
    - Biology, Microbiology, Chemistry, Earth Sciences, Mathematics, Zoology, Psychology/Sociology (Statistics)

- Area C: Arts and Humanities
    - American Sign Language, Art, Cinema, Music, World Languages, Humanities

- Area D: Social Sciences
    - American Indian Studies, Anthropology, Chicano Studies, Economics, Family/Consumer Science, History, Philosophy, Political Science, Philosophy, Psychology, Sociology

- Area E: Lifelong Learning and Self-development
    - Child Development, Counseling, Health

CAREER / TECHNICAL EDUCATION PROGRAMS – 2ND AND 3RD FLOORS

- Accounting
- Business – Administration, Management, Marketing
- Computer Science and Info Technology
- Graphic Communications – Multimedia and Web
- Drafting – AutoCAD

BASIC SKILLS, NON-CREDIT, NOT-FOR-CREDIT – 2ND AND 3RD FLOORS

- English
- Mathematics
- Reading
- ESL
  - Depending on community need
- Non-credit and not-for-credit
  - Depending on community need and requests

SECOND & THIRD FLOOR

PALOMAR COLLEGE
SOUTH EDUCATION CENTER

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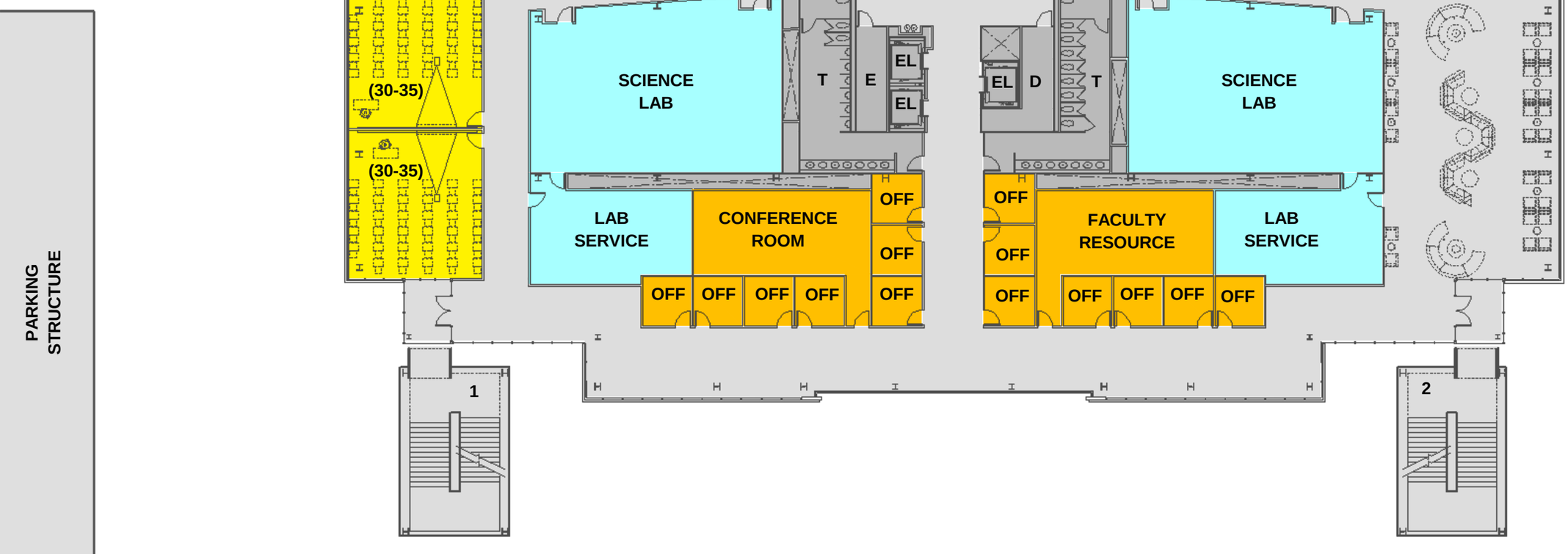
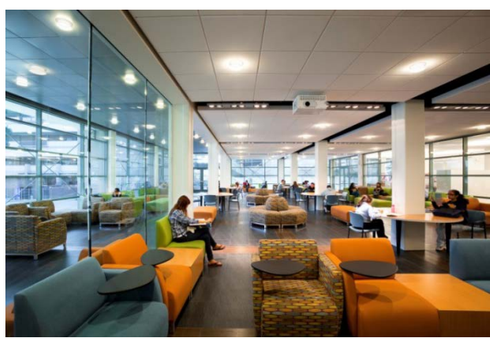




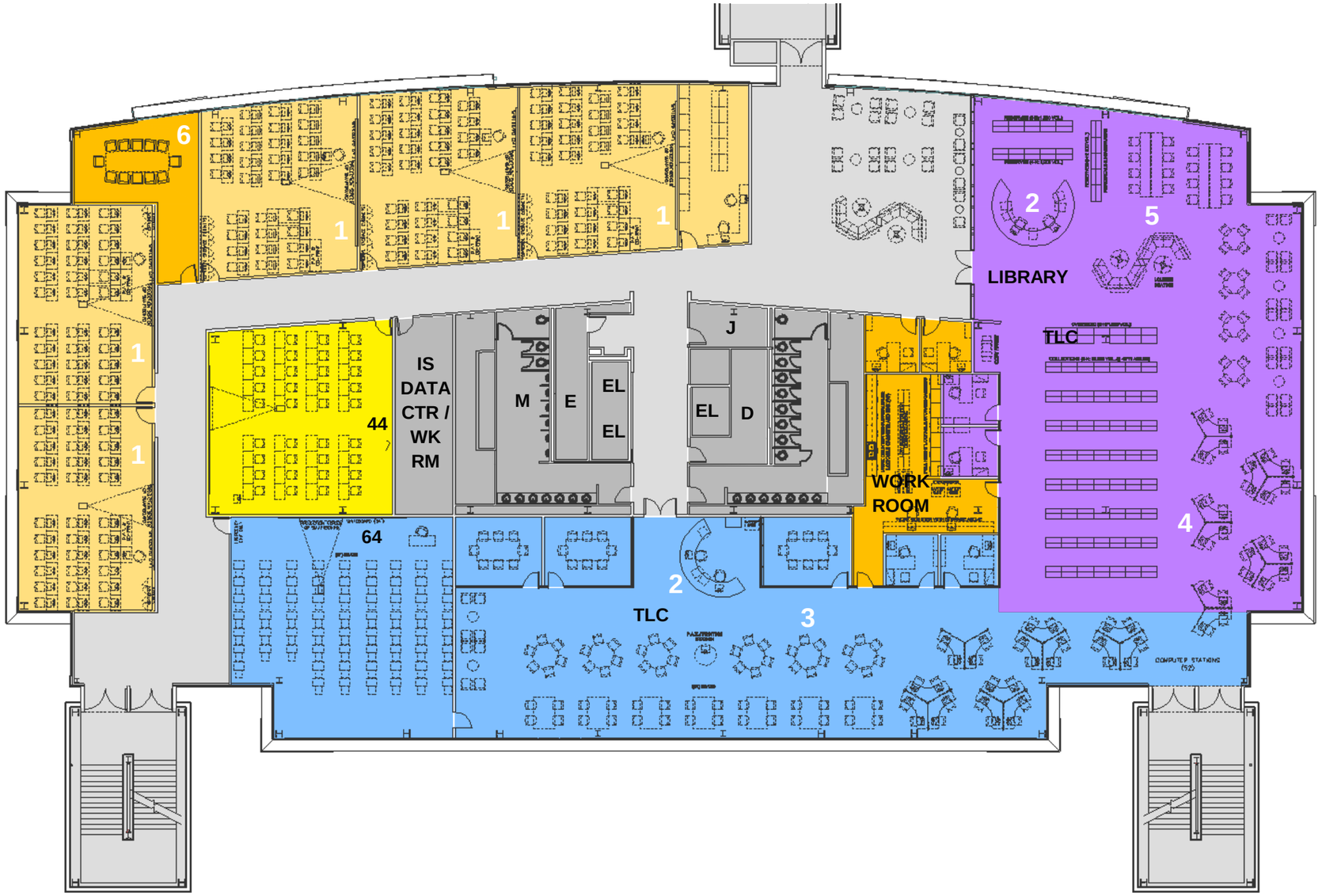
- Library
- TLC
  - Tutoring, workshops, group study, mentoring
- Open computer lab

FOURTH FLOOR

PALOMAR COLLEGE
SOUTH EDUCATION CENTER

LPA INTEGRATED DESIGN

PARKING STRUCTURE



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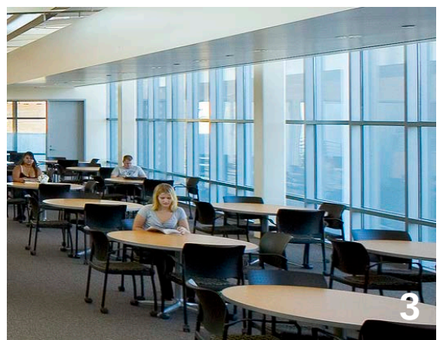


- Center Status
  - Begin September 2014
  - Submittal to State June 2016
  - State Approval July 2016

- Construction
  - Begin February 2016
  - Complete May 2017
  - FF&E June – August 2017

- Scheduled Opening
  - Fall 2017

FIRST FLOOR / COMMUNITY ROOM

- Operational Costs
  - Escondido Center
  - $2M

- Funding Set-a-Sides - $500k/fy
  - FY 14-15
  - FY 15-16
  - FY 16-17
  - FY 17-18

- Center Status
  - 1,000 FTES
  - $1.1M

FIRST FLOOR / COMMUNITY ROOM

QUESTIONS

PALOMAR COLLEGE
SOUTH EDUCATION CENTER

LPA
INTEGRATED DESIGN

PALOMAR COMMUNITY COLLEGE DISTRICT SOUTH EDUCATION CENTER

Recirculated Draft Environmental Impact Report

SCH No. 2015081039

March 25, 2016

Prepared for

Palomar Community College District
San Marcos Campus
1140 West Mission Road
San Marcos, California 92069-1487

Prepared by

3570 Carmel Mountain Road, Suite 300
San Diego, California 92130

Contents

Technical Appendices

Tables

Figures

Acronyms

µg/m^3	Micrograms per Cubic Meter
A.D.	Anno Domini
ADA	Americans with Disabilities Act
ADT	Average Daily Trips
AMR	American Medical Response
AQIP	Air Quality Improvement Plan
ARRA	American Recovery and Reinvestment Act
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASTs	Aboveground Storage Tanks
B.P.	Before Present
BMPs	Best Management Practices
BTU	British Thermal Units
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standard
CAFÉ	Corporate Average Fuel Economy
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFG	California Fish and Game
CFR	Code of Federal Regulations
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CWA	Clean Water Act
DAR	Direct Access Ramp
DSA	Division of State Architect
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act of 2007
ESA	Endangered Species Act
GHG	Greenhouse Gas
HCM	Highway Capacity Manual
HOV	High Occupancy Vehicle
I-	Interstate
IEPR	Integrated Energy Policy Report
kWH	kilowatt hours

LEDs	light-emitting diodes
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
mg/m^3	Milligrams per Cubic Meter
MMRP	Mitigation Monitoring and Reporting Program
mpg	miles per gallon
mph	miles per hour
MSCP	Multiple Species Conservation Program
MTS	Metropolitan Transit System
MWh	megawatt-hour
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Community Conservation Planning
NOI	Notice of Intent
NOP	Notice of Preparation
NO_x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSLU	Noise Sensitive Land Uses
OEHHA	California Office of Environmental Health Hazard Assessment
OHWM	Observable Ordinary High Water Mark
pc/hr/ln	per hour per lane
PDF	Project Design Features
PeMS	[Caltrans] Performance Measurement System
PM_{10}	Course particulate matter with an aerodynamic diameter of 10 microns
$PM_{2.5}$	Fine particulate matter with an aerodynamic diameter of 2.5 microns
ppb	Parts Per Billion
ppm	Parts per Million
PV	Photovoltaic
RAQS	Regional Air Quality Strategy
RCP	Regional Comprehensive Plan
RFS	Renewable Fuel Standard
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SAM	Site Assessment and Mitigation
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SCAQMD	South Coast Air Quality Management District
SCIC	South Coastal Information Center
SCS	Sustainable Communities Strategy
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCWA	San Diego County Water Authority

SDG&E	San Diego Gas & Electric
SEMS	Standardized Emergency Management System
SF	square foot
SIP	State Implementation Plan
SLIC	Spills, Leaks, Investigations and Cleanup
SMARA	Surface Mining and Reclamation Act
SQG	Small Quantity Generator
SR-	State Route
SRA	Scientific Resources Associates
STA	State Transit Assistance
STIP	Statewide Transportation Improvement Program
SUHSD	Sweetwater Union High School District
SUSMP	Standard Urban Storm Water Mitigation Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SWWG	Southwest Working Group
TACs	Toxic Air Contaminants
TDA	Transportation Development Act
TDS	Total Dissolved Solids
TFA	Transit Focus Area
THD	Thematic Historic Preservation District
TMP	Traffic Monitoring Program
TNW	Traditional Navigable Water
TPHg	Total Petroleum Hydrocarbons in the Gasoline Range
TRB	Transportation Research Board
TWLTL	two-way left-turn lane
UBC	Uniform Building Code
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USTs	Underground Storage Tanks
UWMP	Urban Water Management Plan
V/C	volume to capacity
VdB	Vibration Decibels
VMT	Vehicle Miles Travelled
VOC	Volatile Organic Compounds
WTDIF	Western Transportation Development Impact Fee
WURMP	Watershed Urban Runoff Management Program
ZEV	Zero Emission Vehicle

EXECUTIVE SUMMARY

This Recirculated Draft Environmental Impact Report (EIR) has been prepared by the Palomar Community College District (PCCD) to evaluate potential environmental impacts that would result from the development of the South Education Center project (proposed project). A Draft EIR for the proposed project was previously circulated for public review on October 23, 2015. The PCCD has determined that additional analysis relating to Air Quality and Energy; Greenhouse Gas Emissions; Noise, Transportation, Traffic, and Parking; and Alternatives were required based on comments received during the initial review of the Draft EIR. As such, this analysis has been incorporated into the DEIR and recirculated for public review and comment.

This Recirculated Draft EIR has been prepared in conformance with the California Environmental Quality Act of 1970 (CEQA) statutes (Public Resources Code Section 2100 et. seq., as amended) and its implementing guidelines (California Code of Regulations, Title 14, Section 15000 et. seq., 2014). PCCD is identified as the lead agency for the proposed project under CEQA.

This executive summary provides a brief synopsis of the project description and results of the environmental analysis contained in the Recirculated EIR for PCCD. By necessity, this summary does not contain the extensive background and analysis found in the EIR document. Therefore, the reader should review the entire document to fully understand the proposed project and its environmental consequences.

Overview

As required by CEQA, this EIR does the following: (1) assesses the potentially significant direct, indirect, and cumulative environmental effects of the proposed project; (2) identifies potential feasible means of avoiding or substantially lessening significant adverse impacts; and (3) evaluates a range of reasonable alternatives to the proposed project, including the required No Project Alternative. The PCCD is the “lead agency” for the proposed project evaluated in this EIR, and as such has the principal responsibility for certifying the EIR and approving the proposed project.

Pursuant to Section 15161 of the CEQA Guidelines, a Project EIR has been prepared for the proposed project. A Project EIR examines the environmental impacts of a specific development project. It focuses primarily on the changes in the environment that would result from development of the proposed project during construction and operation. When weighing the options to prepare a Mitigated Negative Declaration (MND) as was done previously for the project developed on site which included a 330,000 square foot, 3 building commercial office complex, or the preparation of an EIR, the PCCD selected the preparation of an EIR as it provides the most conservative analysis of a projects environmental impacts and allows for additional opportunities for public review and comment.

Project Location and Description

The proposed project would establish the PCCD South Education Center on the 27-acre property located at 11111 Rancho Bernardo Road. The proposed project would convert the existing four-story, 110,000-square foot building into a comprehensive community college education center; construct a new 1,200-foot long loop road; implement drainage improvements; and install walkways, hardscape areas, and landscaping. Conversion of the existing building would include construction of three four-story stairwells and interior tenant improvements to create an education center that meets the facility and space needs identified in the PCCD Educational Master Plan Update. A more detailed project description is provided in Chapter 3.

Project Objectives

The objectives of the proposed project, as established by the PCCD, are as follows:

1. Locate an education center in the southern region of the district.
2. Implement relevant goals and objectives of the PCCD 2022 Educational Master Plan 2010 Update, specifically Goal 5 which is to "Ensure that existing and future facilities support learning, programs, and services; and Objective 5.3 which is to "Identify and purchase a site for future development of another Education Center in accordance with the Master Plan."
3. Provide a shared community resource with amenities for public use.
4. Attract new students to the PCCD through a well-defined academic program.
5. Be self-sufficient/self-sustaining so as not to create a drain on the resources of the PCCD.
6. Utilize and repurpose an existing facility in order to maximize district resources.
7. Provide high quality education and support services to the southern portion of the district.
8. Develop a comprehensive education center campus experience that reflects its surrounding environment.
9. Offer a broad-based curriculum supported by a class schedule that is convenient for students.
10. Create the feel of a postsecondary campus by placing importance on support amenities, including those for learning resources, food services, and gathering places for students.
11. Ensure that the facility maximizes the safety of the students, faculty and staff.

Potential Areas of Controversy, Issues Raised by Agencies and Public, and Issues to be Resolved

On August 17, 2015, the PCCD distributed a Notice of Preparation (NOP) for the proposed PCCD South Education Center EIR. The EIR was assigned State Clearinghouse reference number 2015081039 In accordance with Section 15082 of the CEQA Guidelines, the NOP was circulated to interested agencies, organizations, and individuals for a 30-day period that ended on September 17, 2015, during which time comments were solicited regarding the environmental topics and issues that the EIR should evaluate. A public scoping meeting was held on August 26, 2015 at the Poway Branch Public Library. A public notice was placed in the San Diego Union Tribune on August 17, 2015 informing the general public of the scoping

meeting and the availability of the NOP. The NOP, affidavit of publication of the public notice, and comment letters received during the comment period are included in Appendix A of this EIR.

Comments on the NOP prepared for the project were received from one state agency (the California Department of Transportation, Region 11), one local planning board (the Rancho Bernardo Community Planning Board), one community organization (the San Diego County Archeological Society, Inc.), in addition to nine individual comment letters/emails from interested citizens (Appendix A). Nine Native American Tribes were also contacted requesting comments on the scope of the proposed project. The PCCD received one response from the Rincon Band of Luiseño Band of Mission Indians indicating that the project is not located within Luiseño aboriginal territory. All of the issues raised during the NOP comment period including concerns with traffic and parking, emergency response and access, air quality and greenhouse gas emissions, noise, and aesthetics have been addressed in the EIR. Please refer to Chapter 2 for a discussion of the project description and Chapter 4 for the environmental impact analysis.

The issues to be resolved by the decision-making body include consideration of the various mitigation measures and alternatives recommended in the EIR; whether the benefits of the proposed project outweigh its unavoidable environmental risk; and whether the discretionary approvals required to implement the proposed project and its development components should be granted.

Impact Summary

This EIR examines the potential environmental effects of the proposed project, including information related to existing site conditions, analyses of the types and magnitude of project-level and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid environmental impacts; however, some impacts would not be reduced to below a level of significance and would remain significant and unavoidable. In accordance with Appendix G of the CEQA Guidelines, issues associated with the following environmental topics were identified as requiring detailed analysis in this EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Noise
- Paleontological Resources
- Transportation and Traffic

Tables ES-1 and ES-2, presented at the end of this chapter, provide a summary of the project-level and cumulative environmental impacts, respectively, that could result from implementation of the proposed project and proposed mitigation measures that could reduce or avoid potential environmental impacts, as discussed in detail in Chapter 4, Environmental Impact Analysis, of this EIR.

Impacts related to the following environmental topics were determined to be “Effects Not Found to be Significant” in accordance with Section 15128 of the CEQA Guidelines: Agricultural and Forestry Resources, Cultural Resources, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, and Utilities and Services Systems. Issues associated with these environmental topics are discussed in Chapter 5, Other CEQA Considerations, of this EIR.

Summary of Alternatives to the Proposed Project

The objective of the alternatives analysis is to consider a reasonable range of potentially feasible alternatives to foster informed decision-making and public participation. The following alternatives to the proposed project are analyzed in detail in Chapter 6, Alternatives, of this EIR:

- **No Project Alternative.** The No Project Alternative assumes the South Education Center would not be realized. The graded and developed 27-acre site would continue to exist as an unfinished light industrial park in the near term which consists of a single four-story, 110,000-square foot building accompanied by a detached four-level, 574-space parking structure and 218-space surface parking lot. In the long term, buildout of the project site as described in the MND for the Rancho Bernardo Industrial Park North – Lot 11 project could occur, which proposed the construction of two additional 110,000 square-foot buildings and additional surface parking areas.

- **Second Access Road Alternative.** The Second Access Road Alternative assumes the proposed PCCD South Education Center would be implemented with the construction of a new second access road, rather than an interior looped road, east of the main project driveway along Rancho Bernardo Road. The Second Access Road Alternative would also require the construction of one westbound dedicated left-turn lane and one eastbound dedicated right-turn lane and require the installation of a traffic signal and signage prohibiting northbound and southbound through movements at the intersection of Rancho Bernardo Road and Olmeda Way.

- **Reduced Project Alternative.** The Reduced Project Alternative assumes the proposed PCCD South Education Center would be implemented but operate with 25 percent reduced FTES. All other construction and operational assumptions would remain the same under this alternative.

- **Bernardo Center Drive Alternative.** The Bernardo Center Drive Alternative would construct the South Education Center on the 3.9-acre property located at the northwest corner of Rancho Bernardo Road and Interstate 15. Construction of an 110,000-square-foot building and approximately 4 or 5 story 800 space parking structure would take place. Because the project site is substantially smaller than that of the proposed project, surface parking areas would be eliminated and thus would require the construction of a larger parking structure. In addition, construction of a loop road and other open space areas would also be eliminated due to space constraints. Access to the project site would likely be from West Bernardo Road through an easement through and existing parking lot or along Bernardo Center Drive. Intersection improvements, such as new signals and/or signage and striping would likely be required.

Table ES-3, presented at the end of this chapter, provides a summary comparison of each alternative to the proposed project with the purpose of highlighting whether the alternative would result in a similar, greater, or lesser impacts than the proposed project. The environmentally superior alternative would be the No Project Alternative. This alternative would reduce some of the significant impacts that would occur from the proposed project such as impacts to aesthetics, air quality, biological resources, greenhouse gas emissions, hydrology and water quality, noise, and transportation and traffic. However, the No Project Alternative project would not fully accomplish all of the proposed project's goals and objectives. Section 15126.6 of the CEQA guidelines states that “If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” As such, the environmentally superior alternative would be the reduced project alternative.

Table ES-1 Project Level Environmental Impacts and Mitigation Measures

Issue	Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable				
Aesthetics				
Scenic Vistas and Visual Character	The proposed PCCD South Education Center would not have a substantial adverse effect on a scenic vista or substantially degrade the existing visual character or quality of the site and its surroundings.	LS	None required.	LS
Light and Glare	Implementation of the proposed PCCD South Education Center could create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	PS	**Aes-1** All night lighting on PCCD South Education Center shall be designed according to the guidelines recommended by the International Dark-Sky Association, including but not limited to: a. Use the lowest wattage lamps feasible. b. Use motion-sensor controls or other lighting controls so that lights are only in use when necessary. c. Incorporate curfews for night lighting. d. Use light fixtures with shielding to direct the light where it is needed but does not escape above into the night sky or outside the property perimeter. e. Turn off any unnecessary lights for the protection of migratory birds.	LS
Air Quality				
Applicable Air Quality Plans	The proposed PCCD South Education Center would not result in a conflict with or obstruct implementation of the applicable air quality plan.	LS	None required.	LS
Air Quality Standards	The proposed PCCD South Education Center would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.	LS	None required.	LS
Sensitive Receptors	The proposed PCCD South Education Center would not expose sensitive receptors to substantial pollutant concentrations.	LS	None required.	LS
Objectionable Odors	The proposed PCCD South Education Center would not create objectionable odors affecting a substantial number of people.	LS	None required.	LS

Table ES-1 Project Level Environmental Impacts and Mitigation Measures

Issue	Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable				
Biological Resources				
Special Status Species	The proposed project could 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 regulated by the CDFW and USFWS.	PS	**Bio-1** Pre-Construction Nesting Bird Surveys. Vegetation should not be removed from the project site between March 15 and September 15 to avoid impacts to nesting birds. If project construction cannot be avoided during the period of March 15 through September 15, a qualified biologist would survey all potential nesting vegetation on and within 300 feet of the project site for nesting birds, prior to commencing project activities (including construction and/or site preparation). Surveys shall be conducted once a day for two days at the appropriate time of day during the breeding season, and surveys shall be performed no more than three days prior to vegetation removal and/or disturbance. If no nesting birds are observed, project activities may begin without further mitigation. If an active bird nest is located, the nest site shall be fenced with an exclusion zone of a minimum of 200 feet (500 feet for raptors) in all directions (as feasible considering site boundaries) and this area shall not be disturbed until after September 15 or until the nest becomes inactive.	LS
Sensitive Natural Communities	The proposed project could have a substantial adverse effect on sensitive natural communities.	PS	**Bio-2** Construction Fencing and Best Management Practices. Prior to vegetation clearing, grading, and/or construction activities, the PCCD will retain a qualified biologist to oversee installation of appropriate fencing to delineate the limits of construction and the approved construction staging areas. Temporary fencing (with silt barriers) will be installed at the limits of project impacts (including construction staging areas and access routes, as feasible) to prevent additional sensitive habitat impacts and to prevent the spread of silt from the construction zone into adjacent habitats to be avoided. Fencing will be installed in a manner that does not impact habitats to be avoided. The temporary construction fencing will be removed by PCCD upon project completion. Also, standard construction Best Management Practices shall be implemented on site, including but not limited to: observation of a reduced 20-mile per hour speed limit in all project areas; limiting outdoor construction activities to day-time only (no additional lighting required); placing trash in closed containers; prohibiting firearms on site; prohibiting pets on site; and ensuring construction noise shall not significantly exceed the existing ambient noise level.	LS

Table ES-1 Project Level Environmental Impacts and Mitigation Measures

Issue	Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable				
			Bio-3 Construction Staging and Equipment Maintenance. The PCCD shall ensure fueling of equipment occurs solely in designated fueling zones or off site. All equipment used in the approved construction limits will be maintained to minimize and control fluid and grease leaks. Provisions to contain and clean up unintentional leaks/spills of construction materials (e.g., concrete), and fuel, oil, fluid and grease shall be in place prior to construction.	
Wetlands	The proposed project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	LS	None required.	LS
Wildlife Corridors and Nursery Sites	The proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	LS	None required.	LS
Greenhouse Gas Emissions				
Direct and Indirect Generation of GHG Emissions	The proposed PCCD South Education Center could potentially generate GHG emissions, either directly or indirectly, resulting in a significant impact on the environment.	PS	**GHG-1** Implement Trip Reduction Strategies to Reduce Operational Emissions. The proposed project will include trip reduction strategies that minimize the percentage of commute trips/vehicle miles traveled (VMT) in single occupancy vehicles by students and faculty. Trip reduction strategies may include, but are not limited to, the following measures: a. Provide preferential parking for carpool and vanpool vehicles. Design features may include a separate parking area for carpool and vanpool vehicles that is closer to campus buildings than the parking area for single occupancy vehicles and/or covered parking spaces for carpool and vanpool vehicles. b. Provide bicycle parking/racks. Design features may include both short-term and long-term parking. Short-term parking should be located in visible and prominent locations within 50 feet of the building entrance. Long-term parking should be located in a secure area on site or within 750 feet of the project site. A portion of bicycle parking should be covered and protected from the weather (i.e. an existing	LS

Table ES-1 Project Level Environmental Impacts and Mitigation Measures

Issue	Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable				
			overhang or covered walkway, a special covering, weatherproof outdoor bicycle lockers, or an indoor storage area) (Victoria Transport Policy Institute [VTPI], 2015).	
Hydrology and Water Quality				
Water Quality Degradation	The proposed PCCD South Education Center would not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.	LS	None required.	LS
Drainage and Hydrology	The proposed PCCD South Education Center would not substantially alter existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner which would result in substantial erosion or siltation on- or off-site; result in flooding; exceed the capacity of existing or planned storm water drainage systems; or provide substantial additional sources of polluted runoff.	LS	None required.	LS
Noise				
Excessive Noise Levels	The proposed PCCD South Education Center would not result in the 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.	LS	None required.	LS
Excessive Groundbourne Vibration	The proposed PCCD South Education Center would not result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	LS	None required.	LS
Permanent Increase in Ambient Noise	The proposed PCCD South Education Center would not result in a substantial permanent increase in ambient noise levels in the project vicinity above level existing without the project.	LS	None required.	LS

Table ES-1 Project Level Environmental Impacts and Mitigation Measures

Issue	Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable				
Temporary Increase in Ambient Noise	The proposed PCCD South Education Center would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	LS	None required.	LS
Paleontological Resources				
Paleontological Resources	The proposed PCCD South Education Center could directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature.	PS	**Pal-1** Paleontological Monitoring Program. The following Paleontological Mitigation Program, as modeled after the City of San Diego's Paleontological Guidelines, shall be implemented by the PCCD: I. <u>Prior to Start of Construction</u> A. Verification of Records Search 1. The Principal Investigator shall complete a site specific records search including, but not limited to, a copy of a confirmation letter from San Diego Natural History Museum, other institution or, if the search was in-house, a letter of verification from the Principal Investigator stating that the search was completed. 2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities. B. Principal Investigator Shall Attend Precon Meetings 1. Prior to beginning any work that requires monitoring; the PCCD shall arrange a Precon Meeting that shall include the Principal Investigator, Construction Manager and/or Grading Contractor, Resident Engineer, Building Inspector, if appropriate. The Qualified Paleontologist shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Paleontological Monitoring Program with the Construction Manager and/or Grading Contractor. a. If the Principal Investigator is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with the Principal Investigator, Resident Engineer, Construction Manager or Building Inspector, if appropriate, prior to the start of any work that requires monitoring.	LS

Table ES-1 Project Level Environmental Impacts and Mitigation Measures

Issue	Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable				
			2. Identify Areas to be Monitored. Prior to the start of any work that requires monitoring, the Principal Investigator shall prepare a Paleontological Monitoring Exhibit based on the appropriate construction documents (reduced to 11x17) identifying the areas to be monitored including the delineation of grading/excavation limits. The Paleontological Monitoring Exhibit shall be based on the results of a site specific records search as well as information regarding existing known soil conditions (native or formation). 3. When Monitoring Will Occur a. Prior to the start of any work, the Principal Investigator shall also prepare a construction schedule indicating when and where monitoring will occur. b. The Principal Investigator will prepare a detailed letter prior to the start of work or during construction to identify any modification to the monitoring program. This letter shall be based on relevant information such as review of final construction documents which indicate conditions such as depth of excavation and/or site graded to bedrock, presence or absence of fossil resources, etc., which may reduce or increase the potential for resources to be present. II. <u>During Construction</u> A. Monitor Shall be Present During Grading/Excavation/Trenching 1. The monitor shall be present full-time during grading/excavation/trenching activities as identified on the Paleontological Monitoring Exhibit that could result in impacts to formations with high and moderate resource sensitivity. The Construction Manager is responsible for notifying the Principal Investigator of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the Paleontological Monitoring Exhibit. 2. The Principal Investigator may prepare a detailed letter during construction requesting a modification to the monitoring program when a field condition such as trenching activities that do not encounter formational soils as previously assumed, and/or when unique/unusual fossils are encountered, which may reduce or increase the potential for resources to be present.	

Table ES-1 Project Level Environmental Impacts and Mitigation Measures

Issue	Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable				
			3. The monitor shall document field activity via the Consultant Site Visit Record. The Consultant Site Visit Record shall be faxed by the Construction Manager the first day of monitoring, the last day of monitoring, monthly (Notification of Monitoring Completion), and in the case of any discoveries. B. Discovery Notification Process 1. In the event of a discovery, the Paleontological Monitor shall direct the contractor to temporarily divert trenching activities in the area of discovery and immediately notify the Resident Engineer or Building Inspector, as appropriate. 2. The Paleontological Monitor shall immediately notify the Principal Investigator (unless the Paleontological Monitor is the Principal Investigator) of the discovery. 3. The Principal Investigator shall immediately notify PCCD by phone of the discovery, and shall also submit written documentation to PCCD within 24 hours by fax or email with photos of the resource in context, if possible. C. Determination of Significance 1. The Principal Investigator shall evaluate the significance of the resource. a. The Principal Investigator shall immediately notify PCCD by phone to discuss significance determination and shall also submit a letter to PCCD indicating whether additional mitigation is required. The determination of significance for fossil discoveries shall be at the discretion of the Principal Investigator. b. If the resource is significant, the Principal Investigator shall submit a Paleontological Recovery Program. Impacts to significant resources must be mitigated before ground disturbing activities in the area of discovery will be allowed to resume. c. If resource is not significant (e.g., small pieces of broken common shell fragments or other scattered common fossils) the Principal Investigator shall notify the Resident Engineer, or Building Inspector as appropriate, that a non-significant discovery has been made. The Qualified Paleontologist shall continue to monitor the area.	

Table ES-1 Project Level Environmental Impacts and Mitigation Measures

Issue	Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable				
			d. The Principal Investigator shall submit a letter to PCCD indicating that fossil resources will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that no further work is required. III. <u>Night and/or Weekend Work</u> A. If night and/or weekend work is included in the contract 1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the Precon Meeting. 2. The following procedures shall be followed. a. No Discoveries. In the event that no discoveries were encountered during night and/or weekend work, the Principal Investigator shall record the information on the Consultant Site Visit Record and submit to PCCD via fax by 8:00 a.m. on the next business day. b. Discoveries. All discoveries shall be processed and documented using the existing procedures detailed in Item III above. c. Potentially Significant Discoveries. If the Principal Investigator determines that a potentially significant discovery has been made, the procedures detailed under Item III shall be followed. d. The Principal Investigator shall immediately contact PCCD, or by 8:00 a.m. on the next business day to report and discuss the findings as indicated above, unless other specific arrangements have been made. B. If night work becomes necessary during the course of construction 1. The Construction Manager shall notify the Resident Engineer, or Building Inspector, as appropriate, a minimum of 24 hours before the work is to begin. 2. The Resident Engineer or Building Inspector, as appropriate, shall notify PCCD immediately. C. All other procedures described above shall apply, as appropriate.	

Table ES-1 Project Level Environmental Impacts and Mitigation Measures

Issue	Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable				
			IV. Post Construction A. Preparation and Submittal of Draft Monitoring Report 1. The Principal Investigator shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the City's Paleontological Guidelines which describes the results, analysis, and conclusions of all phases of the Paleontological Monitoring Program (with appropriate graphics) to PCCD for review and approval within 90 days following the completion of monitoring. a. For significant paleontological resources encountered during monitoring, the Paleontological Recovery Program shall be included in the Draft Monitoring Report. b. Recording Sites with the San Diego Natural History Museum. The Principal Investigator shall be responsible for recording (on the appropriate forms) any significant or potentially significant fossil resources encountered during the Paleontological Monitoring Program in accordance with the City's Paleontological Guidelines, and submittal of such forms to the San Diego Natural History Museum with the Final Monitoring Report. 2. PCCD shall return the Draft Monitoring Report to the Principal Investigator for revision or, for preparation of the Final Report. 3. The Principal Investigator shall submit revised Draft Monitoring Report to PCCD for approval. 4. PCCD shall provide written verification to the Principal Investigator of the approved report. B. Handling of Fossil Remains 1. The Principal Investigator shall be responsible for ensuring that all fossil remains collected are cleaned and catalogued. 2. The Principal Investigator shall be responsible for ensuring that all fossil remains are analyzed to identify function and chronology as they relate to the geologic history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.	

Table ES-1 Project Level Environmental Impacts and Mitigation Measures

Issue	Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable				
			C. Curation of fossil remains: Deed of Gift and Acceptance Verification 1. The Principal Investigator shall be responsible for ensuring that all fossil remains associated with the monitoring for this project are permanently curated with an appropriate institution. 2. The Principal Investigator shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the Resident Engineer or Building Inspector and PCCD. D. Final Monitoring Report(s) 1. The Principal Investigator shall submit two copies of the Final Monitoring Report to PCCD (even if negative), within 90 days after notification from PCCD that the draft report has been approved. 2. The Resident Engineer shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from PCCD which includes the Acceptance Verification from the curation institution.	
Transportation and Traffic				
Circulation System Performance	The proposed PCCD South Education Center would conflict with an applicable plan, ordinance, or policy that establishes measures of effectiveness for the performance of the circulation system taking into account all modes of transportation and relevant components, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	PS[1]	**TRA-1 Rancho Bernardo Road/ Via Del Campo** – The project shall reconstruct the median on the south leg of the intersection and restripe the northbound approach within the existing paved width to provide a third lane (an exclusive left-turn lane), thru lane, and dedicated right-turn lane. Implementation of this improvement reduces the cumulative impact to below significant levels. **TRA-2 Rancho Bernardo Road/ Matinal Road/ Project Access** – Prior to Opening Day, 1) restripe the northbound approach to provide a shared left-turn/thru lane and a dedicated right-turn lane; or 2) restripe the northbound approach with dedicated left-turn and right-turn lanes (with northbound thru movements prohibited) and the southbound approach with a shared left-turn/right-turn lane and southbound thru movement prohibited. Implementation of these improvements reduces this cumulative impact to below significant levels.	LS

[1] All traffic impacts are cumulative project impacts.

Table ES-1 Project Level Environmental Impacts and Mitigation Measures

Issue	Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable				
			TRA-3 Rancho Bernardo Road/ West Bernardo Drive – The Rancho Bernardo Road/ West Bernardo Drive intersection has recently been improved to its ultimate Community Plan classification. Improvements per the Rancho Bernardo Public Facilities Financing Plan (PFFP) Project No. T-14 widened Rancho Bernardo Road to its current six-lane cross-section, which included additional lanes at the westbound approach to West Bernardo Drive. Extensive research was conducted to determine the feasibility of providing capacity-enhancing improvements at this intersection. All intersection approaches provide dual left-turn lanes. The westbound and northbound approaches provide dedicated right-turn lanes. Consideration was given toward providing a right-turn overlap phase for the westbound right-turn lane. However, with this improvement, the intersection was calculated to continue to operate at significant LOS F conditions. In addition, there is no available right-of-way along these roadways. Even if it was feasible to widen Rancho Bernardo Road and/or West Bernardo Drive to include dedicated right-turn lanes at the eastbound and southbound approaches, the analysis proved these improvements would not reduce the impact to below significant levels. Field observations, a review of the available right-of-way, and operational analyses completed with the improvements suggested above concluded that improvements such as additional lanes, signal timing modifications, right-turn overlap phasing, etc. would be physically infeasible and/or do not reduce levels of service to below a level of significance. Therefore, the cumulative impact at this intersection would remain significant and unmitigated. **TRA-4** As part of the proposed project, a Transportation Demand Management (TDM) plan will be implemented and include the following measures to help alleviate peak hour congestion along the study area roadway systems: a. The project will coordinate with the Metropolitan Transit System to determine the feasibility of providing a bus stop on campus. b. Bicycle racks and lockers will be provided for student and staff/faculty use. c. Transportation information will be displayed in common areas accessible to students, faculty and staff. Transportation Information Displays should include, at a minimum, the following materials: i. Ridesharing promotional material; ii. Bicycle route and parking including maps and bicycle safety information;	

Table ES-1 Project Level Environmental Impacts and Mitigation Measures

Issue	Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable				
			iii. Materials publicizing internet and telephone numbers for referrals on transportation information; iv. Promotional materials supplied by North County Transit District, Metropolitan Transit System, and/or other publicly supported transportation organizations; and v. A listing of facilities at the site for carpoolers/vanpoolers, transit riders, bicyclist and pedestrians, including information on the availability of preferential carpool/vanpool parking spaces and the methods for obtaining these spaces. d. Carpool/vanpool parking spaces will be provided in preferentially located areas (closest to building entrances). These spaces will be signed and striped "Car/Vanpool Parking Only." Information about the availability of and the means of accessing the car/vanpool parking spaces will be posted on Transportation Information Displays located in common areas and the campus website. e. Provide charging station(s) for electric vehicles. f. Balance class schedules by spreading classes throughout the course of the day to reduce peak hour volumes during the peak hours of the adjacent street system.	
Congestion Management Plan	The proposed PCCD South Education Center would not conflict with an adopted plan, policy, or program regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	LS	None required.	LS
Inadequate Emergency Access	The proposed PCCD South Education Center would not conflict with an adopted plan, policy, or program regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	LS	None required.	LS
Alternative Transportation Facilities	The proposed PCCD South Education Center would not conflict with an adopted plan, policy, or program regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	LS	None required.	LS

Table ES-2 Summary of Cumulative Impacts

Issue	Geographic Scope of Cumulative Impact Analysis	Significant Cumulative Impact?
Aesthetics	For scenic vistas and daytime glare, there is no cumulative study area because impacts are specific to the project site. For visual character, the cumulative impact study area includes areas adjacent to project site. For regional light pollution, the cumulative impact study area includes all areas of the City of San Diego (that may contribute to "light dome" effects that disrupt "dark-sky" observations).	No.
Air Quality	For consistency with applicable air quality plans, toxic air contaminants, and objectionable odors, there is no cumulative study area because impacts are limited to either the project or a few homes along the northwest campus boundary at which there are no cumulative projects identified. For violations of air quality standards, the cumulative impact study area includes the San Diego Air Basin. For carbon monoxide "hot spots" affecting sensitive receptors near congested intersections, the cumulative impact study area includes a two percent per year for two years growth rate.	No.
Biological Resources	For resources identified as sensitive by the City's Multiple Species Conservation Plan (MSCP) Subarea Plan, the cumulative impact study area includes the designated open space preserves within the MSCP boundary. For federally and state-listed species, the cumulative impact study area includes the United States and California, respectively.	No.
Greenhouse Gas Emissions	The cumulative impact study area includes the global atmosphere.	No.
Hydrology and Water Quality	The cumulative impact study area includes area encompassed by the San Dieguito Hydrologic Unit.	No.
Noise	The cumulative impact study area includes the residential neighborhood north of the project boundaries. Also corresponds to the surrounding circulation system along roadways in which the projected increase in traffic volumes would exceed noise standards.	No.
Paleontological Resources	The cumulative impact study area includes the Friars Formation geologic unit throughout the San Diego region.	No.
Transportation and Traffic	For exceedances of LOS standards, the cumulative impact study area includes roadways and intersections in the vicinity of the project at which the projected increase in traffic volumes would exceed 50 peak-hour trips.	Yes.

Table ES-3 Summary of Impacts for Alternatives Compared to the Proposed Project

Issue Area	Proposed Project Without Mitigation	Proposed Project With Mitigation	No Project Alternative	Second Access Road Alternative	Reduced Project Alternative	Bernardo Center Drive Alternative
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable ▲ Alternative would likely result in an increased level of impact when compared to the proposed project. — Alternative would likely result in a similar level of impact when compared to proposed project. ▼ Alternative would likely result in a reduce level of impact to issue when compared to proposed project.						
Aesthetics						
Scenic Vistas	LS	LS	—	—	—	—
Visual Character	LS	LS	—	▲	—	▲
Light and Glare	PS	LS	▼	—	—	▲
Air Quality						
Applicable Air Quality Plans	LS	LS	—	—	—	—
Air Quality Standards	S	LS	—	▲	▼	▲
Cumulatively Considerable Emissions	LS	LS	▼	▲	▼	▲
Sensitive Receptors	LS	LS	—	▲	▼	▲
Objectionable Odors	LS	LS	—	—	—	—
Energy	LS	LS	—	▲	▼	▲
Biological Resources						
Special Status Species	PS	LS	▼	▲	—	▲
Sensitive Natural Communities	PS	LS	▼	▲	—	▲
Jurisdictional Waters and Wetlands	PS	LS	▼	—	—	▲
Wildlife Corridors and Nursery Sites	LS	LS	▼	—	—	▲
Biological Resources Protection Policies or Ordinances	LS	LS	▼	—	—	▲
Adopted Habitat Conservation Plan	LS	LS	▼	—	—	—
Greenhouse Gases						
Direct and Indirect Generation of GHG Emissions	LS	LS	▼	▲	▼	▲
Applicable GHG Emissions Reduction Plan, Policy, or Regulation	LS	LS	▼	—	—	—
Hydrology and Water Quality						
Water Quality Degradation	LS	LS	▼	▲	—	▲
Drainage Alterations	LS	LS	▼	—	—	▲
Noise						
Excessive Noise Levels	LS	LS	▼	▲	—	▲
Excessive Groundborne Vibration	LS	LS	▼	▲	—	▲
Permanent Increase in Ambient Noise	LS	LS	▼	—	▼	▲
Temporary Increase in Ambient Noise	LS	LS	▼	▲	—	▲
Paleontological Resources						
Paleontological Resources	PS	LS	▼	—	—	▲

Issue Area	Proposed Project Without Mitigation	Proposed Project With Mitigation	No Project Alternative	Second Access Road Alternative	Reduced Project Alternative	Bernardo Center Drive Alternative
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable ▲ Alternative would likely result in an increased level of impact when compared to the proposed project. — Alternative would likely result in a similar level of impact when compared to proposed project. ▼ Alternative would likely result in a reduce level of impact to issue when compared to proposed project.						
Transportation and Traffic						
Increases in Traffic	PS	SU[2]	▼	—	▼	▲
Project Access	LS	LS	▼	▼	▼	▲
Alternative Transportation	LS	LS	▼	—	—	—
Parking	LS	LS	—	—	—	—

[2] Impacts at one intersection would result in a significant and unavoidable cumulative impacts at Year 2035.

Chapter 1 **INTRODUCTION**

The California Environmental Quality Act (CEQA) requires that all state and local government agencies consider the environmental consequences of programs and projects over which they have discretionary authority before taking action on those projects or programs. Where there is substantial evidence that a project may have a significant effect on the environment, the agency shall prepare an Environmental Impact Report (EIR) (CEQA Guidelines, Section 15164[a]). An EIR is an informational document that will inform public agency decision makers and the general public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

CEQA requires that a Draft EIR be prepared and circulated for public review. Following the close of the public review period, the lead agency prepares a Final EIR, which includes the comments received during the review period (either verbatim or in summary), and responses to the significant environmental issues identified in those comments. Prior to taking action on a proposed project, the lead agency must certify the EIR and make certain findings.

A lead agency is required to recirculate a Draft EIR, prior to certification, when "significant new information" is added to the EIR after the public review period begins (CEQA Guidelines Section 15088.5). New information is deemed significant if it reveals the following:

- A new significant environmental impact resulting from either the project itself or a new proposed mitigation measure;
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;
- A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project proponent declines to adopt it; or
- The draft EIR was so fundamentally flawed that it precluded meaningful public review and comment.

In addition, a lead agency may choose to recirculate an EIR if additional studies or analysis is conducted for a project before a specific action is taken by local decision makers to approve a project. Recirculation may be limited to those chapters or portions of the EIR that have been modified. Public notice and circulation of the recirculated Draft EIR is required, per CEQA Guidelines Sections 15086 and 15087.

1.1 Reader's Guide to the Recirculated EIR

As the CEQA lead agency, the Palomar Community College District (PCCD) is responsible for the preparation and certification of the EIR prior to approving or carrying out the proposed project. The discretionary action before the lead agency is the approval of the proposed project. In its role as the lead agency, the PCCD has directed the recirculation of the Draft EIR for the proposed project.

Notice of Recirculation

Recirculation of a Draft EIR requires notification of responsible and trustee agencies and the general public, per CEQA Guidelines Sections 15086 and 15087. The lead agency need only recirculate those chapters or portions of the Draft EIR that have been significantly modified. However, in this case the entirety of the EIR is being recirculated.

Purpose of Recirculation

During public review of the Draft EIR, public comments raised a number of issues that, taken together, warranted the preparation of a revised Draft EIR to be recirculated for public review. Specifically, comments related to transportation and traffic, the adequacy of on-site and off-site parking, and project alternatives. In addition, the PCCD revised its Full-Time Equivalent Student (FTES) assumptions down to more accurately reflect buildout of the proposed project. In the previously circulated Draft EIR the PCCD proposed 3,470 FTES as maximum capacity of this proposed facility. The PCCD subsequently revisited the capacity of the existing building on the project site and determined that a build-out FTES of 2,000 is more appropriate and realistic given the available square footage and configuration of proposed classroom space.

Revised 2035 FTES Assumptions

After distribution of the Draft EIR and the collection of community feedback, PCCD re-assessed the maximum FTES supported by the available square footage and configuration of proposed classroom space for the existing building. Based on the capacity of the South Education facility, PCCD has adjusted the maximum target FTES generated by the South Education Center to 2,000 which was based on the total amount of classroom and lab space as currently designed in the existing building on site.

The maximum enrollment anticipated by PCCD by Year 2035 is projected at 2,000 annual FTES, down from 3,470 FTES, which amounts to a fall semester enrollment of 5,625 students. It should be noted that total enrollment does not indicate a daily enrollment rather a total of all students enrolled during a particular semester.

Transportation, Traffic, and Parking

Comments were received on the Draft EIR regarding the use of 0.55 trips per student trip generation rate for traffic impact analysis rather than the SANDAG generation factor of 1.2 trips per student. As such, the revised traffic impact analysis uses the SANDAG trip generation rate of 1.2 trips per student for community college/junior college, in addition to the revised FTES assumptions described above, and carried forward for analysis in Section 4.8 Transportation, Traffic, and Parking of this Recirculated Draft EIR.

Regarding parking, comments received on the Draft EIR requested a project specific parking analysis to better demonstrate whether there would be adequate parking on and off site. As such this analysis is

provided as Appendix H to this Recirculated Draft EIR and carried forward for analysis in Section 4.8 Transportation, Traffic, and Parking of this Recirculated Draft EIR.

Air Quality and Energy, Greenhouse Gas Emissions, and Noise

Section 4.2 Air Quality and Energy, Section 4.4 Greenhouse Gas Emissions, and Section 4.6 Noise were also revised to reflect the updated average daily traffic assumptions that were changed as a result of the revised traffic impact analysis.

Project Alternatives

Comments received on the Draft EIR also requested additional alternatives to be analyzed. As a result, Chapter 6, Alternatives, was also revised to include analysis of a reduced project alternative and an off-site alternative.

1.2 Notice of Preparation

On August 17, 2015 the PCCD distributed a Notice of Preparation (NOP) for the proposed PCCD South Education Center EIR. The EIR was assigned State Clearinghouse reference number 2015081039 In accordance with Section 15082 of the CEQA Guidelines, the NOP was circulated to interested agencies, organizations, and individuals for a 30-day period that ended on September 17, 2015 during which time comments were solicited regarding the environmental topics and issues that the EIR should evaluate. During the NOP review period, consistent with CEQA Guidelines Section 15083, a public scoping meeting was held on August 26, 2015 at the Poway Branch Public Library. A public notice was placed in the San Diego Union Tribune on August 17, 2015 informing the general public of the scoping meeting and the availability of the NOP. The NOP, affidavit of publication of the public notice, and associated comment letters are included in Appendix A of this EIR.

1.3 Scope of the EIR

The PCCD established the scope of analysis of this EIR is based on the comment letters received in response to the NOP, as discussed above, and review of relevant past environmental documents regarding the project site. It was determined that the proposed project may result in potentially significant impacts associated with the following environmental topics:

- Aesthetics
- Air Quality
- Biological Resources
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Noise
- Paleontological Resources
- Transportation and Traffic

Project-level and cumulative impacts related to the above-listed environmental topics are analyzed in detail in Chapter 4, Environmental Impact Analysis, of this EIR. Other mandatory discussions required by CEQA include effects not found to be significant, growth inducement, significant and unavoidable environmental effects, and significant irreversible environmental changes, which are addressed in Chapter 5, Other CEQA Considerations, of this EIR. Alternatives to the proposed project are discussed in Chapter 6, Alternatives, of this EIR.

1.4 Draft EIR Public Review

Pursuant to Section 15105(a) of the CEQA Guidelines, when a draft EIR is submitted to the State Clearinghouse for review by state agencies, the public review period shall not be less than 45 days, unless a shorter period, not less than 30 days, is approved by the State Clearinghouse. During public review, a draft EIR is circulated to responsible agencies that have discretionary approval over implementation of the proposed project, trustee agencies with jurisdiction by law over natural resources that would be affected by implementation of the proposed project, and interested organizations and individuals. According to Section 15204 of the CEQA Guidelines, in reviewing draft EIRs, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated.

The 45-day public review period for the draft EIR will begin on March 25, 2016 and end on May 9, 2016. Copies of this document will be available for public review on the PCCD website identified below. Written comments on the draft EIR will be received by the PCCD at the following address:

Mr. Dennis D. Astl
Palomar Community College District, San Marcos Campus
1140 West Mission Road
San Marcos, California 92069-1487
Phone: (760) 744-1150 x2772 Fax: (760) 761-3506
Email: dastl@palomar.edu
http://www2.palomar.edu/pages/propm/environmental-impact-reports/

Pursuant to Section 15088 of the CEQA Guidelines, the PCCD will provide written responses to comments received on the draft EIR during the public review period. All comments will be taken into consideration by the PCCD Governing Board when making a decision on whether or not to certify the final EIR.

Per CEQA Guidelines Section 15088.5(f) (3), the lead agency requests that reviewers submit new comments for the Recirculated Draft EIR. According to CEQA Guidelines Section 15088.5(f) (3), the comments received on the prior draft EIR would become part of the administrative record, but written responses to those comments are not required. As such, reviewers must submit new comments on the revised EIR. Public comment(s) in writing is required during the 45-day public review period.

1.5 Final EIR and EIR Certification

The PCCD shall respond in writing to significant environmental points raised by the reviewers of the recirculated Draft EIR in their comments. The comments and responses will be included in the Final EIR. The Final EIR shall consist of the Draft EIR, the recirculated Draft EIR, comments received on both the Draft EIR and recirculated Draft EIR, and the responses to those comments. After a public hearing on the proposed project, the PCCD Governing Board will then review the Final EIR along with any public testimony and decide whether to certify the EIR and whether to approve or deny the project.

If the Governing Board approves the project and significant impacts identified by the EIR cannot be mitigated, the Governing Board must state in writing the reasons for its actions. A statement of overriding considerations must be included in the record of the project approval and mentioned in the notice of determination (CEQA Guidelines, Section 15093(c)).

1.6 Incorporated by Reference

According to Section 15150 of the CEQA Guidelines, an EIR may incorporate by reference all or portions of another document which is a matter of public record. The incorporated language shall be considered to be set forth in full as part of the text of the EIR. All documents incorporated by reference are available for review at, or can be obtained through the PCCD San Marcos campus office.

1.6.1 PCCD Master Plan 2022 and PCCD Educational Master Plan Update

To respond to anticipated future growth in the area served by Palomar College, PCCD prepared a comprehensive educational and facilities master plan, known as the PCCD Master Plan 2022, which was completed in August 2003. Master Plan 2022 reflects the PCCD's core values, including the provision of access to its programs and services. In May 2010, the PCCD Educational Master Plan Update was completed which revised the educational component of Master Plan 2022, and provided a current perspective along with educational needs/demands for the future, incorporating changes that occurred within the PCCD and the program of instruction over the elapsed seven years. In order to accommodate the PCCD's future academic space needs, the Educational Master Plan Update identifies the PCCD South Education Center as one of two new educational centers in the PCCD system.

1.6.2 Rancho Bernardo Industrial Park North – Lot 11 Mitigated Negative Declaration

The previously approved Mitigated Negative Declaration (MND) (SCH 2005031034) for the project site was analyzed in compliance with CEQA. The City of San Diego determined that the project could have a significant environmental effect in the following areas: biological resources, paleontological resources, and transportation/circulation. Mitigation measures were incorporated to avoid or mitigate the potentially significant environmental effects to less than significant. Therefore, portions of this EIR analysis, specifically as it relates to existing facilities, are supported by the Rancho Bernardo Industrial Park North – Lot 11 MND.

1.7 Document Organization

The content and format of this EIR are designed to meet the requirements of CEQA. The document is organized into the following chapters:

- **Executive Summary.** Summarizes the proposed project, project-related and cumulative impacts, mitigation measures, and alternatives to the proposed project.
- **Chapter 1, Introduction.** Provides a brief overview of the scope of this EIR, the draft EIR public review process, and the organization of this document.
- **Chapter 2, Environmental Setting.** Provides a description of the existing physical environmental conditions in the vicinity of the proposed project at the time the NOP was published.

- **Chapter 3, Project Description**. Provides a detailed description of the proposed project, including its location, background, objectives, design features, construction activities, approvals required to implement the proposed project, and a list of references.
- **Chapter 4, Environmental Impact Analysis.** Contains a discussion of the potential environmental effects resulting from implementation of the proposed project for various issues under the following environmental topics: Aesthetics, Air Quality, Biological Resources, Greenhouse Gas Emissions, Hydrology and Water Quality, Noise, Paleontological Resources, and Transportation and Traffic. The section for each environmental topic contains a discussion of the existing conditions, relevant regulatory framework, standards for determining the significance of impacts, analysis of project-related and cumulative impacts, and feasible mitigation measures that would reduce or avoid potentially significant impacts.
- **Chapter 5, Other CEQA Considerations**. Contains discussions required by CEQA pertaining to effects not found to be significant, growth inducement, significant and unavoidable environmental effects, and significant irreversible environmental changes that would result from implementation of the proposed project.
- **Chapter 6, Alternatives**. Describes alternatives to the proposed project that could reduce or avoid significant impacts identified for the proposed project and evaluates their environmental effects in comparison to the proposed project.
- **Chapter 7, EIR Preparers**. Identifies the agencies, organizations, and individuals that were directly involved in the preparation of this EIR.

The following technical studies and supporting materials are provided in the appendices to the EIR:

- **Appendix A.** Notice of Preparation and Comment Letters
- **Appendix B.** Updated Geotechnical Investigation
- **Appendix C.** Air Quality Technical Report
- **Appendix D.** Biological Resources Technical Report
- **Appendix E.** Greenhouse Gas Emissions Data Sheets
- **Appendix F.** Noise Technical Report
- **Appendix G.** Traffic Assessment of EIR Analysis and Traffic Impact Analysis Report
- **Appendix H.** Parking Impact Analysis Memo

Chapter 2 ENVIRONMENTAL SETTING

2.1 Introduction

This chapter of the EIR contains a general description of the environmental setting for the proposed PCCD South Education Center project. In accordance with Section 15125 of the CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of a project, as they exist at the time the Notice of Preparation (NOP) is published. The environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The baseline conditions for analysis of the proposed project are represented by the environmental conditions of the project site and surrounding areas on August 17, 2015, when the NOP for this EIR was published. A specific description of the environmental setting pertinent to each environmental topic is provided under the Existing Conditions subsections in Chapter 4, Environmental Impact Analysis, of this EIR.

2.2 Project Location

As shown in Figure 2-1 (Regional Location) and Figure 2-2 (Project Area), the proposed project is located at 11111 Rancho Bernardo Road within the Rancho Bernardo community in the City of San Diego, San Diego County, California. The 27-acre project site is situated approximately 0.8 mile west of Interstate 15 (I-15) on the south side of Rancho Bernardo Road. Access to the project site is currently provided via an access road extending southeast from the existing four-way signalized intersection at Rancho Bernardo Road and Matinal Road.

2.3 Project Site Characteristics

The 27-acre project site was previously graded and contains an unfinished business park, consisting of an existing access road, a single four-story, 110,000-square foot building accompanied by a detached four-level, 574-space parking structure and 218-space surface parking lot that was constructed in 2008/2009 (see Figure 2-2). Two additional 110,000 four-story buildings and additional surface parking areas were planned but were never constructed although the foundations and elevator pits for a second office building were constructed. The existing building is an unfinished “warm shell” with limited interior improvements.

Elevations at the project site range from a low of approximately 585 feet above mean sea level (AMSL) within the lower drainage basin located along Rancho Bernardo Road to a high of approximately 730 feet AMSL along the southwestern portion of the property. Natural hillside slopes lie on the west, south, and east sides of the property. Fill slopes constructed as part of the previous site grading occur on the north and east sides of the property. The northern fill slope is approximately 50 feet high and constructed at a

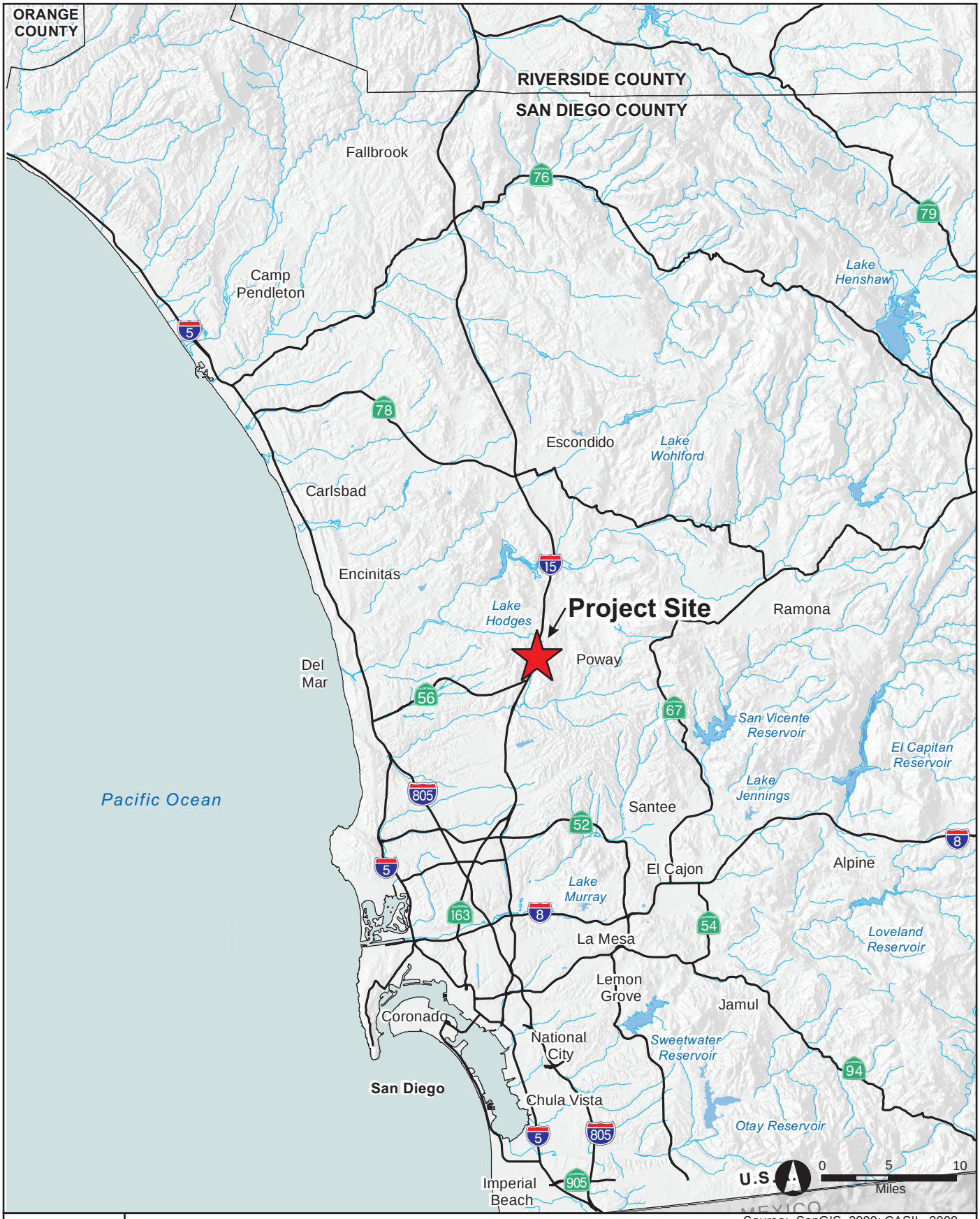
2:1 (horizontal to vertical) slope. The eastern fill slope is approximately 10 feet high and also constructed at a 2:1 slope. The graded pad was previously sheet-graded to drain into an upper desilting basin that is centrally located at the top of the north-facing fill slope. Elevations for the buildable portion of the graded pad vary from approximately 640 to 658 feet AMSL.

The soils in the project area are mapped as Olivenhain cobbly loam (9 to 30 percent slopes). These soils are well-drained and typical of marine terraces with gravelly alluvium parent material derived from various sources. The lower profiles of these soils are reported to contain a very cobbly clay and clay loam content. The soils in the eastern portions of the project area are highly disturbed and compacted as a result of existing developments. The observed soils on the slope and in the canyon bottom have been disturbed by the recent erosion damage. The existing development (building, parking structure and parking lot) generally occupies the central portion of the site with approximately 12.6 acres of the site remaining undeveloped pursuant to existing open space easements. A total of eleven vegetation communities or habitat types were mapped within the property boundary during the general biological survey: developed land, disturbed land, coastal sage scrub, coastal sage scrub-disturbed, disturbed wetland, eucalyptus woodland, mixed chaparral, native grassland, non-native grassland, ornamental plantings, and scrub oak chaparral.

2.4 Consistency with Applicable Regional and General Plans

The project site is owned by, and would be developed under the jurisdiction of the PCCD. Pursuant to Section 53094 of the California Government Code, the proposed project would not be subject to goals, policies, and guidelines set forth in the City of San Diego General Plan and Zoning Ordinance.

Project development and proposed mitigation would however be consistent with applicable State and Federal regulations such as the San Diego Air Pollution Control District rules and regulations, the Regional Air Quality Plans and Strategies, and the State Implementation Plan for air quality control; Natural Community Conservation Plan (NCCP); Congestion Management Plan (CMP); applicable regional transportation plans, applicable Roadway Design Standards; Regional Water Quality Control Board Basin Plans; and all other plans, regulations, or policies, as applicable.



Source: SanGIS, 2009; CASIL, 2009

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FIGURE 2-1

Regional Location

100028572

Palomar College South Education Center EIR

Source: GoogleEarthPro, Atkins 2015

ATKINS

FIGURE 2-2
Project Area

Chapter 3 PROJECT DESCRIPTION

This chapter of the EIR contains a detailed description of the proposed PCCD South Education Center project. In accordance with Section 15124 of the CEQA Guidelines, a complete project description must contain the following information: (a) the precise location and boundaries of the proposed project, shown on a detailed map, along with a regional map of the project's location; (b) a statement of the objectives sought by the proposed project, which should include the underlying purpose of the project; (c) a general description of the project's technical, economic, and environmental characteristics; and (d) a statement briefly describing the intended uses of the EIR. An adequate project description need not be exhaustive, but should supply the information necessary for the evaluation and review of the project's significant effects on the environment.

3.1 Project Location

As shown in Figure 2-1 (Regional Location) and Figure 2-2 (Project Area), the proposed project is located at 11111 Rancho Bernardo Road within the Rancho Bernardo community in the city of San Diego, San Diego County, California. The 27-acre project site is situated approximately 0.8-mile west of Interstate 15 (I-15) on the south side of Rancho Bernardo Road. Access to the project site is currently provided via an access road extending southeast from the existing four-way signalized intersection at Rancho Bernardo Road and Matinal Road.

3.2 Project Background

3.2.1 Palomar Community College District

Palomar College is a public, two-year community college operated by the PCCD, which serves a district covering 2,555 square miles in northern San Diego County. Palomar College, which consists of the main San Marcos Campus, the Escondido Education Center, and five off-site locations (Camp Pendleton, Fallbrook, Mt. Carmel, Pauma Valley, and Ramona), is the largest community college in terms of land area in San Diego County. Currently, more than 24,000 students attend Palomar College each fall and spring semester.

To respond to anticipated future growth in the areas served by Palomar College, PCCD prepared a comprehensive educational and facilities master plan, known as the PCCD Master Plan 2022, which was completed in August 2003. Master Plan 2022 reflects the PCCD’s core values, including the provision of access to its programs and services. In May 2010, the PCCD Educational Master Plan Update was completed which revised the educational component of Master Plan 2022 and provided a current perspective, incorporating changes that occurred within the PCCD and the program of instruction over the elapsed seven years.

In order to accommodate the PCCD's future academic space needs, the Educational Master Plan Update identifies the South Education Center as one of two new educational centers in the PCCD system. As a new educational center, the South Education Center will have two primary goals:

- Attract new students to the PCCD through a well-defined academic program (i.e., not recycle students who are already attending Palomar College at other campuses); and
- Be self-sufficient/self-sustaining so as not to create a drain on the existing resources of the PCCD.

Although the Educational Master Plan Update does not identify a definitive site for the South Education Center, it indicates that the facility is to be strategically located in the southern portion of the district. The Educational Master Plan Update recommends that the South Education Center be built to a facility level that is greater than the actual initial need. The recommended building size for the South Education Center is 68,670 ASF, or approximately 105,600 gross square feet.

3.2.2 Proposed Project Site

In 2005, the City of San Diego prepared and approved mitigated negative declaration (MND) and tentative map for the existing development on the subject 27-acre property, referred to at that time as the Rancho Bernardo Industrial Park North – Lot 11 project, which proposed the construction of three 110,000 square-foot buildings, a four level above ground parking structure, surface parking areas, and the designation of approximately 12.6 acres of land to an open space easement agreement along the eastern boundary of the project site. Construction of one of the three 110,000 square-foot office buildings, the parking structure, a portion of the surface parking areas, and designation of the open space easement occurred in 2009.

In 2010, the PCCD acquired the 27-acre property, which included the unfinished 110,000 square-foot office building, four-story 574-space parking structure, and a 218-space surface parking lot, as the future site for the South Education Center. The existing building is a "warm shell," which means it has limited interior improvements such as minimally finished interiors (i.e. flooring, carpet, interior windows and doors, etc.), a heating and cooling system, drop ceilings, plumbing and restrooms, and interior lighting. The existing development generally occupies the central portion of the site. Construction of the other two planned office buildings and surface parking area is not proposed as part of this project. In addition, no changes to the existing open space easement agreements is proposed.

3.3 Project Objectives

The objectives of the proposed project, as established by the PCCD, are as follows:

1. Locate an education center in the southern region of the district.
2. Implement relevant goals and objectives of the PCCD 2022 Educational Master Plan 2010 Update, specifically Goal 5 which is to "Ensure that existing and future facilities support learning, programs, and services; and Objective 5.3 which is to "Identify and purchase a site for future development of another Education Center in accordance with the Master Plan."
3. Provide a shared community resource with amenities for public use.
4. Attract new students to the PCCD through a well-defined academic program.

5. Be self-sufficient/self-sustaining so as not to create a drain on the resources of the PCCD.
6. Utilize and repurpose an existing facility in order to maximize district resources.
7. Provide high quality education and support services to the southern portion of the district.
8. Develop a comprehensive education center campus experience that reflects its surrounding environment.
9. Offer a broad-based curriculum supported by a class schedule that is convenient for students.
10. Create the feel of a postsecondary campus by placing importance on support amenities, including those for learning resources, food services, and gathering places for students.
11. Ensure that the facility maximizes the safety of the students, faculty and staff.

3.4 Proposed Project

The proposed project would establish the PCCD South Education Center on the 27-acre property located at 11111 Rancho Bernardo Road. The proposed project would convert the existing four-story, 110,000-square-foot building into a comprehensive community college education center; make improvements to the existing parking structure; construct an approximately 1,200 foot-long looped road connecting the existing parking lot to the existing parking structure; construct minor drainage improvements; and install walkways, hardscape areas, and landscaping. Additional sources of security lighting would be installed in the parking lots, on buildings, on the new roadway, and for new landscapes areas. Figure 3-1 shows a plan view of the proposed site plan with the looped road.

3.4.1 Proposed Facility Improvements

Conversion of the existing building would include construction of three four-story stairwells and interior building improvements to create an education center that meets the facility and space needs identified in the Educational Master Plan Update. The education center building is proposed to include the facilities identified in Table 3-1. Building floor plans and representative photos are provided in Figures 3-2 through 3-5.

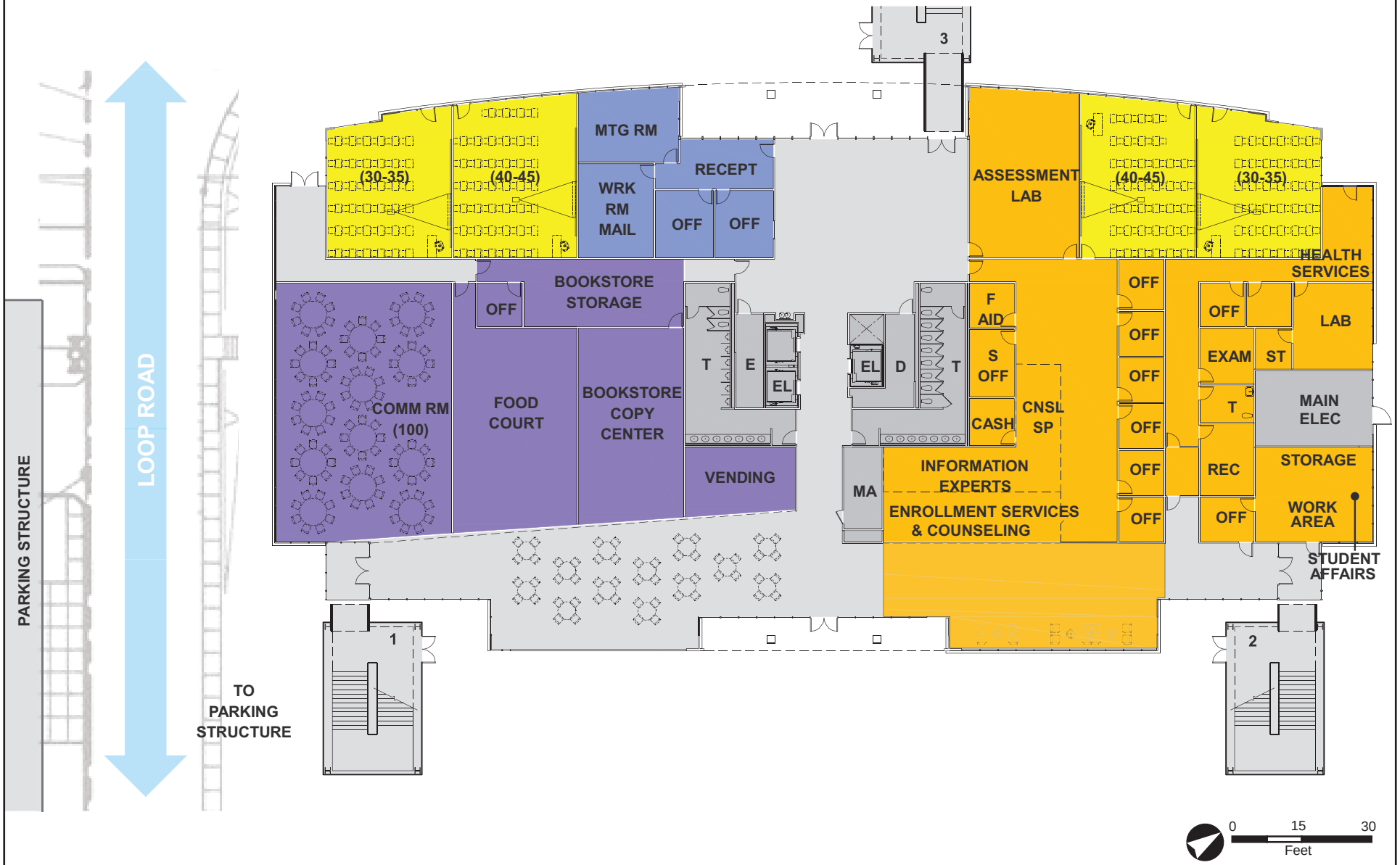
The new looped road would extend east from the existing parking lot and continue along the perimeter of the graded area east of the main building and ultimately connect with the existing on-site access road that currently terminates at the southeastern corner of the existing parking structure. The existing surface parking lot connects to the existing main access road that forms the southern leg of the Rancho Bernardo Road/Matinal Road intersection. Together, the new looped road and existing access road/parking lot would provide the internal circulation network within the project site.

The proposed facility would also include space within the existing building for a PCCD campus police facility to allow campus police officers and community service officers to actively patrol the campus, respond to emergencies, as well as provide vehicle lock out, battery jump, and safety escorts. Campus police officers' are fully empowered California Police Officers under the authority of Penal Code section 830.32 and work in conjunction with local, county, state and federal agencies.

Source: LPA 2014

FIGURE 3-1

Site Plan



Source: PCCD 2012

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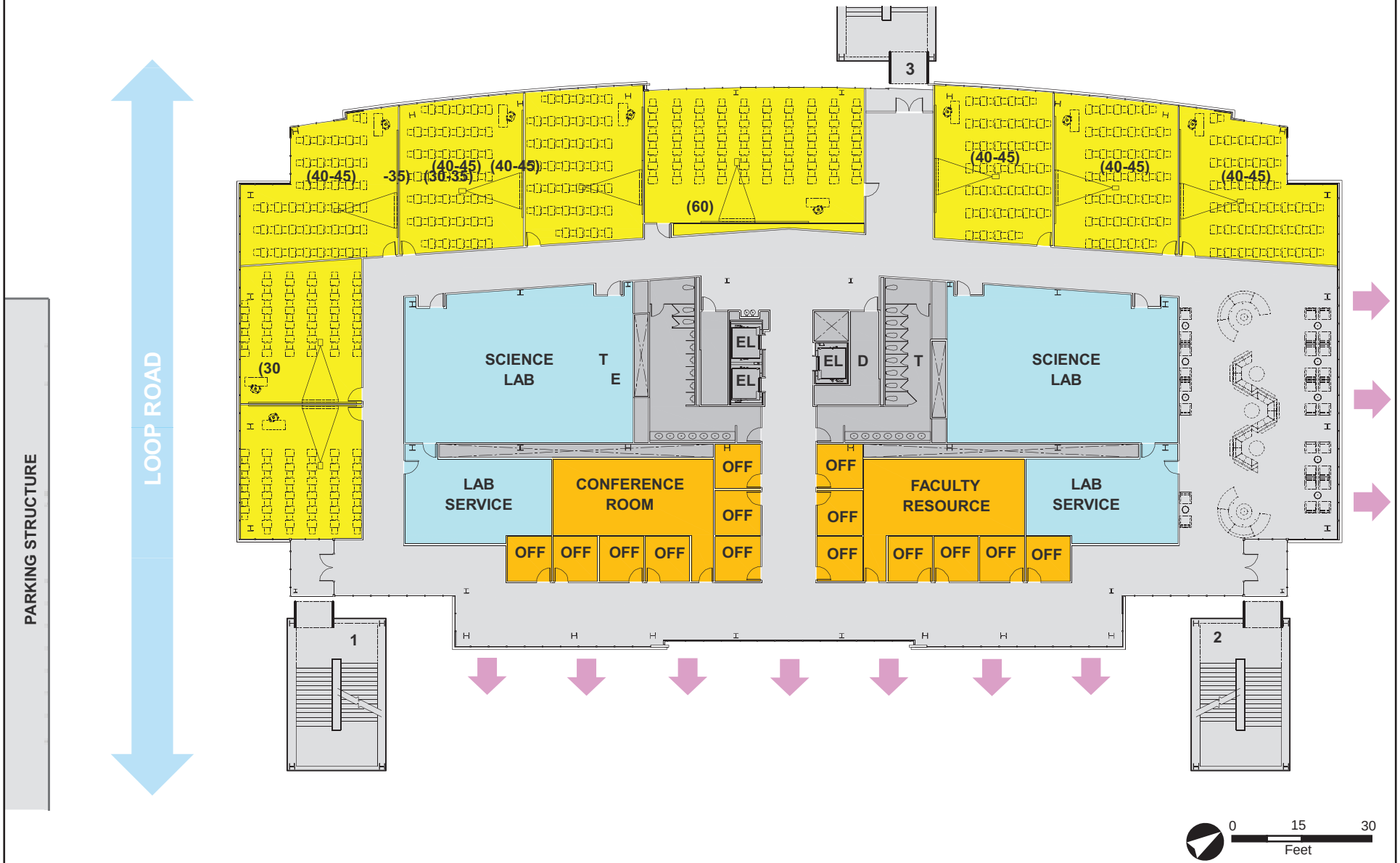
FIGURE 3-2

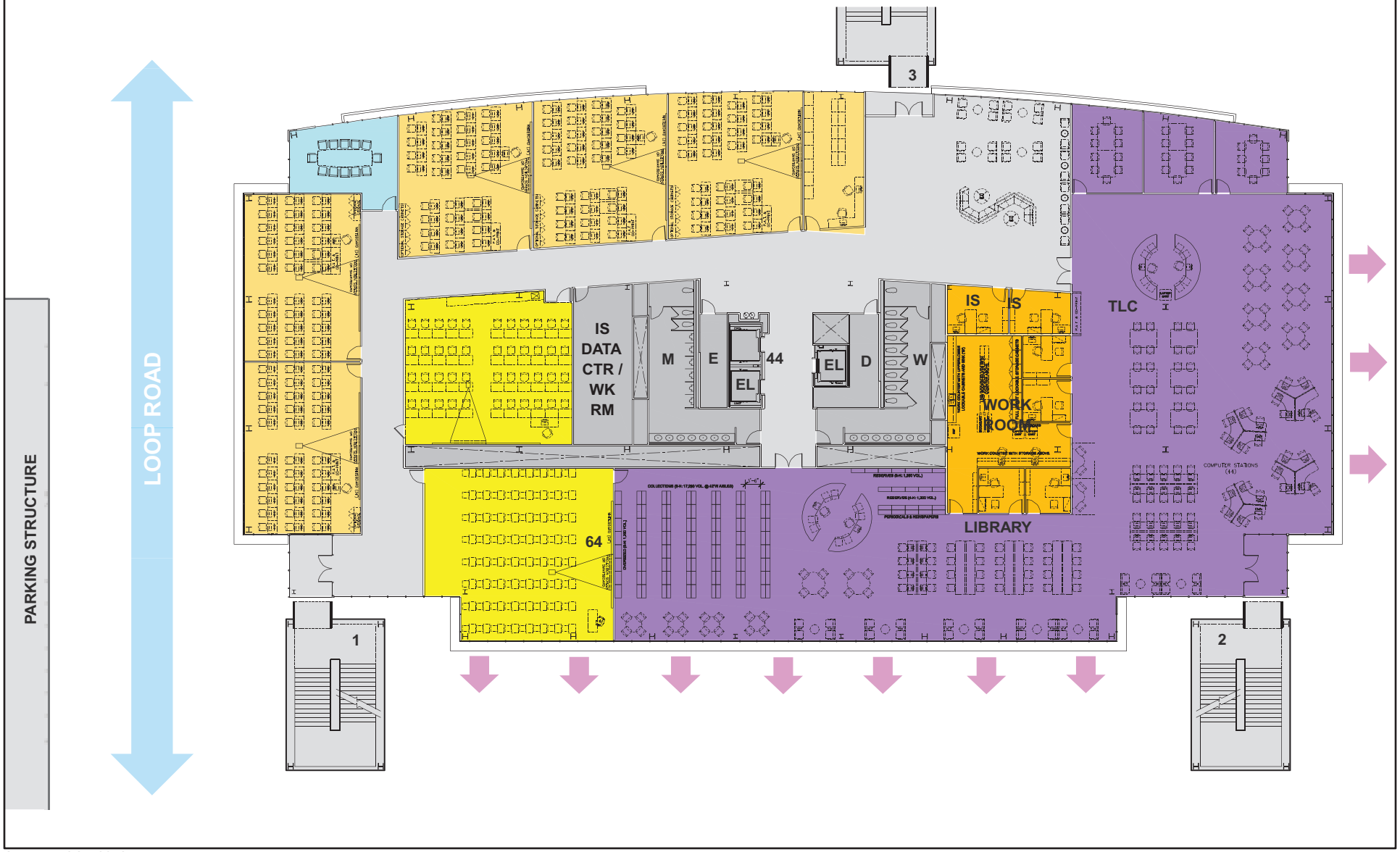
First Floor Building Plan



Source: PCCD 2012

FIGURE 3-3

Second and Third Floors Building Plan



Source: PCCD 2012

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N

PROPOSED PCCD SOUTH EDUCATION CENTER
FOURTH FLOOR BUILDING PLAN
FIGURE 3-4

Source: LPA 2013

FIGURE 3-5

Conceptual Building Design, West Facing

Table 3-1 South Education Center Programmed Facilities and Spaces (Approximate)

Facility	Room Space (ASF)	Number of Rooms	Total Space (ASF)
Lobby			1,000
Exhibition	1,000	1	1,000
Academic			37,470
Classroom Lecture (30 – 35 Seats)	800	6	4,800
Classroom Lecture (40 – 45 Seats)	900	14	12,600
Classroom Lecture (42 – 44 Seats)	1,200	1	1,200
Assembly Large Lecture (60+ Seats)	1,500	3	4,500
Biology Lab	1,700	2	3,400
Biology Lab Service	600	2	1,200
Earth Sciences Lab	1,700	1	1,700
Earth Sciences Lab Service	600	1	600
Chemistry Lab	1,700	1	1,700
Chemistry Lab Service	600	1	600
General Computer Lab (30 – 32 Seats)	950	3	2,850
English Computer Lab (30 – 32 Seats)	950	1	950
ESL Computer Lab (30 – 32 Seats)	950	1	950
Computer Lab Service	420	1	420
Faculty Offices & Support			4,600
Faculty Office	100	20	2,000
ADA Office	100	4	400
ADA Service	100	4	400
Faculty Resource Center	500	2	1,000
Meeting/Conference Room (16 – 20 Seats)	400	2	800
Meeting/Conference Room (28 – 32 Seats)	600	1	600
Library Resource & Instructional Support Lab			10,290
Library/Open Study	4,150	1	4,150
TLC/Open Computer Lab/Tutoring	4,200	1	4,200
Individual Study Room	200	3	600
Workroom/Community Room	1,100	1	1,100
Office	120	2	240
Division Office & Support			1,250
Private Office	200	2	400
Clerical/Processing	200	1	200
Workroom	200	1	200
Mailroom	100	1	100
Meeting/Conference Room (12 – 16 Seats)	350	1	350
Student Support Services			4,666
Enrollment Services – Supervisor Office	150	1	150
Enrollment Services – Financial Aid Office	100	1	100
Enrollment Services – Cash Room	100	1	100
Enrollment Services – Information Expert Office	64	4	256
Enrollment Services – Self-Serve Kiosk	500	1	500
Counseling & Assessment – Office	100	5	500

Table 3-1 South Education Center Programmed Facilities and Spaces (Approximate)

Facility	Room Space (ASF)	Number of Rooms	Total Space (ASF)
Counseling & Assessment – Support Specialist Office	100	2	200
Counseling & Assessment – Assessment Lab	800	1	800
Counseling & Assessment – Classroom Lecture		1	
Counseling & Assessment – DRC Storage	200	1	200
Student Affairs – Office	100	1	100
Student Affairs – Clerical/Processing Office	64	1	64
Student Affairs – Workroom	300	1	300
Student Affairs – Storage	100	1	100
Health Services – Lobby	144	1	144
Health Services – Receptionist Office	144	1	144
Health Services – Practitioner Office	100	1	100
Health Services – RN Office	100	1	100
Health Services – Exam Room	144	2	288
Health Services – Pharmacy Lab	230	1	230
Health Services – Storage	90	1	90
Health Services – Toilet	100	2	200
Merchandizing/Food Services			5,480
Food Court	1,280	1	1,280
Vending	300	1	300
Bookstore/Copy Center	1,600	1	1,600
Bookstore/Copy Center Private Office	100	1	100
Meeting/Community Room	2,200	1	2,200
Physical Plant			1,900
Support/Storage	1,800	1	1,800
Facilities/M&O Office	100	1	100
Security			869
Lobby	144	1	144
Help Desk	50	2	100
Workroom	125	1	125
Multi-Purpose Room	300	1	300
Toilet	100	2	200
Information Systems			730
Data Center/Workroom	450	1	450
Lab Service	140	2	280
TOTAL (ASF)			**68,255**

Source: LPA Inc. 2012

The proposed PCCD South Education Center is projected to serve 1,000 full-time equivalent students (FTES) at opening day and would accommodate 2,000 FTES at maximum capacity. It would also employ 38 full-time equivalent faculty (FTEF) and 37 staff and administrators. It is anticipated that typical hours of operation for the South Education Center would be from 7:00 a.m. to 10:00 p.m., Monday through Friday with limited course offerings on Saturday. The PCCD will evaluate the scheduling of classes to meet the needs of the students and to best mitigate conflicts with existing commuter traffic. In accordance with the Educational Master Plan Update recommendations, curricular offerings at the South Education Center are proposed to include a mixture of general education, career/technical education programs, and basic skills education, with the greatest emphasis placed on general education/transfer curriculum. The South Education Center would also consolidate course offerings that are presently offered at off-site locations in the southern area of the district. The curricular offerings that ultimately define the program of instruction are anticipated to change over time.

3.4.2 Project Assumptions and Design Features

The following assumptions apply to the proposed facility improvements described above.

Project Boundaries. All proposed improvements are within property owned by PCCD. Proposed traffic mitigation measures are within right-of-way of City of San Diego.

Lighting. New exterior lighting would be focused onsite, generally directed downward, and designed in such a way as to prevent fugitive glare. To the extent feasible, new light poles and wall fixtures will be installed with non-glare finishes. Lighting intensity would be the minimum necessary for safety. All new lighting would be LED and be installed with automatic dimmers to reduce light intensity while certain campus facilities are not in use.

3.5 Project Construction

Construction of the proposed project is anticipated to begin in July 2016 and be completed by January of 2018, lasting approximately 18 months. The proposed project would disturb approximately 17.07 acres of the project site, and would result in a net increase of impervious areas by approximately 46,995 square feet, primarily due to the new looped road. It is anticipated that earthwork would conservatively consist of approximately 8,750 cubic yards of total cut. Of this amount, approximately 3,900 cubic yards of excavated soils would be reused on the project site and approximately 4,850 cubic yards of excavated soil materials would be exported off site. The maximum excavation depth would be approximately ten feet. Blasting during excavation is not anticipated.

Construction equipment would include, but not be limited to, backhoes, bulldozers, tractors, graders, excavators, water trucks, dump trucks, delivery flatbed trucks, concrete trucks, paces, rollers, forklifts, one crane, and generators. The construction staging area would be located on the existing surface parking lot within the project site.

Hours for outdoor construction activities would occur between 7:00 a.m. of any day and 7:00 p.m. consistent with Section 21.04 of the City of San Diego Municipal Code.

3.6 Zoning Exemption

Government Code Section 53094 authorizes the governing board of a community college district, by two thirds vote, to render city and county land use and zoning ordinance inapplicable to the proposed use of a certain property for education purposes. Notwithstanding the fact that the District would not be bound by local land use and zoning requirements consistent with Government Code Section 53094, this EIR discloses all potentially relevant local plans, policies, and ordinance's for informational purposes.

3.7 Project Approval

Section 15367 of the CEQA Guidelines defines a Lead Agency as the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment. CEQA requires the Lead Agency to consider the information in the EIR prior to project approval and to make findings regarding each significant impact identified in the EIR. The EIR aids the Lead Agency in the decision making process, but does not determine the ultimate decision that will be made regarding implementation of a project. In accordance with the criteria in Section 15051 of the CEQA Guidelines, PCCD is the Lead Agency for the proposed project. The PCCD Governing Board is responsible for certification of the Final EIR and subsequent approval of the proposed project.

Under Section 15381 of the CEQA Guidelines, a Responsible Agency is defined as a public agency which proposes to carry out or approve a project, for which a Lead Agency is preparing an EIR or Negative Declaration. For the purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the lead agency which have discretionary approval power over a project. The following agencies have been identified as potential Responsible Agencies in connection with the proposed project:

1) California State Water Resources Control Board (SWRCB) – National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit) required for projects that disturb one or more acres to regulate discharge of storm water during construction.

2) City of San Diego – Review of Traffic Impact Analysis and traffic mitigation measures.

Under Section 15386 of the CEQA Guidelines, a Trustee Agency is defined as a State agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. For purposes of the proposed project, Trustee Agencies include the California Department of Fish and Wildlife (CDFW).

In addition, the PCCD may be required to consult with other federal, state, regional, and local agencies as part of the environmental review process being undertaken in connection with the proposed project. Pursuant to the potential environmental impacts of the proposed project, the PCCD will consult with affected agencies through the public process attendant to the preparation of this EIR.

3.8 References

Cambridge West Partnership, LLC. 2010. Palomar College Educational Master Plan Update. May 2010.

City of San Diego, Development Services Department. 2005. Mitigated Negative Declaration, Rancho Bernardo Industrial Park North – Lot 11, Project No. 1096, SCH No. 2005031034. June 23, 2005.

Geocon Incorporated. 2012. Update Geotechnical Investigation, Palomar College South Education Center Improvement Project, San Diego, California. Prepared for Palomar Community College District. October 24, 2012. (Appendix B to this EIR.)

Palomar Community College District (PCCD). 2015. Palomar College Fact Sheet. Accessed May 19, 2015 at http://www.palomar.edu/about/pcfactsheet.aspx

Chapter 4 ENVIRONMENTAL IMPACT ANALYSIS

This chapter of the EIR contains a discussion of the potential environmental effects resulting from implementation of the proposed PCCD South Education Center project, including information related to the existing conditions, relevant regulatory framework, standards for determining the significance of impacts, analysis of the project-related and cumulative impacts, and feasible mitigation measures that would reduce or avoid potentially significant impacts.

Scope of the Environmental Impact Analysis

Detailed analysis will be conducted in order to assess the potential environmental effects resulting from implementation of the proposed project and the relative degree of such impacts. Where impacts are determined to be potentially significant, mitigation measures to minimize significant adverse impacts will be identified. As discussed in Chapter 1, Introduction, issues associated with the following environmental topics require detailed analysis in this EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Noise
- Paleontological Resources
- Transportation and Traffic

Pursuant to Section 15128 of the CEQA Guidelines, impacts related to the following environmental topics were determined to be "Effects Not Found to be Significant" and are addressed in Chapter 5, Other CEQA Considerations, of this EIR: Agriculture and Forestry Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, and Utilities and Service Systems.

Format of the Environmental Impact Analysis

The environmental impact analysis in Sections 4.1 through 4.8 is formatted as described below.

Existing Conditions

The Existing Conditions subsection describes the environmental setting for the proposed project pertinent to each environmental topic. In accordance with Section 15125 of the CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of a project, as they exist at the time the NOP is published, to provide the baseline physical conditions against which project-related impacts are compared. The baseline conditions for analysis of the proposed project are represented by the environmental conditions of the project site and surrounding areas on August 17, 2015 when the NOP for this EIR was published.

Regulatory Framework

The Regulatory Framework subsection provides a summary of applicable plans, policies, and regulations that are relevant to each environmental topic at the federal, state, regional, and/or local levels.

Impacts and Mitigation

The Impacts and Mitigation subsection discusses the potential environmental impacts of the proposed project. Based upon the standards of significance, this subsection provides a conclusion regarding the significance of environmental impacts for each issue identified in Appendix G of the CEQA Guidelines. As defined in Section 15382 of the CEQA Guidelines, a "significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. A Summary Box at the beginning of each issue subsection provides a synopsis of the issue statement, the significance of the project-level impact (before and after mitigation), and the proposed mitigation measures.

Standards of Significance

Standards of significance are the criteria used to determine whether potential environmental effects are significant. The standards of significance used in this analysis, which are primarily based upon Appendix G of the CEQA Guidelines, define the type, amount, and/or extent of impact that would be considered a significant adverse change in the environment. The standards of significance for some issues, such as air quality standards, are quantitative, while those for other issues, such as visual character, are qualitative. The standards of significance are intended to assist the reader in understanding how and why an EIR reaches a conclusion regarding the significance of an impact.

Impact Analysis

The analysis of environmental impacts considers both the construction and operational aspects associated with implementation of the proposed project. In accordance with Section 15126.2(a) of the CEQA Guidelines, direct and indirect, short-term and long-term, and on-site and off-site impacts are addressed, as appropriate, for each issue being analyzed. The following terms are used to describe the level of significance of impacts identified during the course of the environmental impact analysis:

- **Less than Significant**. This term is used to refer to: 1) impacts resulting from implementation of the proposed project that are not likely to exceed the defined standards of significance; and 2) potentially significant impacts that are reduced to a level that does not exceed the defined standards of significance after implementation of mitigation measures.
- **Potentially Significant.** This term is used to refer to impacts resulting from implementation of the proposed project that exceed the defined standards of significance before identification of mitigation measures.
- **Significant and Unavoidable.** This term is used to refer to impacts resulting from implementation of the proposed project that cannot be eliminated or reduced to below the defined standards of significance through implementation of feasible mitigation measures.

Mitigation Measures

Section 15126.4 of the State CEQA Guidelines requires an EIR to "describe feasible measures which could minimize significant adverse impacts" if avoidance is not possible. CEQA Guidelines Section 15364 defines feasibility as capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, legal, social, and technological considerations. This subsection lists the "mitigation measures" that could reduce the severity of impacts identified in the Impact Analysis subsection.

Cumulative Impacts

The Cumulative Impacts subsection contains an analysis of the cumulative impacts of the proposed project in combination with other past, present, and reasonably foreseeable future projects in the vicinity. As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Pursuant to Section 15130(a) of the CEQA Guidelines, an EIR shall discuss cumulative impacts of a project when the project's incremental effect is "cumulatively considerable," which means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

The geographic scope of the cumulative impact analysis varies depending upon the environmental topic being analyzed. In accordance with Section 15130(b)(3) of the CEQA Guidelines, the geographic scope of the area affected by cumulative effects for each environmental topic is summarized in Table 4-1.

Table 4-1 Geographic Scope of Cumulative Impact Analysis

Issue	Geographic Scope of Cumulative Impact Analysis
Aesthetics	For scenic vistas and daytime glare, there is no cumulative study area because impacts are specific to the project site. For visual character, the cumulative impact study area includes areas adjacent to project site. For regional light pollution, the cumulative impact study area includes all areas of the City of San Diego (that may contribute to "light dome" effects that disrupt "dark-sky" observations).
Air Quality	For consistency with applicable air quality plans, toxic air contaminants, and objectionable odors, there is no cumulative study area because impacts are limited to either the project or a few homes along the northwest campus boundary at which there are no cumulative projects identified in Table 4-2. For violations of air quality standards, the cumulative impact study area includes the San Diego Air Basin. For carbon monoxide "hot spots" affecting sensitive receptors near congested intersections, the cumulative impact study area includes a two percent per year for two years growth rate.
Biological Resources	For resources identified as sensitive by the City's Multiple Species Conservation Plan (MSCP) Subarea Plan, the cumulative impact study area includes the designated open space preserves within the MSCP boundary. For federally and state-listed species, the cumulative impact study area includes the United States and California, respectively.

Table 4-1 Geographic Scope of Cumulative Impact Analysis

Issue	Geographic Scope of Cumulative Impact Analysis
Greenhouse Gas Emissions	The cumulative impact study area includes the global atmosphere.
Hydrology and Water Quality	The cumulative impact study area includes area encompassed by the San Dieguito Hydrologic Unit.
Noise	The cumulative impact study area includes the residential neighborhood north of the project boundaries. Also corresponds to the surrounding circulation system along roadways in which the projected increase in traffic volumes would exceed noise standards.
Paleontological Resources	The cumulative impact study area includes the Friars Formation geologic unit throughout the San Diego region.
Transportation and Traffic	For exceedances of LOS standards, the cumulative impact study area includes roadways and intersections in the vicinity of the project at which the projected increase in traffic volumes would exceed 50 peak-hour trips.

Section 15130(b)(1) of the CEQA Guidelines indicates the following approaches for identifying cumulative projects:

a) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or

b) A summary of projections contained in an adopted local, regional, or statewide plan, or related planning document (e.g., general plan, regional transportation plan), or in a adopted or certified prior environmental document for such a plan, which describes or evaluates conditions contributing to the cumulative effect.

The cumulative impact analysis for this EIR uses a combination of the two approaches listed above. Past projects were considered as part of the baseline condition for the EIR analysis and were therefore considered as part of the impact analysis identified in the Impacts and Mitigation subsection. Specific cumulative projects proposed, currently in process, or under construction were considered. However, based on information received from the City of San Diego, no cumulative projects were identified by the City of San Diego for the project area (LLG 2015). Therefore, with regard to present and probable future projects, projections based on the adopted City of San Diego General Plan and regional plans were included in the consideration of cumulative projects. For each environmental topic, a Summary Box at the beginning of this subsection provides a brief description of the cumulative impacts, the significance of each baseline cumulative impact, and whether or not the proposed project's contribution to each cumulative impact is cumulatively considerable.

CEQA Checklist Items Deemed Not Applicable to the Project

The subsection "CEQA Checklist Items Deemed Not Applicable to the Project" subsection addresses the issues from Appendix G of the CEQA Guidelines that are determined to not have the potential for a significant impact; therefore, they are not discussed in detail in the environmental impact analysis, pursuant to Section 15128 of the CEQA Guidelines.

References

The References subsection identifies the sources relied upon for each environmental topic analyzed in this chapter.

References

Linscott, Law and Greenspan, Engineers (LLG). 2016. Traffic Impact Analysis, Palomar Community College District South Education Center, San Diego, California. March. (Appendix G of this EIR.)

4.1 Aesthetics

This section describes the existing conditions at the project site and in surrounding areas with respect to aesthetics; the potential environmental effects (direct, indirect, and/or cumulative) related to scenic vistas, visual character, and light and glare, resulting from implementation of the proposed PCCD South Education Center; and mitigation measures, if required, to reduce or avoid potentially significant impacts. The information provided in this section is based on the previously approved MND for Rancho Bernardo Industrial Park North – Lot 11 (SCH No. 2005031034) (City of San Diego 2005), review of maps and aerial photographs, and from observations made during site visits.

In accordance with Section 15128 of the CEQA Guidelines, impacts related to scenic resources within a state scenic highway were determined not to be significant and are discussed in Section 4.1.5, CEQA Checklist Items Deemed Not Applicable to the Project.

4.1.1 Existing Conditions

This section includes a description of the existing visual character (in terms of landform, vegetation, and development) within the project site and surrounding areas; views to and from the project site; and on- and off-site lighting.

4.1.1.1 Visual Character

Landform

The project site is situated on a graded building pad that has been raised and cut into the existing slope. The site is surrounded by steep slopes, in a series of similar graded building pads that trend east-west along Ranch Bernardo Road. Elevation in the project area increases toward the west. According to the geotechnical investigation completed for the project (Geocon Incorporated 2012), elevations on the property range from 530 feet AMSL within a lower drainage basin located along Rancho Bernardo Road, to 730 feet AMSL along the southwestern portion of the project site. The elevations for the buildable portion of the site are relatively flat and range from 640 to 650 feet AMSL. The site was previously graded in 1999 and 2007. Natural hillside slopes lie to the west, south, and east sides of the property. The north side of the property consists of a fill slope approximately 50 feet high. A 10-feet high fill slope is also located on the east side of the property.

The topography surrounding the site consists of large hills and valleys. A large valley begins east of the project site and extends east to the large undeveloped ridgeline visible in distant views from the project site.

Vegetation

The project site is not located within or directly adjacent to the boundaries of the Multi-Habitat Planning Area (MHPA) of the City of San Diego's Multiple Species Conservation Program (MSCP). It is, however, situated about 1.50 miles south of the Lake Hodges Segment of the MSCP Subarea Plan area. Additionally, the project site is approximately 0.25 mile east of an area designated as MSCP Preserve Land. The project site is separated from the preserve land by Rancho Bernardo Road. Vegetation on the project site and surrounding areas contains a mix of ornamental landscaping and natural habitat. The developed areas and graded portion of the project site are primarily landscaped or disturbed land. The steep slopes on the

site contain both ornamental plantings and native habitat such as coastal sage scrub, chaparral, and grasses. The residential community to the north and business parks to the east, south, and west, are also landscaped. Natural habitat is visible on the undeveloped hillsides northwest of the project site across Rancho Bernardo Road, and the undeveloped ridgelines to the east.

On-site Development

In 2008/2009 the site was developed with an unfinished light industrial park consisting of a four-story, 110,000-square foot office building; a detached four-level, 574-space parking structure; a 218-space surface parking lot; several retaining walls and fill slopes; an access road; and drainage facilities. The existing office building is a typical style building with windows forming the majority of the building exterior. The existing parking structure consists primarily of reinforced concrete construction and is approximately 37 feet in height. Neither the building nor parking structure contain architectural elements that are visually distinctive from the surrounding commercial office development within the project area. The existing development generally occupies the central portion of the site.

4.1.1.2 On-site Views

As described above, the existing site is currently developed with an unfinished business park which consists of a four-story, 110,000-square-foot building, a four-story 574-space parking structure, and a 218-space surface parking lot that were constructed in 2008/2009. These facilities are not in use; therefore, there are no existing on-site views of the surrounding landscape.

4.1.1.3 Off-site Views

Views of the existing office structure generally consist of the upper two stories of the building. Due to its setback from the edge of the northern property, the parking structure is not visible from the surrounding public roadways (Figure 4.1-1, Key Vantage Points, Photo 1 and Photo 2).

Off-site viewers of the project site include residents who live in the neighborhood north and west of the project site and employees of the existing commercial business parks that surrounding the project site. Other viewers include motorists and passengers who use the roads and freeways within view of the site.

Several roadways surround the site, including Rancho Bernardo Road, West Bernardo Drive, and Via Del Campo. The project site is also located approximately 0.5 mile west of I-15. Views from these roadways and surrounding developments are discussed below.

Rancho Bernardo Road

Rancho Bernardo Road runs along the northern boundary of the project site in an east/west direction. Uses along Rancho Bernardo Road in the vicinity of the project site include commercial business to the south and the Westwood single-family residential community to the north. Commercial businesses are typically oriented toward Rancho Bernardo Road for ease of access; however, the residences are oriented toward interior roadways and are partially shielded from Rancho Bernardo Road by a wall and ornamental landscaping. Rancho Bernardo Road slopes upward to the west and bends toward the south, so that the project site is not visible west of Matinal Road. Topography along Rancho Bernardo Road includes steep slopes on either side, but slopes down to the north within the adjacent Westwood residential community. Slopes between developments are vegetated, either with landscaping or natural shrubbery.

Photo 1: The view of PCCD South Education Center facing west on Rancho Bernardo Road at the intersection of Via Tazon.

Photo 2: The view of PCCD South Education Center facing east on Rancho Bernardo Road near the intersection of Matinal Road.

Source: Atkins 2013

ATKINS

FIGURE 4.1-1

Key Vantage Points

The primary users of Rancho Bernardo Road include the employees and customers of the adjacent commercial businesses, as well as the residences. Business/industrial uses are generally visually interior-oriented land uses and are not considered "sensitive viewers." Residences are considered visually sensitive; however, as previously noted, the homes are not oriented toward Rancho Bernardo Road, or the project site. Views from motorists traveling west on Rancho Bernardo Road at the intersection of Via Tazon are provided in Figure 4.1-1 (Key Vantage Points, Photo 1). This view is typical of the project site between I-15 and Olmeda Way. The project is typically not visible from east of I-15 due to intervening topography and existing structures. The existing views are dominated by landscaping on either side of the roadway. The landscaping provides some screening on the commercial development on the south side of Ranch Bernardo Road. Rancho Bernardo Road slopes upward toward the west in the background of this view from an elevation of approximately 550 feet to 640 feet at Matinal Road. The slopes of the project site and the existing building on site are visible in the background of the view, south the roadway. However, only the top stories of the office building are visible. The background view on the north side of the roadway includes a steep undeveloped slope and residences located west of the Westwood community.

Due to a curve in the roadway and intervening structures, the project site is only visible to motorists traveling east on Rancho Bernardo Road just west of the Matinal Road intersection (see Figure 4.1-1, Key Vantage Points, Photo 2). The existing driveway and access road are clearly visible, including the chain link fence that is currently being used to restrict access to the site. Steep slopes and existing slope landscaping on the project site are also visible. The existing wall and trees north of Rancho Bernardo Road block existing residential uses from views of the project. The top of the existing on-site office building is visible, but the views are obstructed by existing trees. Background views consist of distant undeveloped ridgelines and residential development.

Olmeda Way

Olmeda Way runs in a north-south direction from the intersection with Rancho Bernardo Road north of the project site, and continues through the Westwood residential neighborhood. It slopes down to the north, away from the project site. It is lined with single-family residences that are oriented toward the roadway. Views from motorists traveling south on Olmeda Way at the intersection of Rancho Bernardo Road are shown in Figure 4.1-2 (Key Vantage Points, Photo 1). Views from Olmeda way of the project site are dominated by Rancho Bernardo Road and the landscaped median and the steep, vegetated slope of the project site building pad. A portion of the upper stories of the existing on-site building is visible in the background, although the view is partially obstructed by existing trees.

Matinal Road

Similar to Olmeda Way, Matinal Road runs in a north-south direction from the intersection of Rancho Bernardo Road and the project site driveway through the Westwood residential neighborhood. It slopes down to the north, away from the project site. It is lined with single-family residences that are oriented toward the roadway. Views from Matinal Way of the project site are dominated by the existing project access road at the Matinal Way and Rancho Bernardo Road intersection. The project site access road is paved and bisects a steep vegetated slope. A portion of the slope at the beginning of the access road includes a concrete block retaining wall. The driveway and retaining wall are landscaped. The existing office building on the project site is slightly visible in the background. However, the view is partially blocked by trees and the existing slope (see Figure 4.1.1, Key Vantage Points, Photo 2).

Photo 1: The view of PCCD South Education Center facing south on Olmeda Way at the intersection of Rancho Bernardo Road.

Source: Atkins 2013

FIGURE 4.1-2

Key Vantage Points

Westwood Community

Views of the project site are available from several vantage points throughout the Westwood residential neighborhood. Views are generally limited to the public roadways within the neighborhood, specifically Olmeda Way and Matinal Road, as discussed above. Few homes are oriented toward the project site and a wall separates the homes adjacent to Rancho Bernardo Road from the project site. The elevation of the community decreases to the north. Intervening structures and the change in topography generally block views of the project site from within the community. Obstructed views of the top stories of the existing office building on the project site are visible throughout the neighborhood.

Business and Industrial Parks

Business and industrial developments are located to the south, east, and west of the project site. The existing office building on the project site is visible from these developments. The developments to the east of the project site are located at a lower elevation compared to the project site and views of the site are typically limited to the steep slopes on the east side of the project site and the upper stories of the building. Views of the top of the project site, including the parking structure and undeveloped areas, are visible from parking areas and offices to the south, southeast, and west of the project site from development located at higher elevations.

Night lighting

As discussed in Section 3.2, Background, of this EIR, the existing building is a "warm shell" with limited interior improvements, including existing lighting. Parking lot lighting improvements were also constructed and present on site; however, are not currently in use. There are approximately 16 overhead exterior lights throughout the parking lot. The parking structure includes approximately seven overhead exterior lights on the top level, with existing lighting throughout the other three levels.

4.1.2 Regulatory Framework

4.1.2.1 State

California Scenic Highway Law

The California Scenic Highway Law of 1963 created the California Scenic Highways Program to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of adjacent lands. The State Scenic Highway System includes a list of highways that are either officially designated as scenic highways by the California Department of Transportation (Caltrans) or eligible for designation. Scenic highway nominations are evaluated using the following criteria:

- The proposed scenic highway is principally within an unspoiled native habitat and showcases the unique aspects of the landscape, agriculture, or man-made water features;
- Existing visual intrusions do not significantly impact the scenic corridor;
- Strong local support for the proposed scenic highway designation is demonstrated; and
- The length of the proposed scenic highway is not short or segmented.

Once a scenic highway is designated, the responsibility lies with the local jurisdiction to regulate development within the scenic highway corridor.

4.1.2.2 Local

While California Government Code Section 53094 includes provisions for school districts to exempt specific school facilities from local zoning regulations, applicable objectives and policies of the City's Significant Determination Thresholds related to aesthetics are identified for comparison. There are two local plans that have jurisdiction over the community adjacent to the proposed PCCD South Education Center. These include the City of San Diego General Plan and the Rancho Bernardo Community Plan. Development of the proposed project could visually affect the neighboring areas covered by the plans. These plans provide policies, goals, and regulations regarding aesthetic quality for adjacent land uses in relation to the development of the proposed project.

City of San Diego General Plan

The City of San Diego General Plan outlines types of urban development for different land uses within the City. Architecturally, the City of San Diego General Plan defines City-wide Urban Design Policies for community facilities in the project area:

Policy UD-A.5 Design buildings that contribute to a positive neighborhood character and relate to neighborhood and community context

a. Relate architecture to San Diego's unique climate and topography

b. Encourage designs that are sensitive to the scale, form, rhythm, proportions, and materials proximate to commercial areas and residential neighborhoods that have a well, established, distinct character

c. Provide architectural features that establish and define a building's appeal and enhance the neighborhood character

d. Encourage the use of material and finishes that reinforce a sense of quality and permanence

e. Provide architectural interest to discourage the appearance of blank walls for development

f. Design building wall planes to have shadow relief, where pop-outs, offsetting planes, overhangs, and recessed doorways are used to provide visual interest at the pedestrian level

g. Design rear elevations of buildings to be as well-detailed and visually interesting as the front elevation, if they will be visible from a public right-of-way or accessible public place or the street

h. Acknowledge the positive aspects of nearby existing buildings by incorporating compatible features in new developments

i. Maximize natural ventilation, sunlight, and views

j. Provide convenient, safe, well-marked, and attractive pedestrian connections from the public street to building entrances

k. Design roofs to be visually appealing when visible from public vantage points and public right-of-ways.

Policy UD-A.6 Create street frontages with architectural and landscape interest to provide visual appeal to the streetscape and enhance the pedestrian experience

a. Locate buildings on the site so that they reinforce street frontages
b. Relate buildings to existing and planned adjacent uses
c. Ensure that building entries are prominent, visible, and well-located
d. Maintain existing setback patterns, except where community plans call for a change to the existing pattern
e. Minimize the visual impacts of garages, parking and parking portals to the pedestrian and street façades.

Rancho Bernardo Community Plan

The Rancho Bernardo Community Plan describes the community facilities objectives specifically for the community of Rancho Bernardo. While the majority of the objectives are adopted from the City of San Diego General Plan, the Rancho Bernardo Community Plan has two objectives that would apply to the proposed project:

Community Facilities Objectives:

1) To provide a high level of community service using as a minimum the standards set forth in the [City's] General Plan and to ensure that necessary facilities are conveniently located and readily accessible to citizens requiring services.
2) To locate facilities that enhance the character of the community and recognize the human need and appreciation for aesthetics.

4.1.3 Impacts and Mitigation

4.1.3.1 Issue 1 – Scenic Vistas and Visual Character and Quality

Would the proposed PCCD South Education Center have a substantial adverse effect on a scenic vista or substantially degrade the existing visual character or quality of the site and its surroundings?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would have a substantial adverse effect on a scenic vista or substantially degrade the existing visual character or quality of the site and its surroundings. Because these two issues are closely related, they are combined into a single issue statement and addressed together in this section.

For purposes of this analysis, a scenic vista is defined as a publicly accessible viewpoint that provides expansive views of the distant ridgelines to the east of site.

Impact Analysis

Scenic Vistas

Several off-site locations have views of the undeveloped ridgelines located to the east of the site. The following analysis addresses the visual changes associated with implementation of the project from the five surrounding view locations (refer to Figures 4.1-1 and 4.1-2, Key Vantage Points) identified above in Section 4.1.1.3 (Off-site Views).

Rancho Bernardo Road

There are no new components of the project that would obstruct views of scenic vistas. The proposed project would include interior improvements to convert the existing four-story, 110,000-square foot building into a comprehensive community college education center; construct an approximately 1,200 foot-long looped road connecting the existing parking lot to the existing parking structure; implement drainage improvements; and install walkways, hardscape areas, and landscaping. No new view-obstructing features would be constructed on-site that would result in impacts to scenic vistas. Additional vegetation is planned along Rancho Bernardo Road as part of the proposed landscape plan for the project site, which would provide additional screening of the proposed project from adjacent residences, businesses, pedestrians and passing motorists (see Figure 3-1, Site Plan). Therefore, implementation of the project would not result in a significant impact to scenic vistas visible from Rancho Bernardo Road.

Olmeda Way

The project site is visible from Olmeda Way; however, as described above in Section 4.1.1.3 (Off-site Views), scenic vistas are not visible. Therefore, implementation of the project would not result in a significant impact to scenic vistas visible from Olmeda Way.

Matinal Road

Similar to Olmeda Way, scenic vistas are not visible from Matinal Road. Therefore, implementation of the project would not result in a significant impact to scenic vistas visible from Matinal Road.

Westwood Community

As described above in Section 4.1.1.3 (Off-site Views), the site is visible from several points throughout the Westwood residential neighborhood; however, scenic vistas are not visible. Therefore, implementation of the project would not result in a significant impact to scenic vistas visible from the Westwood Community.

Business and Industrial Parks

There are several business and industrial developments are located to the south, east, and west of the project site. Scenic vistas are visible from these developments to the east. However, scenic vistas east of the site would not be affected with the implementation of the proposed project. This is because the project site is at a lower elevation than the developments to the south and west of the project site. Therefore, implementation of the proposed project would not result in a significant impact to scenic vistas visible from the surrounding business and industrial parks.

Visual Character

The proposed project provides enhanced public access to allow for views of the surrounding areas. In addition, interior oriented "green" spaces would be provided on site, resulting in a concentration of flexible, "smart" instructional space defined by an open lawn area. Incorporation of native plant palettes into the landscape plan would reinforce the improved, modernized visual character envisioned for the site. Therefore, the proposed project would be consistent with existing uses and the existing character of the project site and would have less than significant impacts to visual character.

Mitigation Measures

Impacts related to visual quality would be less than significant without mitigation. Thus, no mitigation is required.

4.1.3.2 Issue 2 – Light and Glare

Would the proposed PCCD South Education Center create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Impact Analysis

As discussed above in Section 4.1.1.3, Night Lighting, the existing building is a "warm shell" with limited improvements, including existing interior lighting and lighting throughout the parking lot and parking structure.

Views of the night sky from the project site are affected by urban light pollution from surrounding developed areas. Additional sources of night lighting associated with the implementation of the proposed project would include new exterior building illumination, new parking lot lighting, new roadway lighting, and lighting for new landscaped areas.

Night Lighting

On-site Lighting Impacts

Additional sources of security lighting would be provided in the parking lots, landscaped areas, and on buildings. Nighttime users of the proposed PCCD South Education Center would include students, faculty and staff attending and/or teaching classes, in addition to police facility staff and maintenance staff. The overall increase in on-site light levels due to additional sources of night lighting would include exterior building illumination, new parking lot lighting, new roadway lighting, and lighting for new landscaped areas. While these are new sources of night lighting, the ambient nighttime light levels on site would be consistent with the previously planned use of the project site and existing lighting in the project vicinity.

However, to further reduce lighting impacts, all night lighting on site would be designed according to the guidelines recommended by the International Dark-Sky Association (IDA). The IDA's mission is to preserve

and protect the nighttime environment and our heritage of dark skies through environmentally responsible outdoor lighting and recommend low wattage lamps, motion-control sensors, and curfews for night lighting. Although the proposed project would create a new source of nighttime lighting on the site, these new sources of light would primarily be for the nighttime safety of students and faculty/staff. Implementation of Mitigation Measure Aes-1 would reduce impacts on nighttime views within on-site areas to a less than significant level.

Off-site Lighting Impacts

Night lighting effects would occur along Rancho Bernardo Road due to new on-site security lighting, required for nighttime safety of students and faculty/staff. However, Rancho Bernardo Road has existing lighting illuminating the street. In addition, the businesses and commercial uses along the south, west, and east side of Rancho Bernardo Road are generally not occupied at night. As such, night lighting would not impact nighttime views in this off-site area.

The overall increase in on-site light levels at night due to additional security lighting could result in nuisance impacts to residents in the surrounding Westwood neighborhood to the north of the project site. In order to reduce lighting impacts, Mitigation Measure Aes-1 would be implemented, requiring all night lighting on site to be designed according to the guidelines recommended by the IDA. Therefore, implementation of Mitigation Measure Aes-1 would reduce impacts on nighttime views within off-site areas to a less than significant level.

Daytime Glare

Daytime glare would occur due to sunlight bouncing off of reflective building surfaces. Daytime glare would be a potential concern to pedestrians on site, to motorists driving in the parking lots on site, and to residents in the surrounding Westwood neighborhood to the north of the site. Motorists along Rancho Bernardo Road would not be affected by daytime glare from reflective building surfaces due to the large area of parking lots and associated landscaping which together would serve as a screening buffer between the road and site buildings and elevation differential.

The existing four-story, 110,000-square foot building was designed and constructed with large expanse glass surface and stone (Figure 4.1-1, Key Vantage Points, Photo 1). A portion of the upper stories of the building on-site are visible in the background, although the view is partially obstructed by existing trees. No new development that would produce substantial glare is proposed. All new buildings and facilities would be set back from Rancho Bernardo Road. In addition, additional landscaping including native plant palettes around the project site would further provide additional screening to reduce glare from existing and proposed facilities.

Daytime glare is not expected to occur as a result of construction of new project facilities and implementation of the proposed project would have less than significant impacts to daytime glare.

Mitigation Measures

Implementation of mitigation measure Aes-1 (described below) would reduce potential impacts related to nighttime lighting, and daytime glare within on- and off-site areas to a less than significant level.

Aes-1 All night lighting on PCCD South Education Center shall be designed according to the guidelines recommended by the International Dark-Sky Association, including but not limited to:

a. Use the lowest wattage lamps feasible.

b. Use motion-sensor controls or other lighting controls so that lights are only in use when necessary.

c. Incorporate curfews for night lighting.

d. Use light fixtures with shielding to direct the light where it is needed but does not escape above into the night sky or outside the property perimeter.

e. Turn off any unnecessary lights for the protection of migratory birds.

4.1.4 Cumulative Impacts

As indicated in Table 4-1 of this EIR, impacts relative to scenic vistas and daytime glare are generally specific to the site. Therefore, these issues are not subject to a cumulative impact analysis, and are not addressed in this section.

4.1.4.1 Issue 1 – Scenic Vistas and Visual Character and Quality

As indicated in Table 4-1 of this EIR, the geographic context for the analysis of cumulative impacts relative to visual character encompasses the areas adjacent to the project site. The industrial/business uses to the south and the residential uses to the north each have their own unique visual character. These areas do not appear to be visually degraded. Therefore, the baseline cumulative impact to the land uses adjacent to the site (i.e., local cumulative impact area) with respect to degradation of existing visual character is not significant.

4.1.4.2 Issue 2 – Light and Glare

As indicated in Table 4-1 of this EIR, the geographic context for the analysis of cumulative impacts relative to night lighting encompasses the City of San Diego. Night lighting from these areas disrupt “dark-sky” observations. Night lighting associated with urban development has been documented to contribute to regional light pollution.

As discussed in Section 4.1.3.2 (Issue 2) above, all night lighting on the project site would be designed according to the guidelines recommended by the IDA. Therefore, implementation of the project would not result in a cumulatively considerable contribution to regional light pollution or disrupt “dark-sky” observations.

4.1.5 CEQA Checklist Items Deemed Not Applicable to the Project

Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

According to the California Scenic Highway Mapping System (Caltrans 2011), there are no officially designated or eligible state scenic highways in the vicinity of the project site. Thus, the proposed project would not substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

4.1.6 References

California Department of Transportation (Caltrans). 2011. California Scenic Highway Mapping System. Updated September 7, 2011. Accessed May 12, 2015 at http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm

City of San Diego, Development Services Department. 2005. Mitigated Negative Declaration, Rancho Bernardo Industrial Park North – Lot 11, Project No. 1096, SCH No. 2005031034. June 23, 2005.

City of San Diego. 2008. City of San Diego General Plan: Urban Design Element. Available at http://www.sandiego.gov/planning/genplan/pdf/generalplan/adoptedudelem.pdf

Geocon Incorporated. 2012. Update Geotechnical Investigation, Palomar College South Education Center Improvement Project, San Diego, California. October 24. (Appendix B of the EIR)

International Dark-Sky Association. 2015. Simple Guidelines for Lighting Regulations for Small Communities, Urban Neighborhoods, and Subdivisions. Accessed May 12, 2015 at http://www.darksky.org/outdoorlighting/guidance

4.2 Air Quality and Energy

This section describes the existing conditions at the project site and in surrounding areas with respect to air quality; the potential environmental effects (direct, indirect, and/or cumulative) related to applicable air quality plans, air quality standards, cumulatively considerable emissions, sensitive receptors, and objectionable odors, resulting from implementation of the proposed project; and, if necessary, the mitigation measures to reduce or avoid the identified potentially significant impacts. The information provided in this section is based on Air Quality Technical Report prepared by Atkins in March 2016 (see Appendix C of this EIR).

4.2.1 Existing Conditions

4.2.1.1 Air Quality

Climatology

Regional climate and local meteorological conditions influence ambient air quality. The proposed project is located in the San Diego Air Basin (SDAB). The climate of the SDAB is characterized by warm dry summers and mild winters, and is dominated by a semi-permanent high pressure cell located over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. It also drives the dominant onshore circulation and helps create two types of temperature inversions, subsidence and radiation, that contribute to local air quality degradation.

Subsidence inversions occur during warmer months, as descending air associated with the Pacific high-pressure cell comes into contact with cool marine air. The boundary between the two layers of air represents a temperature inversion that traps pollutants below it. Radiation inversions typically develop on winter nights with low wind speeds, when air near the ground cools by radiation, and the air aloft remains warm. A shallow inversion layer that can trap pollutants is formed between the two layers.

In the vicinity of the proposed project, the nearest climatological monitoring station with complete climate data is located in Poway Valley, approximately eight miles southeast of the project site. Records from the Poway Valley climatological monitoring station indicate that the normal daily maximum temperature is 86 degrees Fahrenheit (°F) in August and the normal daily minimum temperature is 39°F in December (Western Regional Climate Center 2015). The normal precipitation in the Poway Valley area is approximately 13 inches annually, occurring primarily from November through March (Western Regional Climate Center 2015).

Air Pollutants

Air quality is defined by ambient air concentrations of specific pollutants identified by the U.S. Environmental Protection Agency (USEPA) to be of concern with respect to health and welfare of the general public. Historically, air quality laws and regulations have divided air pollutants into two broad categories, “criteria air pollutants” and “toxic air contaminants” (TACs), which are described below.

Criteria Air Pollutants

Criteria air pollutants are a group of common air pollutants regulated by the federal and state governments by means of ambient air quality standards designed to prevent health and/or environmental

effects of pollution. The USEPA has established National Ambient Air Quality Standards (NAAQS) for the following criteria air pollutants: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead. The California Air Resources Board (CARB) has established more stringent California Ambient Air Quality Standards (CAAQS) for these six criteria air pollutants, as well as for additional pollutants including visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

These regulated air pollutants are categorized as primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide, volatile organic compounds (VOCs), nitrogen oxides (NO_x), sulfur dioxide (SO_2), and most fine particulate matter including lead and fugitive dust (PM_{10} and $PM_{2.5}$) are primary air pollutants. Of these, carbon monoxide, SO_2, PM_{10}, $PM_{2.5}$, and lead are criteria pollutants. VOCs and NO_x are criteria pollutant precursors that go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone and NO_2 are the principal secondary pollutants. Diesel particulate matter is a mixture of particles and is a component of diesel exhaust. The EPA lists diesel exhaust as a mobile source air toxic due to the cancer and non-cancer health effects associated with exposure to whole diesel exhaust. The current NAAQS and CAAQS are presented in Table 4.2-1. The potential health effects of these air pollutants are described below.

Ozone

Ozone is considered a photochemical oxidant, which is a chemical that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X), both by-products of combustion, react in the presence of ultraviolet light. Ozone is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to ozone.

Carbon Monoxide

Carbon monoxide is an odorless, colorless gas that is formed as a product of combustion. Motor vehicle exhaust is a primary source of carbon monoxide. Carbon monoxide affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. Carbon monoxide can cause health effects to those with cardiovascular disease, and can also affect mental alertness and vision.

Nitrogen Dioxide

Nitrogen dioxide is also a by-product of fuel combustion, and is formed both directly as a product of combustion and indirectly in the atmosphere through the reaction of nitrogen oxide with oxygen. Nitrogen dioxide is a respiratory irritant and may affect those with existing respiratory illness, including asthma. Nitrogen dioxide can also increase the risk of respiratory illness.

Sulfur Dioxide

Sulfur dioxide is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil, and by other industrial processes. Generally, the highest concentrations of sulfur dioxide are found near large industrial sources. Sulfur dioxide is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to sulfur dioxide can cause respiratory illness and aggravate existing cardiovascular disease.

Table 4.2-1 Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]	Federal Standards[2]	
		Concentration[3]	Primary[3,4]	Secondary[3,5]
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m³)	--	Same as Primary Standards
	8-hour	0.070 ppm (137 µg/m³)	0.075 ppm (147 µg/m³)	
Respirable Particulate Matter (PM_{10})	24 Hour	50 µg/m³	150 µg/m³	Same as Primary Standards
	Annual Arithmetic Mean	20 µg/m	--	
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	No Separate State Standard	35 µg/m³	Same as Primary Standards
	Annual Arithmetic Mean	12 µg/m³	12 µg/m³	15 µg/m³
Carbon Monoxide (CO)	8-hour	9 ppm (10 mg/m³)	9 ppm (10 mg/m³)	None
	1-hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	.053 ppm (100 µg/m³)[6]	Same as Primary Standard
	1-hour	0.18 ppm (339 mg/m³)	100 ppb (188 µg/m³)[6]	None
Sulfur Dioxide (SO_2)	24 Hour	0.04 ppm (105 µg/m³)	--	--
	3 Hour	--	--	0.5 ppm (1300 µg/m³)[7]
	1-hour	0.25 ppm (655 µg/m³)	75 ppb (196 µg/m³)[7]	--
Lead[8]	30 Day Average	1.5 µg/m³	--	--
	Calendar Quarter	--	1.5 µg/m³	Same as Primary Standard
	Rolling 3-Month Average[9]	--	0.15 µg/m³	
Visibility Reducing Particles	8-hour	Extinction coefficient of 0.23 per kilometer - visibility of 10 miles or more due to particles.	No Federal Standards	
Sulfates	24 Hour	25 µg/m³	No Federal Standards	
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m³)	No Federal Standards	
Vinyl Chloride[8]	24 Hour	0.01 ppm (26 µg/m³)	No Federal Standards	

ppm= parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter

(1) California standards for ozone, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, lead, hydrogen sulfide, and vinyl chloride standards are not to be equaled or exceeded.

(2) National standards, other than 1-hour ozone, 8-hour ozone, 24-hour PM_{10}, 24-hour $PM_{2.5}$, and those based on annual averages, are not to be exceeded more than once a year. The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the annual fourth-highest daily maximum 8-hour concentrations is below 0.08 ppm. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile 24-hour concentrations is below 150 µg/m³. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of the 98th percentile 24-hour concentrations is below 65 µg/m³.

(3) Concentration expressed first in units in which it was promulgated. Equivalent units given in parenthesis are based on a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar). All measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

(4) National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

(5) National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

(6) To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). Note that the EPA standards are in units of ppb. California standards are in units of ppm. To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.

(7) On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. To directly compare the new primary national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

(8) The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

(9) National lead standard, rolling 3-month average: final rule signed October 15, 2008.

Source: CARB 2013.

Particulate Matter

Particulate matter is grouped into two categories: respirable particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) and fine particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$). Particulate matter in this size range has been determined to have the potential to lodge in the lungs and contribute to respiratory problems. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, combustion, tire and brake wear, construction operations, and windblown dust. PM_{10} and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs.

Diesel particulate matter is a mixture of many exhaust particles and gases that is produced when an engine burns diesel fuel. Many compounds found in diesel exhaust are carcinogenic, including 16 that are classified as possibly carcinogenic by the International Agency for Research on Cancer. Diesel particulate matter includes the particle-phase constituents in diesel exhaust. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation and exposure can cause coughs, headaches, light-headedness, and nausea. Diesel exhaust is a major source of ambient fugitive dust pollution as well, and numerous studies have linked elevated fugitive dust levels in the air to increased hospital admission, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems (OEHHA 2007) diesel particulate matter in the SDAB poses the greatest cancer risk of all the toxic air pollutants.

Lead

Lead in the atmosphere occurs as particulate matter. Lead has historically been emitted from vehicles combusting leaded gasoline, as well as from industrial sources. With the phase-out of leaded gasoline, large manufacturing facilities are the greatest sources of lead emissions. Lead has the potential to cause gastrointestinal, central nervous system, kidney, and blood diseases upon prolonged exposure. Lead is also classified as a probable human carcinogen.

Sulfates

Sulfates are the fully oxidized ionic form of sulfur. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to sulfur dioxide during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of sulfur dioxide to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. The CAAQS for sulfates is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, due to fact that they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide

Hydrogen sulfide is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation. Breathing hydrogen sulfide at levels above the standard would result in exposure to a very disagreeable odor. In 1984, a CARB

committee concluded that the CAAQS for hydrogen sulfide is adequate to protect public health and to significantly reduce odor annoyance.

Vinyl Chloride

Vinyl chloride, a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage. Cancer is a major concern from exposure to vinyl chloride via inhalation. Vinyl chloride exposure has been shown to increase the risk of angiosarcoma, a rare form of liver cancer, in humans.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a category of air pollutants that have been shown to have an impact on human health, but are not classified as criteria air pollutants because ambient air quality standards have not been established for them. TACs include more than 700 chemical compounds that have been determined to have potential adverse health effects. Examples of TACs include certain aromatic and chlorinated hydrocarbons; certain metals such as cadmium, nickel, chromium, and lead compounds; and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as farms, landfills, construction sites, and residential areas. TACs can be carcinogenic (cancer-causing), or can cause other serious acute (short-term) and chronic (long-term) non-carcinogenic health effects. However, the emission of TACs should not automatically be equated with a significant health risk. Other factors such as the amount of the chemical, its toxicity, how it's released into the air, the weather, and the terrain can all influence whether emissions could be hazardous to human health.

Ambient Air Quality

The San Diego Air Pollution Control District (SDAPCD) operates a network of ambient air monitoring stations throughout San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of air pollutants and determine whether the ambient air quality meets the NAAQS and the CAAQS. The closest ambient monitoring station to the proposed project is the Escondido – East Valley Parkway station, approximately ten miles north of the project site. This station does not monitor levels of sulfur dioxide. The next closest monitoring station that provides sulfur dioxide data is the San Diego – 1110 Beardsley Street station. Table 4.2-2 presents a summary of the ambient pollutant concentrations monitored at these stations during the last three years for which records are available (2012 through 2014).

As shown in Table 4.2-2, the 1-hour ozone concentration exceeded the state standard once in 2014. The 8-hour ozone concentration exceeded the state standard in 2012, 2013, and 2014, and the federal standard in 2014. The daily PM_{10} concentration did not exceed the federal standard in the past three years. The state standard was exceeded once in 2013. The federal 24-hour $PM_{2.5}$ standard was violated once per year in 2012, 2013, and 2014.

Table 4.2-2 Air Quality Monitoring Data

Pollutant	Monitoring Station	2012	2013	2014
Carbon Monoxide (CO)				
Maximum 8-hour concentration (ppm)	Escondido-E Valley Parkway	3.70	--(1)	--(1)
Days above state or federal standard (>9.0 ppm)		0	0	0
Nitrogen Dioxide (NO_2)				
Peak 1-hour concentration (ppm)	Escondido-E Valley Parkway	0.062	0.061	0.063
Days above state 1-hour standard (0.18 ppm)		0	0	0
Ozone (O_3)				
Maximum 1-hour concentration (ppm)	Escondido-E Valley Parkway	0.084	0.084	0.099
Days above 1-hour state standard (>0.09 ppm)		0	0	1
Maximum 8-hour concentration (ppm)		0.074	0.075	0.080
Days above 8-hour state standard (>0.07 ppm)		2	4	8
Days above 8-hour federal standard (>0.075 ppm)		0	0	5
Sulfur Dioxide (SO_2)				
Maximum 24-hour concentration (ppm)	San Diego-1110 Beardsley Street	0.006	0.002	0.003
Days above 24-hour state standard (>0.04 ppm)		0	0	0
Days above 24-hour federal standard (>0.14 ppm)		0	0	0
Respirable Particulate Matter (PM_{10})				
Peak 24-hour concentration ($\mu g/m^3$)	Escondido-E Valley Parkway	33	82	44
Days above state standard (>50 $\mu g/m^3$)		0	1	0
Days above federal standard (>150 $\mu g/m^3$)		0	0	0
Fine Particulate Matter ($PM_{2.5}$)				
Peak 24-hour concentration ($\mu g/m^3$)	Escondido-E Valley Parkway	70.7	56.3	82.3
Days above federal standard (>35 $\mu g/m^3$)		1	1	1

PPM = parts per million, $\mu g/m^3$ = micrograms per cubic meter
(1) Insufficient data to determine value
Source: CARB 2015

Neither the state nor federal standards for carbon monoxide, nitrogen dioxide, or sulfur dioxide were exceeded at any time during the years 2012 through 2014. In fact, with one exception during October 2003, the SDAB has not violated the state or federal standards for carbon monoxide since 1990 (SDAPCD 2007). In addition, the federal annual average nitrogen dioxide standard has not been exceeded since 1978, and the state one-hour nitrogen dioxide standard has not been exceeded since 1988 (SDAPCD 2007).

Attainment Status

Areas that meet the ambient air quality standards are classified as "attainment" areas while areas that do not meet these standards are classified as "non-attainment" areas. Areas may also be designated "unclassified" if air quality data are incomplete and do not support a nonattainment or attainment designation. The classifications for ozone non-attainment of the state standards range in magnitude, including marginal, moderate, serious, severe, and extreme. The federal and state attainment status of

the SDAB is shown in Table 4.2-3. The SDAB is currently designated as a nonattainment area for the NAAQS for 8-hour ozone, and for the CAAQS for 1-hour and 8-hour ozone, PM_{10}, and $PM_{2.5}$.

Table 4.2-3 Attainment Status for the San Diego Air Basin

Pollutant	State Status	Federal Status
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Ozone (1-hour)	Nonattainment	--(1)
Ozone (8-hour)	Nonattainment	Marginal Non-attainment
Lead (Pb)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Respirable Particulate Matter (PM_{10})	Nonattainment/ Attainment(2)	Attainment
Fine Particulate Matter ($PM_{2.5}$)	Nonattainment	Attainment\Unclassified

(1) The federal 1-hour ozone standard was revoked in 2005 and is no longer in effect for California.
(2)PM_{10} 24-hour is in Non-attainment and PM_{10} Annual is in Attainment (SDAPCD 2013)
Source: CARB 2011, EPA 2011

Sensitive Receptors

CARB defines sensitive receptors as residences, schools, day care centers, playgrounds, and medical facilities, or other facilities that may house individuals with health conditions that would be adversely affected by changes in air quality. The sensitive receptors closest to the project area include the following:

- Sharp Rees-Stealy Medical Center and Urgent Care, approximately 0.1 mile east of the southeast corner of the project site;
- Kinderhouse Montessori Schools, approximately 0.3 mile southwest of the project site;
- Westwood Elementary school, approximately 0.5 mile north of the project site;
- Residences located on the north side of Rancho Bernardo Road, within an approximately 0.2 mile radius off Matinal Road and Olmeda Way.

4.2.1.2 Energy

Electricity

Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Because of the state's energy efficiency standards and efficiency and conservation programs, California's per-capita energy use has remained stable for more than 30 years, while the national average has steadily increased. The Draft 2015 Integrated Energy Policy Report (IEPR) estimates that electricity consumption will grow by 1.23 percent per year from 2013 to 2025, with peak demand growing an average of 1.45 percent annually over the same period. According to the California Energy Commission (CEC), San Diego County consumed approximately 19.9 billion kilowatt hours (kWH) of electricity in 2014 (CEC 2014a).

Natural Gas

According to the Draft 2015 IEPR, California will use approximately 12,675 million therms of natural gas (excluding fuel for electricity generation) in 2015 (CEC 2015). Natural gas consumption is expected to marginally increase by 2024 with an average growth rate of 0.03 percent and 0.94 percent (CEC 2015). According to the CEC, San Diego County consumed approximately 333.8 million therms of natural gas in 2014 (CEC 2014b).

Petroleum

In California, petroleum fuels refined from crude oil are the dominant source of energy for transportation sources. Petroleum is the source of approximately 40 percent of the greenhouse gas (GHG) emissions in California, according to the Draft 2015 IEPR (CEC 2015). However, according to the CEC's Draft 2015 IEPR, consumption of gasoline, diesel, and jet fuel has declined and will continue to decline by up to 2 percent per year due to improved fuel economy, driven by corporate average fuel economy (CAFÉ) standards and displacement by alternative fuels, primarily driven by the zero emission vehicle (ZEV) regulations (CEC 2015). Based on the IEPR Draft 2015 Update, due to the prevalence of petroleum projects in the transportation sector, the rise in costs of these fuels, the federal Renewable Fuel Standard (RFS), and the California low carbon fuel standard, California is diversifying its transportation fuel sources, increasing fuel efficiency, and urban design to reduce the need for petroleum based transportation (CEC 2015).

4.2.2 Regulatory Framework

The PCCD South Education Center is subject to major air quality planning programs by both the federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 amendments, as well as the California CAA of 1988. Both the federal and State statutes provide for ambient air quality standards to protect public health, timetables for progressing toward achieving and maintaining ambient standards, and the development of plans to guide the air quality improvement efforts of State and local agencies. Within the San Diego region, air quality is monitored, evaluated, and controlled by the EPA, CARB, and San Diego APCD, as described in the following sections.

4.2.2.1 Federal

Clean Air Act

The CAA of 1970 required the USEPA to establish NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those sensitive receptors most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The USEPA has established primary and secondary standards for the six criteria air pollutants (ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead). Primary standards are designed to protect human health with an adequate margin of safety, while secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere. Areas that meet the ambient air quality standards are classified as "attainment" areas while areas that do not meet

these standards are classified as "non-attainment" areas. Areas may also be designated "unclassified" if air quality data are incomplete and do not support a nonattainment or attainment designation. The current NAAQS and the SDAB attainment status are listed above in Tables 4.2-1 and 4.2-3, respectively.

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2010, fuel economy standards were set at 27.5 miles per gallon (mpg) for new passenger cars and 23.5 mpg for new light trucks. Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 was signed into law. In addition to setting increased corporate average fuel economy standards for motor vehicles, the act includes other provisions related to energy efficiency:

- Renewable fuel standard (Section 202)
- Appliance and lighting efficiency standards (Sections 301–325)
- Building energy efficiency (Sections 411–441)

This federal legislation requires ever-increasing levels of renewable fuels to replace petroleum (Section 202, RFS). The USEPA is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the Energy Independence and Security Act of 2007 (EISA), the RFS program was expanded in several key ways that laid the foundation for achieving significant reductions of GHG emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of our nation's renewable fuels sector. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces (EPA 2015)

Additional provisions of EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

4.2.2.2 State

California Clean Air Act

The federal CAA allows states to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. The California CAA was adopted in 1988 and establishes the state's air quality goals, planning mechanisms, regulatory strategies, and standards of progress. The CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS and developing the California State Implementation Plan (SIP) (described below), for which it works closely with the federal government and the local air districts. The CARB reviews operations and programs of the local air districts, and requires each air district with jurisdiction over a non-attainment area to develop its own strategy for achieving the NAAQS and CAAQS. The CARB also establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment, and sets fuel specifications to further reduce vehicular emissions.

The CARB has established more stringent CAAQS for the six criteria air pollutants, as well as for additional pollutants including sulfates, hydrogen sulfide, and vinyl chloride. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. In addition, the CARB has established a set of episode criteria for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter. Episode criteria refer to pollutant levels, ranging from Stage One to Stage Three, which represent periods of short-term exposure to air pollutants that actually threaten public health. Health effects are progressively more severe as pollutant levels increase from the Stage One to Stage Three episode criteria. The current CAAQS and the SDAB attainment status are listed above in Tables 4.2-1 and 4.2-3, respectively.

California State Implementation Plan

The federal CAA (and its subsequent amendments) also requires each state to prepare an air quality control plan referred to as the SIP. The federal CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. SIPs include strategies and control measures to attain the NAAQS by deadlines established in the federal CAA. SIPs are periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the federal CAA.

The SDAPCD is the agency responsible for preparing and implementing the portion of the California SIP applicable to the SDAB for attaining the NAAQS for 8-hour ozone. The Eight Hour Ozone Attainment Plan for San Diego County (SDAPCD 2007) identifies control measures to reduce emissions of ozone precursors and complies with the federal SIP requirements. This plan accommodates emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the USEPA and the CARB, and the emissions and reduction strategies related to mobile sources are considered in the SIP. The SIP does not address impacts from sources of PM_{10} or $PM_{2.5}$, although it does include control measures (rules) to regulate stationary source emissions of those pollutants. These SIP-approved rules may be used as a guideline to determine whether a project's emissions would have the potential to conflict with the SIP and thereby hinder attainment of the NAAQS for ozone.

Title 24 of the California Code of Regulations

Energy consumption by new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations. The efficiency standards apply to new construction of both residential and nonresidential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in Title 24 guidelines. Title 24, Part 6, does not apply to hospitals, but applies to other facilities associated with the medical center, such as the medical office buildings.

Senate Bill 1368

On September 29, 2006, Governor Arnold Schwarzenegger signed into law Senate Bill 1368 (Perata, Chapter 598, Statutes of 2006). The law limits long-term investments in baseload generation by the state's utilities to power plants that meet an emissions performance standard jointly established by the CEC and the California Public Utilities Commission. The CEC has designed regulations that:

- Establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, of 1,100 pounds CO2 per megawatt-hour (MWh). This will encourage the development of power plants that meet California's growing energy needs while minimizing their emissions of GHGs;
- Require posting of notices of public deliberations by publicly owned utilities on long-term investments on the CEC website. This will facilitate public awareness of utility efforts to meet customer needs for energy over the long-term while meeting the state's standards for environmental impact; and
- Establish a public process for determining the compliance of proposed investments with the EPS [emissions performance standard] (Perata, Chapter 598, Statutes of 2006).

Assembly Bill 1493

Adopted in 2002 by the state legislature, Assembly Bill 1493 ("Pavley" regulations) required that the California Air Resources Board (CARB) develop and adopt, no later than January 1, 2005, regulations to achieve the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles.

The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005 and was denied by the EPA in March 2008. That decision was based on a finding that California's request to reduce GHG emissions from passenger vehicles did not meet the Clean Air Act requirement of showing that the waiver was needed to meet "compelling and extraordinary conditions."

The EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles on June 30, 2009. On September 24, 2009, CARB adopted amendments to the Pavley regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016. These amendments are part of California's commitment to a nationwide program to reduce new passenger vehicle GHGs from 2012 through 2016. CARB's September 2009 amendments will allow for California's enforcement of the Pavley rule while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to harmonize its rules with the federal rules for passenger vehicles.

It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs. CARB has adopted a new approach to passenger vehicles—cars and light trucks—by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plugin hybrids and zero-emission vehicles in California (CARB 2013a).

Assembly Bill 2076

The CEC and ARB are directed by AB 2076 (passed in 2000) to develop and adopt recommendations for reducing dependence on petroleum. A performance---based goal is to reduce petroleum demand to 15 percent less than 2003 demand by 2020.

Senate Bill 375, Sustainable Communities and Climate Protection Act

Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008, enhances California's ability to reach its Assembly Bill 32 goals by promoting good planning with the goal of more sustainable communities. Senate Bill 375 requires the CARB to develop regional GHG emissions reduction targets for passenger vehicles to be achieved by 2020 and 2035, and requires the regional Metropolitan Planning Organizations, such as SANDAG, to develop Sustainable Communities Strategies in their regional transportation plans. The Sustainable Communities Strategies demonstrate how each region will meet the CARB's emissions reduction targets through integrated land use, housing, and transportation planning to reduce the amount of vehicle miles travelled within their respective regions.

4.2.2.1 Regional

San Diego Regional Air Quality Strategy

The SDAPCD is the local agency responsible for the administration and enforcement of air quality regulations for the SDAB. The SDAPCD regulates most air pollutant sources, except for motor vehicles, marine vessels, aircraft, and agricultural equipment, which are regulated by the USEPA or the CARB. State and local government projects, as well as projects proposed by the private sector, are subject to SDAPCD requirements if the sources are regulated by the SDAPCD. In addition, the SDAPCD, along with the CARB, maintains and operates ambient air quality monitoring stations at numerous locations throughout San Diego County that measure the criteria and toxic air pollutant levels in the ambient air.

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego Regional Air Quality Strategy (RAQS) was initially adopted in 1991, and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, and most recently in April 2009. The RAQS outlines the SDAPCD's plans and control measures designed to attain the more stringent CAAQS for ozone. The SDAPCD has also developed the SDAB's input to the California SIP, which is required under the federal CAA for pollutants that are designated as being in non-attainment of NAAQS for the basin.

The RAQS relies on information from the CARB and SANDAG regarding mobile and area source emissions and projected growth in the County. This information is used to project future emissions and develop appropriate strategies for the reduction of emissions through regulatory controls. The CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and the County as part of the development of their respective

general plans. As such, a project that proposes development that is consistent with the growth anticipated by the applicable general plan would be consistent with the RAQS. If a project proposes development which is less intensive than that anticipated in the growth projections, the project would likewise be consistent with the RAQS. If a project proposes development which is greater than that anticipated in the growth projections, the project could be in conflict with the RAQS and could have a potentially significant impact on air quality.

SDAPCD Rules

The SDAPCD has adopted rules and regulations that govern stationary sources within the SDAB. SDAPCD rules that would be applicable to the proposed project include the following:

- **Rule 51—Nuisance.** Rule 51 prohibits the discharge from any source such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.
- **Rule 52—Particulate Matter.** Rule 52 prohibits the discharge of particulate matter into the atmosphere from any source (except stationary internal combustion engines) in excess of 0.10 grain per dry standard cubic feet (0.23 grams per dry standard cubic meter) of gas.
- **Rule 55—Fugitive Dust Control.** Rule 55 applies to any commercial construction or demolition activity capable of generating fugitive dust emissions, and requires that visible dust emissions be controlled such that they do not extend beyond the property line for more than three minutes in any 60-minute period, and also requires track-out/carry-out dust to be controlled.
- **Rule 67.0—Architectural Coatings.** Rule 67.0 establishes the VOC content of architectural coatings that is allowed within the SDAB for various types of coatings.
- **Rule 1210—Toxic Air Contaminant Public Health Risks.** Rule 1210 applies to each stationary source required to prepare a public health risk assessment pursuant to California Health and Safety Section 44360, and implements public notification and risk reductions requirements for TACs.

City of San Diego General Plan

The City of San Diego's General Plan addresses energy efficiency through the Conservation Element and the Urban Design Element. The Conservation Element contains policies to guide conservation of resources including, but not limited to air and energy. The following energy-conservation policies are applicable to the proposed project.

CE-A.5 Employ sustainable or "green" building techniques for the construction and operation of buildings.

a. Develop and implement sustainable building standards for new and significant remodels of residential and commercial buildings to maximize energy efficiency and to achieve overall net zero energy consumption by 2020 for new residential buildings and 2030 for new commercial buildings. This can be accomplished through factors including, but not limited to:

- Designing mechanical and electrical systems that achieve greater energy efficiency with currently available technology;
- Minimizing energy use through innovate site design and building orientation that addresses factors such as sun-shade patterns, prevailing winds, landscape, and sun-screens;
- Employing self generation of energy using renewable technologies;
- Combining energy efficient measures that have longer payback periods with measures that have shorter payback periods;
- Reducing levels of non-essential lighting, heating and cooling; and
- Using energy efficient appliances and lighting.

b. Provide technical services for "green" buildings in partnership with other agencies and organizations.

CE-A.9 Reduce building materials, use materials that have recycled content, or use materials that are derived from sustainable or rapidly renewable sources to the extent possible, through factors including:

a. Scheduling time for deconstruction and recycling activities to take place during project demolition and construction phases;
b. Using life cycle costing in decision-making for materials and construction techniques. Life cycle costing analyzes the costs and benefits over the life of a particular product, technology, or system;
c. Removing code obstacles to using recycled materials in buildings and for construction; and
d. Implementing effective economic incentives to recycle construction and demolition debris (see also Public Facilities Element, Policy PF-I.2).

CE-A.11 Implement sustainable landscape design and maintenance.

a. Use integrated pest management techniques, where feasible, to delay, reduce, or eliminate dependence on the use of pesticides, herbicides, and synthetic fertilizers.
b. Encourage composting efforts through education, incentives, and other activities.
c. Decrease the amount of impervious surfaces in developments, especially where public places, plazas and amenities are proposed to serve as recreation opportunities (see also Recreation Element, Policy RE-A.6 and A.7).
d. Strategically plant deciduous shade trees, evergreen trees, and drought tolerant native vegetation, as appropriate, to contribute to sustainable development goals.
e. Reduce use of lawn types that require high levels of irrigation.
f. Strive to incorporate existing mature trees and native vegetation into site designs.
g. Minimize the use of landscape equipment powered by fossil fuels.
h. Implement water conservation measures in site/building design and landscaping.
i. Encourage the use of high efficiency irrigation technology, and recycled site water to reduce the use of potable water for irrigation. Use recycled water to meet the needs of development projects to the maximum extent feasible (see Policy CE-A.12).

CE-A.12 Reduce the San Diego Urban Heat Island through actions such as:

a. Using cool roofing materials, such as reflective, low heat retention tiles, membranes and coatings, or vegetated eco-roofs to reduce heat build-up.
b. Planting trees and other vegetation, to provide shade and cool air temperatures. In particular, properly position trees to shade buildings, air conditioning units, and parking lots; and
c. Reducing heat build up in parking lots through increased shading or use of cool paving materials as feasible (see also Urban Design Element, Policy UD-A.12).

CE-I.4 Maintain and promote water conservation and waste diversion programs to conserve energy.

CE-I.5 Support the installation of photovoltaic panels, and other forms of renewable energy production.

a. Seek funding to incorporate renewable energy alternatives in public buildings.

b. Promote the use and installation of renewable energy in new and existing development.

CE-I.8 Improve fuel-efficiency to reduce consumption of fossil fuels.

CE-I.9 Implement local and regional transportation policies that improve mobility and increase energy efficiency and conservation.

CE-I.10 Use renewable energy sources to generate energy to the extent feasible.

Palomar College 2022 Educational and Facilities Master Plan

The Palomar College 2022 Educational and Facilities Master Plan is comprised of two main components, which are linked together: the Educational Master Plan which addresses all PCCD campuses and educational centers (see below), and the San Marcos Campus Facilities Master Plan. The Educational Master Plan forecasts the future educational programs and enrollment for the PCCD, and has projected a total enrollment of 47,500 students at all campuses by the year 2022. An EIR for the San Marcos Campus Facilities Master Plan was certified by the PCCD governing board on November 10, 2009. The EIR included general project design features (PDF) and standard construction practices that could apply to its other satellite campuses including the south education center. The applicable PDFs and SCPs related to energy usage from the 2009 EIR include the following:

Utl-PDF-1 High-efficiency, Energy Star®-rated, or higher, equipment will be installed in new and remodeled buildings under the Master Plan, if economically feasible. Prior to issuance of a Notice of Completion for each applicable Master Plan building, the proper installation and operation of said equipment will be approved by a Division of State Architect (DSA)-certified inspector.

Utl-PDF-5 New and remodeled buildings will be designed to meet minimum LEED standards, or equivalent, for New Construction certification. During the design review process, PCCD will ensure that appropriate LEED building features, or equivalent, are shown on the plans. At a minimum, all Master Plan buildings will meet Title 24 requirements; be constructed with at least 25 percent recycled materials; include passive heating and cooling systems such as insulation and ventilation to reduce energy usage; include energy-efficient lighting fixtures

such as fluorescent lighting for interior uses, and light-emitting diodes (LEDs) for exterior uses; and be designed for a 50-year life span or greater.

Utl-PDF-6 PCCD will continue to coordinate with SDG&E to enroll all eligible Master Plan projects into the Savings by Design Program, which provides energy efficiency techniques for nonresidential new construction and renovation/remodeling projects. During the design review process, PCCD will contact SDG&E to determine funding availability for this program and to learn about program options that will enhance energy performance for Master Plan implementation.

4.2.3 Impacts and Mitigation

4.2.3.1 Issue 1 – Consistency with Applicable Air Quality Plan

Would the proposed PCCD South Education Center result in a conflict with or obstruct implementation of the applicable air quality plan?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would conflict with or obstruct implementation of the applicable air quality plan.

Impact Analysis

The air quality plans relevant to this discussion are the SIP and RAQS. The SIP includes strategies and tactics to be used to attain and maintain acceptable air quality in the SDAB based on the NAAQS; while the RAQS includes strategies for the Basin to meet the CAAQS. Consistency is typically determined by two standards. The first standard is whether the proposed project would exceed growth assumptions contained in the RAQS and SIP. If the proposed project would exceed the RAQS or SIP growth assumptions, the second standard is whether the proposed project would increase the frequency or severity of existing air quality violations, contribute to new violations, or delay the timely attainment of air quality standards or interim reductions as specified in the RAQS.

The RAQS and SIP rely on information from the CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County of San Diego, to forecast future emissions and then determine the strategies necessary for the reduction of emissions through regulatory controls. The location of the South Education Center was strategically selected to serve an underserved population within the area. Because the project is utilizing an existing building and is anticipated to serve an existing population, it is not anticipated to have growth-inducing impacts in the area. The 2022 Facilities Master Plan (updated in 2010) shows a detailed analysis of the demographics and educational needs of the population in the area. The Master Plan accounts for the anticipated growth in student attendance and is consistent with the regional plans. Therefore, the development of the education center itself would not result in growth in the area. Because the project would be consistent with the growth projections in the SIP and RAQS, it would not conflict with the plans. Impacts related to consistency with regional plans would be less than significant.

Mitigation Measures

Implementation of the proposed project would not conflict with or obstruct implementation of the SIP or RAQS; therefore, no mitigation is required.

4.2.3.2 Issue 2 – Consistency with Air Quality Standards

Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Analysis

This section addresses the potential for the project to generate criteria air pollutant emissions that exceed ambient air quality standards. Construction and operational criteria air pollutant emissions that would be generated by implementation of the project are discussed below.

Construction

Air pollutant emission sources during project construction would include exhaust and particulate emissions generated from construction equipment; fugitive dust from soil disturbance during site preparation, grading, and excavation activities; and volatile compounds that evaporate during site paving and painting of the structures.

Development on the South Education Center site is expected to last up to 18 months and includes construction of a new 1,200 ft. long loop road. Interior improvements to the existing building are included in the 18 month construction schedule but would not require diesel powered construction equipment with the potential to generate criteria pollutant emissions. Therefore, interior improvements are not included in this construction analysis.

The construction of the new loop road would require grading, fine grading, and paving. It is estimated that grading would take approximately two months, fine grading would last about one month, and paving about one week. Typical grading equipment would be used, including tractors, excavators, graders, water trucks, and pavers. The maximum depth of excavation would be approximately 10 feet for storm drain trenches and approximately 6.5 feed for rough grading. Construction would require removal of approximately 8,750 cubic yard (CY) of soil, from which 3,900 CY will be reused and spread across the graded pad. The remaining material, about 4,850 CY, will need to be exported offsite. A haul disposal facility has not been selected at this time. The CalEEMod default distance of 20 miles is assumed for the facility. A default truck capacity of 16 CY is also assumed.

To be conservative, it is assumed that construction of new loop road would be simultaneous to account for the worst case daily construction emissions from all phases. Table 4.2-4 provides the worst case scenario of emissions that would occur. As shown in Table 4.2-4, none of the phases of construction would exceed the significance thresholds. Therefore, a potentially significant impact would not occur during construction.

Table 4.2-4 Maximum Daily Emissions Per Construction Activity

Construction Activity	Pollutant Emissions (pounds/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Demolition	3	28	22	<1	2	2
Site Preparation	2	26	17	<1	7	4
Grading	2	21	15	<1	6	4
Building Construction	3	22	17	<1	2	1
Paving	2	13	10	<1	1	1
Architectural Coating	16	2	2	<1	<1	<1
Significance Threshold	137	250	550	250	100	100
Significant Impact?	No	No	No	No	No	No

CO = carbon monoxide; NO_x = nitrogen oxides; VOC = volatile organic compound; SO_x = sulfur oxides; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter
Sources: CalEEMod 2013.2.2., Appendix C for data sheets.

Operation

To conservatively estimate operational air quality emissions, this analysis assumes the maximum capacity of the proposed campus facilities. The maximum capacity represents the full student attendance, maximum vehicle trips, and full development of the PCCD South Education Center. The operational emissions include the emissions associated with the education center and the improved parking structure. Vehicle trip generation is based on the project traffic study, which was prepared by Linscott, Law and Greenspan, Engineers (LLG 2015). The projected ADT rate for buildout of the proposed project is 1,910 trips. Pollutant emissions from vehicles were calculated using CalEEMod 2013.2.2.

In addition to vehicle trips, the proposed project would emit pollutants from on-site area sources, such as burning natural gas for space and water heating, landscape maintenance equipment, consumer products, and periodic repainting of interior and exterior surfaces (architectural coatings).

The vehicular and area source emissions associated with operation of the proposed project are summarized in Table 4.2-5. The proposed project would not exceed the daily regional thresholds for any criteria pollutant during operation. Therefore, operational emissions would be less than significant.

Table 4.2-5 Operation Maximum Daily Emissions

Emissions Source	Pollutant Emissions (pounds/ day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Vehicular Sources	23	49	230	<1	37	10
Area Sources						
Natural Gas	<1	1	1	<1	<1	<1
Landscape	<1	<1	1	<1	<1	<1
Consumer Products	9	0	0	0	0	0
Architectural Coating	2	0	0	0	0	0
Total Emissions	35	50	232	1	37	10
Significance Thresholds	137	250	550	250	100	100
Significant Impact?	No	No	No	No	No	No

CO = carbon monoxide; NO_x = nitrogen oxides; VOC = volatile organic compounds; SO_x = sulfur oxides
PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter
Source: CalEEMod 2013.2.2. See Appendix C for data sheets.

Mitigation Measures

Construction and operation of the proposed project would not exceed the significance thresholds for any criteria pollutant. No mitigation is required.

4.2.3.3 Issue 3 – Sensitive Receptors

Would the proposed project expose sensitive receptors to substantial pollutant concentrations?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would expose sensitive receptors to substantial pollutant concentrations. For the CO "hot spots" analysis provided in this section, sensitive receptors are defined as residences, commercial developments, schools, and hospitals that are located in the vicinity of congested roadways or intersections where the 1-hour and 8-hour NAAQS and CAAQS for CO are exceeded.

Impact Analysis

CARB defines sensitive receptors as residences, schools, day care centers, playgrounds, and medical facilities, or other facilities that may house individuals with health conditions that would be adversely affected by changes in air quality. The two primary emissions of concern regarding health effects for sensitive receptors are carbon monoxide and diesel particulates. An analysis of the project's potential to expose sensitive receptors to substantial pollutant concentrations of carbon monoxide is provided below.

Areas with high vehicle density, such as congested intersections and parking garages, have the potential to create high concentrations of carbon monoxide, known as carbon monoxide hot spots. An air quality impact is considered significant if carbon monoxide emissions create a hot spot where either the California 1-hour standard of 20 ppm or the federal and State eight-hour standard of 9.0 ppm is exceeded. This typically occurs at severely congested intersections (level of service [LOS] E or worse).

Intersections that operate at an LOS E or F have the potential to generate carbon monoxide hot spots. The traffic study prepared for the South Education Center (LLG 2015) used project-level trip generation analysis and distribution to evaluate the intersections and road segments in the project vicinity that would carry the majority of project traffic. The traffic study analyzed the Existing + Project scenarios for near-term and long-term (Year 2035) conditions. Three intersections would operate at a LOS E under the Year 2035 + Project Scenario:

#2 Rancho Bernardo Road/Via Del Campo (AM and PM Peak Hour),

#3 Rancho Bernardo Road/Matinal Road (AM and PM Peak Hour), and

#4 Rancho Bernardo Road/Bernardo Center Drive (AM and PM Peak Hour).

The analysis of the future scenarios concluded that the project would result in worsening of the LOS at those locations, with anticipated increased delay of 5.4 second or more at these intersections compared to conditions without the proposed project. Application of mitigation measures TRA-1 through TRA-3 would reduce the impact to intersections #2 and #3 (see Appendix G, Table 15-1). However,

implementation of mitigation would not reduce the impact to intersection #4 to less than significant. Therefore, the project's potential to generate a CO hotspot at intersection #4 was analyzed.

Using the CALINE4 model, potential CO hot spots were analyzed at intersection #4 during the unmitigated AM Peak hour, which is the most congested peak hour for the intersection. There are several inputs to the CALINE4 model. One input is the traffic volumes, which is from the project-specific traffic report. The traffic volumes with the project were used for the buildout scenario as well as emission factors generated using the EMFAC2011 model for year 2035. As shown in the table below, the proposed project would not result in a CO hotspot at intersection #4 in the AM peak hour at the long term (2035 plus project) scenario. Consequently, the project would not result in any increase in the potential for sensitive receptors to be exposed to carbon monoxide hot spots. Therefore, the potential carbon monoxide impacts would be less than significant.

Table 4.2-5 Localized Carbon Monoxide Concentrations

Intersection	Peak Hour	Estimated CO Concentration (ppm)		Thresholds (ppm)		Significant Impact?
		1 Hour	8 Hour	1 Hour	8 Hour	
#4 Rancho Bernardo Road/Bernardo Center Drive, year 2035 with project.	AM	6.8	4.8	20	9	No

CO = carbon monoxide
Notes: The 1-hour concentration is the CALINE4 output (see Appendix C for model output) plus the 1-hour background concentration calculated by applying the 0.7^{-1} persistence factor to the 8 hour background concentration from Table 4.2-2.
The 8 hour project increment was calculated by multiplying the 1 hour CALINE4 output by 0.7 (persistence factor), then adding the 8 hour background concentration of 3.70 ppm (from Table 4.2-2).
Source: Caline4. See Appendix C for data sheets.

Mitigation Measures

The proposed project would not significantly increase congestion compared to conditions without the proposed project. Consequently, the project would not result in any increase in the potential for sensitive receptors to be exposed to carbon monoxide hot spots. Therefore, the potential carbon monoxide impacts would be less than significant. No mitigation is required.

4.2.3.4 Issue 4 – Objectionable Odors

Would the proposed PCCD South Education Center create objectionable odors affecting a substantial number of people?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would create objectionable odors affecting a substantial number of people.

Impact Analysis

Offensive odors can present a nuisance to the general public, but seldom result in permanent physical damage. Offensive odors may cause agitation, anger, and concern to the public, especially in residential neighborhoods located near major sources of odor.

Construction associated with implementation of the proposed PCCD South Education Center could result in minor amounts of odor compounds associated with diesel heavy equipment exhaust. However, construction equipment would be operating at various locations throughout the project site and construction would not take place all at once. The smell of diesel exhaust is due in most part to the presence of sulfur and the creation of hydrocarbons during combustion (Nett Technologies 2010). The use of architectural coatings and solvents may also emit odors from the evaporation of volatile organic compounds. As shown in Table 4.2-4, construction of the project would not result in significant emissions of sulfur oxides or VOCs. SDAPCD Rule 67 limits the amount of volatile organic compounds from coatings and solvents, and the project would incorporate the use of low-VOC coatings. In addition, construction near existing sensitive receptors would be temporary. Therefore, impacts associated with nuisance odors during project construction would not be significant.

The CARB's *Air Quality and Land Use Handbook* identifies a list of the most common sources of odor complaints received by local air districts. Typical sources of odor complaints include facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations. The project proposes the development of educational uses on the site, which does not typically result in a source of nuisance odors associated with operation. The project does not propose any specific new sources of odor that could affect sensitive receptors.

Additionally, SDAPCD Rule 51 prohibit emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. The SDAPCD responds to odor complaints and an inspector takes enforcement action if the source is not in compliance with the SDAPCD rules and regulations (SDAPCD 2010). In the event of enforcement action, odor-causing impacts must be mitigated by appropriate means to reduce the impacts to sensitive receptors to less than significant. Therefore, the project is not anticipated to create or result in objectionable odors that may affect a substantial number of people, and odor impacts are less than significant.

Mitigation Measures

Impacts related to objectionable odors would be less than significant without mitigation. No mitigation is required.

4.2.3.5 Issue 5 – Wasteful, Inefficient, and Unnecessary Usage of Energy

Methodology

The energy analysis for the project evaluates the following sources of energy consumption associated with the project.

- Short-term construction—gasoline and diesel consumed by vehicles and off-road construction equipment.
- Operational on-road vehicles—gasoline and diesel consumed by personal automobiles and service trucks.
- Operational power, heating, and cooling—electricity and natural gas consumed by occupants.

Construction-related energy use (i.e., fuel consumption) was calculated by converting GHG emissions predicted by CalEEMod using the rate of carbon dioxide (CO_2) emissions emitted per gallon of combusted diesel (22.2 pounds/gallon) (Climate Registry 2015). The estimated fuel consumption was converted to British Thermal Units (BTU) assuming an energy intensity of 129,488 per gallon of diesel (Argonne 2013).

Energy consumed by operational on-road vehicles was quantified using the estimated vehicle miles traveled (VMT) under full project buildout developed by the air quality analysis. The estimated VMT was converted to BTU assuming using a Pavley-adjusted weighted energy intensity of 4,683 BTU per vehicle mile (Oak Ridge National Laboratory 2013).

Operational electricity and natural gas consumption under full project buildout was drawn from the CalEEMod modeling performed to support the GHG analysis (Section 4.4). CalEEMod outputs for natural gas consumption are provided in BTU; outputs for electricity consumption, which are provided in kilowatt hours, were converted to BTU assuming an energy intensity of 3,416 BTU per kilowatt hour (Argonne 2013).

Standards of Significance

Based on State CEQA Guidelines Appendix F, environmental impacts may include those listed below.

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project, including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak- and base-period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

The State CEQA Guidelines recommend that the discussion of applicable energy impacts focus on whether the project would result in the wasteful, inefficient, or unnecessary consumption of energy, as this may constitute an unavoidable adverse effect on energy resources. Efficiency projects that incorporate conservation measures to avoid wasteful energy usage facilitate long-term energy planning and avoid the need for unplanned or additional energy capacity.

Accordingly, based on the criteria outlined in the State CEQA Guidelines Appendix F, the project would cause significant impacts related to energy if it would result lead to a wasteful, inefficient, and unnecessary usage of direct or indirect energy. As discussed in Section 4.2.2, Regulatory Framework, energy legislation, policies, and standards adopted by California and local governments were enacted and promulgated for the purpose of reducing energy consumption and improving efficiency (i.e., reducing wasteful and inefficient use of energy).

Therefore, for the purposes of this analysis, wasteful and inefficient are defined as circumstances in which the project would conflict with applicable state or local energy legislation, policies, and standards.

Accordingly, if the project conflicts with legislation, policies, or standards designed to avoid wasteful and inefficient energy usage, it would result in a significant impact related to energy resources and conservation.

Impact Analysis

Project construction would consume fuel through operation of heavy-duty construction equipment and vehicles. Based on the GHG emissions analysis summarized in Section 4.4, and the rate of CO_2 emitted per gallon of fuel consumed, energy use associated with project construction was calculated and estimated to result in the one-time consumption of 110,746 million BTU.

Project operations would also result in the consumption of electricity and natural gas for power and heating. Fuel consumed by on-road vehicles, as well as electricity and natural gas consumed by operation of the SEC, represents the long-term operational impact associated with the project. Energy consumed by on-road vehicles operated by students and faculty was quantified using the VMT estimate developed by CalEEMod in the air quality analysis. Operational energy consumption at full buildout of the project in 2017 was calculated and estimated to result in an annual consumption of 90,254 million BTU.

Construction and operational energy consumption estimates are summarized in Table 4.2-6.

Table 4.2-6 Estimated Annual Energy Consumption for the Proposed Project

Condition	Construction (Million BTU/Year)	Operational (Million BTU/Year)
Mobile sources	110,746	80,275
Electricity Consumption	-	6,144
Natural Gas Consumption	-	3,835
Total Energy Consumption	110,746	90,254

Reductions in electricity and natural gas consumption are achieved by following the CalGreen and Title 24 energy code requirements and associated standards such as American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) 90.1. In addition, photovoltaic (PV) solar facilities will be included as part of the project. The amount of PV to be installed is currently unknown; however, the installation and use of PV would further reduce the project's operational consumption of offsite, fossil-fueled energy.

Because the project would meet mandatory energy standards, current CCR Title 24, Part 6 California Energy Code, development of the proposed project would not result in a wasteful, inefficient, or unnecessary use of energy. This Impact would be less than significant; therefore, no mitigation is required.

Mitigation Measures

Impacts related to energy use would be less than significant without mitigation; therefore, no mitigation is required.

4.2.4 Cumulative Impacts

As indicated in Table 4-1, Geographic Scope of Cumulative Impact Analysis, of this EIR, impacts relative to consistency with applicable air quality plans, TACs, and objectionable odors are generally limited to the

campus at which there are no cumulative projects identified. Therefore, these issues are not subject to a cumulative impact analysis, and are not addressed in this section.

4.2.4.1 Issue 1 – Consistency with Applicable Air Quality Plan

The geographic context for the analysis of cumulative impacts relative to violations of the applicable air quality plan is the SDAB. San Diego County complies with the SIP and RAQS air quality plans. The SIP includes strategies and tactics to be used to attain and maintain acceptable air quality in the SDAB based on the NAAQS, while the RAQS includes strategies for the Basin to meet the CAAQS. The PCCD South Education Center does not exceed the SIP and RAQS growth assumptions as the 2022 Facilities Master Plan (updated in 2010) accounts for the anticipated growth in student attendance and is consistent with regional plans. Since the project would be consistent with the SIP and RAQS, the cumulative impacts related to the consistency with the applicable air quality plan would be less than significant.

4.2.4.2 Issue 2 – Consistency with Applicable Air Quality Standards

The geographic context for the analysis of cumulative impacts relative to criteria air pollutants is the SDAB. San Diego County is presently designated as being a non-attainment area for the NAAQS ozone standard. The County is also a non-attainment area for the CAAQS standards for ozone, $PM_{10,}$ and $PM_{2.5}$. Therefore, a significant cumulative impact to air quality for ozone precursors (VOCs and NO_x), PM_{10}, and $PM_{2.5}$ currently exists. Consequently, the greatest concern involving criteria pollutants is whether a project would result in a cumulatively considerable net increase of PM_{10}, $PM_{2.5}$, or exceed screening-level criteria thresholds of ozone precursors (VOCs and NO_X).

A localized pollutant concentration analysis is applicable to the analysis of the cumulative impacts of construction emissions because construction emissions would be temporary. Pollutant emissions would disperse or settle out following construction and would not contribute to long-term concentrations of emissions in the SDAB. Long-term regional impacts associated with operation of the education center are discussed below. Short-term emissions from construction would present a localized health concern if multiple construction projects would take place at the same time and would exceed the significance thresholds. Therefore, construction projects that do not take place at the same time or fall below the significant thresholds do not contribute to the same short-term cumulative impact.

The City has not adopted specific emission thresholds by which to evaluate the significance of air quality impacts of projects within its jurisdiction. Additionally, the SDAPCD has not established screening thresholds for localized impacts. In lieu of any set quantitative air quality significance thresholds for localized impacts, the Localized Significance Thresholds established by the SCAQMD (SCAQMD 2009) are used to determine potential cumulative impacts. Based on the thresholds, NO_x emissions decrease approximately 95 percent beyond approximately 4,270 feet. Therefore, cumulative projects 4,270 feet from the project site are excluded from the cumulative NO_x analysis. According to the Localized Significance Thresholds, PM_{10} decreases approximately 95 percent by 1,300 feet, and $PM_{2.5}$ by 1,430 feet. SCAQMD has not established a threshold for VOCs. However, VOCs diffuse quickly outdoors (California Indoor Air Quality 2011). Being of a gaseous nature similar to NO_x, it is assumed for the purposes of this analysis that VOC pollutant concentrations would disperse by 95 percent beyond 4,270 feet, similar to $NO_{x.}$ Therefore, cumulative projects 1,300 feet from the project site are excluded from the cumulative PM_{10} analysis, projects 1,430 feet from the site are excluded from the $PM_{2.5}$, and projects 4,270 feet from the site are excluded from the cumulative VOC analysis.

The area within 4,270 feet for the project site is primarily built out, with the exception of undeveloped hillsides to the northwest of the site across Rancho Bernardo Road, and several graded pads located south of the project site. The open space northwest of the project site is designated for preservation in the County of San Diego Multiple Species Conservation Program; therefore, no construction is anticipated in this area. Several graded pads are located within the business parks to the south of the project site, and may potentially be developed. It is unknown whether any construction activities are planned for these sites. Therefore, it is unlikely that these building pads would be under construction at the same time as the proposed project. Additionally, as shown in Table 4.2-4, the proposed project would not exceed any significance thresholds at the project site, with the exception of PM_{10} emissions during hauling of excavated materials. As the nearby building pads have already been graded, construction in these areas would be not expected to generate substantial amounts of particulate matter during construction, similar to the fine grading phase of construction of the proposed loop road. Haul trips for the project would utilize Rancho Bernardo Road so that PM_{10} emissions associated with the proposed project would be concentrated north of the project site, further from the building pads. Therefore, construction emissions from the proposed project would not be expected to combine with construction emission from surrounding business park development such that the significance thresholds would be exceeded. This potential cumulative impact would be less than significant.

According to the County of San Diego significance threshold, which applies to projects in the SDAB, a project would result in a significant cumulatively considerable contribution to an air quality impact if the project does not conform to the RAQS or if the project has a significant direct impact to air quality. As discussed in Section 4.2.3.2 (Issue 2), the project is not anticipated to cause significant growth in the area. Additionally, as shown in Table 4.2-5, operational emissions of the proposed project, including VOCs, NO_x, carbon monoxide, PM_{10}, and $PM_{2.5}$ would not exceed the significance thresholds. Therefore, the proposed project would not result in a cumulatively significant impact.

4.2.4.3 Issue 3 – Sensitive Receptors

CO Emissions

The geographic context for the analysis of cumulative impacts relative to sensitive receptors (e.g., residences, commercial developments, schools, hospitals) is the SDAB. The traffic study prepared for the project evaluated the intersections in the project vicinity. The traffic study analyzed the Existing + Project scenario for near-term and long-term (Year 2035) conditions. The traffic impact analysis for the project analyzed potential traffic impacts from buildout of the proposed project. As shown in the traffic study, under three intersections would operate at a LOS E with the proposed project under long-term conditions. Therefore, a potentially significant cumulative impact would occur. However, the project would not result in any significant increase in CO concentrations as affected intersections, as shown in Section 4.2.3.3, Issue 3. Therefore, the proposed project would not result in a cumulatively considerable contribution to the potentially significant cumulative exposure of sensitive receptors to carbon monoxide.

Toxic Air Contaminants

The project would result in diesel particulate matter from the operation of construction equipment. Construction of the project would result in less than significant levels of particulate matter emissions during the construction phase, including fugitive dust and diesel emissions from construction equipment, based on the City of San Diego thresholds. Additionally, diesel particulate matter is considered to have a

long-term (eight years or more) health effect related to increased risk of cancer and non-cancer chronic conditions (CARB 1998). Construction would be a short-term event lasting approximately one and a half years. The highest diesel particulate emissions from construction occurring during site preparation and grading activities, and would then be substantially reduced during subsequent construction phases. Therefore, emissions would not result in a significant long-term health risk to surrounding receptors. Consequently, the project would not result in any increase in the potential for sensitive receptors to be exposed to carbon monoxide hot spots.

Therefore, the proposed project would not result in a cumulatively considerable contribution to the potentially significant cumulative exposure of sensitive receptors to carbon monoxide or PM_{10} emissions.

4.2.4.4 Issue 4 – Objectionable Odors

The geographic context for the analysis of cumulative impacts relative to objectionable odors is the SDAB. The project could result in minor amounts of odor compounds in association with heavy equipment diesel exhaust during the construction phase of the project. However, construction equipment would be operating at different areas throughout the project site and would not take place all at the same time. The project would not result in significant emissions of sulfur oxides or VOCs, as the project proposes the use of low-VOC coatings. Therefore, there cumulative impacts associated with nuisance odors during construction would be less than significant.

The project does not identify as a common source of odor complaints under the CARB's *Air Quality and Land Use Handbook,* which identifies typical sources of odor complaints sources, including facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations. Since the project includes the development of educational uses, which do not typically result in a source of nuisance odors associated with operation, the project would not result in any specific new sources of odor that could affect sensitive receptors. Additionally, SDAPCD Rule 51 prohibits emissions from any source whatsoever in such quantities of air contaminants or other material, which could cause injury, detriment, nuisance, or annoyance to the public health or damage to property. The project would not result in a conflict with SDAPCD Rule 51. Therefore, the project is not anticipated to create or result in objectionable odors that may affect a substantial number of people, and cumulative odor impacts are less than significant.

4.2.4.5 Issue 5 – Wasteful, Inefficient, and Unnecessary Usage of Energy

As shown in Table 4.2-6, long-term operation of the project is expected to result in cumulative energy consumption (on-road fuel consumption, electricity, and natural gas) of approximately 90,524 million BTU per year after accounting for a reduction in energy consumption by meeting Title 24 standards. This represents a 0.06 percent increase in citywide energy usage, relative to existing energy use of 135,408,048 Million BTU per year.[1]

Because the project would meet mandatory energy standards, development of the proposed project would not result in a wasteful, inefficient, or unnecessary use of energy. This Impact would be less than significant. No Mitigation is required.

[1] Citywide energy use based on 2010 data from San Diego Climate Action Plan (2015)

4.2.5 CEQA Checklist Items Deemed Not Applicable to the Project

All CEQA checklist items related to Air Quality have been thoroughly discussed in this section of the EIR; no topics were left unaddressed.

4.2.6 References

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4.3 Biological Resources

This section describes the existing conditions at the project site and in surrounding areas with respect to biological resources; the potential environmental effects (direct, indirect, and/or cumulative) related to special status species, sensitive natural communities, wetlands, wildlife corridors, and nursery sites; and mitigation measures, if required, to reduce or avoid potentially significant impacts. The information provided in this section is based on the PCCD South Education Center Project Biological Technical Report prepared by Atkins in March 2016 (see Appendix D of this EIR).

In accordance with Section 15128 of the CEQA Guidelines, impacts related to consistency with local policies or ordinances protecting biological resources and consistency with the provisions of an adopted Habitat Conservation Plan or Natural Community Conservation Plan were determined not to be significant, and are discussed briefly at the end of this section below in Section 4.3.5 (CEQA Checklist Items Deemed Not Applicable to the Project).

4.3.1 Existing Conditions

4.3.1.1 Research Methods

Prior to conducting field surveys, a thorough review of relevant maps, databases, and literature pertaining to biological resources known to occur in the project site was performed. Aerial imagery, in addition to topographic, soils, vegetation, and other types of maps of the project site and vicinity were acquired and reviewed to obtain updated information on the natural environmental setting. In addition, a query of sensitive species and habitats databases was conducted, including the California Natural Diversity Database (CNDDB), the California Native Plant Society Electronic Inventory, San Diego Natural History Museum (SDNHM) Plant Atlas, and the Consortium of California Herbarium applications, as well as a review of regional lists produced by the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW).

A survey was conducted on May 14, 2015, that focused on the natural resources within the current project area. On June 21, 2012, a general survey of the project site, including an approximately 100-foot buffer, was conducted; and on October 3, 2012, a survey was performed that focused on the coastal sage scrub habitat located in the northeastern and eastern portions of the project site.

4.3.1.2 On-site Biological Resources

Vegetation Communities

A total of eleven vegetation communities or habitat types were mapped in the survey area during the general biological survey: developed, disturbed/non-native vegetation, coastal sage scrub, coastal sage scrub-disturbed, disturbed wetland, eucalyptus woodland, mixed chaparral, native grassland, non-native grassland, ornamental plantings, and scrub oak chaparral. Figure 4.3-1 (Vegetation Communities) shows the locations and extent of the vegetation communities within the survey area, including within the property boundary and 100-foot buffer. Descriptions of these communities are provided. Table 4.3-1 (Vegetation Communities within the Property Boundary) lists the vegetation communities and developed/disturbed areas within the property boundary and the project area, and the approximate acreages of each.

Table 4.3-1 Vegetation Communities within the Property Boundary

Vegetation Community	Acreage within the Property Boundary (Rounded)	Acreage within the Project Area (Rounded)
Developed	6.18	6.17
Disturbed / Non-Native Vegetation	0.10	0
Coastal Sage Scrub	3.67	0
Coastal Sage Scrub - Disturbed	2.25	0
Disturbed Wetland[1]	0.08	0
Eucalyptus Woodland	0.16	0
Mixed Chaparral	2.18	0
Native Grassland	0.14	0
Non-native Grassland	6.46	5.47
Ornamental Plantings	4.31	0.36
Scrub Oak Chaparral	1.47	0
TOTAL	27.00	12.00

(1) These wetland areas would not necessarily qualify as wetlands or other sensitive resources under the jurisdiction of the regulatory agencies.

Vegetation within the Project Area

Developed

Developed land is the most prevalent community mapped in the project area Approximately 6.18 acres of developed land is mapped in the project area. This community type occurs as an existing commercial development in the central portion of the project area, including an asphalt parking lot, buildings, and ornamental landscaping (primarily mature pine [*Pinus* spp.] and blue gum [*Eucalyptus globulus*] trees). Areas characterized by developed land provide limited biological function and value.

Non-Native Grassland

Non-native grassland is an herbaceous habitat type dominated by one or several non-native grass species. This designation is applied where non-native broadleaf species account for less than 50 percent of the total vegetative cover. Non-native grasslands typically occur in areas with disturbance and/or a proximity to a nearby seed source resulting in the establishment of extensive and persistently dominant non-native grasses and less dominant broadleaf species. Characteristic grass species include wild oats (*Avena* sp.) and bromes (*Bromus* sp.). Common non-native broadleaf forbs include black mustard (*Brassica nigra*), short-pod mustard (*Hirschfeldia incana*), sweet fennel (*Foeniculariu*m *vulgare*), yellow star-thistle (*Centaurea solstitiali*s), and other non-native, invasive broadleaf species.

Legend

- Proposed Road
- Project Area
- Survey Area
- Property Boundary
- CSS, Coastal Sage Scrub
- CSS-d, Coastal Sage Scrub - Disturbed
- DEV, Developed
- DL, Disturbed Land
- DW, Disturbed Wetland
- EUC, Eucalyptus Woodland
- MC, Mixed Chaparral
- NG, Native Grassland
- NNG, Non-Native Grassland
- OP, Ornamental Plantings
- SOC, Scrub Oak Chaparral

1 inch = 160 feet
0 40 80 160
Feet

Source: SANDAG, 2015; ESRI, 2015

ATKINS

FIGURE 4.3-1
Vegetation Communities

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Palomar College South Education Center EIR

The non-native grassland within the survey area contains a slight dominance of non-native grasses over broadleaf species. The 5.47 acre undeveloped area that was disturbed/non-native vegetation in the project area in 2012 is now non-native grassland dominated by *Bromus* species and other non-native vegetation including artichoke thistle (*Cynara cardunculus*). This area is in an early coastal sage scrub successional stage and supports small coyote brush (*Baccharis pilularis*) and California buckwheat (*Eriogonum fasciculatum*) shrubs scattered throughout the area and a few small California sagebrush (*Artemisia californica*) (Photo 1 below).

Photo 1. Non-native grassland looking southwest.

A narrow linear area, too small to map, along the edge of the non-native grassland next to the developed area, was dominated by black willows (*Salix gooddingii*), salt cedar (*Tamarix* spp), and other small wetland herbs (Photo 2).

Photo 2. Native willow trees next to the developed area.

A small manmade basin occurs in the northern portion of the project area near the proposed road. The area was dominated by bare ground and non-native grass. Other species observed included curly dock (*Rumex crispus*), Western ragweed (*Ambrosia psilostachya*), coyote brush, and a few small mule fat (*Baccharis salisifolia*) bushes.

The non-native grassland within the project area provides low quality habitat for commonly occurring wildlife species.

Ornamental Plantings

Ornamental plantings includes areas in which there is evidence of previous removal of natural habitat and planting or recruitment of non-native ornamental plant species. Non-native vegetation and ornamental habitats are typical of landscaped areas and are usually in close proximity to existing developments.

Approximately 0.36 acre of ornamental plantings are within the project area. This area is characterized by several non-native sub-tree and shrub species defining an open canopy, with scattered non-native annual herbaceous species in the understory. A few isolative native shrub species occur amongst the non-native understory. Overall, the non-native vegetation and ornamental habitat within the survey area provides limited biological function and value.

Vegetation Adjacent to the Project Area

Disturbed/Non-native Vegetation

A small patch of disturbed/non-native vegetation is mapped in the northern edge of the property adjacent to Rancho Bernardo Road. This area is comprised of disturbed open patches of non-native herbs and other groundcover between the canopy of adjacent scrub and chaparral. Dominant plant species observed include hot tot fig (*Carpobrotus edulis*), ripgut (*Bromus diandrus*), and black mustard. Other notable species include red brome (*Bromus madritensis* ssp. *rubens*), slender wild oats (*Avena barbata*), artichoke thistle, Mexican fan palm (*Washingtonia robusta*), and pine.

The disturbed/non-native vegetation in the project area hosts several non-native invasive plant species and provides limited biological function and value.

Coastal Sage Scrub and Coastal Sage Scrub - Disturbed

Coastal sage scrub is a native scrub-type community that is widespread throughout the lower elevations of southern California. It is classified as a sensitive natural community by the CDFW. Vegetation typically consists of low-growing, drought-deciduous, perennial and evergreen shrubs adapted to xeric sites supported by steep and gentle sloping topography with severely drained soils or clays that release stored soil moisture slowly.

Approximately 5.92 acres of coastal sage scrub occurs in patches around the eastern, western, and southern portions of the project area. These stands are considered to be relatively low in habitat quality due to very low species richness, predominance of non-native plant species, and proximity to existing developments. The stand in the northern portions (northeastern and northwestern) of the project area, although larger than that in the southern, is highly disturbed and sparse. In terms of plant species composition, these patches are fairly homogenous and support a low diversity of plant species. In general, dominant shrub species observed in both stands include California sagebrush, coyote brush, and laurel sumac (*Malosma laurina*). Other shrub species observed in much lower percent cover include sticky monkey flower (*Mimulus aurantiacus*), black sage (*Salvia mellifera*), deerweed (*Acmispon glaber*), and lemonade berry (*Rhus integrifolia*). The northern stand contains a relatively high percent cover of non-native grasses and ruderal forbs, including red brome, ripgut, slender wild oats, and black mustard. Relative to other coastal sage scrub habitat in the local area (e.g., Lake Hodges Cornerstone), the isolated coastal sage scrub in the survey area is highly disturbed and provides limited biological function and value. Due to its isolation, steepness of slopes, vegetation composition, proximity to existing developments, and overall disturbance, the coastal sage scrub in the survey area is generally unsuitable and does not support the constituent elements required by the coastal California gnatcatcher (*Polioptila californica californica*).

Disturbed Wetland

Approximately 0.10 acre of disturbed wetland is mapped within the northern portion of the survey area. This habitat was found in association with an existing concrete-lined ditch. Dominant plant species observed include toad rush (*Juncus bufonius*), curly dock, and Italian ryegrass (*Festuca multiflorum*). Overall, the disturbed wetland within the survey area provides low quality habitat and limited biological function and value.

Eucalyptus Woodland

Eucalyptus woodland habitats range from single-species thickets with little or no shrubby understory, to scattered trees over a well-developed herbaceous and shrubby understory. Approximately 0.16 acre of eucalyptus woodland occurs in patches along the eastern, western, and southern boundaries of the survey area. The woodland stand is relatively dense and comprised of similar-age blue gum trees that have evidently occurred in the area for decades (Google Earth 2015). Understory growth is limited to non-native grasses, namely ripgut. Due to disturbance factors, the eucalyptus woodland within the survey area provides relatively low quality habitat and limited biological function and value.

Mixed Chaparral

Mixed chaparral is a broad classification for native chaparral-type communities that are widespread throughout the lower and mid elevations of southern California. These communities are comprised of broad-leaved sclerophyllous shrubs to about 10 feet in height, and are typically associated with north- and east-facing slopes at higher elevations than coastal sage scrub.

Approximately 2.18 acres of mixed chaparral occurs in the survey area. This habitat occurs in two patches in the western portion of the survey area. Similar to the coastal sage scrub in the survey area, the mixed chaparral is considered to be relatively low in habitat quality, primarily due to very low species richness, proximity to existing developments, and regional isolation. The mixed chaparral that occurs in the survey area is strongly dominated by lemonade berry. Other species observed in much lower densities include scrub oak, laurel sumac, and black sage. The mixed chaparral in the survey area provides limited biological function and value.

Native Grassland

Native grassland habitats in San Diego County are dominated by native perennial grasses. The percentage cover of native species at any one time may be quite low, but is considered native grassland if 20 percent aerial cover of native species is present. Approximately 0.14 acre of native grassland occurs in the western portion of the project area.

Non-native Grassland

In addition to the project area, a 0.99 acre non-native grassland occurs in the southern portion of the survey area. The grassland that occurs within the survey area is not directly connected to any larger, more expansive grassland habitat. Dominant species include ripgut, soft chess, and wild oats. Sub-dominants include native and non-native annuals such as filaree (*Erodium bohys)*, dove weed (*Croton setiger*), fiddleneck (*Amsinckia menziesii*), Spanish lotus (*Acmispon americanus* var. *americanus*), short-pod mustard, prickly lettuce (*Lactuca serriola*), and yellow star thistle. The non-native grassland within the survey area provides low quality habitat and limited biological function and value for commonly occurring wildlife species.

Ornamental Plantings

Approximately 4.31 acres of ornamental plantings are mapped encircling the disturbed and developed portions of the survey area. This area is characterized by several non-native sub-tree and shrub species defining an open canopy, with scattered non-native annual herbaceous species in the understory. A few isolative native shrub species occur amongst the non-native understory. Overall, the non-native vegetation and ornamental habitat within the survey area provides limited biological function and value.

Scrub Oak Chaparral

Approximately 1.47 acres of scrub oak chaparral occurs in the southern portion of the survey area. The area is characteristically dominated by scrub oak and occurs as an isolated stand among surrounding developed and disturbed areas. The scrub oak chaparral within the survey area provides moderate quality habitat, but limited biological function and value for commonly occurring wildlife species.

Wildlife

The project area is disturbed and does not provide extensive high quality habitat for wildlife species. Overall wildlife activity during the general surveys was low. One (1) reptile, thirteen (13) bird, and five (5) mammal species were observed or otherwise detected by call or sign in the project area during the general biological survey. Common species observed or otherwise detected (e.g., call, feathers, scat, tracks) in or flying over the project area during the surveys included common reptiles such as side-blotched lizard (*Uta stansburiana*); common songbirds such as black phoebe (*Sayornis nigricans*), northern mockingbird (*Mimus polyglottos*), house finch (*Carpodacus mexicanus*), lesser goldfinch (*Spinus psaltria*), song sparrow (*Melospiza melodia*), Bullock's oriole (*Icterus bullockii*), Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), and mourning dove (*Zenaida macroura*); and, common mammals such as desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Otospermorphilus beecheyi*), and domestic dog (*Canis familiaris*). In addition, an inactive woodrat (*Neotoma* sp.) nest was observed in the northwestern portions of the survey area (outside of the project site). It is unknown whether or not the woodrat nest was associated with the San Diego desert woodrat (*Neotoma lepida intermedia*), a sensitive species. With the exception of an unconfirmed San Diego desert woodrat nest, no rare, threatened, or endangered species were observed or otherwise detected in the survey area. A complete list of wildlife species observed or otherwise detected in the project area, including which habitat types they were observed in, is provided in Appendix D.

Wildlife Movement

Development in the region has reduced the total available open space for wildlife populations, and in some instances, created isolated "islands" of habitat. In general, wildlife corridors and linkages are smaller constrained areas of habitat that connect larger areas of habitat which are otherwise separated by rugged terrain, changes in vegetation, or urban development.

No known wildlife corridors or linkages occur in the project area. The survey area is constrained on three sides by existing developments and does not support habitat that would contribute substantially to the assembly and function of any local or regional wildlife corridors or linkages. What little habitat remains has been reduced to small, fragmented, and low quality stands, which are disconnected and isolated from better quality habitat in the local and regional area. Animal species that require direct or less-constrained habitat connectivity along their travel routes would be challenged to find access to the habitat in the project area and immediate vicinity.

Jurisdictional Waters and Wetlands

Jurisdictional waters and wetlands generally include those resources regulated by the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the federal Clean Water Act (CWA); the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA and State Porter-Cologne Water Quality Control Act; and the CDFW pursuant to Sections 1600 *et. seq.* of the CFG Code.

A narrow, concrete-lined drainage ditch transects the north and northwestern portions of the project area. This unnamed drainage feature supports disturbed wetland habitat but does not exhibit an ordinary high water mark (OHWM). Although not confirmed, downstream flows presumably continue to the north beneath Rancho Bernardo Road and discharge to underground municipal stormwater facilities. Due to the lack of an OHWM, the unnamed drainage feature and associated wetlands would likely not fall under the regulatory jurisdiction of the USACE, RWQCB, and CDFW.

4.3.1.3 Special Status Biological Resources

The following section addresses special-status biological resources observed, reported, or having the potential to occur within the project area. "Special status" species are plant and animal species recognized by federal or State agencies or conservation organizations as having special management needs due to limited distribution, limited numbers, or significant population declines associated with natural or manmade causes. Special-status species include those designated as endangered, threatened, rare, protected, sensitive, or species of special concern according to the USFWS, CDFW, or applicable regional plans, policies, or regulations.

In general, the principal reason an individual taxon (species, subspecies, or variety) is given special status recognition is the documented or perceived decline or limitation of its population size or geographical extent and/or distribution, in most cases resulting from habitat loss. Special-status biological resources also include vegetation types and habitats that are unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by federal, State, and local government conservation programs.

Special-Status Plant Species

Based on a list compiled through the CNDDB and other sources, 12 special-status plant species have been reported at locations in the vicinity (within approximately two miles) of the survey area (CDFW 2015a, California Native Plant Society [CNPS] 2015, Calflora 2015). None of the 11 special-status plant species have been reported as occupying habitat in the project area and none were observed in the project area during the "spring blooming period" for the region.

The coastal sage scrub present in the survey area is disturbed and contains a high percent cover of non-native grasses and forbs in the understory. The mixed chaparral in the survey area is dense, homogenous, and provides little canopy or understory opportunity for rare endemic plants to become established. The understory of the mixed chaparral consists entirely of non-native herbs, and none of the shrub species observed in the canopy are considered to be sensitive. No special-status plant species would be expected to occur in the project area.

Special-Status Animal Species

Based on a list compiled through the CNDDB, 22 special-status animal species have been reported at locations in the vicinity (within approximately two miles) of the project area (CDFW 2015a, CDFW 2015b). Two of the special-status animal species, southern mule deer and San Diego jackrabbit, are likely to transit the project area and use the surrounding survey area habitat. San Diego desert woodrat has the potential to occur in the study area. Four bird species have the potential to use the coastal sage scrub and chaparral

habitat in the study area. The Blainville's horned lizard (*Phrynosoma blainvillii*) has the potential to occur in the project area.

Sensitive Natural Communities

Five sensitive natural communities occur outside the proposed project area but within the property boundary: disturbed wetlands, coastal sage scrub, native grasslands, mixed chaparral, and scrub oak chaparral. Jurisdictional wetlands are regulated by the USACE. Wetlands are also regulated by the RWQCB and CDFW. The other communities are considered sensitive by CDFW (CDFW 2015a).

4.3.2 Regulatory Framework

4.3.2.1 Federal

Endangered Species Act

The U.S. Congress passed the federal Endangered Species Act (ESA) in 1973 to provide a means for conserving the ecosystems that endangered and threatened species require in order to prevent species extinctions. The federal ESA has four major components: 1) Section 4, which provides for listing species and designating critical habitat; 2) Section 7, which requires federal agencies, in consultation with the USFWS, to ensure that their actions are not likely to jeopardize the continued existence of species or result in the modification or destruction of critical habitat; 3) Section 9, which prohibits "take" of listed species; and 4) Section 10, which provides for permitting incidental "take" of listed species. Under the federal ESA, the term "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." Critical habitat is defined as "the specific areas within the geographic area occupied by a species on which are found those physical and biological features essential to the conservation of the species, and that may require special management considerations or protection; and specific areas outside the geographic area occupied by a species at the time it is listed, upon determination that such areas are essential for the conservation of the species."

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S. Code 703-711) implements an international treaty for the conservation and management of bird species that may migrate through more than one country. The MBTA protects all common wild birds found in the United States except the house sparrow, starling, feral pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkey. Enforced in the United States by the USFWS, the MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in Code of Federal Regulations Title 50, Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations. Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered a "take" and is potentially punishable by fines and/or imprisonment. In 1972, the MBTA was amended to include protection for migratory birds of prey (raptors). Generally, applicants who obtain a federal ESA Section 10(a) permit simultaneously receive a three-year MBTA permit for ESA-listed migratory birds.

Water Pollution Control Act (Clean Water Act)

The federal Water Pollution Control Act, passed by Congress in 1948, authorized the Surgeon General of the Public Health Service to prepare comprehensive programs for eliminating or reducing the pollution of

interstate waters and tributaries and improving the sanitary condition of surface and underground waters. This Act was later amended to become the federal Water Pollution Control Act Amendments of 1972, commonly known as the Clean Water Act (CWA). The CWA was designed to restore and maintain the chemical, physical, and biological integrity of the waters of the United States and gave the USEPA the authority to implement pollution control programs, including setting wastewater standards for industry and water quality standards for contaminants in surface waters. The USEPA has delegated responsibility for implementation of portions of the CWA in California to the State Water Resources Control Board (SWRCB) and the nine RWQCBs, including water quality control planning and control programs.

The CWA also prohibits the discharge of any pollutants from a point source into navigable waters, except as allowed by permits issued under certain sections of the CWA. Specifically, Section 404 authorizes the USACE to issue permits for and regulate the discharge of dredged or fill materials into wetlands or other waters of the United States. Under the CWA and its implementing regulations, waters of the United States are broadly defined as rivers, creeks, streams, and lakes extending to their headwaters, including adjacent wetlands. Furthermore, Section 401 allows states to certify or deny federal permits or licenses that might result in a discharge to state waters, including wetlands. Section 401 certifications are issued by the RWQCB for activities requiring a federal permit or license that may result in the discharge of pollutants into waters of the United States.

4.3.2.2 State

California Fish and Game Code

The California Fish and Game (CFG) Code regulates the taking or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the State. The CFG Code includes the California ESA (Sections 2050-2115) and Streambed Alteration Agreement regulations (Sections 1600-1616), which are both discussed in more detail below, as well as provisions for legal hunting and fishing, and tribal agreements for activities involving take of native wildlife. The CFG Code also includes protection of birds (Section 3500 et seq.) and the California Native Plant Protection Act of 1977 (Sections 1900-1913), which directed the CDFW to carry out the Legislature's intent to "preserve, protect, and enhance rare and endangered plants in this State."

The California ESA, which is administered by CDFW, is similar in many ways to the federal ESA. The California ESA provides a process for the CDFW to list species as threatened or endangered in response to a citizen petition or by its own initiative (CFG Code Section 2070 et seq.). Section 2080 prohibits the take of species listed as threatened or endangered pursuant to the California ESA. Section 2081 allows the CDFW to authorize take prohibited under Section 2080 provided that: 1) the taking is incidental to an otherwise lawful activity; 2) the taking will be minimized and fully mitigated; 3) the applicant ensures adequate funding for minimization and mitigation; and 4) the authorization will not jeopardize the continued existence of the listed species.

The Streambed Alteration Agreement regulations require any person, state, or local governmental agency to provide advance written notification to the CDFW prior to initiating any activity that would: 1) divert or obstruct the natural flow of, or substantially change or remove material from the bed, channel, or bank of any river, stream, or lake; or 2) result in the disposal or deposition of debris, waste, or other material into any river, stream, or lake (CFG Code Section 1602). The State definition of “rivers, streams, and lakes” includes all rivers or streams that flow at least periodically or permanently through a bed or channel with

banks that support fish or other aquatic life, and watercourses with surface or subsurface flows that support or have supported riparian vegetation.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning (NCCP) Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land uses. The CDFW is the principal state agency implementing the NCCP program. Sections 2800 et seq. of the CFG Code addresses NCCPs and a Section 2835 permit is issued by the CDFW for all NCCPs. The NCCP Act established a process to allow for comprehensive, regional multi-species planning in a manner that satisfies the requirements of the federal ESA and California ESA (through a companion regional Habitat Conservation Plan). The NCCP program has provided the framework for innovative efforts by the State, local governments, and private interests to plan for the protection of regional biodiversity and the ecosystems upon which it depends. NCCPs seek to ensure the long-term conservation of multiple species, while allowing for compatible and appropriate economic activity to proceed.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code, Division 7) provides for statewide coordination of water quality regulations. The Act established the SWRCB as the statewide authority and nine separate RWQCBs to oversee smaller regional areas within the State. The Act authorizes the SWRCB to adopt, review, and revise policies for all waters of the State (including both surface and ground waters), and directs the RWQCBs to develop regional Basin Plans. Section 13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative. The San Diego Basin Plan (San Diego RWQCB 1994) is designed to preserve and enhance the quality of water resources in the San Diego region for the benefit of present and future generations. The purpose of the plan is to designate beneficial uses of the region's surface and ground waters, designate water quality objectives for the reasonable protection of those uses, and establish an implementation plan to achieve the objectives.

4.3.2.3 Regional

City of San Diego Multiple Species Conservation Plan

The City of San Diego participates in the Multiple Species Conservation Plan (MSCP), which is a comprehensive, long-term habitat conservation plan that addresses the needs of multiple species and the preservation of natural vegetation communities in the southwestern San Diego County. The MSCP addresses the potential impacts of urban growth, natural habitat loss and species endangerment and creates a plan to mitigate for the potential loss of Covered Species and their habitat due to the direct impact of future development of both public and private lands within the MSCP area. The total study area encompasses twelve jurisdictions and consists of 582,243 acres. The MSCP is a subregional plan under the Natural Communities Conservation Program, which is implemented through local subarea plans. The City of San Diego has completed the planning effort to identify core biological resource areas targeted for conservation and has entered into an agreement with federal and state wildlife agencies to ensure implementation of the resource conservation plan and habitat preserve.

City of San Diego Subarea Plan

The City of San Diego MSCP Subarea Plan encompasses 206,124 acres within the MSCP Subregion. The subarea is characterized by urban land uses with approximately three-quarters either built out or retained as open space/park system. Within this area, the City has delineated a 56,831 acre and includes

approximately 47,910 acres within City jurisdiction, and additional City-owned lands (8,921 acres) in the unincorporated areas around San Vicente Reservoir, Otay Lakes, and Marron Valley.

The Lake Hodges Segment (LHS) of the MSCP Subarea Plan is located in west-central San Diego County, west of Interstate 15, north of the City of San Diego, and east of Rancho Santa Fe. The LHS covers approximately 8,874 acres, with the majority of the land currently vacant and approximately 512 acres of agricultural uses and a few scattered homes (County of San Diego, 1997). The take areas currently covered by the LHS apply only to areas in which property owners have completed negotiations with the Wildlife Agencies and the County. The LHS is traversed by the Del Dios Highway as well as by dirt roads, utility lines, including electrical and water, and the San Dieguito River. It should be anticipated that the acreage of various habitat types, and the dependent species, will vary over time due to natural secession, recovery from fire, and other natural causes; this natural variation is accommodated in the design of the preserve. The LHS is approximately 1.5 miles north of the project area.

4.3.3 Impacts and Mitigation

4.3.3.1 Issue 1 – Special Status Species

Would the proposed project 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 regulated by the CDFW and USFWS?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project would have a significant impact if it would 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 regulated by the CDFW and USFWS. Appendix D of this EIR identifies sensitive plants and animals known from the vicinity of the proposed campus that have a low potential to occur within the property. Because impacts to these species are unlikely, they are considered less than significant and are not addressed in this section.

Impact Analysis

Special-Status Plant Species

As discussed in Section 4.3.1.3 Special Status Biological Resources, no special-status plant species were determined to have a high potential to occur in the project area. Additionally, no special-status plant species were observed in the project area during the general biological survey in June or October 2012 or May 2015. The project would result in direct impacts to existing non-native habitat that is highly disturbed and generally unsuitable for special-status plant species. Given the small area proposed to be impacted, marginal quality of the habitat, and the fact that no special-status plant species were observed during surveys in June or October 2012 or May 2015, no special-status plant species would be expected to occur in the proposed permanent and temporary impact areas. Therefore, impacts to special-status plant species would be less than significant. No mitigation is required.

Special-Status Animal Species

As discussed in Section 4.3.1.3 Special Status Biological Resources, eight special-status animal species have moderate to high potential to occur within the project area or in the adjacent habitat within the study area. The woodrat nest that was observed in the northwestern portions of the survey area occurs outside of the proposed project area.

The project would result in very limited direct impacts to existing habitat that is highly disturbed and generally unsuitable for most special-status animal species. The habitat in the proposed impact areas occurs in land that has been previously disturbed and/or is planted with ornamental species. The limited amount of habitat that occurs in the proposed impact areas is separated from MSCP Preserve land by Rancho Bernardo Road. Adjacent habitat in the survey area is also disturbed, surrounded by existing developments, locally and regionally isolated, and relatively small in size. Therefore, no special-status animal species would be expected to permanently reside in the proposed permanent impact areas. The special-status species that are likely to use the project area to forage to transit are likely to also use the larger surrounding habitat. Consequently, the proposed project is not anticipated to result in any significant impacts to special-status animal species and no mitigation is required.

Nesting Birds

The project area and immediate vicinity contain trees, shrubs, and man-made structures (e.g., buildings) that provide suitable nesting habitat for common (non-sensitive) birds, including raptors, protected under the MBTA and CFG Code. Construction of the proposed project could result in the removal or trimming of trees and shrubs during the bird nesting season of March 15 through September 15), and therefore, could result in impacts to nesting birds in violation of the MBTA and CFG Code. Direct impacts could occur as a result of removal of vegetation supporting an active nest. Indirect impacts could occur as a result of construction noise and vibration in the immediate vicinity of an active nest, such that the disturbance results in a nest failure. These impacts would be considered significant in violation of the MBTA and CFG Code. Implementation of Mitigation Measure Bio-1 would require that PCCD perform pre-construction surveys and implement avoidance measures to prevent construction-related impacts to nesting birds in violation of the MBTA and CFG Code. Therefore with implementation of Mitigation Measure Bio-1, impacts to nesting birds would be less than significant.

Mitigation Measures

Implementation of Mitigation Measure Bio-1 would prevent impacts to nesting birds in violation of the MBTA and CDG Code.

Bio-1 **Pre-Construction Nesting Bird Surveys**. Vegetation should not be removed from the project site between March 15 and September 15 to avoid impacts to nesting birds. If project construction cannot be avoided during the period of March 15 through September 15, a qualified biologist would survey all potential nesting vegetation on and within 300 feet of the project site for nesting birds, prior to commencing project activities (including construction and/or site preparation). Surveys shall be conducted once a day for two days at the appropriate time of day during the breeding season, and surveys shall be performed no more than three days prior to vegetation removal and/or disturbance. If no nesting birds are observed, project activities may begin without further mitigation. If an active bird nest is located, the nest site shall be fenced with an exclusion zone of a minimum of 200 feet (500 feet for raptors) in all directions (as feasible considering site

boundaries) and this area shall not be disturbed until after September 15 or until the nest becomes inactive.

4.3.3.2 Issue 2 – Sensitive Natural Communities

Would the proposed project have a substantial adverse effect on sensitive natural communities?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project would have a significant impact if it would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or regulated by the CDFW and USFWS.

Impact Analysis

The proposed project could result in indirect impacts to disturbed wetlands, as identified by CDFW. The project's impacts to sensitive natural communities are summarized below.

All of the proposed impacts would occur to non-native grasslands and landscaped areas. The habitat proposed to be impacted is of very low quality and biological function and value. No sensitive natural communities occur within the project area.

In addition, project construction would occur adjacent to sensitive natural communities and habitats. Adverse indirect impacts to sensitive natural communities and habitats located immediately adjacent to the project site would be considered significant. No indirect impacts resulting from storm water runoff from the construction site are expected. However, construction activities could result in adverse indirect impacts to adjacent sensitive natural communities and habitats pertaining to water quality (e.g., fluid leaks from construction vehicles, concrete spoils and other hazardous construction materials). Construction vehicles and materials could result in the inadvertent placement of contaminants into the soil in the project site and upstream of sensitive natural communities and habitats. Contaminants could enter into the stream course during the onset of rains or the operation of the new storm drains upon completion of the project.

Implementation of Mitigation Measures Bio-2 and Bio-3 would require that PCCD implement avoidance and protection measures during construction. Therefore with implementation of Mitigation Measure Bio-2 and Bio-3, impacts to sensitive natural communities would be less than significant.

Mitigation Measures

Implementation of Mitigation Measure Bio-2 would prevent additional direct impacts to habitat located adjacent to the construction site, and would also reduce potential indirect impacts pertaining to spread of silt from the construction zone. Implementation of Mitigation Measure Bio-3 would reduce potential indirect impacts pertaining to the spill of contaminants in the construction zone.

Bio-2 **Construction Fencing and Best Management Practices**. Prior to vegetation clearing, grading, and/or construction activities, the PCCD will retain a qualified biologist to oversee installation of appropriate fencing to delineate the limits of construction and the approved construction staging areas. Temporary fencing (with silt barriers) will be installed at the limits of project

impacts (including construction staging areas and access routes, as feasible) to prevent additional sensitive habitat impacts and to prevent the spread of silt from the construction zone into adjacent habitats to be avoided. Fencing will be installed in a manner that does not impact habitats to be avoided. The temporary construction fencing will be removed by PCCD upon project completion.

Also, standard construction Best Management Practices shall be implemented on site, including but not limited to: observation of a reduced 20-mile per hour speed limit in all project areas; limiting outdoor construction activities to day-time only (no additional lighting required); placing trash in closed containers; prohibiting firearms on site; prohibiting pets on site; and ensuring construction noise shall not significantly exceed the existing ambient noise level.

Bio-3 **Construction Staging and Equipment Maintenance**. The PCCD shall ensure fueling of equipment occurs solely in designated fueling zones or off site. All equipment used in the approved construction limits will be maintained to minimize and control fluid and grease leaks. Provisions to contain and clean up unintentional leaks/spills of construction materials (e.g., concrete), and fuel, oil, fluid and grease shall be in place prior to construction.

4.3.3.3 Issue 3 – Wetlands

Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc) through direct removal, filling, hydrological interruption, or other means?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project would have a significant impact if it would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact Analysis

In the context of this assessment, jurisdictional waters and wetlands generally include those resources regulated by the USACE pursuant to Section 404 of the federal Clean Water Act (CWA); the RWQCB pursuant to Section 401 of the CWA and State Porter-Cologne Water Quality Control Act; and the California Department of Fish and Wildlife (CDFW) pursuant to Sections 1600 *et. seq.* of the California Fish and Game Code.

A narrow, concrete-lined drainage ditch transects the north and northwestern portions of the project area. This unnamed drainage feature supports disturbed wetland habitat but does not exhibit an ordinary high water mark (OHWM). Although not confirmed, downstream flows presumably continue to the north beneath Rancho Bernardo Road and discharge to underground municipal stormwater facilities. Due to the lack of an OHWM, the unnamed drainage feature and associated wetlands would likely not fall under the regulatory jurisdiction of the USACE, RWQCB, and CDFW.

The proposed project is not likely to result in minor indirect impacts to disturbed wetlands, as identified by CDFW. No permanent impacts would occur. The disturbed wetlands that occur in the impact areas are

depicted in Figure 4.3-1 Vegetation Communities. Overall, the disturbed wetland within the project area provides low quality habitat and limited biological function and value (Appendix D).

No potential jurisdictional waters and wetlands, including federally protected wetlands as defined by Section 404 of the CWA, were determined to occur within the proposed project impact area.

The proposed project was determined to not 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. Therefore, there are no impacts to federally protected wetlands. No mitigation would be required.

Mitigation Measures

Implementation of the proposed project would not have substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA through direct removal, filling, hydrological interruption, or other means; therefore no mitigation is required.

4.3.3.4 Issue 4 – Wildlife Corridors and Nursery Sites

Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project would have a significant impact if it would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact Analysis

Development in the region has reduced the total available open space for wildlife populations, and in some instances, created isolated "islands" of habitat. In general, wildlife corridors and linkages are smaller constrained areas of habitat that connect larger areas of habitat which are otherwise separated by rugged terrain, changes in vegetation, or urban development. This allows for an exchange of gene pool between wildlife populations, which increases the genetic viability of otherwise isolated populations. Wildlife corridors are especially important for species with large habitat ranges or seasonal migrations. A corridor is a specific route that is used for the movement and migration of species, and may be different from a linkage in that it represents a smaller or narrower avenue for movement. A linkage is an area of land that supports or contributes to the long-term movement of wildlife and genetic exchange by providing live-in habitat that connects to other habitat areas. Many linkages occur as stepping-stone linkages that are comprised of fragmented archipelago arrangement of habitat over a linear distance. Corridors and linkages will be comprised of land features which accommodate the movement of all sizes of wildlife, including large animals on a regional scale. Their contributing areas will support adequate vegetation cover, providing visual continuity and long lines of sight, so as to encourage the use of the corridor by all types of wildlife. In San Diego County, important corridors/linkages have been identified on the local and regional scale, particularly in establishing a connection between the northern and southern regional populations of the federally threatened coastal California gnatcatcher.

No known wildlife corridors or linkages occur on the project area. The project area is constrained on three sides by existing developments and does not support habitat that would contribute substantially to the assembly and function of any local or regional wildlife corridors or linkages. What little habitat remains has been reduced to small, fragmented, and low quality stands, which are disconnected and isolated from better quality habitat in the local and regional area. Animal species that require direct or less-constrained habitat connectivity along their travel routes would be challenged to find access to the habitat in the project area and immediate vicinity. Although the general habitat in the immediate vicinity of the project area could be used as potential stepping-stone habitat for certain migratory and resident birds, for example, the habitat in the project area itself is highly disturbed, and most of it does not provide adequate cover or resources. Therefore, the project area does not support habitat that would contribute substantially to the assembly and function of any local or regional wildlife corridors or linkages.

The project site is approximately 1.5 miles south of the Lake Hodges Segment of the City's MSCP Subarea Plan Preserve Area, and approximately 0.25 mile east of an area designated as MSCP Preserve Land. The Preserve Area protects a major portion of the Hodges Reservoir-San Pasqual Valley Core Area identified in the Draft MSCP, as well as providing the vital regional linkage to the northwest to the Carlsbad/La Costa region. This is the primary connection between these two regions for the California gnatcatcher (City of San Diego, 1997). The proposed improvements, including construction would not impact habitat within the Preserve Area, nor would it affect its ability to serve as a wildlife corridor. Therefore, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP, or impede the use of native wildlife nursery sites. Impacts would be less than significant and no mitigation is required.

Mitigation Measures

Implementation of the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents or migratory wildlife corridors, or impede the use of native wildlife nursery sites; therefore, no mitigation is required.

4.3.4 Cumulative Impacts

Mitigation measures would be implemented during project construction to avoid and/or minimize impacts to sensitive biological resources.

The cumulative impacts to biological resources associated with implementation of the proposed project, in conjunction with those of other projects within the City Subarea planning area, would not be cumulatively considerable. Therefore, implementation of the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact to sensitive species, natural communities, wetlands, and corridors.

4.3.5 CEQA Checklist Items Deemed Not Applicable to the Project

Would the proposed PCCD South Education Center conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

As discussed in Section 4.3.3.2, Issue 2 Sensitive Natural Communities, Implementation of Mitigation Measures Bio-1 through Bio-3 would require that avoidance and protection measures be implemented during construction. With the implementation of Mitigation Measures Bio-1 through Bio-3, the proposed PCCD South Education Center would not conflict with any local policies or ordinances protecting biological resources. Therefore, impacts would be less than significant.

Would the proposed PCCD South Education Center conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The proposed PCCD South Education Center is not within the boundaries of the City of San Diego MSCP Subarea Plan. However, it is adjacent to an area designated as the Lake Hodges Preserve Area for the City's MSCP Subarea Plan (see Figure 2 in the Biological Resources General Survey Report – Appendix D). Additionally, the project site is adjacent to an area designated as the Lake Hodges Preserve Area for the City's MSCP Subarea Plan.

The proposed project is not expected to result in any impacts to special-status species, including MSCP covered species and narrow endemic species. The project would not result in impacts to any wildlife corridors or linkages, including lands identified in the City's MSCP Subarea Plan as important habitat linkages or other areas of local or regional wildlife movement importance. The project would not prevent the City from attaining the conservation goals and objectives of the City's MSCP Subarea Plan area. Therefore, no impacts would occur.

4.3.6 References

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4.4 Greenhouse Gas Emissions

This section describes the existing conditions with respect to greenhouse gas (GHG) emissions; the potential environmental effects (direct, indirect, and/or cumulative) related to the direct and indirect generation of GHGs and applicable GHG emissions reduction plans, policies, and regulations, resulting from implementation of the proposed project; and mitigation measures, if required, to reduce or avoid potentially significant impacts.

4.4.1 Existing Conditions

4.4.1.1 Global Climate Change Overview

Global climate change is an alteration in the average weather of the earth, which can be measured by wind patterns, storms, precipitation, and temperature. The earth's climate is in a state of constant flux with periodic warming and cooling cycles. For most of the earth's geologic history, these periods of warming and cooling have been the result of many complicated, interacting natural factors such as volcanic eruptions, changes in the earth's orbit, and the amount of energy released from the sun. However, since the beginning of the Industrial Revolution around 1750, the average temperature of the earth has been increasing at a rate that is faster than can be explained by natural climate cycles alone. With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, natural gas, and biomass. Industrial processes have also created emissions of substances that are not found in nature. These emissions, in turn, have led to a marked increase in the accumulation of gases in the atmosphere that have been shown to influence the earth's climate. These gases, termed GHGs, influence the amount of heat that is trapped in the earth's atmosphere, analogous to the way a greenhouse retains heat. Because recently observed increased concentrations of GHGs in the atmosphere are related to increased emissions resulting from human activity, the current cycle of "global warming" is generally believed to be largely due to human activity.

4.4.1.2 Greenhouse Gases

California Health and Safety Code Section 38505(g) defines GHGs to include the following compounds: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). Carbon dioxide, followed by methane and nitrous oxide, are the most common GHGs that result from human activity, and are the GHGs of primary concern in this analysis. Descriptions of these compounds and their sources are provided below. Fluorinated gases (hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride) are synthetic, powerful GHGs that are emitted from a variety of industrial processes, and are not of primary concern in this analysis.

Individual GHGs have varying atmospheric lifetimes and heat-trapping properties. The atmospheric lifetime of a GHG is the average time the molecule stays stable in the atmosphere. Most GHGs have long atmospheric lifetimes, staying in the atmosphere for hundreds or thousands of years. The potential of a gas to trap heat in the atmosphere is measured by its global warming potential. The global warming potential is defined as the cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas. Table 4.4-1 identifies the

atmospheric lifetimes and global warming potentials of the GHGs of primary concern in this analysis. The reference gas for global warming potential is carbon dioxide. The carbon dioxide equivalent (CO_2e) methodology normalizes various GHG emissions to a consistent measure to allow for direct comparison. For example, methane has a global warming potential of 25 and nitrous oxide has a global warming potential of 298 (i.e., methane is 25 times more potent than carbon dioxide and nitrous oxide is 298 times more potent than carbon dioxide); therefore, one metric ton (MT) of methane is equal to 25 MT CO_2e; additionally one MT of nitrous oxide is equal to 298 MT of CO_2e.

Table 4.4-1 Atmospheric Lifetimes and Global Warming Potentials

GHG	Formula	Atmospheric Lifetime (Years)	100-Year Global Warming Potential
Carbon Dioxide	CO_2	50-200	1
Methane	CH_4	12	25
Nitrous Oxide	N_2O	114	298

Source: USEPA 2015

Carbon Dioxide

Carbon dioxide is the primary greenhouse gas emitted through human activities. Carbon dioxide enters the atmosphere through the burning of fossil fuels, solid waste, trees and wood products, and as a result of other chemical reactions such as the manufacturing of cement. Globally, the largest source of carbon dioxide emissions is the combustion of fossil fuels in power plants, automobiles, industrial facilities, and other similar sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and petroleum-based products also produce carbon dioxide emissions. Carbon dioxide is removed from the atmosphere (or "sequestered") as part of the biological carbon cycle. Billions of tons of atmospheric carbon dioxide are sequestered by oceans and growing plants (also known as "sinks") and are emitted back into the atmosphere annually through respiration, decay, and combustion (also known as "sources"). When in balance, the total carbon dioxide sinks and sources from the entire carbon cycle are roughly equal. However, since the Industrial Revolution, human activities such as the burning of fossil fuels and deforestation have increased carbon dioxide concentrations in the atmosphere.

Methane

Methane is emitted from a variety of human-related and natural sources. Human-related sources of methane include fossil fuel production and transport, animal husbandry, rice cultivation, biomass burning, and waste management (i.e., decay of organic waste in landfills). Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. Methane emission levels from a source can vary significantly from one country or region to another, depending on many factors such as climate, industrial and agricultural production characteristics, energy types and usage, and waste management practices. For example, temperature and moisture have a significant effect on the anaerobic digestion process, which is one of the key biological processes that cause methane emissions in both human-related and natural sources. Also, the implementation of technologies to capture and utilize methane from sources such as landfills, coal mines, and manure management systems affects the emission levels from these sources. It is estimated that 60 percent of global methane emissions are related to human activities (USEPA 2015).

Nitrous Oxide

Nitrous oxide is emitted from a variety of human-related and natural sources. Human-related sources of nitrous oxide include agricultural soil management, animal manure management, sewage treatment, combustion of fossil fuel and solid waste, adipic (fatty) acid production, and nitric acid production. Nitrous oxide is also produced naturally through sources associated with the biological nitrogen cycle, particularly microbial action in wet tropical forests. Nitrous oxide emission levels from a source can vary significantly from one country or region to another, depending on many factors such as industrial and agricultural production characteristics, combustion technologies, waste management practices, and climate. For example, heavy utilization of synthetic nitrogen fertilizers in crop production typically results in significantly more nitrous oxide emissions from agricultural soils than that occurring from less intensive, low-tillage techniques. Also, the presence or absence of control devices on combustion sources, such as catalytic converters on automobiles, can have a significant effect on the level if nitrous oxide emissions from these types of sources. It is estimated that 40 percent of global nitrous oxide emissions are related to human activities (USEPA 2015).

4.4.1.3 GHG Emissions Inventories

In an effort to evaluate and reduce the potential adverse impacts of global climate change, GHG inventories have been compiled to estimate the level of emissions and removals. The global, national, statewide, and citywide inventories are summarized below.

Global

Worldwide anthropogenic GHG emissions in 2010 were approximately 49,000 million MT of CO_2e, including ongoing emissions from industrial and agricultural sources and emissions from land use changes such as deforestation and biomass decay (Intergovernmental Panel on Climate Change 2014). Carbon dioxide emissions from fossil fuels and industrial processes accounted for 65 percent of the total GHG emissions, while carbon dioxide emissions from all sources accounted for 77 percent of the total GHG emissions. Methane emissions accounted for 16 percent of the total GHG emissions. Nitrous oxide emissions accounted for 6.2 percent of total GHG emissions.

The Global Carbon Project releases an annual update of the global carbon budget and trends. According to the Carbon Budget and Trends 2014 update (Global Carbon Project 2014), the atmospheric carbon dioxide concentration in 2013 was 395 parts per million (ppm), 43 percent above the concentration at the start of the Industrial Revolution (about 277 ppm in 1750). The present concentration is the highest during the last 800,000 years. The annual growth rate of atmospheric carbon dioxide was 2.53±0.09 ppm in 2013, significantly above the average growth rate of the past 10 years (2004-2013). For comparison, the average growth rate was 1.5±0.1 ppm for the decade 1990-1999, and was 1.6±0.1 ppm for the decade 1980-1989.

United States

The USEPA's Inventory of U.S. GHG Emissions and Sinks provides a comprehensive emissions inventory of the nation's primary anthropogenic sources and sinks of GHGs back to 1990. According to the 1990-2012 Inventory (USEPA 2014), U.S. GHG emissions totaled 6,525.6 million MT CO_2e in 2012, which represents a 4.7 percent increase from 1990 levels. From 2011 to 2012, GHG emissions decreased by 3.4 percent. This decrease was due to a decrease in the carbon intensity of fuels consumed by power producers to generate electricity due to a decrease in the price of natural gas, a decrease in transportation sector emissions

attributed to a small increase in fuel efficiency across different transportation modes and limited new demand for passenger transportation, and much warmer winter conditions resulting in a decreased demand for heating fuel in residential and commercial sectors..

State of California

The State of California is a substantial contributor of GHG emissions, with the second largest GHG emissions in the U.S. and the 14th largest carbon dioxide emissions in the world. According to the 2000-2012 California GHG Emissions Inventory (CARB 2014), total California GHG emissions were 459 million MT CO_2e in 2012, which represents a 6.1 percent increase from 1990 levels. From 2011 to 2012, GHG emissions increased by 1.7 percent. Table 4.4-2 summarizes California GHG emissions by economic sectors. As shown in Table 4.4-2, the transportation sector was the largest contributor to California GHG emissions, followed by the industrial sector and electricity generation from both in-state and imported sources.

Table 4.4-2 State of California GHG Emissions by Economic Sector (2012)

Economic Sector	GHG Emissions (million MT CO_2e)	Percent of Total GHG Emissions
Agriculture and Forestry	37.86	8
Commercial	22.02	5
Electricity Generation (imports)	44.15	10
Electricity Generation (in-state)	51.18	11
Industrial	100.67	22
Residential	31.59	7
Transportation	171.01	37
Unspecified[1]	0.21	<1
Total GHG Emissions[2]	**458.68**	**100**

[1] Unspecified includes emissions from evaporative losses and ozone-depleting substances substitute use, which could not be attributed to an individual sector.

[2] Sum of above values may not exactly equal the totals due to rounding.

Source: CARB 2014

City of San Diego

The project site is located within the City of San Diego, and the area of influence of the 2015 City of San Diego Climate Action Plan (CAP); as such, the project site is included in the CAP's baseline inventory of communitywide GHG emissions. According to the CAP, the City of San Diego's GHG emissions were approximately 13 million MT CO_2e in the baseline year 2010. Table 4.4-3 summarizes City of San Diego GHG emissions by category. As shown in Table 4.4-3, transportation was the largest contributor to City of San Diego GHG emissions, followed by electricity and natural gas.

Table 4.4-3 City of San Diego GHG Emissions by Category (2010)

Category	Percent of Total GHG Emissions
Transportation	55
Electricity	24
Natural Gas	16
Solid Waste and Wastewater	3
Civil Aviation	6
Water-Borne Navigation	<1
Off-Road Equipment and Vehicles	4
Rail	1
Waste	2
Other Fuels (Propane, Kerosene, Wood, etc.)/Other	4
Agriculture/Forestry/Land Use	1
Total GHG Emissions(1)	**100**

Source: City of San Diego 2015a

4.4.1.4 Regional Adverse Effects of Climate Change

The San Diego Foundation Regional Focus 2050 Study (The San Diego Foundation 2008) explored what the San Diego region would be like in the year 2050 if current trends continue. The range of impacts presented in this study are based on projections of climate change using three climate models and two emissions scenarios drawn from those used by the Intergovernmental Panel on Climate Change. The study addresses potential regional adverse effects related to climate, sea-level rise, water supplies and demand, wildfires, biodiversity and natural ecosystems, public health, and energy demand, which are summarized below.

Climate

In 2050, if current trends continue, San Diego's climate would be hotter and drier. All six climate model simulations project warming across the San Diego region by year 2050, ranging from about 1.5°F to 4.5°F on average, with variation by season and geographic distribution through the region. While temperature increase in coastal areas will be slightly tempered by the Pacific Ocean, inland areas will be as much as 2°F warmer in comparison. These inland areas are also where the population will be growing most rapidly. There will also be greater warming in summer than in winter, with 0.7°F to 2°F additional warming in the summer months.

Heat waves will increase in frequency, magnitude, and duration. For instance, the number of days over 97.3°F in the Miramar area is projected to increase six-fold by year 2050. Extreme warm temperatures in the San Diego region today mostly occur in July and August, but as climate warming takes hold, the occurrences of these events will likely begin earlier and continue later into the year.

The impact of climate change on precipitation is not entirely clear at this time. Analysis indicates that while San Diego will retain its strong Mediterranean climate with relatively wetter winters and dry summers, projections of future precipitation have mixed results. One important aspect of all model

projections, however, is that the high degree of variability of annual precipitation will prevail, suggesting the region will continue to be highly vulnerable to drought.

Sea-Level Rise

Sea level rise, averaged globally over the 20th century, has been about seven inches. By year 2050, another 12 to 18 inches of sea level rise is expected for the San Diego region. This will result in serious flooding in low-lying areas with permanent loss of current sandy beach and increasingly frequent intrusion into near-shore streets, recreational areas, ecosystems and wetlands. There will be an increased incidence of extreme high sea level events which occur during high tides. As the decades proceed, these events will tend to persist longer, likely causing greater coastal erosion and related damage. Serious economic and environmental consequences can be expected, though studies have not yet fully quantified the regional impact.

Water Supplies and Demand

Climate change will negatively impact the availability of both imported and local water supplies, while population and economic growth will drive up water demand. If current trends continue, by year 2050, regional water demand is projected to increase 37 percent above recent levels. Notably, by year 2050, residential demands will comprise 66 percent of the total regional water consumption. This illustrates the continued importance of modifying individual consumer behavior, especially the heavy use of water for residential landscaping, in order to reduce the pressures on regional water supplies.

Regional water demands will continue to be met primarily by importing water, with imports from the Sacramento Delta and the Colorado River comprising about 80 percent of total supplies in year 2050. Climate change threatens the reliability of both of these sources, however. Significant reductions in Colorado River flows are expected, with projections ranging anywhere from six to 45 percent declines. Freshwater available to San Diego from the Sacramento River Delta will be less certain by year 2050 due to Sierra snowpack reductions of at least 25 percent, as well as the need for authorities to manage the fragile balance between the delta's ecosystem health, water quality, and water demands from the burgeoning statewide population.

Managing and acquiring adequate water resources for the San Diego region will continue to be a complex and increasingly difficult challenge in the upcoming decades. Local supplies of water will play an important role in sustaining demand, but are projected to reach foreseeable limits by year 2015 unless less-traditional methods, such as water recycling or desalination, are employed. There is much reason for concern that even with creative and innovative arrangements among competing water interests with concerted conservation measures, and with enhancement of identified supply sources, that the combined effects of regional growth, water use practices, and climate change will expose the region to greater risk or water shortfalls even before year 2050.

Wildfires

San Diego County already has among the worst fire conditions in the country, and will likely worsen with climate change. Historically, wildfire frequency has increased in direct proportion with population growth, portending a hazardous trajectory of the future fire regime given the expected human growth by year 2050. Different climate change models yield somewhat different predictions about the frequency, timing, and severity of future Santa Ana wind conditions, leading to uncertainty regarding how future San Diego regional fire regimes may differ due to climate change. Preliminary research by the California Climate

Change Center suggests that such wind conditions may increase earlier in the fire season, and continue later into the year. Furthermore, the spread of invasive species that are more fire-prone, coupled with more frequent and prolonged periods of drought, would also increase the risk of fires.

While fire is a key ecological process regionally, and our native species are well-adapted to the long-term natural fire regime, the changes may be faster than many species can adapt to. Research has shown that of the eight megafires (fires affecting more than approximately 123,550 acres) recorded for the region, half have occurred in the past five years. The implications to San Diego of an increase in fires go beyond impacts on biodiversity and ecosystems, however, and represent risks to public safety, human health, the built environment, air quality, and water quality.

Biodiversity and Natural Ecosystems

As a global biodiversity hotspot, the biological richness of the San Diego region is difficult to overstate, and is already under stress from population growth and habitat fragmentation through land use changes. A changing climate will add to the stress on ecological systems in ways that may create feedback cycles with significant and cascading consequences. Plant and animal species will each differ in their sensitivity to a changing climate, but the fact that they depend on each other increases the overall effects. Additionally, with climate change, the "climatic envelopes" where species need to make their habitat will move due to increasing temperatures and more frequent fires. Their likelihood of surviving such a shift may be limited through the speed at which they are forced to do so, as well as the increasing conversion of land for human use, habitat degradation by non-native grasses, unsuitable soils, or other physical limitations.

Forest ecosystems will be substantially affected by temperature rise and indirect climate change affects in California. Extended drought can stress individual trees, increase their susceptibility to insect attack and result in widespread forest decline. Stressed trees have less resistance to insects, such as bark beetles that girdle and kill the trees. More indirectly, warmer winter temperatures projected regionally can increase such insect survival and populations.

Coastal ecosystems are particularly vulnerable to the combination of climate change and population growth. Intertidal and subtidal habitats along San Diego's coastline contain a large diversity of marine algae, invertebrates and fish. Sea level rise and ocean acidification, coupled with more intense storms may wipe out certain habitats altogether. Predicting which species will persist or not, and how changes in species composition and abundance may affect local productivity and fisheries remains a complex challenge.

Public Health

Climate change effects on human health will be both direct, with temperature and extreme weather-related illness and death; as well as indirect, with air pollution-related harm, wildfire injuries and deaths, and vector-, rodent-, and water-borne disease. The aging population in San Diego will likely face more mortality events associated with such extreme heat events and the increase in temperature due to climate change. Notably, heat waves in California have claimed more lives over the past 15 years than all other declared disaster events combined, indicating the level of vulnerability in San Diego due to such projected increases.

Already, Californians experience the worst air quality in the nation. San Diego County is currently out of compliance with the federal ozone standard, and the USEPA has projected that this will still be the case by year 2020, despite current regulatory efforts. High ozone levels have been definitively associated with adverse human health effects, including exacerbation of asthma and other respiratory diseases, cardiac effects, and mortality. The number of hot, sunny days that are conducive to ground-level ozone formation is likely to rise due to climate change by year 2050.

The incidence and spread of a number of infectious diseases can be affected by climate change. By year 2050, the potential for waterborne diseases will increase in San Diego County as population increases, water becomes scarcer, and the ecosystems which provide natural purification services decline and become more stressed. In coastal waters, conditions are likely to favor more frequent “red tides” or harmful algal blooms, which could interact with increased incidence of pathogens from runoff and sewage outfalls, resulting in increased health risk. Additionally, climate change in San Diego County could increase the risk of certain vector-borne diseases while decreasing the risk of others.

Energy Demand

Coupling projected growth in the population and economy, total electricity demand by year 2050 is projected to increase by approximately 60 percent, and peak loads by 70 percent. Climate change accounts for approximately two percent of the expected rise in electricity consumption by year 2050, and up to seven percent of the increase in peak demand. Additional peak demand will be primarily due to the need for more cooling in the summer, especially in inland areas where both regional population growth and temperature increases will be highest. Additionally, the possible implementation of seawater desalination to diversify water supplies is likely to boost overall electricity use in the region by one to 1.5 percent by year 2030.

Climate change will have also an impact on system reliability unless adequate planning and investments are made, and consumers modify their consumption patterns. Peak demand will be even more challenging to deal with due to higher frequency of heat waves. Summertime, when demand is highest, is also the time when electric utility operating efficiency is lower and line losses increase, both due to temperature effects.

4.4.2 Regulatory Framework

4.4.2.1 Federal

Climate Change Action Plan

In October 1993, President Clinton announced the Climate Change Action Plan, which had a goal of returning GHG emissions to 1990 levels by the year 2000. This was to be accomplished through 50 initiatives that relied on innovative voluntary partnerships between the private sector and government aimed at producing cost-effective reductions in GHG emissions. On March 21, 1994, the U.S. joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change. Under the Convention, governments agreed to gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of global climate change.

Endangerment and Cause or Contribute Findings for GHGs

On April 2, 2007, in the court case of Massachusetts et al. vs. the Environmental Protection Agency et al. (549 U.S. 497), the U.S. Supreme Court found that GHGs are air pollutants covered by the federal CAA. The Supreme Court held that the Administrator of the USEPA must determine whether or not emissions of GHGs from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the Administrator is required to follow the language of Section 202(a) of the CAA. On December 7, 2009, the Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action was a prerequisite for implementing GHG emission standards for vehicles. In collaboration with the National Highway Traffic Safety Administration (NHTSA), the USEPA finalized emission standards for light-duty vehicles (2012-2016 model years) in May 2010, and heavy-duty vehicles (2014-2018 model years) in August 2011.

Mandatory Reporting of GHGs Rule

On September 22, 2009, the USEPA issued a final rule for the mandatory reporting of GHG data and other relevant information from large sources in the United States (Code of Federal Regulations Title 40, Part 98). This comprehensive, nationwide emissions data is intended to provide a better understanding of the sources of GHGs and guide development of policies and programs to reduce emissions. The mandatory reporting rule applies to direct GHG emitting sources; suppliers of fossil fuel, industrial gas, and other products that would result in GHG emissions if released, combusted, or oxidized; and facilities that inject carbon dioxide underground for geologic sequestration or other reasons. In general, facilities that emit 25,000 MT CO_2e or more per year of GHGs are required to submit annual reports to the USEPA.

Corporate Average Fuel Economy Standards

First enacted by Congress in 1975, the purpose of the Corporate Average Fuel Economy (CAFE) standards is to reduce energy consumption by increasing the fuel economy of passenger cars and light trucks. On April 1, 2010, the NHTSA and USEPA issued a joint final rule establishing a new national program to regulate model year 2012 through 2016 passenger cars and light trucks in order to improve fuel economy and reduce GHG emissions. The NHTSA increased CAFE standards to require passenger cars and light trucks to meet an average fuel economy of 34.1 miles per gallon by model year 2016. Together with the USEPA's standards for GHG emissions, which also enable manufacturers to achieve compliance by improving the air conditioners of their vehicles, the national program overall is expected to result in improvement levels equivalent to 35.5 miles per gallon.

4.4.2.2 State

Executive Order S-3-05

Executive Order S-3-05 (issued June 1, 2005) established the following GHG emissions reduction targets for California:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Executive Order S-3-05 also directed the Secretary of the CalEPA to oversee efforts to reach these statewide GHG emissions reduction targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts in California related to global warming, including impacts to public health, water supply, agriculture, forestry, and the coastline. The initial California Climate Action Team (CCAT) report in 2006 contained recommendations and strategies to help ensure the targets in Executive Order S-3-05 are met. The latest CCAT report in 2010 expands on the policy-oriented 2006 report and provides new information and scientific findings. The 2010 report includes development of new climate and sea-level projections using information and tools that have become available since the preparation of the previous report, and evaluation of climate change within the context of broader social changes such as land use changes and demographic shifts (CCAT 2010). The action items in the 2010 report focus on the preparation of the Climate Adaptation Strategy, as required by Executive Order S-13-08 (described below).

Assembly Bill 32, California Global Warming Solutions Act

In response to Executive Order S-3-5 (described above), the California State Legislature adopted Assembly Bill 32, the California Global Warming Solutions Act of 2006, which focuses on reducing GHG emissions in California. Assembly Bill 32 makes the CARB responsible for monitoring and reducing GHG emissions, and directs the existing CCAT to coordinate statewide efforts and promote strategies that can be undertaken by many other California agencies. Under Assembly Bill 32, the CARB is required to adopt rules and regulations for quantifiable, verifiable, and enforceable emissions reduction measures that would achieve GHG emissions equivalent to statewide levels in 1990 by the year 2020. The CARB has identified 427 million MT CO_2e as the total statewide aggregated 1990 GHG emissions level, which serves as the 2020 emissions limit (CARB 2007). The CARB estimates that a GHG emissions reduction of 173 million MT CO_2e below business-as-usual would be required to meet the statewide emissions limit by year 2020 (CARB 2007).

Climate Change Scoping Plan

The main strategies for reducing California's GHG emissions pursuant to Assembly Bill 32 (described above) are outlined in the Climate Change Scoping Plan (CARB 2008). The Climate Change Scoping Plan has a range of GHG emissions reduction measures which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and a cost-of-implementation fee to fund the program. In addition, the Climate Change Scoping Plan emphasizes the need to better connect land use and transportation planning to help the state achieve its GHG emissions reduction target for year 2020.

Executive Order S-01-07

Executive Order S-01-07 (issued January 18, 2007) mandated that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by year 2020 through a Low Carbon Fuel Standard. On April 23, 2009, the CARB adopted regulations to implement the Low Carbon Fuel Standard as a discrete early action measure pursuant to Assembly Bill 32 and included it as a reduction measure in its Climate Change Scoping Plan. The Low Carbon Fuel Standard is a performance standard with flexible compliance mechanisms intended to incentivize the development of a diverse set of clean, low-carbon transportation fuel options. Its aim is to accelerate the availability and diversity of low-carbon fuels such as biofuels, electricity, and hydrogen by taking into consideration the full life-cycle of GHG emissions.

Senate Bill 375, Sustainable Communities and Climate Protection Act

Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008, enhances California's ability to reach its Assembly Bill 32 goals by promoting good planning with the goal of more sustainable communities. Senate Bill 375 requires the CARB to develop regional GHG emissions reduction targets for passenger vehicles to be achieved by 2020 and 2035, and requires the regional Metropolitan Planning Organizations, such as SANDAG, to develop Sustainable Communities Strategies in their regional transportation plans. The Sustainable Communities Strategies demonstrate how each region will meet the CARB's emissions reduction targets through integrated land use, housing, and transportation planning to reduce the amount of vehicle miles travelled within their respective regions.

Executive Order S-13-08

Executive Order S-13-08 (issued November 14, 2008), the Climate Adaptation and Sea Level Rise Planning Directive, provides clear direction for how the state should plan for future climate impacts. Executive Order S-13-08 calls for the implementation of four key actions to reduce California's vulnerability to climate change:

- Initiate California's first statewide Climate Adaptation Strategy that will assess the State's expected climate change impacts, identify where California is most vulnerable, and recommend climate adaptation policies;
- Request that the National Academy of Science establish an expert panel to report on sea level rise impacts in California in order to inform state planning and development efforts;
- Issue interim guidance to state agencies for how to plan for sea level rise in designated coastal and floodplain areas for new and existing projects; and
- Initiate studies on critical infrastructure projects and land use policies that are vulnerable to sea level rise.

The California Natural Resources Agency coordinated with 10 state agencies, multiple scientists, a consulting team, and stakeholders to develop the California Climate Adaptation Strategy (California Natural Resources Agency 2009), which summarizes the best-known science to assess the vulnerability of the state to climate change impacts, and outlines possible solutions that can be implemented within and across state agencies to promote resiliency.

Executive Order S-21-09

Executive Order S-21-09 (issued September 15, 2009) required that the CARB, under its Assembly Bill 32 authority, adopt a regulation consistent with the 33 percent renewable energy target established in Executive Order S-14-08 by July 31, 2010. Under Executive Order S-21-09, the CARB is directed to work with the California Public Utilities Commission and California Energy Commission to encourage the creation and use of renewable energy sources. The CARB will consult with the Independent System Operator and other load balancing authorities on, among other aspects, impacts on reliability, renewable integration requirements, and interactions with wholesale power markets in carrying out the provisions of Executive Order S-21-09. The CARB will also establish the highest priority for those resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health that can be developed most quickly and that support reliable, efficient, cost-effective electricity system operations.

Assembly Bill 1493, Pavley Clean Cars Standards

Assembly Bill 1493 ("Pavley Bill"), which was enacted on July 22, 2002, directed the CARB to develop and adopt regulations that achieve the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks beginning with model year 2009. On September 24, 2009, the CARB adopted amendments to the Pavley regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016. These amendments are part of California's commitment toward a nationwide program to reduce new passenger vehicle GHGs from 2012 through 2016, while providing vehicle manufacturers with new compliance flexibility. The amendments also required California to harmonize its rules with the federal rules for passenger vehicles. It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and by about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs.

California Renewables Portfolio Standard

Senate Bill 1078, which was enacted on September 12, 2002, established the Renewables Portfolio Standard program that requires retail sellers of electricity, including electrical corporations, community choice aggregators, and electric service providers, to purchase a specified minimum percentage of electricity generated by eligible renewable energy resources such as wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. Senate Bill 107, which was enacted on September 26, 2006, accelerated the Renewables Portfolio Standard to require that at least 20 percent of electricity retail sales be served by renewable energy resources by year 2010. In response to Executive Order S-21-09 (described above), the Renewables Portfolio Standard was expanded in 2011 to require investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by year 2020. The Renewables Portfolio Standard is included as a reduction measure in the CARB's Climate Change Scoping Plan. Increased use of renewable energy would decrease California's reliance on fossil fuels, thus reducing emissions of GHGs from the electricity sector. The CARB estimates that full achievement of the Renewables Portfolio Standard would decrease statewide GHG emissions by 21.3 million MT CO_2e.

California Energy Code

The California Energy Code (California Code of Regulations Title 24, Part 6), which is incorporated into the Building Energy Efficiency Standards, was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Although these standards were not originally intended to reduce

GHG emissions, increased energy efficiency results in decreased GHG emissions because energy efficient buildings require less electricity and thus less consumption of fossil fuels which emits GHGs. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The current 2008 Building Energy Efficiency Standards, commonly referred to as the "Title 24" standards, include changes from the previous standards that were adopted, to do the following:

- Provide California with an adequate, reasonably priced, and environmentally sound supply of energy.
- Respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its greenhouse gas emissions to 1990 levels by 2020.
- Pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs.
- Act on the California Energy Commission's Integrated Energy Policy Report which finds that standards are the most cost effective means to achieve energy efficiency, expects the Building Energy Efficiency Standards to continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the Building Energy Efficiency Standards in reducing energy related to meeting California's water needs and in reducing GHG emissions.
- Meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of state building codes.
- Meet Executive Order S-20-04, the Green Building Initiative, to improve the energy efficiency of non-residential buildings through aggressive standards.

The 2008 Title 24 standards, which became effective on January 1, 2010, require energy savings of 15 to 35 percent above the 2005 Title 24 standards. At a minimum, residential buildings must achieve a 15 percent reduction in their combined space heating, space cooling, and water heating energy compared to the 2005 Title 24 standards. Incentives in the form of rebates and tax breaks are provided on a sliding scale for buildings achieving energy efficiency above the minimum 15 percent reduction.

California Green Building Standards Code

The purpose of the California Green Building Standards Code (California Code of Regulations Title 24, Part 11) is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: 1) planning and design; 2) energy efficiency; 3) water efficiency and conservation; 4) material conservation and resource efficiency; and 5) environmental quality. The California Green Building Standards, which became effective on January 1, 2011, instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential uses, and state-owned buildings, as well as schools and hospitals. The mandatory standards require the following:

- 20 percent mandatory reduction in indoor water use relative to baseline levels;
- 50 percent construction/demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and

- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particle boards.

The voluntary standards require the following:

- **Tier I:** 15 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste, 10 percent recycled content, 20 percent permeable paving, 20 percent cement reduction, and cool/solar reflective roof.
- **Tier II:** 30 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste, 15 percent recycled content, 30 percent permeable paving, 30 percent cement reduction, and cool/solar reflective roof.

4.4.2.3 Regional

San Diego Association of Governments Climate Action Strategy

The Climate Action Strategy (Strategy) is a tool for SANDAG to guide climate change policy. The Strategy identifies a range of potential policy measures for consideration as SANDAG updates long-term planning documents like the Regional Transportation Plan. The Strategy helps SANDAG identify land use, transportation, and related policy measures and investments that could reduce greenhouse gases from passenger cars and light-duty trucks as part of the development of a Sustainable Communities Strategy for the 2050 Regional Transportation Plan in compliance with Senate Bill 375. Potential policy measures also are identified for buildings and energy use, protecting transportation and energy infrastructure from climate impacts, and to help SANDAG and local jurisdictions reduce greenhouse gases from their operations.

City of San Diego Climate Action Plan

To comply with AB 32 and ARB Climate Change Scoping Plan, the City of San Diego prepared a CAP, which was adopted in December 2015. The CAP is intended to address the main sources of emissions that contribute to climate change and implement strategies to reduce GHG emissions and achieve the 2020 and 2035 targets. The CAP contains the following:

- The Emissions Inventory describes the City's GHG emissions inventory for the baseline year of 2010. The inventory includes a breakdown of emissions from various sectors in both the community and municipal sources, such as transportation, energy, solid waste, water and wastewater. The baseline inventory was used to create an emissions forecast for future years based upon predicted population and economic growth indicators, create reduction targets, and enable the quantification of emissions reductions associated with implementation of reduction measures.
- GHG reduction strategies designed to achieve the 2020 and 2035 reduction targets focusing on the following aspects:
  - Energy and water efficiency buildings
  - Clean and renewable energy
  - Bicycling, walking, transit and land use

  - Zero waste (gas and waste management)
  - Climate resiliency

- The Implementation and Monitoring chapter details the implementation action and phasing for individual goals. For each of the five strategies, the CAP identifies goals, actions, targets, supporting measures, parties responsible for implementation and estimated GHG reductions for 2020 and 2035. This chapter also illustrates the contents of the Annual Monitoring Report, including the results of the annual GHG inventory, social equity, and jobs monitoring.
- The Social Equity and Job Creation chapter describes how the impacts of climate change will disproportionately affect disadvantaged communities and how the City can proactively identify them prior to project implementation.
- The Adaptation chapter identifies climate impacts for San Diego, illustrates current climate adaptation efforts throughout the states, and provides a guide to adaptation strategy development.

The project would be located within the Rancho Bernardo Transit Priority Area, as shown in Appendix B of the adopted CAP. The Transit Priority Areas map is based on the adopted SANDAG 2050 Regional Transportation Plan (RTP). The RTP is currently being updated as a part of the San Diego Forward Regional Plan. The Transit Priorities Area map will be updated to reflect the updated RTP following adoption by the SANDAG Board, which is anticipated to occur in the fall of 2015.

Table 4.4-4 City of San Diego CAP Emissions Inventory Summary

Emission Scenario	Description	$MTCO_2e$ per year		
		2010	2020	2035
Baseline Inventory	Total community-wide emissions	12,984,993	-	-
Business As Usual Forecasts	Forecasts of future emissions without a CAP	-	14,124,690	16,716,020
Reduction Targets[(1)]	Reduction goals for the CAP	-	11,037,244	6,492,497
Reduced Emissions	Total community-wide emissions with implementation of CAP reduction measures	-	4,330,946	10,428,926

[(1)] The reduction targets for 2020 and 2035 are based on a 24% and 51% decrease from City of San Diego's 2010 emissions inventory, respectively.
Source: City of San Diego, 2015a.

City of San Diego General Plan Mobility Element

City of San Diego adopted its General Plan in March, 2008. The purpose of the General Plan Mobility Element is to improve mobility through development of a balanced, multi-modal transportation network (San Diego, 2008). A balanced network is one in which each mode, or type of transportation, is able to contribute to an efficient network of services meeting varied user needs. In addition to addressing walking, streets, and transit, the General Plan Mobility Element also includes policies related to regional collaboration, bicycling, parking, goods movement, and other components of the transportation system. These policies advance a strategy for congestion relief and increased transportation choices in a manner that strengthens the City of San Diego land use vision and helps achieve a clean and sustainable environment. The Mobility Element is part of a larger body of plans and programs, including RTP and Congestion Management Program (CMP) that were prepared by SANDAG, to guide the development and management of the transportation system. Implementing goals and policies would increase efficiency of the City's transportation and therefore help reduce GHG emissions from transportation.

4.4.3 Impacts and Mitigation

4.4.3.1 Issue 1 – Direct and Indirect Generation of GHG Emissions

Would the proposed PCCD South Education Center generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Standards of Significance

Currently no State regulatory agency has formally adopted or widely agreed upon thresholds of significance for GHG emissions. Adopted CEQA Guidelines §15064.7 states that "each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects." This provides justification for lead agencies to determine their own climate change thresholds. The Association of Environmental Professionals (AEP) recommends that, "if a Lead Agency chooses to address GCC [Global Climate Change] in a [CEQA] document, it should be addressed in the context of a cumulative (versus project-specific) impact" (Hendrix 2007).

In 2006, California Governor Arnold Schwarzenegger signed AB 32 establishing statutory limits on GHG emissions in California. AB 32 seeks to reduce statewide emissions to 1990 levels by the year 2020. While AB 32 does not specify reduction targets for specific sectors or jurisdictions, the City of San Diego is working on refining and formulating GHG significance thresholds and anticipates bringing such thresholds for City Council consideration in 2016 (City of San Diego 2015b). In 2013, the City of San Diego developed *Draft Significance Thresholds for Greenhouse Gas Emissions* ("GHG Thresholds") to provide guidance for consistent and objective evaluations of significance determinations related to GHG emissions from construction and operation of land use and heavy industrial projects. The following GHG thresholds were provided (City of San Diego 2013):

- A Bright Line Threshold of 2,500 MT CO_2e per year;
- An Efficiency Threshold of 4.46 MT CO_2e per year, per service population;
- A Performance Threshold of 16 percent below unmitigated project emissions; or
- A Stationary Source Threshold of 10,000 MT per year.

The GHG thresholds were derived by estimating the mass emissions reductions needed throughout the City from land use development projects to achieve the local fair share of the State's emissions mandate embodied in AB 32, and to support efforts to reduce emissions to 1990 levels by 2020. The GHG Thresholds were drafted using guidance provided by the Natural Resources Agency in amendments to the CEQA guidelines (California Code of Regulations, Title 14, Sections 15000-15387) to address GHG emissions. The City's Efficiency Threshold is appropriate for projects that are above the Bright Line Threshold but have a less-than-cumulatively significant impact on climate change because they accommodate growth in a GHG-efficient manner. Although the GHG thresholds were drafted prior to preparation and adoption of the City's CAP, the purpose of the efficiency threshold is to assess whether any given project or plan would accommodate population and employment growth in a way that is consistent with the emissions limit established under AB 32. The threshold is recommended for projects that enhance land use diversity and provide requisite services.

The proposed project would not create growth; rather it would serve projected continuing education needs. The proposed project would be located within a Transit Priority Area and make continuing

education opportunities available in an area that does not already include a community college campus. Under the City's draft Efficiency Metric threshold, the proposed project would result in a significant impact if construction or operational emissions would exceed 4.46 MT CO_2e per year, per service population.

An efficiency metric may also be calculated using the emissions level target contained in the City's adopted CAP. The CAP identified the City's emissions reduction targets for years 2020 and 2035 that would achieve the City's fair-share emissions reduction necessary to support state's ability to meet the AB 32 target for 2020 and S-3-05's target for 2050. The City's 2035 emission reduction target is considered an "interim" target towards achieving the City's 2050 emission reductions target. A year 2030 emissions level target is identified in the CAP as well. The CAP's target emissions levels for 2020 and 2030 are 11,037,244 MT CO_2e and 7,790,996 MT CO_2e, respectively. SANDAG's population and civilian employment forecasts, which is the effective service population (SP), for the City are 2,381,233 SP in 2020 and 2,582,652 SP in 2030. Therefore, the efficiency metrics that would achieve the emissions targets identified in the CAP are as follows:

- 4.64 MT CO_2e in 2020 (2020 Emissions Level Target ÷ 2020 City SP)
- 3.02 MT CO_2e in 2030 (2030 Emissions Level Target ÷ 2030 City SP)

In 2015, the City prepared draft Screening Criteria for Greenhouse Gas Emissions under CEQA (City of San Diego, 2015c). As with the draft GHG Thresholds, the draft Screening Criteria are intended to provide guidance for a consistent and objective evaluation of significant effects. The draft Screening Criteria were developed using the City's then-draft CAP data, and relies conceptually on determining the proportional, or 'fair share', of emissions reductions required to meet the legislative mandate established in AB 32 that would be required within the City of San Diego. The most representative land use available in the draft Screening Criteria comparable to the proposed project is "University/College (4 year)". The proposed project would result in operation of a community college, which usually has lower operational activity than a university or 4-year college;[1] therefore, use of the University/College screening criteria provide for a conservative impact analysis. The applicable levels from the draft Screening Criteria are:

- A Bright Line Threshold of 1,350 MT CO_2e of per year; or
- 550 Students for a University or 4-year College

The screening criteria are based on a quantitative performance level for environmental effects related to GHG emissions. According to the draft Screening Criteria document, projects with emissions less than the screening criterion would be considered to have a less than significant impact. Projects with emissions greater than the screening criterion would need to complete the CAP Consistency Checklist to determine if the impact is significant. The CAP Consistency Checklist was included as Appendix A to the July 2015 Draft CAP, but was not included in the CAP adopted in December 2015 (City of San Diego, 2015a).

The two screening criteria identified above may be used to develop a Screening Criteria-based efficiency metric of 2.45 MT CO_2e per student per year, which is approximately half of the City's draft efficiency threshold of 4.46 MT CO_2e per year, per service population. The Screening Criteria-based efficiently metric is also less than the CAP-based efficiency metric of 4.64 MT CO_2e per year, per service population for year 2020 and 3.02 MT CO_2e per year, per service population for the year 2030. Thus, using the a Screening

[1] For example, SANDAG's trip generation rate for a 4-year college or University is 2.4 trips per student, which is double of trip generation rate of 1.2 trips per student for a junior college or 2-year college.

Criteria-based efficiency metric of 2.45 MT CO_2e per student per year as significance threshold for the purposes of CEQA analysis would be more conservative than using City's draft efficiency threshold (which have not been adopted by the City) or using CAP's emission targets (expressed in terms of per capita emission targets for 2020 or 2030). Under this screening criteria, the proposed project would result in a less than significant impact if construction and operational emissions would be less than 2.45 MT CO_2e per service population per year. If the project exceeds the efficiency metric screening criteria, then a threshold of consistency with the CAP consistency would be applied.

Impact Analysis

An inventory of the three most relevant GHG emissions (i.e., CO_2, CH_4, and N_2O) associated with implementation of the project is presented below. These emissions are the most relevant because they are the most common contributors to global climate change. The emissions of the individual gases were estimated and then converted to their CO_2 equivalents (CO_2e) in MT using the individually determined GWP of each gas.

Construction Emissions

Regional impacts for construction are assessed using the California Emissions Estimator Model (CalEEMod, version 2013.2.2) distributed by South Coast Air Quality Management District (SCAQMD). The CalEEMod 2013.2.2 model uses EMFAC 2007 emission factors for vehicle traffic and Off-Road 2007 for construction equipment. The construction analysis included modeling of the projected construction equipment that would be used during each construction activity, quantities of earth and debris to be moved, and worker vehicle trips. Construction assumptions are detailed in Section 4.2.3.2, Issue 2 – Consistency with Air Quality Standards. Table 4.4-5 provides the estimated GHG emissions for each phase of construction. In total, construction of the project would result in a total inventory of 248 MT of CO_2e, or less than 1 MT of CO_2e per service population. Once the project is constructed, construction emissions of GHG would cease. Consistent with the draft GHG Thresholds document, construction emissions are amortized over the expected operational life of the project, which is assumed to be 20 years, and combined with operational emissions to determine potential significance. Amortized construction emissions, and the associated significance determination are assessed in the Operational Emissions section.

Table 4.4-5 Project-Related Estimated Construction GHG Emissions

Source of Emissions	MT CO_2e
Demolition	12
Site Preparation	2
Grading	120
Building Construction	110
Paving	3
Architectural Coating	1
Total Emissions	**248**
Amortized Emissions (over 20 years)	**12.4**

Source: City of San Diego, 2015a

Operational Emissions

Implementation of the project would generate GHG through the operation of a new educational facility. Operational GHG emissions from the project would include direct sources such as motor vehicles, natural

gas consumption and solid waste handling/treatment, and indirect sources such as electricity generation and water use. Operational impacts are also assessed using CalEEMod 2013.2.2. The model estimates daily regional emissions from vehicle and stationary sources of pollutants that would result from implementation of the project at full buildout. Mobile sources emissions were calculated using an average daily trip (ADT) estimate of 6,750 trips provided by the traffic analysis (LLG 2015). The emissions analysis conservatively assumes full operational activity would occur at opening year (2017) emission factors. As a result, the emissions analysis conservatively overestimates operational emissions for the project. Annual operational emissions are summarized in Table 4.4-6.

Table 4.4-6 Project-Related Estimated Annual Operational GHG Emissions

Source of Emissions	CO_2e (metric tons)	Percent of Total
Vehicular Use	7,213	84%
Electricity	590	7%
Natural Gas	206	2%
Solid Waste	467	5%
Water	136	2%
Operational Subtotal	8,612	100%
Amortized Construction Emissions	12.4	–
Total Emissions	**8,624.4**	–
Service Population (Students)	5,625	–
Annual Emissions Per Service Population	**1.53**	–
Screening Criteria (MT CO2e/Student)	**2.45**	–
Exceed Screening Criteria?	**No**	–

Source: City of San Diego, 2015a

As shown in Table 4.4-6, the largest contributor of GHG is vehicular use, which contributes approximately 84 percent of the overall operational total. The second largest contributor is indirect emissions from electricity use (7 percent), followed by solid waste disposal (5 percent), natural gas use (2 percent), and indirect emissions associated with water use (2 percent). Operational GHG emissions for the project would not exceed the impact screening criteria of 2.45 MT CO_2e per year, per service population, and would result in a less-than-cumulatively considerable impact.

Other GHG Emissions

Ozone (O_3) is also a GHG; however, unlike the other GHG, O_3 is relatively short lived and it is unlikely that O_3 precursors (NO_X and ROGs) emitted at ground level would contribute to the global concentration of GHG in the troposphere where it would have a greenhouse effect on the planet. According to CARB, it is difficult to make an accurate determination of the contribution of O_3 precursors (NO_X and ROGs) to global warming (CARB 2004). Therefore, it is assumed that campus emissions of O_3 precursors would not significantly contribute to global climate change. At present, there is a federal ban on CFCs; therefore, it is assumed on-campus operations would not generate emissions of these GHG. Implementation of the project may emit a small amount of HFC emissions from leakage and service of refrigeration and air conditioning equipment and from disposal at the end of the life of the equipment. However, the details regarding refrigerants to be used at the campus and the capacity of these are unknown at this time. PFCs

and SF_6 are typically used in industrial applications, none of which would be used on campus. Therefore, it is not anticipated that implementation of the proposed project would contribute additional significant GHG emissions.

Mitigation Measures

Implementation of the proposed project would not generate GHG emissions, either directly or indirectly, that would result in a significant impact on the environment; therefore, no mitigation is required.

4.4.3.2 Issue 2 – Consistency with Plan, Policy or Regulation

Would the proposed PCCD South Education Center conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Standards of Significance

This impact addresses the proposed project's consistency with the City's CAP and the City's General Plan Mobility Element. The project would be inconsistent with the CAP or General Plan Mobility Element if it did not incorporate or address applicable policies or strategies.

City of San Diego Climate Action Plan

As discussed in Section 4.4.1.3, the project site is located within the City of San Diego, and the area of influence of the 2015 City of San Diego CAP. Therefore, the project site is included in the CAP's baseline inventory of communitywide GHG emissions, as well as the emissions forecasts estimating potential reductions associated with local GHG reduction strategies. Since transportation was the largest contributor to City of San Diego GHG emissions in 2010, implementing transportation strategies that reduce vehicle miles travelled (VMT) is key to reducing associated GHG emissions and helping the City achieve its GHG reduction targets. The City of San Diego CAP identified the following transportation strategies:

Strategy 1 - Implement the General Plan's Mobility Element (further discussed below) and the City of Villages Strategy in Transit Priority Areas[2] to increase the use of transit.

Strategy 2 - Implement pedestrian improvements in Transit Priority Areas to increase commuter walking opportunities.

Strategy 3 - Implement the City of San Diego's Bicycle Master Plan to increase commuter bicycling opportunities.

Strategy 4 - Implement a Traffic Signal Master Plan to retime traffic signals to reduce vehicle fuel consumption.

Strategy 5 - Implement a Roundabouts Master Plan to install roundabouts to reduce vehicle fuel consumption.

Strategy 6 - Implement transit-oriented development within Transit Priority Areas.

[2] Transit Priority Areas are based on the adopted SANDAG 2050 Regional Transportation Plan (RTP).

Similar to San Diego's communitywide emissions inventory, the largest contributor to the project's estimated annual operational GHG emissions is vehicular use (approximately 84 percent of the overall total), as shown in Table 4.4-6 above.[3] The project should include above strategies to be consistent with the City's CAP.

City of San Diego General Plan Mobility Element

The purpose of the City of San Diego General Plan Mobility Element is to improve mobility through development of a balanced, multi-modal transportation network (San Diego, 2008). As discussed above, the City of San Diego CAP identified the implementation of the San Diego General Plan's Mobility Element as a transportation strategy to reduce GHG emissions. The Mobility Element supports Transportation Demand Management (TDM) strategies that reduce the use of single-occupant vehicle trips by encouraging alternative modes of travel such as carpooling, vanpooling, transit use, bicycling, and walking. Furthermore, General Plan Policy ME-E.6 requires "new development to have site designs and on-site amenities that support alternative modes of transportation. Emphasize pedestrian and bicycle-friendly design, accessibility to transit, and provision of amenities that are supportive and conducive to implementing TDM strategies such as car sharing vehicles and parking spaces, bike lockers, preferred rideshare parking, showers and lockers, on-site food service, and child care, where appropriate." (San Diego, 2008)

The project should include strategies that support alternative modes of transportation, thereby reducing VMT and transportation-related GHG emissions, to be consistent with the City's General Plan Mobility Element.

Impact Analysis

As discussed in Section 4.4.3.1, operation of the proposed project would emit 7,213 $MTCO_2e$ every year from on-road vehicle use, which is about 84 percent of total annual operational GHG emissions. However, the proposed project does not include any project design features to increase transportation efficiency and reduce transportation-related GHG emissions, while the City of San Diego CAP identified six transportation strategies, including implementing General Plan Mobility Element. The proposed project is inconsistent with both the City of San Diego CAP and General Plan Mobility Element without transportation efficiency strategies. Therefore, the impacts would be potentially significant.

Mitigation Measures

Implementation of the proposed project would be inconsistent with the City of San Diego CAP and General Plan Mobility Element. The proposed project has identified the following mitigation measure to reduce transportation-related GHG emissions.

GHG-1 Implement Trip Reduction Strategies to Reduce Operational Emissions. The proposed project will include trip reduction strategies that minimize the percentage of commute trips/vehicle miles traveled (VMT) in single occupancy vehicles by students and faculty. Trip reduction strategies may include, but are not limited to, the following measures:

[3] Operational emissions were calculated using CalEEMod 2013.2.2.

a. Provide preferential parking for carpool and vanpool vehicles. Design features may include a separate parking area for carpool and vanpool vehicles that is closer to campus buildings than the parking area for single occupancy vehicles and/or covered parking spaces for carpool and vanpool vehicles.

b. Provide bicycle parking/racks. Design features may include both short-term and long-term parking. Short-term parking should be located in visible and prominent locations within 50 feet of the building entrance. Long-term parking should be located in a secure area on site or within 750 feet of the project site. A portion of bicycle parking should be covered and protected from the weather (i.e. an existing overhang or covered walkway, a special covering, weatherproof outdoor bicycle lockers, or an indoor storage area) (Victoria Transport Policy Institute [VTPI], 2015).

By implementing above mitigation measures, impacts would be reduced to less than significant.

4.4.4 Cumulative Impacts

Due to the nature of the assessment of GHG emissions and the effects of global climate change, impacts are only analyzed from a cumulative context. The analysis provided above includes the analysis of both the project and cumulative impacts; thus, impacts related to GHG emissions would be less than significant, and after applying Mitigation Measure GHG-1, impacts related to compliance with applicable policies would be reduced to less than significant.

4.4.5 CEQA Checklist Items Found Not to be Significant

All CEQA checklist items related to Greenhouse Gas Emissions have been thoroughly discussed in this section of the EIR; no topics were left unaddressed.

4.4.6 References

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4.5 Hydrology and Water Quality

This section describes the existing conditions at the project site and in surrounding areas with respect to hydrology and water quality; the potential environmental effects (direct, indirect, and/or cumulative) related to water quality degradation, groundwater depletion, and drainage alterations resulting from implementation of the proposed project; and mitigation measures to reduce or avoid potentially significant impacts. The information provided in this section is based on the previously approved MND for Rancho Bernardo Industrial Park North – Lot 11 (City of San Diego 2005) and the associated Drainage Study (Rick Engineering 2004a) and Water Quality Technical Report (Rick Engineering Company 2004b), which are both incorporated by reference pursuant to CEQA Guidelines Section 15150 and available for review at the PCCD office located at Palomar College, 1140 West Mission Road, San Marcos, CA 92069-1487.

In accordance with Section 15128 of the CEQA Guidelines, impacts related to placement of housing or structures within a 100-year flood hazard area, flooding as a result of the failure of a levee or dam, and inundation by seiche, tsunami, or mudflow were determined not to be significant, and are discussed below in Section 4.5.5, CEQA Checklist Items Deemed Not Applicable to the Project.

4.5.1 Existing Conditions

4.5.1.1 Regional Hydrology

The proposed project is located within the San Dieguito Hydrologic Unit, as defined in the San Diego Basin Plan (San Diego RWQCB 2011), which encompasses the entire watershed of the San Dieguito River. The San Dieguito Hydrologic Unit is divided into five Hydrological Areas: Solana Beach, Hodges, San Pasqual, Santa Maria Valley, and Santa Ysabel. The project site is located within the Green Hydrologic Subarea of the Hodges Hydrologic Area.

The San Dieguito watershed consists of a drainage area of approximately 346 square miles in west-central San Diego County, including portions of the cities of Del Mar, Escondido, Poway, San Diego, and Solana Beach, and unincorporated San Diego County (Project Clean Water 2012). In terms of land area, the majority of the watershed (79.8 percent) is within the unincorporated jurisdiction. Land uses in the watershed presently include vacant/undeveloped (54 percent), parks/open space (29 percent), and urban (18 percent). Nearly half of the vacant land area is open to future development, most of which is zoned for residential usage.

The watershed extends through a diverse array of habitats from the headwaters in the Volcan Mountains to the outlet at the San Dieguito Lagoon and Pacific Ocean. There are several important natural areas within the watershed that sustain a number of threatened and endangered species. Among these are the 55-mile-long, 80,000-acre San Dieguito River Park, the 150-acre San Dieguito Lagoon, and five water storage reservoirs including Lake Hodges, Lake Sutherland, and Lake Poway.

4.5.1.2 Site Drainage

The majority of the site drainage is collected into and routed through an existing on-site underground storm drain system. This storm drain system connects into the public storm drain system along Rancho Bernardo Road (existing 24-inch RCP storm drain pipe). The remainder of the site drainage is conveyed to the private storm drain system located in the development to the east (existing 18-inch RCP storm drain

pipe). A small portion of the site drains into Rancho Bernardo Road via an existing curb outlet. There is an on-site detention system that was constructed during development of the unfinished light industrial park in 2008/2009. The system consists of multiple detention pipes located throughout the property which reduced runoff to the public storm drain system to pre-development levels (Rick Engineering 2004a).

4.5.1.3 Surface Waters

There are no major surface water bodies within the project site; however, the project site is within the San Dieguito River Watershed Management Area which consists of five hydrologic subareas. The project site is within the Green Hydrologic Subarea (HSA) (Basin 905.22). Receiving waters for drainage in the Green HSA include Green Valley Creek and unnamed intermittent streams (tributaries of San Dieguito Reservoir), which ultimately discharge into the Pacific Ocean via San Dieguito Lagoon (Project Clean Water 2010). The beneficial uses of these receiving waters are listed in Table 4.5-1. The Section 303(d) List of Water Quality Limited Segments (SWRCB 2006) identifies Green Valley Creek as impaired due to chloride, manganese, pentachlorophenol, and sulfates, and the Pacific Ocean shoreline at the mouth of San Dieguito Lagoon as impaired due to indicator bacteria.

4.5.1.4 Groundwater

According to the updated geotechnical investigation for the project site (Geocon Incorporated 2012), groundwater was not encountered during the recent or previous field investigations. A regional groundwater table was not observed; however, it is not uncommon for seepage conditions to develop where none previously existed. Seepage conditions are dependent on a number of conditions including, but not limited to seasonal precipitation, irrigation, and land uses, and vary as a result. The beneficial uses of groundwater in the Hodges Hydrologic Area (Basin 905.20) are listed in Table 4.5-1.

Table 4.5-1 Beneficial Uses of Surface Waters and Groundwater

	Basin Number	Beneficial Use Designations																					
		MUN	AGR	IND	PROC	GWR	FRSH	NAV	POW	REC1	REC2	COMM	AQUA	WARM	COLD	SAL	EST	MAR	WILD	BIOL	RARE	MIGR	SPWN	SHELL
Inland Surface Waters																								
Green Valley Creek	5.22	●	●	●	●	○				●	●			●					●					
Unnamed Intermittent Streams	5.22	●	●	●	●					●	●			●					●					
Coastal Waters																								
San Dieguito Lagoon	5.11									●	●						●	●	●	●	●	●	●	
Pacific Ocean	--			●				●		●	●	●	●					●	●	●	●	●	●	●
Groundwater																								
Hodges Hydrologic Area	5.20	●	●	●																				

● = Existing Beneficial Use; ○ = Potential Beneficial Use
Please use the following link for beneficial use designations:
http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/bp_ch2_print.shtml
Source: San Diego RWQCB 1994

4.5.1.5 Urban Runoff

Urban runoff discharged into receiving waters from municipal storm drain systems has been identified as one of the principal causes of water quality problems in most urbanized areas. Municipal storm drain systems, which collect runoff from streets, rooftops, driveways, parking lots, and other impervious areas, flow directly into receiving waters without receiving treatment. Thus, urban runoff has the potential to discharge pollutants into receiving waters, thereby affecting water quality, associated wildlife, and public health. Potential pollutants contained in urban runoff and associated environmental effects include the following:

- **Sediments.** Sediments are soils or other surficial materials eroded and then transported or deposited by the action of wind, water, ice, or gravity. Sediments can increase turbidity, clog fish gills, reduce spawning habitat, lower young aquatic organism survival rates, smother bottom dwelling organisms, and suppress aquatic vegetation growth.

- **Nutrients**. Nutrients are inorganic substances, such as nitrogen and phosphorus. They commonly exist in the form of mineral salts that are either dissolved or suspended in water. Primary sources of nutrients in urban runoff are fertilizers and eroded soils. Excessive discharge of nutrients to water bodies and streams can cause excessive aquatic algae and plant growth. Such excessive production, referred to as eutrophication, may lead to excessive decay of organic matter in the water body, loss of oxygen in the water, release of toxins in sediment, and the eventual death of aquatic organisms.

- **Metals**. Metals are raw material components in non-metal products such as fuels, adhesives, paints, and other coatings. Primary sources of metal pollution in storm water are typically commercially available metals and metal products. Metals of concern include cadmium, chromium, copper, lead, mercury, and zinc. Lead and chromium have been used as corrosion inhibitors in primer coatings and cooling tower systems. At low concentrations that naturally occur in soils, metals are not toxic. However, at higher concentrations, certain metals can be toxic to aquatic life. Humans can be impacted from contaminated groundwater resources and bioaccumulation of metals in fish and shellfish. Environmental concerns regarding the potential for release of metals to the environment have already led to restricted metal usage in certain applications.

- **Organic Compounds**. Organic compounds are carbon-based. Commercially available or naturally occurring organic compounds are found in pesticides, solvents, and hydrocarbons. Organic compounds can, at certain concentrations, indirectly or directly constitute a hazard to life or health. When rinsing off objects, toxic levels of solvents and cleaning compounds can be discharged to storm drains. Dirt, grease, and grime retained in the cleaning fluid or rinse water may also adsorb levels of organic compounds that are harmful or hazardous to aquatic life.

- **Trash and Debris**. Trash (such as paper, plastic, polystyrene packing foam, and aluminum materials) and biodegradable organic matter (such as leaves, grass cuttings, and food waste) are general waste products on the landscape. The presence of trash and debris may have a significant impact on the recreational value of a water body and aquatic habitat. Excess organic matter can create a high biochemical oxygen demand in a stream and thereby lower its water quality. Also, in areas where stagnant water exists, the presence of excess organic matter can promote septic

conditions resulting in the growth of undesirable organisms and the release of odorous and hazardous compounds such as hydrogen sulfide.

- **Oxygen Demanding Substances**. Oxygen demanding substances include biodegradable organic material as well as chemicals that react with dissolved oxygen in water to form other compounds. Proteins, carbohydrates, and fats are examples of biodegradable organic compounds. Compounds such as ammonia and hydrogen sulfide are examples of oxygen demanding compounds. The oxygen demand of a substance can lead to depletion of dissolved oxygen in a water body and possibly the development of septic conditions.

- **Oil and Grease**. Primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, esters, oils, fats, waxes, and high molecular-weight fatty acids. Introduction of these pollutants to water bodies is very possible due to the wide uses and applications of some of these products in municipal, residential, commercial, industrial, and construction areas. Elevated oil and grease content can decrease the aesthetic value of the water body, as well as the water quality.

- **Bacteria and Viruses.** Bacteria and viruses are ubiquitous microorganisms that thrive under certain environmental conditions. Their proliferation is typically caused by the transport of animal or human fecal wastes from the watershed. Water containing excessive bacteria and viruses can alter the aquatic habitat and create a harmful environment for humans and aquatic life. Also, the decomposition of excess organic waste causes increased growth of undesirable organisms in the water.

- **Pesticides**. Pesticides (including herbicides) are chemical compounds commonly used to control nuisance growth or prevalence of organisms. Excessive application of a pesticide may result in runoff containing toxic levels of its active component.

4.5.2 Regulatory Framework

4.5.2.1 Federal

Clean Water Act

The federal CWA is the primary federal law that protects our nation's waters, including lakes, rivers, aquifers, and coastal areas. Section 401 of the CWA requires that any applicant for a federal permit to conduct any activity, including the construction or operation of a facility, which may result in the discharge of any pollutant, must obtain certification from the state. Section 402 of the CWA established the National Pollutant Discharge Elimination System (NPDES) to regulate both point source and nonpoint source discharges of pollutants to surface waters of the United States. Section 404 of the CWA established a permit program to regulate the discharge of dredged material into waters of the United States. Section 303 of the CWA requires states to identify surface waters that have been impaired. Under Section 303(d), states, territories, and authorized tribes are required to develop a list of water quality segments that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology.

National Pollution Discharge Elimination System Program

The NPDES program was established by the federal CWA to regulate both point source (discharge at a specific location or pipe) and nonpoint source (diffuse runoff) discharges to surface waters of the United States. For point source discharges, each NPDES permit contains limits on allowable concentrations and mass emission of pollutants contained in the discharge. For nonpoint source discharges, the NPDES program establishes a comprehensive storm water quality program to manage urban storm water and minimize pollution of the environment to the maximum extent practicable. The NPDES program consists of characterizing receiving water quality, identifying harmful constituents, targeting potential sources of pollutants, and implementing a comprehensive storm water management program. In California, the NPDES program is administered by the SWRCB and the nine RWQCBs.

Construction and industrial activities are typically regulated under statewide general permits that are issued by the SWRCB. The RWQCB also issues waste discharge requirements that serve as NPDES permits under the authority delegated to the RWQCBs, under the CWA. In November 1990, under Phase I of the urban runoff management strategy, the EPA published NPDES permit application requirements for municipal, industrial, and construction stormwater discharges. These requirements are implemented through permits issued by the SWRCB or the local RWQCB in which the project is located (California RWQCB San Diego Region, herein San Diego RWQCB), and/or the governing municipality where the project is located (City of San Diego).

National Flood Insurance Program

The National Flood Insurance Act of 1968 established the National Flood Insurance Program in order to provide flood insurance within communities that were willing to adopt floodplain management programs to mitigate future flood losses. This Act also required the identification of all floodplain areas and the establishment of flood-risk zones within those areas. The Flood Disaster Protection Act of 1973 expanded the National Flood Insurance Program by substantially increasing limits of coverage authorized under the program, and by requiring known flood-prone communities to participate in the program and to adopt adequate flood plan ordinances. This Act also made the purchase of flood insurance mandatory for property owners who are being assisted by federal programs, agencies, or institutions in the acquisition or improvement of land or facilities located in identified areas having special flood hazards. The National Flood Insurance Program has been further amended by subsequent reform acts. The Federal Emergency Management Agency (FEMA) is the primary agency responsible for administering programs and coordinating with communities to establish effective floodplain management standards. FEMA is responsible for preparing Flood Insurance Rate Maps, which delineate both the special flood hazard areas and the risk premium zones applicable to the community.

4.5.2.2 State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act authorizes the SWRCB to adopt, review, and revise policies for all waters of the state (including both surface and ground waters), and directs the RWQCBs to develop regional Basin Plans. Section 13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative. The purpose of the regional Basin Plans is to designate beneficial uses of each region's surface and ground waters, designate water quality objectives for the reasonable protection of those uses, and establish an implementation plan to achieve the objectives. The

San Diego Basin Plan (described below) is designed to preserve and enhance the quality of water resources in the San Diego region for the benefit of present and future generations.

All projects resulting in discharges, whether to land or water, are subject to Section 13263 of the California Water Code and are required to obtain approval of Waste Discharge Requirements (WDRs) from the RWQCBs. Land and groundwater-related WDRs (i.e., non-NPDES WDRs) regulate discharges of process and wash-down wastewater and privately or publicly treated domestic wastewater. WDRs for discharges to surface waters also serve as NPDES permits.

NPDES Municipal Permit

Discharges of urban runoff from the municipal separate storm sewer systems (MS4s) draining the watersheds of the County of San Diego, the 18 incorporated cities of San Diego County, the San Diego Unified Port District, and the San Diego County Regional Airport Authority (the co-permittees) must comply with the NPDES Municipal Storm Water Permit for San Diego County (Municipal Permit), which is governed by the San Diego RWQCB under Order No. R9-2007-0001, NPDES No. CAS0108758. The Municipal Permit specifies the requirements necessary to reduce the discharge of pollutants in urban runoff to the maximum extent practicable, and outlines the individual responsibilities of the co-permittees including (but not limited to) the implementation of: 1) management programs; 2) BMPs; and 3) monitoring programs. The Municipal Permit reflects these two broad levels of responsibility by requiring the development of both Jurisdictional Urban Runoff Management Programs (JURMPs) and Watershed Urban Runoff Management Programs (WURMPs).

Although the project site lies within the boundary of the City of San Diego and the San Dieguito watershed, the PCCD is not subject to the jurisdiction of the local municipalities. As such, the requirements of the City of San Diego JURMP and the San Dieguito WURMP are not directly applicable to the proposed project.

NPDES Construction General Permit

Construction activities that result in a land disturbance of equal to or greater than one acre (and projects that meet other specific criteria) must comply with the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), which is governed by the SWRCB under Order No. 2009-0009-DWQ as modified by 2010-0014-DWQ, NPDES No. CAS000002. Each RWQCB enforces the Construction General Permit for projects within their region. It is the responsibility of the landowner to obtain coverage under the Construction General Permit prior to commencement of construction activities. To obtain coverage, the owner must file a Notice of Intention (NOI) with a vicinity map and the appropriate fee to the RWQCB.

The Construction General Permit outlines the requirements for preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP has two major objectives: 1) to help identify the sources of sediment and other pollutants that affect the quality of storm water discharges; and 2) to describe and ensure the implementation of construction best management practices (BMPs) to reduce or eliminate sediment and other pollutants in storm water and non-storm water discharges. The Construction General Permit also outlines post-construction standards for runoff reduction requirements, which includes the use of non-structural and/or structural measures to preserve pre-construction runoff volumes and drainage densities from the site, as well as post-construction BMPs to reduce pollutants in storm water discharges that are reasonably foreseeable after all construction phases have been completed at the site.

4.5.2.3 Regional

San Diego Basin Plan

The Water Quality Control Plan for the San Diego Basin (San Diego RWQCB 2011), known as the San Diego Basin Plan, sets forth water quality objectives for constituents that could potentially cause an adverse effect or impact on the beneficial uses of regional waters. Specifically, the San Diego Basin Plan is designed to accomplish the following:

- Designate beneficial uses for surface and ground waters;
- Set narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy;
- Describe implementation programs to protect the beneficial uses of all waters within the region; and
- Describe surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan.

The Basin Plan incorporates by reference all applicable SWRCB and RWQCB plans and policies.

4.5.3 Project Impacts and Mitigation

4.5.3.1 Issue 1 – Water Quality

Would the proposed PCCD South Education Center violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would:

- Violate any water quality standards or waste discharge requirements; or
- Otherwise substantially degrade water quality.

Impact Analysis

Construction

Construction of the proposed project would generate pollutants that could potentially degrade the surface water quality of downstream receiving waters. Sediment associated with earth-moving activities and exposed soils are the most common pollutants associated with construction sites. Other pollutants associated with construction sites include hydrocarbons from spills or leaks of fuels, oils, and other fluids used for construction equipment; paints, concrete slurries, asphalt, and other hazardous materials; and debris, trash, and other solid waste materials generated during construction activities. If improperly managed, storm water and non-storm water runoff could potentially carry these pollutants into the on-site drainage facilities and into the City's storm water drainage system, which discharges to downstream receiving waters that ultimately drain to the Pacific Ocean. The potential to discharge polluted runoff into downstream receiving waters represents a potentially significant impact.

However, the proposed project is required to comply with the NPDES Construction General Permit (as described in Section 4.5.2.2 above), which requires the preparation and implementation of a SWPPP. The SWPPP would identify site-specific construction BMPs to reduce and/or eliminate sediment and other pollutants in storm water and non-storm water runoff from the project site. Construction BMPs would include, but are not limited to, the following:

- Minimization of disturbed areas to the portion of the project site necessary for construction;
- Stabilization of exposed or stockpiled soils and cleared or graded slopes;
- Establishment of permanent re-vegetation or landscaping as early as feasible.
- Removal of sediment from surface runoff before it leaves the project site by silt fences or other similar devices around the site perimeter;
- Diversion of upstream runoff around disturbed areas of the project site;
- Protection of all storm drain inlets on site or downstream of the project site to eliminate entry of sediment;
- Prevention of tracking soil off site through use of a gravel strip or wash facilities at exits from the project site;
- Proper storage, use, and disposal of construction materials; and
- Continual inspection and maintenance of all specified BMPs through the duration of construction.

Implementation of construction BMPs in compliance with the NPDES Construction General Permit would maintain downstream water quality in accordance with RWQCB standards, such that project construction would not violate any water quality standards or waste discharge requirements, and would not otherwise substantially degrade water quality. Therefore, construction impacts related to water quality degradation would be less than significant.

Post-Construction

Implementation of the proposed project would increase the amount of impervious areas at the project site primarily due to the construction of the looped roadway. Potential storm water pollutants associated with the operation and maintenance of the proposed project could include, but are not limited to, sediment discharges, nutrients, heavy metals, organic compounds, trash and debris, oil and grease from equipment and vehicles, bacteria and viruses, and pesticides from landscaping, as listed in Table 4.5-2. Storm water and non-stormwater runoff would potentially carry these pollutants into the PCCD South Education Center campus drainage system and off site, which discharges to downstream receiving waters that ultimately drain to the Pacific Ocean. This could potentially contribute to higher pollutant levels in urban runoff, which could result in a potentially significant impact.

Table 4.5-2 Potential Pollutants Generated by Operational Activities

Source	Pollutants of Concern								
	Sediment	Nutrients	Metals	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Oil & Grease	Bacteria/ Viruses	Pesticides
Classrooms & Offices				X	X	X			
Biology, Earth Sciences & Chemistry Labs		X	X	X	X	X			
Health Services				X	X	X			
Food Services				X	X	X	X	X	
Custodial Activities		X		X	X	X	X		
Building Maintenance	X	X	X	X	X		X		
Grounds Maintenance	X	X	X	X	X	X	X		X
Utility Line Maintenance and Repair	X		X	X			X		
Parking Lots & Roadways	X		X	X	X		X		
Trash Storage Areas			X	X	X	X	X	X	
Litter					X				

Source: Rick Engineering 2004b.

PCCD is not subject to the existing City of San Diego MS4 Permit although the campus lies within the jurisdictional boundary of the City of San Diego and within the County of San Diego, both of which are Co-Permittees of the current MS4 Permit. As a state facility, PCCD is not directly subject to the jurisdiction of the local municipalities. As such, the City of San Diego's JURMP and the San Dieguito WURMP that have been developed by the Co-Permittees under the Phase I MS4 Permit are not directly applicable to the PCCD South Education Center campus. PCCD is currently working on acquiring a new MS4 permit to cover all of its facilities, including satellite campuses such as the proposed project. PCCD will have five years from receiving a notice from the RWQCB to implement the new storm water regulations under the new MS4 permit. Under the new MS4 Permit, PCCD would be required to implement site design, source control, and treatment control BMPs in order to minimize polluted runoff discharge from the project site. Implementation of these BMPs would ensure storm water runoff draining from the project site into the City's existing storm water drainage system is held to the same water quality standards as the rest of the watershed. Therefore, impacts associated with water quality would be less than significant.

Mitigation Measures

Impacts related to drainage alterations would be less than significant without mitigation. Thus, no mitigation is required.

4.5.3.2 Issue 2 – Drainage and Hydrology

Would the proposed PCCD South Education Center substantially alter existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner which would result in substantial erosion or siltation on- or off-site; result in flooding; exceed the capacity of existing or planned storm water drainage systems; or provide substantial additional sources of polluted runoff?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would:

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

Impact Analysis

Construction

Construction of the proposed project would temporarily alter the localized drainage pattern at the project site due to ground-disturbing activities including grading and excavation for the new road. Such alterations in the drainage pattern may temporarily result in erosion or siltation and/or increase the rate or amount of surface runoff if substantial drainage is rerouted. However, as discussed in Section 4.5.3.1 (Issue 1) above, the proposed project would be required to implement construction BMPs in compliance with the project-specific SWPPP associated with the NPDES Construction General Permit in order to minimize the potential for erosion and siltation and to control surface runoff such that flooding does not occur and off-site flow does not exceed the capacity of the existing storm water drainage systems. Construction BMPs would also minimize the discharge of polluted runoff from the project site. Therefore, construction impacts associated with drainage alterations would be less than significant.

Post-Construction

Following construction, any remaining disturbed soils would be stabilized with landscaping to prevent erosion or siltation at the project site. According to the Drainage Study (Rick Engineering 2004a), the proposed project would drain to two existing storm drain systems: one system located within Rancho Bernardo Road and one system located in the adjacent development on the eastern boundary of the project site. Although the proposed project would result in increased runoff due to increased impervious surface on site, the two existing storm drain systems are shown to have capacity to handle the increase from the proposed project (Rick Engineering 2004a). Further, all on-site slopes would be graded to drain to proposed culverts and/or gutters, which would connect to an on-site detention system. The on-site detention system would be developed in order to reduce project runoff being discharged to the existing

storm drain systems to existing conditions volumes, as a means to ensure that the public systems are not significantly impacted (Rick Engineering 2004a). In addition, development of the proposed project would be replanted to better manage site drainage and limit the amount of water that leaves the site. Thus, off-site flows would be minimal and would not exceed the capacity of the City's storm water drainage system. Furthermore, as discussed in Section 4.5.3.1 above, implementation of post-construction BMPs would minimize the discharge of polluted runoff from the project site. Therefore, post-construction impacts associated with drainage alterations would be less than significant.

Mitigation Measures

Impacts related to drainage alterations would be less than significant without mitigation. Thus, no mitigation is required.

4.5.4 Cumulative Impacts

As indicated in Table 4-1 of this EIR, the geographic context for the analysis of cumulative impacts related to hydrology and water quality includes the area encompassed by the San Dieguito Hydrologic Unit. The following analysis accounts for all anticipated cumulative growth within this geographic area, including the proposed project, development anticipated in applicable planning documents, and known development projects within the San Dieguito Hydrologic Unit.

Water Quality

Urban development within the San Dieguito Hydrologic Unit would increase impervious areas and activities that generate pollutants, which could degrade water quality of receiving waters throughout the watershed. However, most future development projects in the Hydrologic Unit would be subject to NPDES regulations, which require that source control and nonpoint source BMPs be employed to control potential effects on water quality and that storm water quality control devices be incorporated into storm water collection systems to collect sediment and other pollutants. Additionally, the development of projects that are less than one acre would be subject to local erosion control ordinances. Even with the promulgation of NPDES storm water regulations and local erosion control ordinances, increases in impervious areas and urban runoff pollutants in this watershed would continue to contribute, however incrementally, to water quality degradation. Thus, the baseline cumulative impact to water quality is considered cumulatively significant.

As discussed above in Section 4.5.3.1 (Issue 1), compliance with the NPDES Construction General Permit would ensure that project construction would not violate any water quality standards or waste discharge requirements, and would not otherwise substantially degrade water quality. Compliance with the new 2016 MS4 Permit would ensure that post-construction impacts to water quality would be less than significant with implementation of operational BMPs. Therefore, implementation of the proposed project would not result in a cumulatively considerable impact related to water quality impacts.

Drainage and Hydrology

Urban development within the San Dieguito Hydrologic Unit would result in alterations to existing hydrology, which could result in erosion problems, flooding, and drainage systems capacity issues throughout the watershed. However, most future development projects in the San Diego region would be subject to NPDES Phase I and II regulations, which require addressing changes to hydrologic regime and mitigation for conditions of concern. All projects in the San Diego region for which construction would

affect more than one acre must obtain NPDES Construction Permit coverage, and all land use jurisdictions in the region must obtain and implement a NPDES Municipal Permit. The RWQCB is responsible for assuring that water quality control measures are uniformly applied through these permits and is responsible, along with the jurisdictions holding the permits, for the enforcement of the permit conditions. Additionally, the development of projects that are less than one acre would generally be subject to local erosion control ordinances. However, even with the promulgation of NPDES storm water regulations and local erosion control ordinances, alterations to the existing hydrology in this watershed would continue to contribute, however incrementally, to erosion, flooding, and exceedance of storm water drainage system capacities. Thus, the baseline cumulative impact to hydrology is considered significant.

As discussed above in Section 4.5.3.2 (Issue 2), compliance with the NPDES Construction General Permit would ensure that project construction would not result in substantial erosion or siltation or flooding, and would not exceed the capacity of the City's storm water drainage system. Further, the Drainage Study prepared for the site determined that the two existing storm water drainage systems the proposed project would ultimately discharge to have adequate capacity to handle post-project flows. Further, an on-site detention system would be implemented on site to ensure post-project flows are reduced to existing conditions flows. Therefore, the proposed project would not result in a cumulatively considerable impact related to drainage and hydrology.

4.5.5 CEQA Checklist Items Deemed Not Applicable to the Project

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)?

Groundwater was not encountered during recent or previous field investigations, and no removal of groundwater is proposed. The proposed PCCD South Education Center would use potable water supplied by the City of San Diego Public Utilities Department. The proposed project would have sufficient water supplies available to serve the project from existing entitlements and resources. Therefore, no impacts to groundwater supplies would occur.

Would the proposed project 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?

According to Flood Insurance Rate Map Number 06073C1090G (Federal Emergency Management Agency 2012), the project site is located in Zone X, which designates areas determined to be outside the 0.2 percent annual chance (500-year) floodplain, and thus outside the 100-year flood hazard area. Furthermore, the proposed project would not involve the construction of any housing. Thus, the proposed project would not place housing within a 100-year flood hazard area. No impact would occur.

Would the proposed project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

As discussed above, the proposed site is located outside the 100-year flood hazard area. Furthermore, the proposed project would not involve the construction of any aboveground structures that could impede or redirect flood flows. Thus, the proposed project would not place within a 100-year flood hazard area structures which would impede or redirect flood flows. No impact would occur.

Would the proposed project 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?

As discussed above, the proposed project is located outside the 100-year flood hazard area. Furthermore, the project site is located outside of potential zones of inundation due to dam failure (SanGIS 2012). Thus, the proposed project would not 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 would occur.

Would the proposed project expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow?

Seiches are standing waves caused by resonance in an enclosed or partially enclosed body of water (e.g., lake, reservoir, bay, harbor) that has been disturbed by meteorological effects (wind and atmospheric pressure variations) or seismic activity. The project site is located approximately two miles south of Lake Hodges, which is the closest inland body of water. In addition, the project site is approximately 340 feet above the lake water level and is not downstream of the drainage path. Therefore, the project site would not be subject to inundation by seiches.

Tsunamis are series of ocean waves generated by sudden displacements of a large volume of water due to earthquakes, offshore landslides, or volcanic activity. The project site is located approximately 11.5 miles inland (east) of the Pacific Ocean and is approximately 655 feet AMSL. Therefore, the project site would not by subject to inundation by tsunamis.

Mudflows, also known as debris flows, are shallow water-saturated landslides that travel rapidly down slopes carrying rocks, brush, and other debris. Mudflows occur naturally as a result of heavy rainfall on steep slopes that contain loose soil or debris. According to the updated geotechnical investigation for the project site (Geocon Incorporated 2012), landslide deposits have been mapped on the project site. However, the landslides have been mitigated using conventional grading practices (i.e., buttresses, stability fills, complete removal). Landslides left in place on the project have been stabilized with a buttress fill and are located outside the area of the proposed improvements. As such, landslide hazards at the project site are considered low.

Thus, the proposed project would not expose people or structures to significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow. No impact would occur.

4.5.6 References

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4.6 Noise

This section describes the existing conditions at the project site and in surrounding areas with respect to noise; the potential environmental effects (direct, indirect, and/or cumulative) related to excessive noise levels, excessive groundborne vibration, permanent increases in ambient noise levels, and temporary increases in ambient noise levels, resulting from implementation of the proposed project; and mitigation measures, if required, to reduce or avoid potentially significant impacts. The information provided in this section is based on the Noise Technical Report prepared by Atkins in March 2016 (Appendix F of this EIR).

In accordance with Section 15128 of the CEQA Guidelines, impacts related to exposure to noise from a public airport or private airstrip were determined not to be significant and are discussed below in Section 4.6.5 (CEQA Checklist Items Deemed Not Applicable to the Project).

4.6.1 Existing Conditions

4.6.1.1 Fundamentals of Environmental Noise

Noise is commonly defined as unwanted sound. Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels. Sound pressures in the environment have a wide range of values and the sound pressure level was developed as a way to describe this range of sound. The sound pressure level is the logarithm of the ratio of the unknown sound pressure to a reference quantity of the same kind. To account for the pitch of sounds and the corresponding sensitivity of human hearing to them, the raw sound pressure level is adjusted with an A-weighting scheme based on frequency that is stated in units of decibels (dBA). Typical A-weighted noise levels are listed in Table 4.6-1.

Table 4.6-1 Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night, concert
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 1998

A given level of noise may be more or less tolerable depending on the sound level, duration of exposure, character of the noise sources, time of day during which the noise is experienced, and activity affected by the noise. For example, noise that occurs at night tends to be more disturbing than that which occurs during the day because sleep could potentially be disturbed. In addition, rest at night is a critical requirement in the recovery from exposure to high noise levels during the day. In consideration of these factors, different measures of noise exposure have been developed to quantify the extent of the effects anticipated from these activities. Some measures consider the 24-hour noise environment of a location by using a weighted average to estimate its habitability on a long term basis. Other measures consider portions of the day and evaluate the nearby activities affected by it as well as the noise sources. The most commonly used indices for measuring community noise levels include the following:

- **Equivalent Energy Level (Leq).** Leq is the average acoustical or sound energy content of noise, measured during a prescribed period, such as one minute, 15 minutes, one hour, or eight hours. It is the decibel sound level that contains an equal amount of energy as a fluctuating sound level over a given period of time.

- **Community Noise Equivalent Level (CNEL).** CNEL is the average equivalent A-weighted sound level over a 24-hour period. This measurement applies weights to noise levels during evening and nighttime hours to compensate for the increased disturbance response of people at those times. CNEL is the equivalent sound level for a 24-hour period with a +5 dBA weighting applied to all sound occurring between 7:00 p.m. and 10:00 p.m. and a +10 dBA weighting applied to all sound occurring between 10:00 p.m. and 7:00 a.m.

- **Day-Night Average Noise Level (Ldn).** Ldn is a 24-hour average Leq with a +10 dBA weighting applied to noise during the hours of 10:00 p.m. to 7:00 a.m. Ldn and CNEL are typically within one dBA of each other and, for most intents and purposes, are interchangeable.

The decibel level of a sound decreases (or attenuates) exponentially as the distance from the source of that sound increases. For a single point source, such as a piece of mechanical equipment, the sound level normally decreases by about 6 dBA for each doubling of distance from the source. Sound that originates from a linear or “line” source, such as a heavily traveled traffic corridor, attenuates by approximately 3 dBA per doubling of distance, provided that the surrounding site conditions lack ground effects or obstacles that either scatter or reflect noise. Noise from roadways in environments with major ground effects due to vegetation and loose soils may either absorb or scatter the sound yielding attenuation rates as high as 4.5 dBA for each doubling of distance. Other contributing factors that affect sound reception include meteorological conditions, natural topography, and the presence of manmade obstacles such as buildings and sound barriers.

Noise has a significant effect on the quality of life. An individual’s reaction to a particular noise depends on many factors such as the source of the noise, its loudness relative to the background noise level, and the time of day. The reaction to noise can also be highly subjective; the perceived effect of a particular noise can vary widely among individuals in a community. Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, for most receivers, a 5 dBA change in community noise levels is clearly noticeable, a 3 dBA change is the smallest increment that is perceivable, and 1 to 2 dBA changes are not detectable. Although each individual’s reaction to noise may vary, it is clear that noise is a significant component of the environment, and excessively noisy conditions can affect health and well-being. The effects of noise are often only transitory,

but adverse effects can be cumulative with prolonged or repeated exposure. Noise effects on a community can be organized into six broad categories: sleep disturbance; permanent hearing loss; human performance and behavior; social interaction or communication; extra-auditory health effects; and general annoyance.

4.6.1.2 Fundamentals of Environmental Vibration

Vibration is defined as any oscillatory motion induced in a structure or mechanical device as a direct result of some type of input excitation such as forces, moments, or pressure fields. Vibration is transmitted through solid material such as the ground by wave motion, giving rise to the terminology of "groundborne" vibration. Groundborne vibration propagates from sources such as railways and roads through the ground into nearby structures and buildings. Soil properties affect the propagation of groundborne vibration.

The vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. When groundborne vibration interacts with a building there is usually a ground-to-foundation coupling loss, but the vibration can also be amplified by the structural resonances of the walls and floors. Vibration in buildings is typically perceived as the rattling of windows or items on shelves or the motion of building surfaces. Vibration of building surfaces can also be radiated as sound and heard as a low-frequency rumbling noise, known as groundborne noise.

Groundborne vibration can be expressed in terms of the peak particle velocity (PPV) of the soil particles resulting from a disturbance in inches per second. Agencies such as Caltrans use the PPV descriptor because it correlates well with damage and complaints due to vibration. Caltrans estimates that the threshold of perception for vibration is approximately 0.006 inches/second PPV and the level at which continuous vibration begins to annoy people is approximately 0.010 inches/second PPV.

4.6.1.3 Existing Noise Conditions

Operational Noise Sources

The project site is currently developed with a 110,000-square foot building, a parking structure, a surface parking lot, and an access road. The existing building is a "warm shell" with limited interior improvements. It is not in use and does not generate operational noise. The existing access road is blocked. No access is provided to the site and the existing access road and parking facilities do not generate operational noise. A temporary, portable security office is currently located on site. The facility does not include any noise generating equipment.

The project site is surrounded by single-family residential development to the north, and business park development to the west, south, and east. Businesses in the developments surrounding the site include medical offices, small distribution facilities, and laboratories that do not require machinery that would generate noise levels beyond those typical of general office use. The small distribution facilities would generate heavy duty truck trips on a regular basis, but do not have the loading docks or other access necessary to accommodate the truck traffic typical of a distribution center. General office use and residences are not sources of substantial operational noise. Occasional nuisance noise may result from residences and parking lots, such as loud music or car alarms. Some manufacturing uses are located in the business parks to the east of the site and would have the potential to generate operational noise from the

use of heavy machinery. The manufacturing use located closest to the project site is Scripps Mesa Glass, located approximately 680 feet southwest of the site.

Transportation Noise Sources

Aviation

The nearest airport to the project site is the Marine Corps Air Station (MCAS) Miramar, located approximately 12 miles south of the project site in the City of San Diego. The airport is operated by the U.S. Marine Corps. The airport is a military installation. It is designated as a master jet facility and serves both fixed and rotary-wing aircraft. According the Airport Land Use Compatibility Plan (ALUCP) for MCAS Miramar, the airfield is currently authorized for 112,242 annual aircraft operations (SDCRAA 2011). Due to distance, the project site is not located within the 60 dBA CNEL noise contour for the airport, or within the airport's area of influence.

Roadways

The project site is situated on Rancho Bernardo Road between Matinal Road and Olmeda Way. The entrance to the project site is approximately 0.8 mile west of I-15. An existing access driveway at the intersection of Rancho Bernardo Road and Matinal Road provides the only vehicular access to the project site. Table 4.6-2 shows the existing noise levels generated by the roadways surrounding the project site. As shown in this table, all segments of Rancho Bernardo Road currently generate noise levels at 50 feet from the roadway centerline that exceed 60 dBA CNEL, the noise compatibility standard for residences, and the noise compatibility standard of 70 dBA for higher education use. Noise levels on West Bernardo Drive exceed the noise compatibility standard of 65 dBA for commercial and office use, but do not exceed the conditionally compatible noise standard of 75 dBA. The noise level on Via Del Campo does not exceed the noise compatibility standard for office or commercial use, or for higher education use.

Table 4.6-2 Existing Roadway Noise Levels

Roadway	Segment	Existing Average Daily Trips	Noise Level at 50 feet from Roadway Centerline (dBA CNEL)
Rancho Bernardo Road	Camino San Bernardo Road to Via Del Campo	26,840	73
	Via Del Campo to Matinal Road	27,710	73
	Matinal Road to West Bernado Drive	27,850	73
	West Bernardo Drive to I-15 SB Ramps	46,260	78
West Bernardo Drive	Via Del Campo to Bernardo Center Drive	13,200	68
Via Del Campo	Rancho Bernardo Road to West Bernardo Drive	4,880	62

Source: LLG 2015 (traffic data); FHWA 2004 (noise level estimates).
See Appendix F, Noise Technical Report, for noise model assumptions and output.

Railroads

The Rancho Bernardo community is not serviced by a railroad line. The closest rail line is the SPRINTER light rail line. The eastern terminus of the line is located approximately seven miles north of the project site in the City of Escondido. According to noise technical report prepared for the City of Escondido General Plan Update (Atkins 2011), the 60 dBA CNEL noise contour for the SPRINTER is 50 feet from the track alignment.

Ambient Noise Levels

Ambient sound level surveys were conducted on November 20, 2012 and May 14, 2015, to quantify the noise environment on the project site and in the surrounding area. A total of four measurements were taken. The monitoring locations are shown on Figure 4.6-1, Noise Measurement Locations. The measurements were taken during the daytime and were 15 minutes in duration. A Larson Davis 820 and 831 ANSI (American National Standards Institute) Type I Integrating Sound Level Meter calibrated with a Larson Davis CAL200 calibrator were used to record ambient sound levels. Weather conditions during the November 2012 measurements were calm with a warm temperature and partly-cloudy to clear skies. Weather conditions during the May 2015 measurements were calm with cool temperatures and cloudy skies. Table 4.6-3 summarizes the measured Leq and noise sources for the monitoring locations.

Table 4.6-3 Ambient Sound Level Measurements (dBA)

Site	Location	Daytime Noise Sources	Date/Time	Leq	Lmax	Lmin
1	Northwest corner of business park east of the project site (16980 Via Tazon)	Traffic on Rancho Bernardo Road, overhead plane, conversation in parking lot	5-14-2015/ 8:37 a.m.	57.8	78.0	44.9
2	Corner of Olmeda Road and Rancho Bernardo Road in the residential neighborhood north of the project site.	Traffic on Rancho Bernardo Road	5-14-2015/ 9:08 a.m.	62.9	81.4	43.2
3	Corner of Matinal Road and Capilla Road in the residential neighborhood north of the project site.	Traffic on Rancho Bernardo Road and Matinal Road.	5-14-2015/ 9:37 a.m.	59.8	75.4	40.9
4	On the project site, in the existing surface parking lot north of the on-site office structure.	Traffic on Rancho Bernardo Road	11-20-2012 / 11:28 a.m.	52.12	71.15	41.32

Source: Atkins, November 20, 2012 and May 14, 2015; ambient measurements were 15 minutes in duration.

The results of the ambient noise survey reflect noise levels that range between 52 dBA on the proposed project site, and 63 dBA Leq adjacent to Rancho Bernardo Road. The primary noise source at all four locations was traffic on Rancho Bernardo Road. The San Diego General Plan considers noise levels up to 60 dBA CNEL to be compatible, and noise levels up to 65 dBA CNEL conditionally compatible, with single-family residences. Noise levels up to 70 dBA are considered compatible with higher education institutional facilities. Noise levels up to 65 dBA CNEL are considered compatible with commercial and office development, with noise levels up to 75 dBA CNEL considered conditionally compatible. Based on the City of San Diego noise compatibility guidelines, ambient noise levels measured within the project site are compatible with existing land uses on the project site and surrounding area, which the exception of the residences adjacent to Rancho Bernardo Road. Measured noise levels at the residences closest to Ranch Bernardo Road exceed the compatibility guideline of 60 dBA CNEL, but are within the conditionally compatible guideline of 65 dBA.

Noise-Sensitive Land Uses

Noise sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise, such as residences, schools, hospitals, libraries, parks, and places of worship. Industrial and commercial land uses are generally not considered sensitive to noise. The term “noise receptor” is often used to represent a specific location where individuals would be exposed to noise, such as a specific residence. The nearest NSLU to the project site are the residences located north of the project site across Rancho Bernardo Road. The remaining land uses in the project area include office and commercial uses that are not considered noise sensitive.

Source: GoogleEarthPro, Atkins 2015

ATKINS

FIGURE 4.6-1

Noise Measurement Locations

Vibration-Sensitive Land Uses

Land uses in which groundborne vibration could potentially interfere with operations or equipment, such as research, manufacturing, hospitals, and university research operations (FTA 2006) are considered "vibration-sensitive." The degree of sensitivity depends on the specific equipment that would be affected by the groundborne vibration. Excessive levels of groundborne vibration of either a regular or an intermittent nature can result in annoyance to residential uses. The business parks to the east of the project site include several vibration sensitive land uses, including laboratories, medical offices, and manufacturing facilities. The nearest vibration sensitive land use to the project site is the Sharp Rees-Stealy Rancho Bernardo Urgent Care Center, located approximately 330 feet east of the project site. Medical offices often include equipment that may be sensitive to excessive groundborne vibration. Two laboratories are located approximately 520 and 580 feet east of the project site, and the Scripps Mesa Glass manufacturing business is located approximately 680 feet east of the project site.

4.6.2 Regulatory Framework

4.6.2.1 Federal

Federal Aviation Administration Standards

Code of Federal Regulations Title 14, Part 150, which is enforced by the Federal Aviation Administration (FAA), regulates airport noise compatibility planning. This regulation prescribes the procedures, standards, and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving those programs. This regulation also identifies those land uses which are normally compatible with various levels of exposure to noise by individuals. The FAA considers all land uses to be compatible with exterior noise levels less than 65 dBA Ldn (or CNEL).

Federal Highway Administration Standards

Code of Federal Regulations Title 23, Part 772, which is enforced by the Federal Highway Administration (FHWA), regulates procedures for the abatement of highway traffic noise and construction noise. The purpose of this regulation is to provide procedures for noise studies and noise abatement measures to help protect the public health, welfare, and livability; to supply noise abatement criteria; and to establish requirements for information to be given to local officials for use in the planning and design of highways. All highway projects which are developed in conformance with this regulation shall be deemed to be in conformance with the FHWA Noise Standards. The FHWA has established 67 dBA as the worst-case hourly average noise level criteria for construction noise impacts of federal highway projects to residential and recreational land uses.

Federal Transit Administration Standards

Although the Federal Transit Administration (FTA) standards are intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the Transit Noise and Vibration Impact Assessment Manual (FTA 2006) are routinely used for projects proposed by local jurisdictions. The FTA has published guidelines for assessing the impacts of groundborne vibration associated with rail projects, which have been applied by other jurisdictions to other types of projects. The FTA's measure of

the threshold of architectural damage for conventional sensitive structures from groundborne vibration is 0.2 inch/second PPV.

4.6.2.2 State

California Noise Control Act of 1973

The California Noise Control Act of 1973 (California Health and Safety Code Sections 46000–46080) defines noise as "excessive undesirable sound, including that produced by persons, pets and livestock, industrial equipment, construction, motor vehicles, boats, aircraft, home appliances, electric motors, combustion engines, and any other noise-producing objects." The Noise Control Act finds and declares the following:

a) Excessive noise is a serious hazard to the public health and welfare.

b) Exposure to certain levels of noise can result in physiological, psychological, and economic damage.

c) There is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas.

d) Government has not taken the steps necessary to provide for the control, abatement, and prevention of unwanted and hazardous noise.

e) The State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise.

f) All Californians are entitled to a peaceful and quiet environment without the intrusion of noise which may be hazardous to their health or welfare.

g) It is the policy of the State to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

For these reasons, it is the purpose of the Noise Control Act is to establish a means for effective coordination of state activities in noise control and to take such actions as will be necessary to achieve this end.

California Department of Transportation

The California Department of Transportation (Caltrans) provides guidelines for assessing groundborne vibration impacts based on screening distances. According to Caltrans, major construction activity within 200 feet and pile driving within 600 feet of a vibration sensitive use would be potentially disruptive to vibration sensitive operations (Caltrans 2002).

4.6.2.3 Local

Although the PCCD is constitutionally autonomous and is, therefore, exempt from municipal regulation, local standards (i.e., City of San Diego) may be relevant in establishing guidelines and evaluating impacts. The PCCD typically pursues consistency with local general plans, ordinances, and policies where feasible. Furthermore, City regulations are relevant for addressing PCCD development projects that would affect adjacent NSLUs located within the City's jurisdiction.

City of San Diego Noise Level Compatibility Standards

The City of San Diego has adopted Noise Level Compatibility Standards in its General Plan for various land uses, as shown in Table 4.6-4. Based on the City's General Plan noise guidelines, the project would be considered a commercial use. A compatible land use indicates that standard construction measures will attenuate exterior noise to an acceptable indoor noise level and people can carry out outdoor activities with minimal noise interference. For land uses indicated as conditionally compatible, structures must be capable of attenuating exterior noise to the indoor noise level identified in Table 4.6-4. For land uses indicated as incompatible, new construction should generally not be undertaken. Due to severe noise interference, outdoor activities are unacceptable and extensive mitigation techniques are required for structures to make the indoor environment acceptable (City of San Diego 2008).

Table 4.6-4 City of San Diego Noise and Land Use Compatibility Guidelines

Land Use	Exterior Noise Exposure (dBA CNEL)					
	50	55	60	65	70	75
Open Space Parks and Recreational						
Community & Neighborhood Parks; Passive Recreation						
Regional Parks; Outdoor Spectator Sports, Golf Courses; Athletic Fields; Outdoor						
Agricultural						
Crop Raising & Farming; Aquaculture, Dairies; Horticulture Nurseries & Greenhouses; Animal Raising, Maintain & Keeping; Commercial Stables						
Residential						
Single Units; Mobile Homes; Senior Housing			45(1)			
Multiple Units; Mixed-Use Commercial/ Residential; Live Work; Group Living Accommodations			45(1)	45(1)		
Institutional						
Hospitals; Nursing Facilities; Intermediate Care Facilities; Kindergarten through Grade 12 Educational Facilities; Libraries; Museums; Places of Worship; Child Care Facilities			45(1)			
Vocational or Professional Educational Facilities; Higher Education Institution Facilities (Community or Junior Colleges, Colleges, or Universities)			45(1)	45(1)		
Cemeteries						
Sales						
Building Supplies/Equipment; Food, Beverages & Groceries; Pets & Pet Supplies; Sundries, Pharmaceutical, & Convenience Sales; Wearing Apparel & Accessories				50(1)	50(1)	
Commercial Services						
Building Services; Business Support; Eating & Drinking; Financial Institutions; Assembly & Entertainment; Radio & Television Studios; Golf Course Support				50(1)	50(1)	
Visitor Accommodations			45(1)	45(1)	45(1)	
Offices						
Business & Professional; Government; Medical, Dental & Health Practitioner; Regional & Corporate Headquarters				50(1)	50(1)	

Compatible Conditionally Compatible Incompatible

(1) Indoor compatible noise level
Source: City of San Diego 2008

City of San Diego Noise Ordinance

The City also has a Noise Ordinance that is intended to address impacts from construction, fixed source, and/or operational noise (City of San Diego 2005). The City's Noise Ordinance is contained in Chapter V, Article 9.5, Section 59.5.0401 of the *City of San Diego Municipal Code* and contains the maximum one-hour average sound levels for various land uses for fixed source and/or operational noise, as shown in Table 4.6-5.

Table 4.6-5 City of San Diego Exterior Noise Level Limits

Land Use Zone	Time of Day	1 Hour Average Sound Level (decibels)
Residential: All R-1 (single family)	7:00 a.m. to 7:00 p.m. 7:00 p.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	50 45 40
All R-2 (small multiple-family)	7:00 a.m. to 7:00 p.m. 7:00 p.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	55 50 45
R-3, R-4 and all other Residential (large multiple-family)	7:00 a.m. to 7:00 p.m. 7:00 p.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	60 55 50
All Commercial	7:00 a.m. to 7:00 p.m. 7:00 p.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	65 60 60
Manufacturing all other Industrial, including Agriculture and Extractive Industry	Anytime	75

Source: City of San Diego Noise Ordinance Section 59.5.0401(a) 2005

Section 59.5.0502 of the City's Noise Ordinance established requirements for leaf blowers. Leaf blowers are required not to exceed 65 decibels measured at a distance of 50 feet or greater from the point of noise origin. Leaf blowers must be equipped with functional mufflers and an approved sound-limiting device to ensure that the leaf blower is not capable of generating a sound level that would exceed this noise level limit. Additionally, the operation of leaf blowers is restricted to 8:00 a.m. to 7:00 p.m. on weekdays and 9:00 a.m. to 5:00 p.m. on weekends.

Section 35.3077.102 of the City's Noise Ordinance establishes requirements for blasting activities. Blasting activities require notification to all residences and business within 600 feet. An approved inspector is required to inspect all structures (including mobile homes) within three hundred feet of the blast site before blasting operations. Blasting is only permitted between the hours of 7:00 am and 6:00 pm or one-half hour before sunset whichever occurs first, Monday through Saturday.

Construction noise is governed by City Noise Ordinance Section 59.5.0404. Relevant portions of this ordinance are cited below.

A. It shall be unlawful for any person, between the hours of 7:00 p.m. of any day and 7:00 a.m. the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive, or offensive noise.

B. It shall be unlawful for any person, including the City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 decibels during the 12-hour period from 7:00 a.m. to 7:00 p.m.

Rancho Bernardo Community Plan

The Rancho Bernardo Community Plan serves as a guide for public and private development within the community. It does not include a noise element or any specific guidelines for acceptable noise levels in the project area. The Circulation Element does include an objective to ensure that project approvals are conditioned upon provision of noise mitigation measures to achieve compatibility with existing and projected land uses (City of San Diego 1978).

4.6.3 Impacts and Mitigation

4.6.3.1 Issue 1 – Excessive Noise Levels

Would the proposed PCCD South Education Center result in the 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?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would result in 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. Impacts relating to operational noise are considered significant when project activities create noise exceeding the standards identified by the applicable jurisdictions where either the project or the affected land uses are located. For the purposes of this analysis, a significant impact would result if project-related noise would result in exposure of NSLUs to noise levels exceeding 60 dBA CNEL (for continuous noise) or a one-hour average of 60 dBA Leq for short-term or intermittent noise sources.

Impact Analysis

This section addresses the potential for sensitive receptors to be exposed to excessive noise levels from proposed educational facilities. Potential impacts are discussed below by noise source, followed by a discussion of overall noise and the potential for sensitive receptors in surrounding areas to be exposed to excessive noise levels from the project. Implementation of the PCCD South Education Center would have the potential to generate noise levels in excess of established standards with the development of new stationary sources of noise and by increasing human activity throughout the project site. Potential noise generating facilities on site include the parking lot and outdoor activity areas. The South Education Center operating hours would be from 7:00 a.m. to 10:00 p.m. Monday thru Friday with limited course offerings on Saturday. It would be subject to the City's nighttime noise limits between 6:00 a.m. and 7:00 a.m., the daytime limits between 7:00 a.m. and 7:00 p.m., and evening limits between 7:00 p.m. and 10:00 p.m. The potential for a permanent increase in noise levels that would occur as a result of increased traffic on roadways is addressed in Section 4.6.3.3, Issue 3: Permanent Increase in Ambient Noise Levels.

The South Education Center exterior areas are situated in the southern and northern portions of the project site. The site is currently developed with an unfinished business park which consists of a single four-story, 110,000 square-foot building, a four-story, 574-space parking structure, and a 218-space surface parking lot. Proposed improvements include the installation of walking paths, landscaping, and drainage. The existing parking structure and surface parking spaces would remain in place. The walking paths would be passive uses that would generally not generate noise levels beyond normal conversation. The noise level for normal conversation is approximately 65 dBA at three feet and would not exceed 50 dBA more than 20 feet from the source (Caltrans 1998). These passive uses are separated from all NSLUs by at least 500 feet due to roadways and landscaping. Therefore, these uses would not result in a new source of noise with the potential to exceed the City's noise limits, and a significant impact would not occur.

Noise sources from parking areas include car alarms, door slams, radios, and tire squeals. These sources typically range from about 30 to 66 dBA at a distance of 100 feet (Gordon Bricken & Associates 1996), and are generally short-term and intermittent. However, noise sources from the parking areas would be different from each other in kind, duration, and location, so that the overall effects would be separate and in most cases would not affect noise-sensitive receptors at the same time. Therefore, noise generated from the parking spaces throughout the park would be less than significant. Implementation of the South Education Center renovations would not expose NSLUs to excessive noise levels and a significant impact would not occur.

In addition to the uses proposed above, the exterior areas as a whole would require regular landscape maintenance. Landscaping would require the use of powered equipment that would have the potential to generate excessive noise levels. However, landscape equipment would be subject to Section 10.80.101 of the City's noise ordinance. The ordinance prohibits operation of landscaping equipment between the hours of 7:00 p.m. and 7:00 a.m. during Pacific Standard Time and between 8:00 p.m. and 7:00 a.m. during Pacific Daylight Savings Time. All landscaping power equipment is required to conform to the City's noise limitations listed in Table 4.6-5. Therefore, compliance with the City's noise ordinance would ensure that landscaping activities would not result in a new source of excessive noise levels. Impacts would be less than significant.

Mechanical HVAC equipment is typically located on the ground or on rooftops of buildings and would have the potential to generate noise levels that average 65 dBA at a distance of 50 feet, and may run continuously during the day and night. Depending on where it is located, HVAC equipment could have the potential to generate noise that would exceed the City's hourly exterior noise limit for adjacent residences of 50 dBA during daytime hours, 45 dBA during evening hours, and 40 dBA at night, or the daytime limit of 60 dBA for commercial uses. For a single point source such as a piece of mechanical equipment, the sound level normally decreases by about 6 dBA for each doubling of distance from the source. The nearest residential NSLU with exterior uses is approximately 585 feet from the center of the existing structure. Existing HVAC systems located on the rooftop are shielded by mechanical screening. Accounting for the distance to the nearest residential NSLU and partial shielding from mechanical screening, HVAC noise levels would not exceed the City's nighttime standard of 40 dBA. Impacts would be less than significant.

Source: GoogleEarthPro, Atkins 2015

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FIGURE 4.6-2

Noise Receptor Locations

As described above, the proposed uses for the PCCD South Education Center are passive and would not generate substantial operational noise. Noise from human activity, which would generally consist of normal conversation, would be scattered throughout the exterior areas and would not combine to generate higher noise levels. HVAC equipment would create a new source of noise; however, compliance with the City's noise ordinance would ensure that noise is not excessive and would not substantially disturb adjacent residents. Therefore, impacts would be less than significant.

On-site Uses

This section addresses the potential for new NSLUs/sensitive receptors at the proposed PCCD South Education Center to be exposed to excessive noise levels. The project site is surrounded primarily by commercial and residential development. Offices, churches, and residences are typically not sources of substantial operational or mechanical noise. Occasional nuisance noise may result from the adjacent residences and office parking lots, including noise from loud music and/or car alarms. Daytime noise levels on the project site were measured at 52 dBA Leq (see Table 4.6-3). In addition, traffic noise levels on the roadways surrounding the project site would not exceed 65 dBA CNEL when propagated onto the project site. These ambient noise levels comply with the City's noise compatibility standard of 65 dBA CNEL for professional education facilities. Implementation of the proposed project would not result in the exposure of the new NSLUs to excessive noise levels. Thus, impacts would be less than significant.

Mitigation Measures

Impacts related to excessive noise levels would be less than significant without mitigation. Thus, no mitigation is required.

4.6.3.2 Issue 2 – Excessive Groundborne Vibration

Would the proposed PCCD South Education Center result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed may have a significant adverse impact if it would result in the exposure of persons to or generation of excessive groundborne vibration equal to or in excess of 0.2 in/sec PPV. Construction activities within 200 feet and pile driving within 600 feet would be potentially disruptive to vibration-sensitive operations (Caltrans 2002).

Impact Analysis

The main concerns associated with groundborne vibration from this type of project are annoyance and damage; however, vibration-sensitive instruments and operations, such as those found in hospitals and laboratories, can be disrupted at much lower levels than would typically affect other uses. In extreme cases, the vibration can cause damage to buildings, particularly those that are old or otherwise fragile. No vibration-sensitive land uses are proposed as part of the project or currently exist on the project site. Therefore, this analysis focuses on the potential for the project to generate vibration at surrounding medical, laboratory, educational, and religious uses. Construction of the looped road would require grading, but not deep excavation, and therefore it is assumed that blasting would not occur on the project site.

Vibration-sensitive instruments and operations may require special consideration during construction. Vibration criteria for sensitive equipment and operations are not defined and are often case specific. In general, the criteria must be determined based on manufacturer specifications and recommendations by the equipment user. As a guide, major construction activity within 200 feet and blasting within 500 feet may be potentially disruptive to sensitive operations (Caltrans 2002).

Construction Vibration

The nearest existing vibration-sensitive land uses to potential heavy duty equipment operation areas on the project site are medical, laboratory, educational, and religious uses to the south of the project site and residential uses to the north of the project site. The nearest of these uses is currently 100 feet from the nearest project boundary line, but more than 200 feet from the center of primary heavy duty equipment operation areas. Vibration levels attributable to heavy duty construction equipment decrease rapidly as they spread through the ground from the source. Vibration levels from the heaviest piece of equipment would attenuate to 0.191 PPV and 69 VdB at 100 feet, which would comply with applicable vibration standards at adjacent uses. Therefore, impacts attributable to heavy duty construction equipment vibration would be less than significant.

Mitigation Measures

Implementation of the project would not result in significant impacts related to groundborne vibration. No mitigation is required.

4.6.3.3 Issue 3 – Permanent Increase in Ambient Noise Levels

Would the proposed PCCD South Education Center result in a substantial permanent increase in ambient noise levels in the project vicinity above level existing without the project?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. For transportation-related noise, impacts are considered significant if the project volumes would result in an increase in the ambient noise environment: (1) by more than 3 dBA CNEL (because changes in noise levels of less than 3 dBA are generally not detectable to the human ear); or (2) that would expose NSLU to noise levels in exceedance of 60 dBA CNEL.

Impact Analysis

This section addresses the potential for implementation of the South Education Center to permanently increase ambient noise levels as a result of increased traffic noise. The potential for other noise sources associated with project implementation to result in increases in noise levels that would expose NSLU to excessive noise levels is addressed in Section 4.6.3.1, Issue 1: Excessive Noise Levels.

The potential for the project to permanently increase traffic noise is addressed under the following scenarios: near-term and future (Year 2035). Traffic volumes for each roadway are included in the Appendix G, Traffic Impact Analysis, of this EIR. Noise levels for area roadways were calculated using standard noise modeling equations adapted from the FHWA noise prediction model. The modeling

calculations take into account the posted vehicle speed, average daily traffic volume, and the estimated vehicle mix. The estimates are conservative because the model does not take into account buildings or topography that would provide noise attenuation. Noise levels at distances further from the source than the specific receptor would be lower due to attenuation provided by increased distance from the noise source. Generally, noise from heavily traveled roadways would experience a decrease of approximately 3 dBA for every doubling of distance from the roadway.

Near-Term Scenario

Existing and near-term increases in traffic, with and without the project, are provided in Table 4.6-6. As shown in this table, in the near-term all modeled segments of Rancho Bernardo Road would continue to generate noise levels that exceed the applicable noise threshold from Table 4.6-3, either 65 dBA CNEL for residences or 70 dBA CNEL standards for offices and professional uses. West Bernardo Drive and Via Del Campo would not exceed the 70 dBA CNEL threshold for office and professional uses. With implementation of the proposed project, noise levels along Rancho Bernardo Road would continue to meet or exceed the applicable noise compatibility threshold. However, the project would not result in any discernable increase in noise level compared to existing conditions or conditions without the proposed project. The project would also not result in any increase in noise level on Via Del Campo or West Bernardo Drive. Therefore, the project would not result in a significant traffic noise impact under the Near-Term + Project scenario.

Table 4.6-6 Near-Term + Project Traffic Noise Levels

Roadway/Segment	Applicable Threshold	Existing	Near Term (No Project)	Exceeds Threshold without Project?	Near Term + Project	Increase in Noise Level	Significant Impact?
Rancho Bernardo Road / Camino San Bernardo Road to Via Del Campo	70	73	73	Yes	74	1	No
Rancho Bernardo Road / Via Del Campo to Matinal Road	65	73	74	Yes	74	0	No
Rancho Bernardo Road / Matinal Road to West Bernardo Drive	65	73	74	Yes	74	0	No
Rancho Bernardo Road / West Bernardo Drive to I-15 SB Ramps	65	78	78	Yes	79	1	No
West Bernardo Drive / Via Del Campo to Bernardo Center Drive	70	68	68	No	68	0	No
Via Del Campo / Rancho Bernardo Road to West Bernardo Drive	70	62	62	No	62	0	No

Note: Noise levels are calculated at 50 feet from roadway centerline. Noise levels are based upon traffic data provided by LLG (2015). Traffic levels for each roadway are included in Appendix G, Traffic Impact Analysis, of this EIR.
Decibel levels are rounded to the nearest whole number. See Appendix F of this EIR, Noise Technical Report, for the data sheets.

Future (Year 2035) Scenario

The Future (Year 2035) scenario includes buildout of the project as well as the cumulative growth and development in the Rancho Bernardo Community anticipated by the Year 2035. Future increases in traffic,

with and without the project, are provided in Table 4.6-7. As shown in this table, modeled segments of Rancho Bernardo Road would continue to exceed the applicable thresholds for residences and offices without implementation of the project. West Bernardo Drive and Via Del Campo would not exceed the 70 dBA CNEL threshold for office and professional uses without the project. Implementation of the project would not result in a discernable increase in noise levels along any of the modeled roadway segments when compared with existing conditions or future conditions without project. Therefore, the project would not result in a significant impact.

Table 4.6-7 Future (Year 2035) Traffic Noise Levels

Roadway/Segment	Applicable Threshold	Future	Exceeds Threshold without Project?	Future + Project	Increase in Noise Level	Significant Impact?
Rancho Bernardo Road / Camino San Bernardo Road to Via Del Campo	70	74	Yes	74	0	No
Rancho Bernardo Road / Via Del Campo to Matinal Road	65	74	Yes	74	0	No
Rancho Bernardo Road / Matinal Road to West Bernardo Drive	65	74	Yes	74	0	No
Rancho Bernardo Road / West Bernardo Drive to I-15 SB Ramps	65	78	Yes	79	1	No
West Bernardo Drive / Via Del Campo to Bernardo Center Drive	70	69	No	69	0	No
Via Del Campo / Rancho Bernardo Road to West Bernardo Drive	70	63	No	63	0	No

Note: Noise levels are calculated at 50 feet from roadway centerline. Noise levels are based upon traffic data provided by LLG (2015). Traffic levels for each roadway are included in Appendix G, Traffic Impact Analysis, of this EIR.
Decibel levels are rounded to the nearest whole number. See Appendix F of this EIR, Noise Technical Report, for data sheets.

Mitigation Measures

Impacts related to permanent increases in ambient noise levels would be less than significant without mitigation. Thus, no mitigation is required.

4.6.3.4 Issue 4 – Temporary Increase in Ambient Noise Levels

Would the proposed PCCD South Education Center result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would result in exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies, or otherwise result a substantial temporary or periodic increase in ambient noise levels in the campus vicinity above levels existing without implementation of the proposed project.

Impact Analysis

Construction of the facilities proposed the South Education Center would generate noise that could expose nearby NSLU to elevated noise levels that may disrupt communication and routine activities. The magnitude of the impact would depend on the type of construction activity, equipment, duration of the construction phase, distance between the noise source and receiver, and intervening structures. Sound levels from typical construction equipment range from 60 dBA to 90 dBA Leq at 50 feet from the source (FHWA 2008). Noise from construction equipment generally exhibits point source acoustical characteristics. Strictly speaking, a point source sound decays at a rate of 6 dBA per doubling of distance from the source. The rule applies to the propagation of sound waves with no ground interaction.

The project would construct an approximately 1,238 foot-long looped road connecting the existing parking lot to the existing parking structure; implement drainage improvements; and install walkways, hardscape areas, and landscaping. Construction would begin in July 2016 and be completed in January 2018.

Construction Noise

Standard equipment, including front end loaders, backhoes, graders, and dozers, would be used for construction of the proposed project. Noise levels from construction on the project site were determined based on the construction equipment list provided by the applicant and typical equipment noise levels determined by the Roadway Construction Noise Model (RCNM) (FHWA 2008). The six noisiest pieces of construction equipment (grader, dozer, tractor, scraper, excavator, and paver) that could be required for the project were assumed to operate simultaneously in the same location, which would have the potential to generate noise levels up to 87 dBA at 50 feet from the construction site. These estimates are conservative because construction equipment would be spread out over several acres and would not be operating all at once.

The project site is surrounded by NSLU, including single-family residences, medical facilities, laboratories, educational institutes, and a church, the closest of which is located approximately 180 feet from the project boundary. The site is located 250 feet from a residential neighborhood and additional NSLU are located beyond the homes located north of the site. The worst-case construction noise levels would range from approximately 70 dBA to 75 dBA at the residential and medical, laboratory, educational, and religious uses to the north and south of the project site, respectively.

Although the project is not expected to exceed the City's construction noise limit of 75 dBA during the 12-hour period from 7:00 a.m. to 7:00 p.m., the exposure of short-term construction noise may be considered disruptive to adjacent uses during construction daytime operations. Because construction would comply with the applicable regulation for construction noise, temporary increases in noise levels from typical construction activities would be less than significant.

Mitigation Measures

Implementation of the project would not result in significant impacts from construction noise. No mitigation is required.

4.6.4 Cumulative Impacts

Noise is a localized phenomenon, and reduces in magnitude as distance from the source increases. Consequently, only projects and growth due to occur in the residential neighborhoods directly adjacent to the campus boundaries or impacts to the surrounding circulation system would be likely to contribute to cumulative noise impacts. It is not foreseeable that additional aviation uses would be introduced in the immediate campus area. Neither future development within the Rancho Bernardo, nor implementation of the proposed project would be likely to have any effect on future air traffic operations. Cumulative development in the surrounding Rancho Bernardo community is not likely to result in the exposure of people to or the generation of excessive groundborne vibration and/or noise levels, due to the localized nature of vibration impacts and because construction activities would not occur all at the same time or at the same location. Therefore, these issues are not subject to a cumulative impact analysis, and are not addressed in this section.

4.6.4.1 Substantial Permanent Ambient Noise Increases

Buildout of the proposed project, along with future cumulative growth in the Rancho Bernardo community, would result in increases in traffic that would cumulatively increase traffic noise. A significant cumulative impact would occur if the project, in combination with the other cumulative projects, would cause a roadway to exceed the City's noise compatibility standard for adjacent land uses. The potential noise impacts that would result from cumulative projects and cumulative growth are included in the Future (Year 2035) scenario. Table 4.6-8 compares Future (Year 2035) traffic noise levels to existing conditions. As shown in this table, noise levels along Rancho Bernardo Road would exceed the applicable noise threshold under the existing and future scenarios, and noise level would increase by 1 or 2 dBA CNEL in the future. A future increase in noise level would also occur on West Bernardo Road and Via Del Campo; however, noise levels would not exceed the 70 dBA CNEL threshold for office and professional uses. Additionally, none of the increases in noise level would be substantially attributable to the proposed project. Therefore, a cumulative impact associated with cumulative traffic noise would not occur on the area roadways.

4.6.4.2 Temporary Increases in Ambient Noise

Construction noise impacts are localized in nature because they are limited to the construction site where construction equipment is operating. As discussed in Section 4.6.3.4, sound levels from project construction would be up to 75 dBA approximately 250 feet from the construction site (FHWA 2008). However, there are no approved, planned, or foreseeable projects in the vicinity that would generate similar construction noise levels and the project would be subject to the San Diego construction noise ordinance, which limits construction noise to 75 dBA during the 12-hour period from 7:00 a.m. and 7:00 p.m. Compliance with the San Diego noise ordinance would reduce impacts to a less than significant level. Therefore, a significant cumulative impact would not occur.

Table 4.6-8 Cumulative Traffic Noise Impacts

Roadway/Segment	Existing[1]	Future (Year 2035) + Project	Increase in Noise Level	Significant Cumulative Impact?	Increase Attributable to Project[1]	Cumulatively Considerable Contribution?
Rancho Bernardo Road / Camino San Bernardo Road to Via Del Campo	73	74	+1	No	0	No
Rancho Bernardo Road / Via Del Campo to Matinal Road	73	74	+1	No	0	No
Rancho Bernardo Road / Matinal Road to West Bernardo Drive	73	74	+1	No	0	No
Rancho Bernardo Road / West Bernardo Drive to I-15 SB Ramps	78	79	+1	No	1	No
West Bernardo Drive / Via Del Campo to Bernardo Center Drive	68	69	+1	No	0	No
Via Del Campo / Rancho Bernardo Road to West Bernardo Drive	62	63	+1	No	0	No

N/A = Not applicable because noise level would not exceed the 70 dBA threshold for office and professional uses.

[1] Based on the results in Tables 4.6-6 and 4.6-7. The project's contribution to the cumulative noise impact is based on the increase in traffic noise attributable to the proposed project under the Future (Year 2035) scenario. If the project's contribution is less than three decibels, the project's contribution is not cumulatively considerable.

Note: Noise levels are calculated at 50 feet from roadway centerline. Noise levels are based upon traffic data provided by LLG (2015). Traffic levels for each roadway are included in Appendix G, Traffic Impact Analysis, of this EIR.
Decibel levels are rounded to the nearest whole number. See Appendix F of this EIR, Noise Technical Report, for data sheets.

4.6.4.3 Groundborne Vibration

Similar to noise effects, vibration is a localized phenomenon and is progressively reduced as the distance from the source increases. Therefore, the area of projects that would be considered for the vibration cumulative analysis would be only those projects close to the project site. There are no approved, planned or foreseeable projects in the vicinity that would generate similar vibration. Therefore, vibration generated by construction on the project site and other sites would not combine to generate cumulative vibration impacts. Once constructed, the proposed land use would not generate a significant source of vibration during normal operation. Therefore, a significant cumulative vibration impact would not occur.

4.6.5 CEQA Checklist Items Deemed Not Applicable to the Project

Would the proposed PCCD South Education Center be 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, and expose people residing or working in the project area to excessive noise levels?

The proposed PCCD South Education Center is not located within two miles of a public airport or public use airport. The nearest airport to the project site is MCAS Miramar, located approximately 12 miles south of the project site in the City of San Diego. The airport is a military installation operated by the U.S. Marine Corps. It is designated as a master jet facility and serves both fixed and rotary-wing aircraft. According to the Airport Land Use Compatibility Plan (ALUCP) for MCAS Miramar, the airfield is currently authorized for 112,242 annual aircraft operations (SDCRAA 2011). Due to distance, the project site is not located within the 60 dBA CNEL noise contour for the airport, or within the airport's area of influence. Thus, the

proposed project would not expose people residing or working in the project area to excessive noise levels associated with a public airport or public use airport. Thus, no impacts would occur.

Would the proposed PCCD South Education Center be located within the vicinity of a private airstrip, and expose people residing or working in the project area to excessive noise levels?

The proposed PCCD South Education Center is not located within the vicinity of a private airstrip. The closest private airstrip is the Pomerado Hospital Heliport, which is located approximately 2.5 miles southeast of the project site. Due to the distance from the heliport and the limited number of flights, the project site would not be subject to excessive noise levels related to heliport operations. Thus, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with a private airstrip, and no impacts would occur.

4.6.6 References

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4.7 Paleontological Resources

This section describes the existing conditions at the project site and in surrounding areas with respect to paleontological resources; the potential environmental effects (direct, indirect, and/or cumulative) resulting from implementation of the proposed project; and mitigation measures to reduce or avoid potentially significant impacts. The information provided in this section is based on the previously approved MND for Rancho Bernardo Industrial Park North – Lot 11 (SCH No. 2005031034) (City of San Diego 2005), which is incorporated by reference pursuant to CEQA Guidelines Section 15150 and available for review at the PCCD office located at Palomar College, San Marcos Campus, 1140 West Mission Road, San Marcos, CA 92069-1487.

4.7.1 Existing Conditions

4.7.1.1 Defining Paleontological Resources

Paleontology is a branch of geology that studies the life forms of the past, especially prehistoric life forms, through the study of plant and animal fossils. Paleontological resources are the fossilized remains or traces of multi-cellular invertebrate and vertebrate animals and multi-cellular plants, including their imprints from a previous geologic period. Fossil remains, such as bones, teeth, shells, and leaves, are found in the geologic deposits (rock formations) where they were originally buried, and are important because they provide indicators of the earth's chronology and history. Paleontological resources include not only the actual fossil remains, but also the collecting localities and the geologic formations containing those localities. Paleontological resources represent a limited, non-renewable, and sensitive scientific and educational resource.

4.7.1.2 Paleontological Resource Sensitivity

The County of San Diego has assigned resource sensitivity ratings to geologic formations in the San Diego region based on their potential for yielding paleontological resources (County of San Diego 2011). The levels of paleontological resource sensitivity are defined as follows:

- **High Sensitivity.** High sensitivity is assigned to geologic formations known to contain paleontological localities with rare, well-preserved, and/or critical fossil materials for stratigraphic or paleoenvironmental interpretation, and fossils providing important information about the paleobiology and evolutionary history (phylogeny) of animal and plant groups. Generally, high sensitivity formations are known to produce vertebrate fossil remains or are considered to have the potential to produce such remains.
- **Moderate Sensitivity.** Moderate sensitivity is assigned to geologic formations known to contain paleontological localities with moderately preserved, common elsewhere, or stratigraphically long-ranging fossil material. The moderate sensitivity category is also applied to geologic formations that are judged to have a strong, but unproven potential for producing important fossil remains (e.g., Pre-Holocene sedimentary rock units representing low to moderate energy, marine to non-marine depositional settings).

- **Low Sensitivity**. Low sensitivity is assigned to geologic formations that, based on their relative youthful age and/or high-energy depositional history, are judged unlikely to produce unique fossil remains. Typically, low sensitivity formations may produce invertebrate fossil remains in low abundance.

- **Marginal Sensitivity.** Marginal sensitivity is assigned to geologic formations that are composed either of pyroclastic volcanic rocks or metasedimentary rocks, but which nevertheless have a limited probability for producing fossil remains from certain sedimentary lithologies at localized outcrops.

- **Zero Sensitivity.** Zero sensitivity is assigned to geologic formations that are entirely plutonic in origin, such as basalt or granite, and therefore do not have any potential for producing fossil remains.

According to Geology of the San Diego Metropolitan Area (California Division of Mines and Geology 1975), the project site is underlain by the Friars Formation (Tf) and Santiago Peak Volcanics (Jsp). The Friars Formation is rich in vertebrate fossils, especially terrestrial mammals, and has also produced remains of marine microfossils, macroinvertebrates, and fossilized leaves. Based on the recovery of diverse and well-preserved fossil assemblages of both marine invertebrates and terrestrial vertebrates, the Friars Formation is assigned a high paleontological resource sensitivity (City of San Diego 2011).

The Santiago Peak Volcanics consist of metavolcanic and metasedimentary components. In general, the molten origin of this formation precludes the possible discovery of fossil remains. However, certain exposures of the metasedimentary portion of this formation have produced important remains of siliceous microfossils and marine macroinvertebrates. As such, the bulk of the Santiago Peak Volcanics corresponding to the metavolcanic portion is assigned a zero paleontological resources sensitivity, while the metasedimentary portion can be assigned a moderate paleontological resource sensitivity (City of San Diego 2011).

4.7.2 Regulatory Framework

4.7.2.1 Federal

The National Historic Preservation Act (NHPA) of 1966

The National Historic Preservation Act (NHPA) of 1966 established the framework that focused local, state, and national efforts with regards to the preservation of historic and archaeological resources. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations issued by ACHP (36 CFR Part 800). The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. In order to help identify these historic properties and provide community involvement, consulting parties are identified through coordination with the appropriate State Historic Preservation Officer.

4.7.2.2 Local

While California Government Code Section 53094 includes provisions for school districts to exempt specific school facilities from local zoning regulations, applicable objectives and policies of the City's Significant Determination Thresholds related to paleontological resources are identified for comparison.

City of San Diego

The City of San Diego Significant Determination Thresholds assists city staff, project proponents, and the public in determining whether a project, based on substantial evidence, may have a significant effect on the environment under Section 21082.2 of CEQA. Section 15064.7 of the CEQA Guidelines encourages public agencies to develop and publish such analytical tools. While California Government Code Section 53094 includes provisions for school districts to exempt specific school facilities from local zoning regulations, applicable objectives and policies of the City's Significant Determination Thresholds related to paleontological resources are identified for comparison. The City's Significance Determination Thresholds include the following guidelines to determine potential significance for impacts to paleontological resources:

1. Would the project require over 1,000 cubic yards of excavation in a high resource potential geologic deposit/formation/rock unit?
2. Would the project require over 2,000 cubic yards of excavation in a moderate resource potential geologic deposit/formation/rock unit?
3. Determine the geologic deposit/formation/rock unit underlying a project area. If there are sedimentary rocks such as those found in the coastal areas, they usually contain fossils. If there are granitic or volcanic rocks such as those found in the inland areas (Mission Gorge, etc.), they usually will not contain fossils.
4. See Paleontological Determination Matrix (Table 4.7-1)

4.7.3 Impacts and Mitigation

4.7.3.1 Issue 1 – Paleontological Resources

Would the proposed PCCD South Education Center directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?

Standards of Significance

According to Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Because paleontological resources are typically buried and, therefore, not apparent until revealed by grading and excavation, significant impacts to paleontological resources are often determined based on the geologic formations that would be disturbed and the potential for those geologic formations to contain fossils. The City of San Diego's CEQA Significance Determination Thresholds defines significant impacts on paleontological resources and identifies when paleontological monitoring is required (City of San Diego 2011). As described above in Section 4.7.2.2, under the City's thresholds, a significant impact would occur if a project would either 1) require over 1,000 cubic yards of excavation in

an area considered to have high paleontological sensitivity or 2) require over 2,000 cubic yards of excavation in an area considered to have moderate paleontological sensitivity. Paleontological monitoring is required under both of these conditions and when excavation will extend 10 feet or more in depth. No monitoring is required in areas with no or low paleontological sensitivity.

Table 4.7-1 City of San Diego Grading Thresholds for Required Monitoring

Geological Deposit/Formation/ Rock Unit	Potential Fossil Localities	Sensitivity Rating
Alluvium (Qsw, Qal, or Qls)	All communities where this unit occurs	Low
Ardath Shale (Ta)	All communities where this unit occurs	High
Bay Point/Marine Terrace (Qbp) [1]	All communities where this unit occurs	High
Cabrillo Formation (Kcs)	All communities where this unit occurs	Moderate
Delmar Formation (Td)	All communities where this unit occurs	High
Friars Formation (Tf)	All communities where this unit occurs	High
Granite/Plutonic (Kg)	All communities where this unit occurs	Zero
Lindavista Formation (Qln, Qlb) [2]	A. Mira Mesa/Tierrasanta B. All other areas	A. High B. Moderate
Lusardi Formation (Kl)	A. Black Mountain Ranch/Lusardi Canyon Poway/Rancho Santa Fe B. All other areas	A. High B. Moderate
Mission Valley Formation (Tmv)	All communities where this unit occurs	High
Mt. Soledad Formation (Tm, Tmss, Tmsc)	A. Rose Canyon B. All other areas where this unit occurs	A. High B. Moderate
Otay Formation (To)	All communities where this unit occurs	High
Point Loma Formation (Kp)	All communities where this unit occurs	High
Pomerado Conglomerate (Tp)	A. Scripps Ranch/Tierrasanta B. All other areas	A. High B. Moderate
River /Stream Terrace Deposits (Qt)	A. South Eastern/Chollas Valley/Fairbanks Ranch/Skyline/ Paradise Hills/Otay Mesa, Nestor/San Ysidro B. All other areas	A. Moderate B. Low
San Diego Formation (Qsd)	All communities where this unit occurs.	High
Santiago Peak Volcanics (Jsp) A. Metasedimentary B. Metavolcanic	A. Black Mountain Ranch/La Jolla Valley, Fairbanks Ranch/ Mira Mesa/Peñasquitos B. All other areas	A. Moderate B. Zero
Scripps Formation (Tsd)	All communities where this unit occurs	High
Stadium Conglomerate (Tst)	All communities where this unit occurs	High
Sweetwater Formation	All communities where this unit occurs	High
Torrey Sandstone (Tf)	A. Black Mountain Ranch/Carmel Valley B. All other areas	A. High B. Low

Source: City of San Diego 2011

Sensitivity Rating		Grading Thresholds for Required Monitoring
High	=	>1000 cubic yards and 10 feet+ deep
Moderate	=	>2000 cubic yards and 10 feet+ deep
Zero-Low	=	Monitoring not required

[1] Monitoring is always required when grading on a fossil recovery site or near a fossil recovery site in the same geologic deposit/formation/rock unit as the project site as indicated on the Kennedy Maps.

[2] Monitoring may be required for shallow grading (<10ft) when a site has previously been graded and/or unweathered geologic deposits/formations/rock units are present at the surface.

[3] Monitoring is not required when grading documented or undocumented artificial fill.

Impact Analysis

The proposed project would involve ground-disturbing activities including grading and excavation. It is anticipated that earthwork would consist of approximately 8,750 cubic yards of total cut to a maximum excavation depth of approximately 10 feet. As discussed in Section 4.7.1.2 above, the project site is underlain by the Friars Formation and Santiago Peak Volcanics, which are assigned high and moderate paleontological resource sensitivity, respectively. Thus, exposure of the Friars Formation during ground-disturbing activities has a high potential to unearth fossil remains. Because the specific location and significance of potential fossil remains are unknown, ground-disturbing activities could potentially damage or destroy unique paleontological resources. In accordance with the City of San Diego's Significance Determination Thresholds, grading and excavation in excess of 1,000 cubic yards in volume and 10 feet in depth within a high paleontological resource sensitivity geologic formation would represent a potentially significant impact. Therefore, implementation of the proposed project would result in a potentially significant impact to paleontological resources.

Mitigation Measures

Implementation of mitigation measure Pal-1 would reduce potential impacts to paleontological resources to a less than significant level.

Pal-1 **Paleontological Monitoring Program.** The following Paleontological Mitigation Program, as modeled after the City of San Diego's Paleontological Guidelines, shall be implemented by the PCCD:

I. Prior to Start of Construction

A. Verification of Records Search

1. The Principal Investigator shall complete a site specific records search including, but not limited to, a copy of a confirmation letter from San Diego Natural History Museum, other institution or, if the search was in-house, a letter of verification from the Principal Investigator stating that the search was completed.

2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.

B. Principal Investigator Shall Attend Precon Meetings

1. Prior to beginning any work that requires monitoring; the PCCD shall arrange a Precon Meeting that shall include the Principal Investigator, Construction Manager and/or Grading Contractor, Resident Engineer, Building Inspector, if appropriate. The Qualified Paleontologist shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Paleontological Monitoring Program with the Construction Manager and/or Grading Contractor.

a. If the Principal Investigator is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with the Principal

Investigator, Resident Engineer, Construction Manager or Building Inspector, if appropriate, prior to the start of any work that requires monitoring.

2. Identify Areas to be Monitored. Prior to the start of any work that requires monitoring, the Principal Investigator shall prepare a Paleontological Monitoring Exhibit based on the appropriate construction documents (reduced to 11x17) identifying the areas to be monitored including the delineation of grading/excavation limits. The Paleontological Monitoring Exhibit shall be based on the results of a site specific records search as well as information regarding existing known soil conditions (native or formation).

3. When Monitoring Will Occur

    a. Prior to the start of any work, the Principal Investigator shall also prepare a construction schedule indicating when and where monitoring will occur.

    b. The Principal Investigator will prepare a detailed letter prior to the start of work or during construction to identify any modification to the monitoring program. This letter shall be based on relevant information such as review of final construction documents which indicate conditions such as depth of excavation and/or site graded to bedrock, presence or absence of fossil resources, etc., which may reduce or increase the potential for resources to be present.

II. <u>During Construction</u>

A. Monitor Shall be Present During Grading/Excavation/Trenching

1. The monitor shall be present full-time during grading/excavation/trenching activities as identified on the Paleontological Monitoring Exhibit that could result in impacts to formations with high and moderate resource sensitivity. The Construction Manager is responsible for notifying the Principal Investigator of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the Paleontological Monitoring Exhibit.

2. The Principal Investigator may prepare a detailed letter during construction requesting a modification to the monitoring program when a field condition such as trenching activities that do not encounter formational soils as previously assumed, and/or when unique/unusual fossils are encountered, which may reduce or increase the potential for resources to be present.

3. The monitor shall document field activity via the Consultant Site Visit Record. The Consultant Site Visit Record shall be faxed by the Construction Manager the first day of monitoring, the last day of monitoring, monthly (Notification of Monitoring Completion), and in the case of any discoveries.

B. Discovery Notification Process

1. In the event of a discovery, the Paleontological Monitor shall direct the contractor to temporarily divert trenching activities in the area of discovery and immediately notify the Resident Engineer or Building Inspector, as appropriate.

2. The Paleontological Monitor shall immediately notify the Principal Investigator (unless the Paleontological Monitor is the Principal Investigator) of the discovery.

3. The Principal Investigator shall immediately notify PCCD by phone of the discovery, and shall also submit written documentation to PCCD within 24 hours by fax or email with photos of the resource in context, if possible.

C. Determination of Significance

1. The Principal Investigator shall evaluate the significance of the resource.

a. The Principal Investigator shall immediately notify PCCD by phone to discuss significance determination and shall also submit a letter to PCCD indicating whether additional mitigation is required. The determination of significance for fossil discoveries shall be at the discretion of the Principal Investigator.

b. If the resource is significant, the Principal Investigator shall submit a Paleontological Recovery Program. Impacts to significant resources must be mitigated before ground disturbing activities in the area of discovery will be allowed to resume.

c. If resource is not significant (e.g., small pieces of broken common shell fragments or other scattered common fossils) the Principal Investigator shall notify the Resident Engineer, or Building Inspector as appropriate, that a non-significant discovery has been made. The Qualified Paleontologist shall continue to monitor the area.

d. The Principal Investigator shall submit a letter to PCCD indicating that fossil resources will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that no further work is required.

III. Night and/or Weekend Work

A. If night and/or weekend work is included in the contract

1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the Precon Meeting.

2. The following procedures shall be followed.

a. No Discoveries. In the event that no discoveries were encountered during night and/or weekend work, the Principal Investigator shall record the information on the Consultant Site Visit Record and submit to PCCD via fax by 8:00 a.m. on the next business day.

b. Discoveries. All discoveries shall be processed and documented using the existing procedures detailed in Item III above.

c. Potentially Significant Discoveries. If the Principal Investigator determines that a potentially significant discovery has been made, the procedures detailed under Item III shall be followed.

d. The Principal Investigator shall immediately contact PCCD, or by 8:00 a.m. on the next business day to report and discuss the findings as indicated above, unless other specific arrangements have been made.

B. If night work becomes necessary during the course of construction

1. The Construction Manager shall notify the Resident Engineer, or Building Inspector, as appropriate, a minimum of 24 hours before the work is to begin.

2. The Resident Engineer or Building Inspector, as appropriate, shall notify PCCD immediately.

C. All other procedures described above shall apply, as appropriate.

IV. Post Construction

A. Preparation and Submittal of Draft Monitoring Report

1. The Principal Investigator shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the City's Paleontological Guidelines which describes the results, analysis, and conclusions of all phases of the Paleontological Monitoring Program (with appropriate graphics) to PCCD for review and approval within 90 days following the completion of monitoring.

a. For significant paleontological resources encountered during monitoring, the Paleontological Recovery Program shall be included in the Draft Monitoring Report.

b. Recording Sites with the San Diego Natural History Museum. The Principal Investigator shall be responsible for recording (on the appropriate forms) any significant or potentially significant fossil resources encountered during the Paleontological Monitoring Program in accordance with the City's Paleontological Guidelines, and submittal of such forms to the San Diego Natural History Museum with the Final Monitoring Report.

2. PCCD shall return the Draft Monitoring Report to the Principal Investigator for revision or, for preparation of the Final Report.

3. The Principal Investigator shall submit revised Draft Monitoring Report to PCCD for approval.

4. PCCD shall provide written verification to the Principal Investigator of the approved report.

B. Handling of Fossil Remains

1. The Principal Investigator shall be responsible for ensuring that all fossil remains collected are cleaned and catalogued.

2. The Principal Investigator shall be responsible for ensuring that all fossil remains are analyzed to identify function and chronology as they relate to the geologic history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.

C. Curation of fossil remains: Deed of Gift and Acceptance Verification

1. The Principal Investigator shall be responsible for ensuring that all fossil remains associated with the monitoring for this project are permanently curated with an appropriate institution.

2. The Principal Investigator shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the Resident Engineer or Building Inspector and PCCD.

D. Final Monitoring Report(s)

1. The Principal Investigator shall submit two copies of the Final Monitoring Report to PCCD (even if negative), within 90 days after notification from PCCD that the draft report has been approved.

2. The Resident Engineer shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from PCCD which includes the Acceptance Verification from the curation institution.

4.7.4 Cumulative Impacts

As indicated in Table 4-1 of this EIR, the geographic context for the analysis of cumulative impacts related to paleontological resources encompasses the Friars Formation geologic unit throughout the San Diego region. There is always a possibility that unknown buried fossil remains could be uncovered during ground-disturbing activities associated with present and future projects, particularly when development occurs within areas of high paleontological resource sensitivity such as the Friars Formation, thereby contributing to the regional loss of paleontological resources. Thus, the baseline cumulative impact to paleontological resources is considered significant.

As discussed above in Section 4.7.3.1 (Issue 1), the proposed PCCD South Education Center would result in a potentially significant impact to paleontological resources due to ground-disturbing activities within the underlying high resource sensitivity Friars Formation. However, mitigation measure Pal-1 would be implemented to reduce potential project-level impacts to paleontological resources to a less than significant level. Therefore, implementation of the proposed project would not result in a cumulatively considerable contribution to the significant cumulative paleontological resources impact.

4.7.5 CEQA Checklist Items Deemed Not Applicable to the Project

All CEQA checklist items related to paleontological resources have been thoroughly discussed in this section of the EIR; no topics were left unaddressed.

4.7.6 References

California Division of Mines and Geology. 1975. Geology of the San Diego Metropolitan Area, California – Bulletin 200. Geology of the Southwest ¼ Escondido Quadrangle. Map available at http://www.geology.sdsu.edu/kmlgeology/kmz/escondido/escondido.html

City of San Diego, Development Services Department. 2005. Mitigated Negative Declaration, Rancho Bernardo Industrial Park North – Lot 11, Project No. 1096, SCH No. 2005031034. June 23, 2005.

City of San Diego, Development Services Department. 2011. California Environmental Quality Act Significance Determination Thresholds. January 2011.

County of San Diego. 2011. General Plan Update Final Environmental Impact Report, SCH No. 2002111067. August.

4.8 Transportation and Traffic

This section describes the existing conditions at the project site and in surrounding areas with respect to transportation and traffic and the potential environmental effects (direct, indirect, and/or cumulative) related to these issues resulting from implementation of the proposed project. The information provided in this section is based on the Traffic Impact Analysis prepared by Linscott, Law & Greenspan, Engineers (LLG) in March 2016 (see Appendix G of this EIR).

In accordance with Section 15128 of the CEQA Guidelines, impacts related to changes in air traffic patterns that would result in substantial safety risks were determined not to be significant and are discussed below in Section 4.8.5, CEQA Checklist Items Deemed Not Applicable to the project.

4.8.1 Existing Conditions

4.8.1.1 Existing Circulation Network Serving the Project Site

The project site is located at 1111 Rancho Bernardo Road on a 27-acre site approximately one mile west of I-15 on the southeast corner of the Rancho Bernardo Road and Matinal Road intersection within the Community of Rancho Bernardo. Access to the project site is provided by an existing driveway located at the intersection of Rancho Bernardo Road/Matinal Road. The study area for the traffic analysis includes 10 intersections, nine street segments, two freeway segments, and two I-15 ramp meters. Figure 4.8-1 shows the study area and existing conditions for the transportation analysis. The traffic study area was based on the criteria identified in the City of San Diego *Traffic Impact Study Manual*, July 1998. The existing intersections, street and freeway segments, and Interstate ramp meters that service the project site include:

Intersections

- Rancho Bernardo Road/ Camino San Bernardo
- Rancho Bernardo Road/ Via Del Campo
- Rancho Bernardo Road/ Matinal Road
- Rancho Bernardo Road/ West Bernardo Drive
- Rancho Bernardo Road/ I-15 Southbound Ramps
- Rancho Bernardo Road/ I-15 Northbound Ramps
- Rancho Bernardo Road/ Bernardo Center Drive
- Rancho Bernardo Road/ Duenda Road
- West Bernardo Road/ Via Del Campo
- West Bernardo Road/ Bernardo Center Drive

Roadway Segments

- Rancho Bernardo Road
  - Camino San Bernardo to Via Del Campo
  - Via Del Campo to Olmeda Way
  - Olmeda Way to West Bernardo Drive
  - West Bernardo Drive to the I-15 Southbound Ramps
  - I-15 Northbound Ramps to Bernardo Center Drive
  - Bernardo Center Drive to Bernardo Oaks Drive

- West Bernardo Drive
  - Duenda Road to Rancho Bernardo Road
  - Via Del Campo to Bernardo Center Drive
- Via Del Campo
  - Rancho Bernardo Road to West Bernardo Drive

Freeway Mainline Segments

- I-15
  - North of Rancho Bernardo Road
  - South of Rancho Bernardo Road

Ramp Meter Locations

- I-15
  - Eastbound Rancho Bernardo Road to Southbound I-15
  - Eastbound Rancho Bernardo Road to Northbound I-15

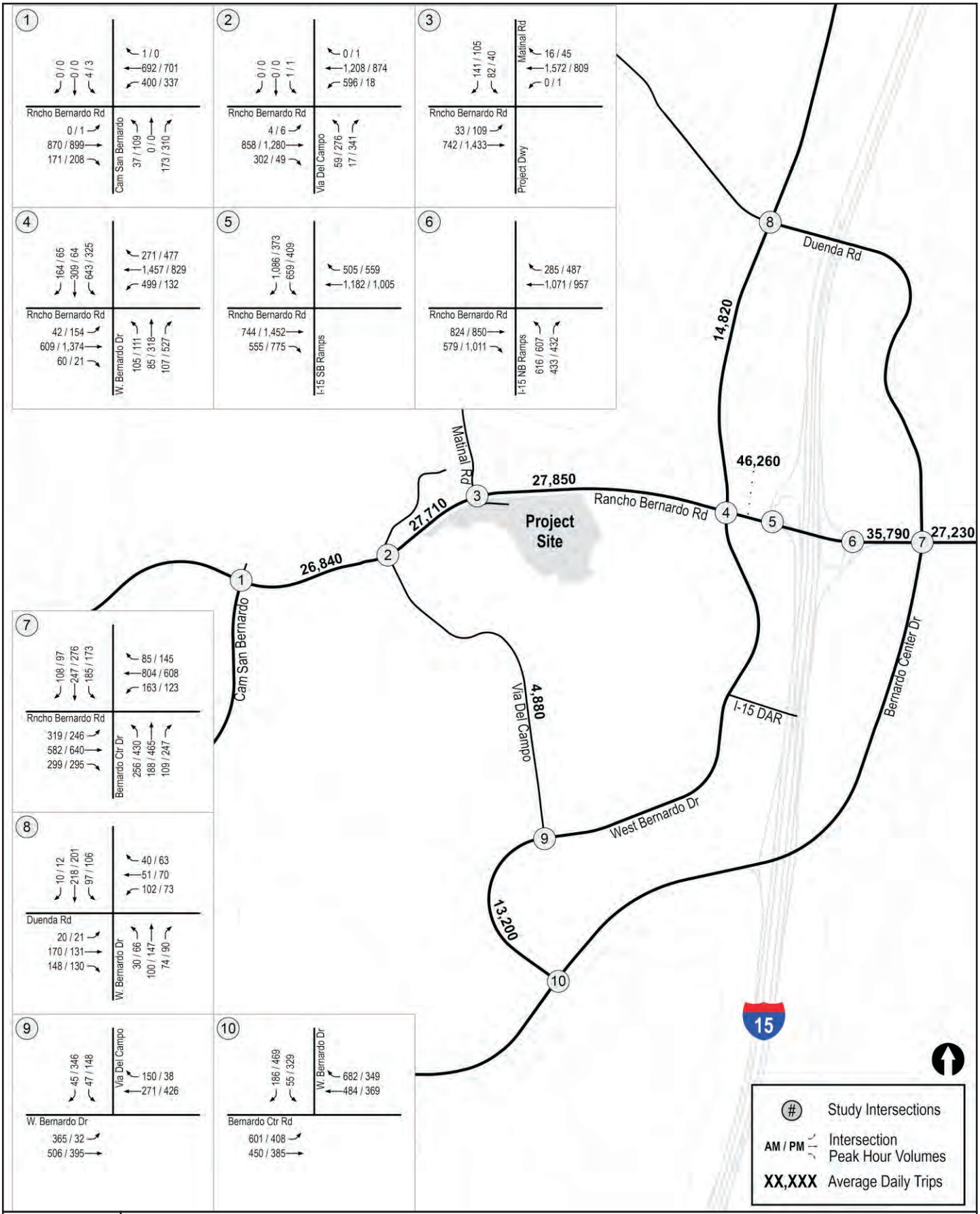
4.8.1.2 Existing Street System

The following provides a brief description of the street system in the project area. Figure 3–1 illustrates existing conditions in terms of traffic lanes and intersection controls.

Interstate 15 is constructed as a multi-lane freeway including four grade-separated high-occupancy vehicle (HOV) managed lanes. These "express lanes" traverse I-15 from SR-163 to SR-78. Concrete barriers separate the express lanes from the mainline traffic between SR-163 to Via Rancho Parkway. Double yellow lines separate the express lanes from the mainline lanes between Via Rancho Parkway and SR-78. The travel lanes are generally 12 feet in width and the shoulder is generally 10 to 12 feet in width a posted speed limit of 65 miles per hour (mph). A Direct Access Ramp (DAR) is located at the Rancho Bernardo Transit Station within close proximity to the proposed project. These ramps allow for immediate access to the express lanes eliminating the need to travel over multiple lanes of traffic to enter and exit the express lanes. According to Caltrans, mainline lanes provide a carrying capacity of 2,000 passenger cars per hour per lane (pc/hr/ln), auxiliary lanes provide for 1,600 pc/hr/ln and HOV lanes provide for a capacity of 1,200 pc/hr/ln.

Rancho Bernardo Road is classified on the Rancho Bernardo Community Plan and currently built as a Four-Lane Major Street with a level of service (LOS) "E" capacity of 40,000 average daily trips (ADT) from the City of San Diego limits just east of Via Del Campo to West Bernardo Drive. From West Bernardo Drive to Bernardo Center Drive it is classified as a Six-Lane Major Street. With a speed limit of 50 mph, a curb-to-curb width of approximately 108 feet, a 20-foot landscaped median and no on-street parking permitted, this segment functions as a Primary Arterial with an LOS E capacity of 60,000 ADT.

On the County of San Diego General Plan San Dieguito Mobility Element, Rancho Bernardo Road is classified and currently built as a 4.1A Major Road with Raised Median with an LOS E capacity of 37,000 ADT from Camino Del Norte to the San Diego City limits, just east of Via Del Campo. Curbside parking is prohibited and Class II bike lanes are provided along both sides of the roadway. The posted speed limit on Rancho Bernardo Road is 50 mph.



Source: LLG 2016

ATKINS

FIGURE 4.8-1

Existing Traffic Volumes

Via Del Campo is classified and currently built as a Three-Lane Collector with an LOS E capacity of 15,000 ADT on the Rancho Bernardo Community Plan. The "third lane" on Via Del Campo is represented by a two-way left-turn lane (TWLTL) median. The posted speed limit on Via Del Campo is 35 mph with curbside parking generally permitted along some sections of the roadway.

Matinal Road is classified and currently built as a Two-Lane Collector with an LOS E capacity of 8,000 ADT on the Rancho Bernardo Community Plan. Curbside parking is permitted along both sides of the roadway. The posted speed limit is 25 mph.

West Bernardo Drive is classified as a Four-Lane Major Street on the Rancho Bernardo Community Plan. West Bernardo Drive is currently constructed as a four-lane roadway divided by a TWLTL with an LOS E capacity of 30,000 ADT. Curbside parking is prohibited and Class II bike lanes are provided along both sides of the roadway from Matinal Road continuing south within the study area. The posted speed limit on West Bernardo Drive is 40 mph.

4.8.1.3 Existing Traffic Volumes

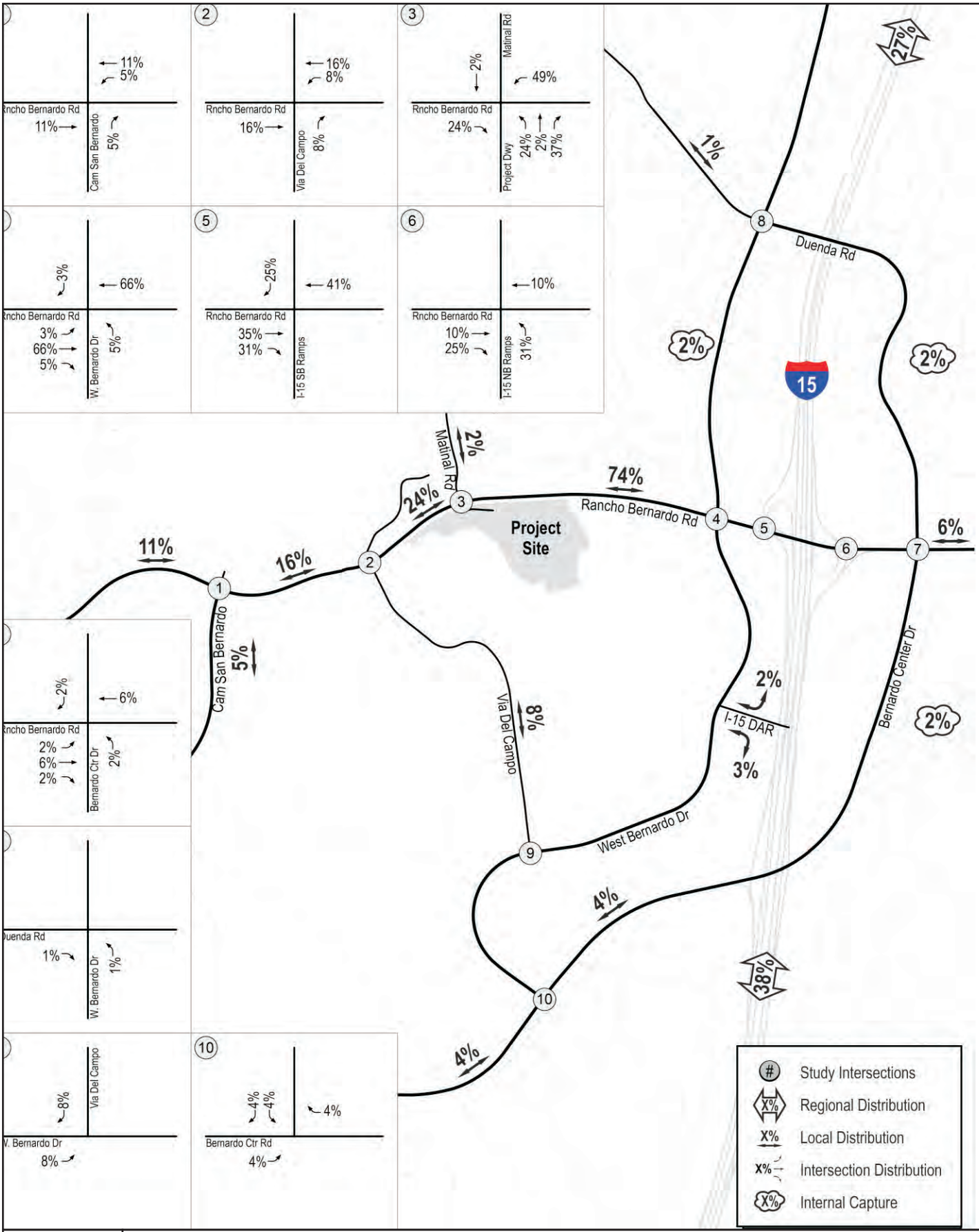
In order to capture the peak commuter activity at key intersections, AM and PM peak hour traffic volumes were collected while schools were in session on May 19, 2015. Additionally, 24-hour street segment counts were collected on May 19, 2015 and June 9, 2015 while schools were in session to determine the existing street segment ADT volumes in the project area. Peak hour and daily freeway volumes were taken from the most recent Caltrans Performance Measurement System (PeMS) data. The PeMS software distributes real-time peak hour and average daily traffic volumes and provides a graphical representation of volumes at each PeMS station location. Average daily freeway volumes and peak hour freeway volumes were from May 19, 2015 in order to be consistent with the counts for intersection and street segment volumes. Table 4.8-1 lists the ADT for the street and freeway segments included within the study area. Figure 4.8-2 shows the project trip distribution throughout the study area.

Table 4.8-1 Existing Traffic Volumes

Street Segment	ADT[1]
Rancho Bernardo Road	
Camino San Bernardo to Via Del Campo	26,840
Via Del Campo to Matinal Road	27,710
Matinal Road to West Bernardo Drive	27,850
West Bernardo Drive to I-15 SB Ramps	46,260
I-15 NB Ramps to Bernardo Center Drive	35,790
Bernardo Center Drive to Bernardo Oaks Drive	27,230

Street Segment	ADT[1]
West Bernardo Drive	
Duenda Road to Rancho Bernardo Road	14,820
Via Del Campo to Bernardo Center Drive	13,200
Via Del Campo	
Rancho Bernardo Road to West Bernardo Drive	4,880
Freeway Segments[2]	
North of Rancho Bernardo Road	209,200
South of Rancho Bernardo Road	217,400

[1] Average Daily Traffic Volumes. Data collected by LLG, Engineers in May and June 2015 while schools were in session.
[2] Caltrans ADT taken from May 19, 2015 PeMS data, rounded to the nearest tenth.
Source: LLG 2016



Source: LLG 2016

FIGURE 4.8-2

Project Traffic Distribution

4.8.1.4 Level of Service Standards

Level of service (LOS) is the term used to denote the different operating conditions on a given roadway segment or intersection under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis accounting for factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS designation is reported differently for signalized intersections, unsignalized intersections, roadway segments and freeway segments, as described in the paragraphs below.

Signalized Intersections

Signalized intersections were analyzed under AM and PM peak hour conditions, where average vehicle delay was determined by utilizing the methodology found in Chapter 18 of the 2010 Highway Capacity Manual (HCM), with the assistance of the Synchro version 9 software. The delay values (represented in seconds) were qualified with a corresponding intersection LOS.

Street Segments

Street segment analysis is based upon the comparison of ADT volumes to the City of San Diego's and County of San Diego's *Roadway Classification, Level of Service, and ADT Table*. These tables provide segment capacities for different street classifications, based on traffic volumes and roadway characteristics.

Freeway Segments

Freeway segment LOS is based on the volume to capacity (V/C) ratio on the freeway. The analysis of freeway segment LOS is based on the methodologies outlines in the SANTEC/ITE Guidelines developed by Caltrans. The procedure involves comparing the peak-hour volume of the mainline segment to the theoretical capacity of the roadway, and then comparing that ratio to accepted ranges of V/C values corresponding to the various LOS for each facility classification. The corresponding LOS represents an approximation of existing or future freeway operating conditions. Freeway segments were analyzed during the AM and PM peak hours. The assessment of key freeway segments is necessary to satisfy the requirements of the CMP.

Existing counts were taken from the PeMS on the date of May 19, 2015, the same date for which manual street segment and intersection counts were collected. HOV lanes were excluded from the collected traffic volumes and freeway capacity since these lanes operate at a relatively constant flow and are not part of the mainline flow of freeway traffic. The freeway LOS operations are summarized in Table 4.8-2.

Freeway Ramp Meters

Ramp delays and queues were calculated using a calculated delay and queue methodology, which is based solely on the specific time intervals at which the ramp meter is programmed to release traffic entering the freeway. The results are theoretical and based on the most restrictive (rate code F) ramp meter rate. HOV counts were available via the PeMS software and were included in the analysis. The one-hour peak period selected from PeMS data represents the peak hour for traffic on the freeway ramps and may differ from the peak hour volume calculated for the entire intersection. The calculated delay and queue

approach generally tends to produce unrealistic queues lengths and delays. Furthermore, the fixed rate approach does not take into account driver behavior and trip diversion due to high ramp meter delays.

Table 4.8-2 Freeway Segment LOS Definitions

LOS	V/C	Congestion/Delay	Traffic Description
Used for freeways, expressways and conventional highways			
A	<0.41	None	Free flow
B	0.42-0.62	None	Free to stable flow, light to moderate volumes.
C	0.63-0.80	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted
D	0.81-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
E	0.93-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
Used for freeways and expressways			
F(0)	1.01-1.25	Considerable 0-1 hour delay	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go.
F(l)	1.26-1.35	Severe 1-2 hour delay	Very heavy congestion, very long queues.
F(2)	1.36-1.45	*Very Severe 2-3 hour delay*	Extremely heavy congestion, longer queues, more numerous breakdown points, and longer stop periods.
F(3)	>1.46	Extremely Severe 3+ hours of delay	Gridlock

Source: LLG 2016

4.8.1.5 Existing Facilities Levels of Service

Existing Intersections Levels of Service

Table 4.8-3 summarizes the existing LOS at the 10 intersections in the study area. As shown in this table, all intersection within the study area are operating at a LOS D or better.

Existing Street Segment Level of Service

Table 4.8-4 summarizes the existing LOS of the nine street segments were evaluated in the study area. As shown in this table, all existing street segments are operating at an LOS D or better, except for Rancho Bernardo Road between the I-15 Northbound Ramps and Bernardo Center Drive, which is operating at LOS E.

Existing Freeway Segments Levels of Service

Table 4.8-5 summarizes the existing freeway segments on the I-15. As shown in this table, the northbound and southbound segments of I-15 north and south of Rancho Bernardo Road currently operate at an acceptable LOS D or better during both the AM and PM peak hours with the exception of the segment on the I-15 south of Rancho Bernardo Road in the southbound direction. The segment on the I-15 south of Rancho Bernardo Road in the southbound direction is calculated to operate at LOS E in the AM peak hour.

Table 4.8-3 Existing Intersection Operations

Intersection	Control Type	Peak Hour	Existing	
			Delay[1]	LOS[2]
Rancho Bernardo Road to Camino San Bernardo	Signal	AM PM	17.1 21.8	B C
Rancho Bernardo Road to Via Del Campo	Signal	AM PM	33.6 21.2	C C
Rancho Bernardo Road to Matinal Road	Signal	AM PM	17.6 11.9	B B
Rancho Bernardo Road to West Bernardo Drive	Signal	AM PM	37.8 38.1	D D
Rancho Bernardo Road to I-15 SB Ramps	Signal	AM PM	28.7 15.6	C B
Rancho Bernardo Road to I-15 NB Ramps	Signal	AM PM	21.1 21.0	C C
Rancho Bernardo Road to Bernardo Center Drive	Signal	AM PM	29.3 34.1	C C
West Bernardo Drive to Duenda Road	Signal	AM PM	20.9 21.3	C C
West Bernardo Drive to Via Del Campo	Signal	AM PM	15.7 19.0	B B
West Bernardo Drive to Bernardo Center Drive	Signal	AM PM	15.5 17.0	B B

[1] Average delay expressed in seconds per vehicle.
[2] LOS = Level of Service
Source: LLG 2016

SIGNALIZED THRESHOLDS		UNSIGNALIZED THRESHOLDS	
DELAY	LOS	DELAY	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.1	B	10.1 to 15.1	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

Table 4.8-4 Existing Street Segment Operations

Street Segment	Classification	Capacity (LOS E)[1]	ADT[2]	LOS[3]	V/C[4]
Rancho Bernardo Road					
Camino San Bernardo to Via Del Campo	4-lane Major Road	40,000	26,840	C	0.671
Via Del Campo to Matinal Road	4-lane Major Road	40,000	27,710	C	0.693
Matinal Road to West Bernardo Drive	4-lane Major Road	40,000	27,850	C	0.696
West Bernardo Drive to I-15 SB Ramps	6-lane Primary Arterial	60,000	46,260	C	0.771
I-15 NB Ramps to Bernardo Center Drive[5]	4-lane Major Road	40,000	35,790	E	0.895
Bernardo Center Drive to Bernardo Oaks Drive	4-lane Major Road	40,000	27,230	C	0.681
West Bernardo Drive					
Duenda Road to Rancho Bernardo Road	4-lane Collector with two-way left-turn lane	30,000	14,820	C	0.494
Via Del Campo to Bernardo Center Drive	4-lane Collector with two-way left-turn lane	30,000	13,200	B	0.440
Via Del Campo					
Rancho Bernardo Road to West Bernardo Drive	3-lane Collector[6]	15,000	4,880	A	0.325

(1) Capacities based on City of San Diego Roadway Classification Table
(2) ADT = Average Daily Traffic volumes
(3) LOS = Level of Service
(4) V/C = Volume to Capacity ratio
(5) With a speed limit of 50 mph, a curb-to-curb width of approximately 108 feet, a 20-foot landscaped median and no on-street parking, the characteristics of this segment functions as a Primary Arterial with an LOS E capacity of 60,000 ADT
(6) Roadway consists of two travel lanes with a two-way center turn lane. *Rancho Bernardo Community Plan* 3-Lane Collector equivalent to 2-Lane Collector with two-way left-turn lane (third lane)
Source: LLG 2016

Table 4.8-5 Existing Freeway Segment Operations

Freeway Segment	Dir.	# of Lanes	Hourly Capacity[1]	Volume[2]	Peak Hour Volume[3]		V/C[4]		LOS[5]	
					AM	PM	AM	PM	AM	PM
Interstate 15										
North of Rancho Bernardo Road	NB	5M+2ML	10,000	209,200	5,406	8,874	0.541	0.887	B	D
	SB	5M+2ML+1A	11,500		9,461	6,681	0.823	0.581	D	B
South of Rancho Bernardo Road	NB	4M+2ML+1A	11,500	217,400	6,211	9,136	0.540	0.794	B	C
	SB	4M+2ML	10,000		9,352	6,965	0.935	0.697	E	B

(1) Capacity calculated at 2,000 passenger cars per hour per lane (pcphpl) for mainline and 1,500 pcphpl for auxiliary lanes per *Caltrans Guide for the Preparation of Traffic Impact Studies, Dec 2002.* Managed Lanes (ML) excluded from the mainline analysis
(4) Existing ADT volumes taken from most recent May 19, 2015 PeMS traffic volumes
(3) Peak hour volumes taken from most recent May 19, 2015 PeMS traffic volumes
(4) V/C = Peak Hour Volume/Hourly Capacity
(5) LOS = Level of Service
Source: LLG 2016

LOS	V/C
A	<0.41
B	0.62
C	0.80
D	0.92
E	1.00
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

Existing Freeway Ramp Meter Operations

Table 4.8-6 summarizes the existing operations of the two on-ramp meter facilities within the study area. As shown in this table, the metered operations of the I-15 on-ramps are calculated to currently operate with zero minutes of delay during the AM peak hour and with 8.3 minutes of delay during the PM peak hour.

Table 4.8-6 Existing Ramp Meter Operations

Location	Peak Hour[1]	Peak Hour Demand (D)[2]	Flow (F)[3]	Excess Demand (E) (veh)	Delay (min.)	Queue (ft.)[4]
I-15 / Rancho Bernardo Road Interchange						
Eastbound Rancho Bernardo Road to Southbound I-15 (2 SOV + 1 HOV)[5]	AM	333	600	0	0.0	0
Eastbound Rancho Bernardo Road to Northbound I-15 (1 SOV + 1 HOV)[5]	PM	656	576	80	8.3	2,000

[1] Peak hours shown during ramp meter operations
[2] Peak hour demand in vehicles/hour/lane per SOV lane; volumes taken from PeMS May 19, 2015 data
[3] Meter Rates obtained from Caltrans
[4] Queue calculated assuming vehicle length of 25 feet
[5] SOV = Single-Occupancy Vehicle, HOV = High Occupancy Vehicle
Source: LLG 2016

4.8.1.6 Alternative Transportation

Transit Service

The Rancho Bernardo Transit Station is located on West Bernardo Drive at the I-15 DAR to the I-15 Managed Lanes. The DAR provides immediate access to the I-15 express lanes for Metropolitan Transit System (MTS) Express Bus Service, carpools and vanpools, permitted clean air vehicles, and solo drivers using a FasTrak® account.

The Rancho Bernardo Transit Station is served by Express Bus Route 237 (Rancho Bernardo to UC San Diego) and 270 (Rancho Bernardo to Sorrento Mesa) along with the Rapid Express I-15 Service Route 290 (Rancho Bernardo/Sabre Springs to Downtown). All three routes run as a home-to-work/work-to-home commuter service on weekdays only. Transfer service is available from the Rancho Bernardo Transit Center to additional transit routes serving the greater San Diego area. The Rancho Bernardo Transit Station is also served by Bus Route 20 (Downtown to Rancho Bernardo) during all week and weekend days.

Current local bus transit service is provided in the Rancho Bernardo Community via Route 945 (Rancho Bernardo to Old Poway Park) which has a transit stop just over 0.5 mile from the project site at the Rancho Bernardo Road/West Bernardo Drive intersection in addition to the Rancho Bernardo Transit Station. This route primarily travels along Pomerado Road connecting the Rancho Bernardo, Carmel Mountain, Sabre Springs, and City of Poway communities. Stops at the Rancho Bernardo Transit Station occur roughly every 30 minutes from 5:00 a.m. to 7:00 p.m. during the week and approximately every hour and a half from 8:00 a.m. to 6:30 p.m. on Saturdays. No service is provided on Sundays.

Bicycle Circulation

Class II bicycle lanes are provided along Rancho Bernardo Road from West Bernardo Drive continuing west within the study are; on West Bernardo Drive north and south of Rancho Bernardo Road; and on Bernardo Center Drive from West Bernardo Drive to Rancho Bernardo Road. Class II bicycle lanes are also provided from the I-15 freeway ramps to Camino Del Norte. Class II bicycle lanes are defined by pavement striping and signage used to allocate a portion of a roadway for exclusive or preferential bicycle travel (City of San Diego 2011). Additionally, a Class III bike route extends to the east on Rancho Bernardo Road. Class III bike routes provide shared use with motor vehicle traffic within the same travel lane. Designated by signs, bicycle routes provide continuity to other bicycle facilities or designate preferred routes through corridors with high demand.

Pedestrian Circulation

The study area is a pedestrian-friendly environment that is highly walkable with contiguous sidewalks provided along both sides of the streets. Traffic signals at all major intersections provide controlled pedestrian crosswalks and allow for safe pedestrian connections within the study area.

4.8.2 Regulatory Framework

4.8.2.1 Federal

Highway Capacity Manual

The HCM, prepared by the federal Transportation Research Board (TRB), is the result of a collaborative multi-agency effort between the agency, Federal Highway Administration, and the American Association of State Highway and Transportation Officials. The HCM contains concepts, guidelines, and procedures for computing the capacity and quality of service of various transportation facilities, including freeways, signalized and unsignalized intersections, and rural highways, and the effects of transit, pedestrians, and bicycles on the performance of these systems.

Title 23, Code of Federal Regulations

Revised in April 1, 2005, the Code of Federal Regulations (CFR) Section 450.220 of Title 23 requires each state to carry out a continuing, comprehensive, and intermodal statewide transportation planning process. This planning process must include the development of a statewide transportation plan and transportation improvement program that facilitates the efficient, economic movement of people and goods in all areas of the state.

Moving Ahead for Progress in the 21st Century Act

On July 6, 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law. MAP-21 revised the policy and programmatic framework for investments meant to guide the nation's surface transportation system's growth and development. MAP-21 establishes a streamlined and performance-based surface transportation program, which builds upon many of the highway, transit, bike, and pedestrian programs and policies established by the Intermodal Surface Transportation Efficiency Act of 1991.

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

On August 10, 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was signed into law. SAFETEA-LU addresses the many challenges facing transportation systems and sets funding and programs to improve safety, reduce traffic congestion, improve efficiency in freight movement, increase intermodal connectivity, and protect the environment. SAFETEA-LU promotes more efficient and effective federal surface transportation programs by focusing on transportation issues of national significance, while giving state and local transportation decision makers more flexibility for solving transportation problems in their communities.

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 is a wide-ranging civil rights law that prohibits, under certain circumstances, discrimination based on disability. The 2010 ADA Standards for Accessible Design set minimum requirements for new construction and alterations of state and local government facilities, public accommodations, and commercial facilities. Each facility must be designed and constructed in a manner such that the facility or part of the facility is readily accessible to and usable by individuals with disabilities, including the provision of accessible routes such as curb ramps. Specifically, the standards for the provision of curb ramps include the following:

- Newly constructed or altered streets, roads, and highways must contain curb ramps or other sloped areas at any intersection having curbs or other barriers to entry from a street level pedestrian walkway.
- Newly constructed or altered street level pedestrian walkways must contain curb ramps or other sloped areas at intersections to streets, roads, or highways.

Alterations to historic properties may provide alternative methods of access if it is not feasible to provide ADA accessible routes.

4.8.2.2 State

California Department of Transportation Standards

The California Department of Transportation (Caltrans) is responsible for planning, designing, building, operating, and maintaining California's transportation system. Caltrans sets standards, policies, and strategic plans that aim to do the following: (1) provide the safest transportation system for users and workers; (2) maximize transportation system performance and accessibility; (3) efficiently deliver quality transportation projects and services; (4) preserve and enhance California's resources and assets; and (5) promote quality service. Caltrans has the discretionary authority to issue special permits for the use of State highways for other than normal transportation purposes. Caltrans also reviews all requests from utility companies, developers, volunteers, nonprofit organizations, and others desiring to conduct various activities within the State Highway right-of-way. The Caltrans Highway Design Manual, prepared by the Office of Geometric Design Standards (Caltrans 2012), establishes uniform policies and procedures to carry out the highway design functions of Caltrans. Caltrans has also prepared a *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2002) to provide consistency and uniformity in the identification of traffic impacts generated by local land use proposals.

Statewide Transportation Improvement Program

The California 2014 Statewide Transportation Improvement Plan (STIP), approved by the U.S. Department of Transportation in August 2013, is a multiyear, intermodal program of transportation projects that is consistent with the statewide transportation planning processes, metropolitan plans, and Title 23 of the CFR. The STIP is prepared by Caltrans in cooperation with the Metropolitan Planning Organizations (MPOs) and the Regional Transportation Planning Agencies. In San Diego County, the MPO and Regional Transportation Planning Agency is SANDAG. The STIP contains all capital and non-capital transportation projects or identified phases of transportation projects for funding under the federal Transit Act and CFR Title 23, including federally funded projects.

4.8.2.3 Regional

SANDAG Congestion Management Program

State Proposition 111, passed by voters in 1990, established a requirement that urbanized areas prepare and regularly update a Congestion Management Program (CMP), which is a part of the RTP. The purpose of the state-mandated CMP is to monitor the performance of the roadway transportation system, develop programs to address near-term and long-term congestion, and better integrate transportation and land use planning. By addressing congestion early through the CMP, larger future problems that would require more expensive solutions can be avoided. In the short-term, the CMP serves as an element of the RTP, focusing on congestion management strategies that can be implemented in advance of the long- range transportation solutions contained within the RTP. SANDAG, as the designated Congestion Management Agency for the San Diego region, must develop, adopt, and regularly update the CMP, which includes six specific components as described below:

- **Roadway Monitoring.** Designate a CMP roadway system, establish a level of service standard for the system, and monitor congestion levels against the standard.
- **Multimodal Performance Measures**. Establish performance measures to evaluate the region's multimodal transportation system.
- **Transportation Demand Management**. Establish a transportation demand management element that promotes alternative transportation strategies.
- **Land Use Impact Analysis**. Establish a program to analyze the effects of local land use decisions on the CMP transportation system.
- **Capital Improvement Program**. Prepare a capital improvement program of projects that maintains or improves the performance of the transportation system.
- **Deficiency Plan**. Prepare a plan of remedial actions when the roadway level of service standard is not maintained on the designated CMP roadway system.

2050 Regional Transportation Plan

SANDAG adopted the 2050 RTP and the Sustainable Communities Strategy (SCS) on October 28, 2011. The 2050 RTP maps out a system designed to maximize transit enhancements, integrate biking and walking elements, and promote programs to reduce demand and increase efficiency. The RTP also identifies the plan for investing in local, state and federal transportation facilities in the region over the next 40 years. The SCS integrates land use and housing planning within the transportation plan. The SCS also addresses

how the transportation system will be developed in such a way that the region is able to reduce per-capita GHG emissions to state-mandated levels.

2010 Regional Transportation Improvement Program

The Regional Transportation Improvement Program (RTIP) is a multi-year program of proposed major highway, arterial, transit, and bikeway projects. The 2010 RTIP is a prioritized program designed to implement the region's overall strategy for providing mobility and improving the efficiency and safety of efforts to attain federal and state air quality standards for the region. The 2010 RTIP also incrementally implements the latest update to the RTP. The 2010 RTIP covers fiscal years 2011 to 2015. The 2010 RTIP, including an air quality emissions analysis for all regionally significant projects, was adopted on December 14, 2010.

4.8.2.4 Local

While California Government Code Section 53094 includes provisions for school districts to exempt specific school facilities from local zoning regulations, applicable objectives and policies of the City's Significant Determination Thresholds related to transportation and traffic are identified for comparison.

City of San Diego General Plan

The Mobility Element of the City of San Diego General Plan establishes the goals and policies for circulation in the City of San Diego, including vehicular and alternative modes of transportation. The overall goal of the element is to further the attainment of a balanced, multi-modal transportation network in order to reduce congestion and increase transportation choices. Transportation planning is closely linked to land use planning to meet the needs of existing and future residents. Goals of the element include walkable communities, increased transit convenience and ridership, a well-maintained and interconnected street and freeway system, implementation of an Intelligent Transportation System than improves transportation efficiency and safety, implementation of transportation demand management strategies to reduce single-occupant vehicle traffic, safe and comprehensive bicycle facilities, parking management, an integrated air transportation system, improved rail travel opportunities, safe and efficient movement of goods and freight service, and regional coordination and financing.

City of San Diego Bicycle Master Plan

The Bicycle Master Plan includes a proposed network, policies, and programs to improve bicycled in the City through 2030. The goals and objectives of the Bicycle Master Plan are derived from the City's General Plan and are strengthened with additional policies that provide specific guidance for achieving an ideal bicycling environment. The goals of the Plan are to create:

- A city where bicycling is a viable travel choice, particularly for trips of less than five miles
- A safe and comprehensive local and regional bikeway network
- Environmental quality, public health, recreation and mobility benefits through increased bicycling

These goals are supported by twelve key policies that will help bicycling become a more viable transportation mode for trips of less than five miles, to connect to transit and for recreation.

City of San Diego Pedestrian Master Plan

The Pedestrian Master Plan (PMP) was developed to guide the way the City plans and implements new or enhanced pedestrian projects. This PMP will help the City enhance neighborhood quality and mobility options by facilitating pedestrian improvement projects. The PMP identifies and prioritizes pedestrian projects based on technical analysis and community input, and improves the City's ability to receive grant funding for implementing these projects. The vision for the PMP is to create a safe, accessible, connected and walkable pedestrian environment that enhances neighborhood quality and promotes walking as a practical and attractive means of transportation in a cost-effective manner. The overall goals needed to support this vision statement include safety, accessibility, connectivity and walkability.

City's Municipal Code

The City of San Diego Municipal Code (SDMC) identifies parking requirements in Chapter 14, Article 2, Division 5. Based on a review of the SDMC, parking requirements are not provided for a community college land use. The only education-related land uses mentioned in the code relate to kindergarten through ninth grade, grade 10 through 12 schools, and vocational/trade schools.

4.8.3 Impacts and Mitigation

4.8.3.1 Issue 1 – Increases in Traffic

Would the project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Standards of Significance

Based on the City of San Diego's Significance Determination Thresholds dated January 2011, a project is considered to have a significant impact if project traffic would decrease the operations of surrounding roadways by a defined threshold. For projects deemed complete on or after January 1, 2007, the City defined thresholds are shown in Table 4.8-7. The segment of Rancho Bernardo Road between Camino San Bernardo and Via Del Campo is located in both the City of San Diego and County of San Diego. The traffic count data collected along this roadway was located within the City's jurisdiction. Therefore, the City of San Diego's significance criteria was applied since the portion of the roadway closest to the project is within City Limits and the project is located within the City of San Diego.

The impact is designated either a "direct" or "cumulative" impact. Direct traffic impacts are those projected to occur at the time a proposed development becomes operational, including other developments not presently operational but which are anticipated to be operational at that time (near term). *Cumulative* traffic impacts are those projected to occur at some point after a proposed development becomes operational, such as during subsequent phases of a project and when additional proposed developments in the area become operational (short-term cumulative) or when affected community plan area reaches full planned buildout (long-term cumulative). According to the City's Significance Determination Thresholds, it is possible that a project's near term (direct) impacts may be reduced in the long term, as future projects develop and provide additional roadway improvements (for

instance, through implementation of traffic phasing plans). In such a case, the project may have direct impacts but not contribute considerably to a cumulative impact. For intersections and roadway segments affected by a project, level of service (LOS) D or better is considered acceptable under both direct and cumulative conditions.

If the project exceeds the thresholds in Table 4.8-7, then the project is considered to have a significant direct or cumulative project impact. A significant impact would also occur if a project causes the Level of Service to degrade from D to E, even if the allowable increases in Table 4.8-7 are not exceeded.

Table 4.8-7 Traffic Impact Significance Thresholds

Level of Service with Project[2]	Allowable Increase Due to Project Impacts[1]					
	Freeways		Roadway Segments		Intersections	Ramp Metering[6]
	V/C[3]	Speed[4] (mph)	V/C	Speed (mph)	Delay[5] (sec.)	Delay (min.)
E	0.010	1.0	0.02	1.0	2.0	2.0
F	0.005	0.5	0.01	0.5	1.0	1.0

(1) If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. The project applicant shall then identify feasible improvements (within the Traffic Impact Study) that will restore/and maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see note b), or if the project adds a significant amount of peak-hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating the project's direct significant and/or cumulatively considerable traffic impacts.

(2) All LOS measurements are based upon Highway Capacity Manual procedures for peak-hour conditions. However, V/C ratios for roadway segments are estimated on an ADT/24-hour traffic volume basis (using Table 2 of the City's Traffic Impact Study Manual). The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped locations). For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

(3) V/C = Volume to Capacity ratio

(4) Speed = Arterial speed measured in miles per hour

(5) Delay = Average control delay per vehicle measured in seconds for intersections or minutes for ramp meters

(6) The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 minutes. The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 minute.

Source: LLG 2016

Impact Analysis

For purposes of the traffic impact analysis, it was assumed the project would be constructed and operational by the Year 2018. This timeframe represents the near-term "Opening Day" baseline conditions. By Opening Day, it would be expected that ambient growth would occur within the study area due to other developments projects. Cumulative projects are other projects in the study area that are expected to be constructed and occupied between the date of existing data collection (May 2015) and the time of the project's expected Opening Day in Year 2018, thus adding traffic to the local circulation system. Per the traffic study, the City of San Diego was contacted to identify relevant, pending cumulative projects in the study area that could be constructed and generating traffic in the vicinity of the proposed project. Based on information gathered from the City, three cumulative development projects were identified for the study area prior to the Opening Day condition. A brief description of the three cumulative development projects is provided below.

Sharp Rees-Stealy Medical Office Building

This project proposes to relocate the existing 57,400 SF facility at 16950 Via Tazon and expand their operations within a 100,000 SF building at 16899 West Bernardo Drive currently under construction and opening in Year 2017. These two locations are within a short distance of one another and, therefore, the travel patterns within the study area remain relatively unchanged. Given the existing facility on Via Tazon

was fully operational at the time of existing data collection, the net increase in traffic generated by the expansion and relocation of the Sharp Rees-Stealy Medical Office Building project was included in the traffic analysis prepared by LLG. Using the City of San Diego trip generation rates for medical offices at 40 trips per thousand square feet (KSF), the net traffic generated by this project is 2,130 ADT with 102 AM inbound/ 26 AM outbound peak hour trips and 64 PM inbound/ 149 PM outbound trips.

Del Sur Shopping Center

This project would be located in the northern end of Black Mountain Ranch, over two miles west of the project site, and will primarily provide commercial and retail amenities to the residents of Black Mountain Ranch (Del Sur) and 4S Ranch. These types of retail uses generally serve the immediate surrounding residents and thus, do not necessarily add a great amount of new trips to the system. It is anticipated that the shopping center will attract pass-by trips from drivers destined to/from work/home that are already on study area roadways. However, a total of 1,000 ADT and 25 AM inbound/outbound and 25 PM inbound/outbound peak hour trips were assigned to the study area as new trips for inclusion in the traffic analysis.

Phil's Barbeque

This restaurant would be a remodel of the former 7,720 SF Elephant Bar Restaurant. At the time of data collection, the former restaurant had already been closed. Therefore, using the City of San Diego trip generation rates for quality restaurant at 100 trips per KSF, a total of 772 ADT with 5 inbound/ 4 outbound AM peak hour trips and 43 inbound/ 18 outbound PM peak hour trips were assigned to the study area for inclusion in the traffic analysis.

Trip Generation

The project trip generation assumes the worst-case maximum capacity of 5,625 students by Year 2035 for both the near-term and long-term scenarios Trip generation rates were researched in the SANDAG trip generation manual for an "education center" land use such as the project. The education center does not have the full complement of services as a full community college campus. Of particular note are the lack of sports fields and extracurricular activities offered to students, and a much lower school population with fewer course and degree program offerings. This satellite campus was proposed to be located in the community of Fallbrook in the County of San Diego. The education center, similar to the proposed project, has characteristics different from a typical community college campus and, as such, the SANDAG trip generation rate at 1.2 trips per student for "Junior College (2 years)" likely overstates the future traffic activity at the proposed education center. However, for purposes of being conservative, the SANDAG junior college trip generation rate was used in the traffic impact analysis prepared by LLG.

Table 4.8-8 summarizes the proposed project's daily traffic generation using the SANDAG rates. As shown in this table, at Opening Day (Year 2018), the project is calculated to generate 3,374 ADT with 324 inbound/ 81 outbound trips during the AM peak hour, and 182 inbound/122 outbound trips during the PM peak hour. By Year 2013, a total of 6,750 ADT with 648 inbound / 162 outbound trips during the AM peak hour[1] and 365 inbound / 243 outbound trips during the PM peak hour[2] would be generated.

[1] The AM peak hour represents the highest one-hour period between 7:00 and 9:00 a.m.
[2] The PM peak hour represents the highest one-hour period between 4:00 and 6:00 p.m.

Table 4.8-8 Trip Generation Summary

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour				
		Rate[1]	Volume	% of ADT[2]	In:Out Split	Volume In	Volume Out	Total	% of ADT[2]	In:Out Split	Volume In	Volume Out	Total
Opening Day (Year 2018)													
Education Center	2,812 students	1.2/student	3,374	12%	80:20	324	81	405	9%	60:40	182	122	304
Buildout (Year 2035)													
Education Center	5,625 students	1.2/student	6,750	12%	80:20	648	162	810	9%	60:40	365	243	608

[1] Trip rates taken from the *SANDAG (Not So) Brief Guide of Vehicular Traffic Generation Rates for San Diego Region*, April 2002. Although an Education Center functions quite differently from a typical community college land use, the SANDAG "junior college" rates were used in these calculations to be conservative.

[2] ADT = Average Daily Traffic, rounded to nearest tenth

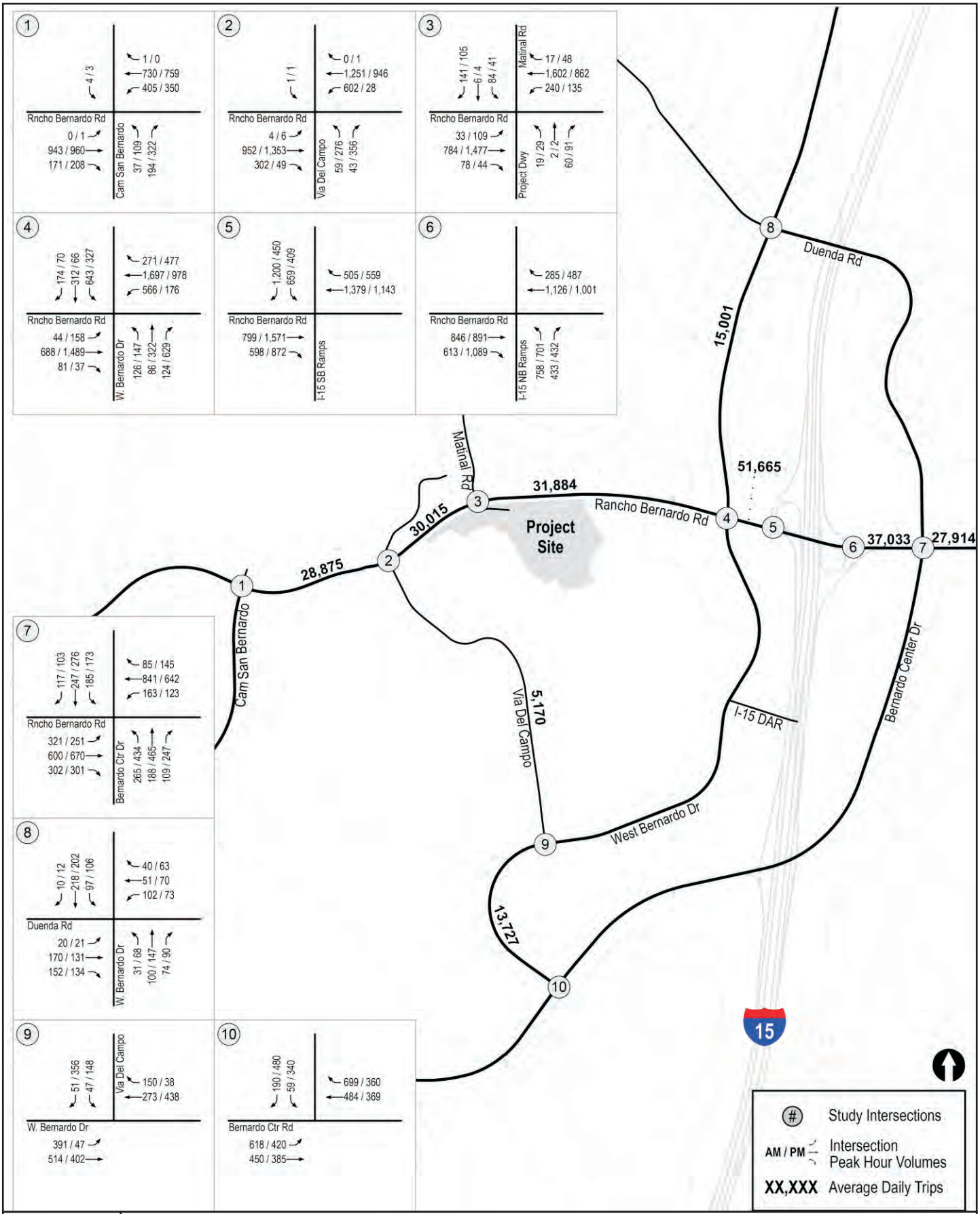
Source: LLG 2016

Figure 4.8-3 shows the anticipated project traffic volumes throughout the study area. Trip generation percentages were calculated using a select zone assignment (SZA) based on the SANDAG traffic model and using information provided by the PCCD. The project site has been strategically located in the southern range of the District to target an underserved population within the District's boundaries. Using the SANDAG SZA and expected enrollment information provided by the District, approximately 65 percent of the trips are regionally distributed on the I-15, with 27 percent oriented toward the north and 38 percent oriented toward the south. The remaining 35 percent was distributed to the local network.

It should be noted that a review of the SZA indicated one percent of project traffic (20 ADT) would be oriented to/from the community of Westwood via Matinal Road. However, for purposes of being conservative based on the potential for "cut through" trips through the residential community, this percentage was doubled to 2 percent of project trips.

Peak Hour Intersection Operations

Table 4.8-9 summarizes the peak hour intersection operations by Year 2018 (Opening Day) with and without implementation of the proposed project. As shown in this table, all intersections are calculated to continue operate at a LOS D or better by Year 2018 without project scenario and by Year 2018 with project scenario. Therefore, based on the City's significance criteria, the proposed project's contribution to the increase delay traffic time is considered insignificant and impacts to intersections would be less than significant.



Source: LLG 2016

FIGURE 4.8-3

Opening Day With Project Traffic Volumes

Table 4.8-9 Opening Day Intersection Operations

Intersection	Control Type	Peak Hour	Opening Day Without Project		Opening Day With Project		Delay Δ[3]	Sig?[4]
			Delay[1]	LOS[2]	Delay[1]	LOS[2]		
Rancho Bernardo Rd/ Camino San Bernardo	Signal	AM	17.7	B	19.3	B	1.6	No
		PM	22.8	C	23.9	C	1.1	No
Rancho Bernardo Rd/ Via Del Campo	Signal	AM	35.4	D	40.9	D	5.5	No
		PM	22.0	C	24.4	C	2.4	No
Rancho Bernardo Rd/ Matinal Rd	Signal	AM	18.3	B	30.7	C	12.4	No
		PM	12.3	B	24.4	C	12.1	No
Rancho Bernardo Rd/ W. Bernardo Dr	Signal	AM	38.8	D	53.9	D	15.1	No
		PM	47.4	D	50.1	D	2.7	No
Rancho Bernardo Rd/ I-15 Southbound Ramps	Signal	AM	29.2	C	31.1	C	1.9	No
		PM	15.8	B	16.4	B	0.6	No
Rancho Bernardo Rd/ I-15 Northbound Ramps	Signal	AM	21.2	C	22.1	C	0.9	No
		PM	21.1	C	21.6	C	0.5	No
Rancho Bernardo Rd/ Bernardo Center Dr	Signal	AM	29.6	C	30.1	C	0.5	No
		PM	34.8	C	34.9	C	0.1	No
W. Bernardo Dr/ Duenda Rd	Signal	AM	21.0	C	21.1	C	0.1	No
		PM	21.4	C	21.4	C	0.0	No
W. Bernardo Dr/ Via Del Campo	Signal	AM	15.8	B	15.9	B	0.1	No
		PM	19.4	B	20.0	C	0.6	No
W. Bernardo Dr/ Bernardo Center Dr	Signal	AM	15.6	B	15.9	B	0.3	No
		PM	17.2	B	17.4	B	0.2	No

[1] Average delay expressed in seconds per vehicle
[2] LOS = Level of Service
[3] Δ denotes the increase in delay due to project
[4] Sig? = Significant impact, yes or no
Source: LLG 2016

Roadway Segment Operations

Table 4.8-10 summarizes the key roadway segment operations in the study area by Year 2018 (Opening Day) with and without implementation of the proposed project. As shown in this table, all the roadway segments would continue to operate at LOS D or better by Year 2018 with and without the proposed project, with the exception of Rancho Bernardo Road between the I-15 Northbound Ramps and Bernardo Center Drive, which is calculated to operate at LOS E in both scenarios. However, based on the City's significance criteria, since the Rancho Bernardo Road between the I-15 Northbound Ramps and Bernardo Center Drive segment would operate at a LOS E without implementation of the project, the proposed project's contribution to the increase delay traffic time is considered insignificant. Additionally, the project-induced increase in V/C would not exceed 0.02 for LOS E roadway segments. Therefore, impacts to roadway segments would be less than significant on Opening Day.

Table 4.8-10 Opening Day Roadway Segment Operations

Street Segment	Existing Capacity (LOS E)[1]	Opening Day Without Project			Opening Day With Project			Δ[5]	Sig?[6]
		ADT[2]	LOS[3]	V/C[4]	ADT[2]	LOS[3]	V/C[4]		
Rancho Bernardo Road									
Camino San Bernardo to Via Del Campo	40,000	28,335	C	0.708	28,875	C	0.722	0.014	No
Via Del Campo to Matinal Rd	40,000	29,205	C	0.730	31,702	D	0.793	0.063	No
Matinal Rd to West Bernardo Dr	40,000	29,387	C	0.735	31,884	D	0.797	0.062	No
West Bernardo Drive to I-15 Southbound Ramps[7]	60,000	49,438	C	0.824	51,665	D	0.861	0.037	No
I-15 Northbound Ramps to Bernardo Center Drive	40,000	36,696	E	0.917	37,033	E	0.926	0.009	No
Bernardo Center Drive to Bernardo Oaks Drive	40,000	27,712	C	0.693	27,914	C	0.698	0.005	No
West Bernardo Drive									
Duenda Road to Rancho Bernardo Road	30,000	14,900	C	0.497	15,001	C	0.500	0.003	No
Via Del Campo to Bernardo Center Drive	30,000	13,457	B	0.449	13,727	B	0.458	0.009	No
Via Del Campo									
Rancho Bernardo Road to West Bernardo Drive[8]	15,000	4,900	A	0.327	5,170	B	0.345	0.018	No

(1) Capacities based on City of San Diego Roadway Classification & LOS table (see Appendix G)
(2) ADT = Average Daily Traffic
(3) LOS = Level of Service
(4) Volume to capacity ratio
(5) Δ denotes a project-induced increase in the Volume to Capacity ratio
(6) Sig = Significant impact, yes or no
(7) With a speed limit of 50 mph, a curb-to-curb width of approximately 108 feet, a 20-foot landscaped median and no on-street parking, the characteristics of this segment functions as a Primary Arterial with an LOS E capacity of 60,000 ADT
(8) Roadway consists of two travel lanes with a two-way center turn lane. Rancho Bernardo Community Plan 3-Lane Collector equivalent to 2-Lane Collector with TWLTL (third lane).

SIGNALIZED DELAY/LOS THRESHOLDS		UNSIGNALIZED DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

Source: LLG 2016

Freeway Segment Operations

Table 4.8-11 summarizes the I-15 freeway segment operations by Year 2018 (Opening Day) with and without implementation of the proposed project. As shown in this table, the northbound and southbound segments of I-15 north and south of Rancho Bernardo Road would continue to operate at LOS D or better during both the AM and PM peak hours with and without implementation of the project, with the exception of the southbound segment of I-15 south of Rancho Bernardo Road which would operate at LOS E during the AM peak hour. However, based on the City's significance criteria, since these freeway segments would operate at a LOS E without implementation of the project, the proposed project's contribution to the increase delay traffic time is considered insignificant. Additionally, the project-induced increase in V/C would not exceed 0.01 for LOS E freeway segments. Therefore, impacts to freeway segments would be less than significant on Opening Day.

Table 4.8-11 Opening Day Freeway Segment Operations

Freeway Segment	Direction	Opening Day Without Project Volumes V/C[1] AM	V/C[1] PM	LOS[2] AM	LOS[2] PM	Opening Day With Project Volumes V/C[1] AM	V/C[1] PM	LOS[2] AM	LOS[2] PM	Δ[3] AM	Δ[3] PM	Sig?[4]
Interstate 15												
North of Rancho Bernardo Road	Northbound	0.545	0.891	B	D	0.547	0.894	B	D	0.002	0.003	No
	Southbound	0.824	0.585	D	B	0.831	0.589	D	B	0.007	0.004	No
South of Rancho Bernardo Road	Northbound	0.544	0.799	B	C	0.553	0.804	B	D	0.009	0.005	No
	Southbound	0.937	0.703	E	C	0.940	0.707	E	C	0.002	0.004	No

[1] V/C = (Peak Hour Volume/Hourly Capacity)
[2] LOS = Level of Service
[3] Δ denotes the project-induced increase in the volume to capacity ratio
[4] Sig = Significant impact, yes or no
Source: LLG 2016

LOS	V/C
A	<0.41
B	0.62
C	0.80
D	0.92
E	1.00
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

Freeway Ramp Meter Operations

Table 4.8-12 summarizes the operations of the on-ramp meters by Year 2018 (Opening Day) with and without implementation of the proposed project. Both meters would experience acceptable delays of less than 15 minutes with and without implementation of the proposed project. Therefore, impacts to freeway ramp meters would be less than significant.

Table 4.8-12 Opening Day Freeway Ramp Meter Operations

Location	Peak Hour[1]	Peak Hour Demand (D)[2]	Flow (F)[3]	Excess Demand (E) (veh)	Delay (min)	Queue (ft)[4]	Sig?[5]
EB Rancho Bernardo Road to SB I-15 (2 SOV + 1 HOV)[6]							
Existing	AM	333	600	0	0.0	0	
Opening Day Without Project	AM	341	600	0	0.0	0	
Opening Day With Project	AM	352	600	0	0.0	0	
Project Increase	*AM*	*12*	*—*	*0*	*0.0*	*0*	*No*
EB Rancho Bernardo Road to NB I-15 (1 SOV + 1 HOV)[6]							
Existing	PM	656	576	80	8.3	2,000	
Opening Day Without Project	PM	694	576	118	12.3	2,950	
Opening Day With Project	PM	719	576	143	14.9	3,575	
Project Increase	*PM*	*25*	*—*	*25*	*2.6*	*625*	*No*

[1] Peak hours shown during ramp meter operations
[2] Peak hour demand in vehicles/hour/lane per SOV lane
[3] Meter Rates obtained from Caltrans
[4] Queue calculated assuming vehicle length of 25 feet
[5] Sig = Significant impact, yes or no.
[6] SOV = Single-Occupancy Vehicle, HOV = High Occupancy Vehicle
Source: LLG 2016

Year 2035 Scenario

The Year 2035 Scenario traffic volumes were obtained from the SANDAG Series 12 Year 2035 forecast traffic model. The forecast model is completed in two stages. During the first stage, SANDAG produces a region-wide forecast based on existing demographic and economic trends. During the second stage, a sub-regional forecast is developed by working with local jurisdictions to understand existing and general plan land use plans. These land use plans then become an input to a sub-regional, or neighborhood-level, forecast model that utilizes data on existing development, future land use plans, proximity to existing job centers, past development patterns, and travel times to where growth is likely to occur in the future. The Series 12 traffic model contains all County of San Diego General Plan Update and City of San Diego community planning area land use and roadway network assumptions. Network changes in the vicinity of the project study area included the SANDAG model are as follows:

- **Rancho Bernardo Road** – I-15 Northbound Ramps to Bernardo Center Drive – Improved to Community Plan classification as a Six-Lane Major (Source: Rancho Bernardo Community Plan and Public Facilities Financing Plan (PFFP) FY 2013, fully funded by the Black Mountain Ranch Facilities Benefit Assessment (FBA), date of completion anticipated for FY 2016/2017)

- **West Bernardo Drive: Duenda Road to Rancho Bernardo Road and Via Del Campo to Bernardo Center Drive** – Improved to Community Plan classification as a Four-Lane Major (Source: Rancho Bernardo Community Plan, currently unfunded, date of completion unknown)

In addition, improvements identified per community plans in the project vicinity are as follows:

- **West Bernardo Drive at Bernardo Center Drive** – Improved to provide an additional thru lane on Bernardo Center Drive in the southwesterly direction to ultimately provide two right-turn lanes, two thru lanes, one U-turn lane (Source: Black Mountain Ranch PFFP FY 2015, fully funded by the Black Mountain Ranch FBA, date of completion anticipated for FY 2016)

The traffic analysis zone (TAZ) for the project site contains 60.2 acres of commercial office uses generating 14,270 ADT. The project site is currently developed with a vacant office building. This area is included in the Rancho Bernardo Community Plan as part of the 588-acre Bernardo Industrial Park. The project site makes up 27 acres of the Bernardo Industrial Park and is entitled for a total of 330,000 SF of commercial office. Per the *Bernardo Industrial Park Lot 11 Final MND*, certified October 13, 2005, 3,300 ADT of the 14,270 commercial office trips are attributable to the 330,000 SF office buildings. Therefore, the Year 2035 Without Project traffic volumes represent the current zoning in the traffic model including the entitled office buildings. In order to forecast the Year 2035 Without Project traffic volumes, the 3,300 ADT generated by the office land use were removed from the forecast volumes representative of a vacant site. The 6,750 ADT calculated to be generated by the project were then added to the baseline volumes to arrive at Year 2035 With Project traffic volumes.

The model-generated peak hour volumes are not considered accurate as the primary purpose of the model is to forecast average daily traffic volumes and not predict volumes on an hourly basis. Therefore, the peak hour turning movement volumes at an intersection were estimated from future ADT volumes using the relationship between existing peak hour turning movements and the existing ADT volumes. This same relationship can be assumed to generally continue in the future. Figure 4.8-4 shows the Year 2035 without Project Scenario Traffic Volumes. Figure 4.8-5 shows the Year 2035 (Maximum Enrollment) with Project Scenario Traffic Volumes.

Peak Hour Intersection Operations

Table 4.8-13 summarizes peak hour intersection operations for the Year 2035 with and without implementation of the proposed project. As shown in this table, all intersections would operate at LOS D or better with and without the proposed project, with the exception of the following intersections:

- Rancho Bernardo Road/Via Del Campo – LOS E (AM/PM peak hours) without the proposed project
- Rancho Bernardo Road/Via Del Campo – LOS F (AM peak hour) and LOS E (PM peak hour) with the proposed project
- Rancho Bernardo Road/Martinal Road – LOS E (AM/PM peak hours) with proposed project
- Rancho Bernardo Road/West Bernardo Drive – LOS E (PM peak hour) without the proposed project
- Rancho Bernardo Road/West Bernardo Drive – LOS F (AM peak hour) and LOS E (PM peak hour) with the proposed project

Based on the City's significance criteria, three significant cumulative impacts were calculated with the addition of project traffic, since the project-induced increase in delay would exceed 2.0 seconds for LOS E intersections and 1.0 second for LOS F intersections. Therefore, cumulative impacts to intersections associated with implementation of the proposed project would be significant in the Year 2035 scenario.

Roadway Segment Operations

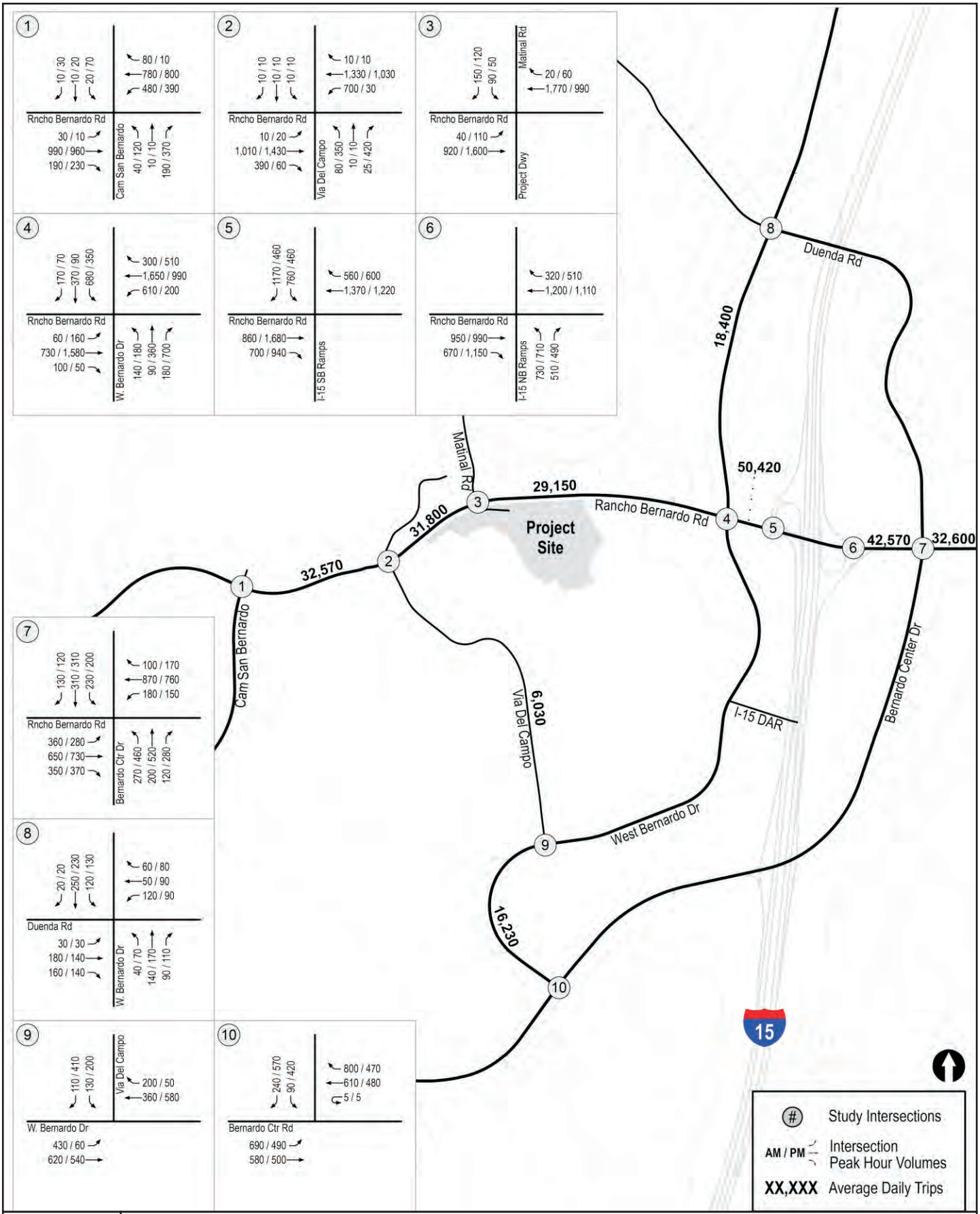
Table 4.8-14 summarizes the key roadway segment operations for the Year 2035 with and without implementation of the project. As seen in this table, all segments would operate at a LOS D or better with or without project implementation, with the exception of the following:

- Rancho Bernardo Road between I-15 Northbound Ramps and Bernardo Center Drive – LOS E
- Rancho Bernardo Road between Bernardo Center Drive and Bernardo Oaks Drive – LOS E

Based on the City's significance criteria, the proposed project would not result in a significant increase in volume to capacity ratio on any of these roadways. Therefore, cumulative impacts to roadway segments associated with implementation of the proposed project would be less than significant in the Year 2035 scenario.

Access Assessment

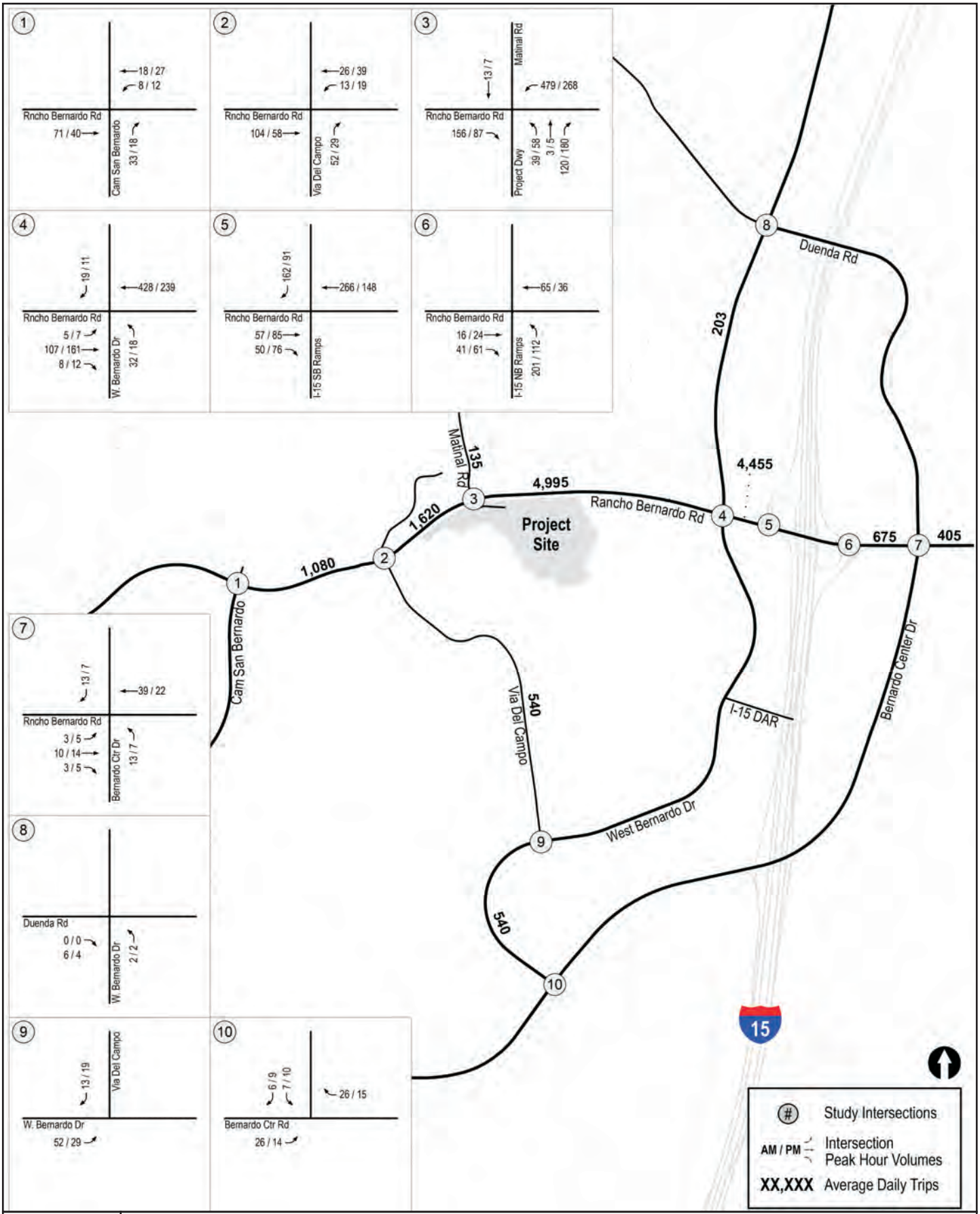
The Rancho Bernardo Road/Matinal Road signalized intersection was previously constructed to provide access to the vacant office building. With the increase in traffic anticipated with the change in land use for the proposed project, this intersection would operate at LOS E by the Year 2035 at maximum enrollment. In order to accommodate the increase in traffic with the buildout of the campus and achieve acceptable LOS D operations, the northbound approach (exiting the site) should be restriped to provide a shared left-turn/thru lane and a dedicated right-turn lane.



Source: LLG 2016

FIGURE 4.8-4

Year 2035 Without Project Traffic Volumes



Source: LLG 2016

FIGURE 4.8-5

Year 2035 With Project (Maximum Enrollment) Traffic Volumes

Table 4.8-13 Long-Term Intersection Operations

Intersection	Control Type	Peak Hour	Year 2035 Without Project		Year 2035 With Project		Delay Δ[3]	Sig?[4]
			Delay[1]	LOS[2]	Delay[1]	LOS[2]		
Rancho Bernardo Rd/ Camino San Bernardo	Signal	AM	23.3	C	27.7	C	4.4	No
		PM	36.0	D	39.4	D	3.4	No
Rancho Bernardo Rd/ Via Del Campo	Signal	AM	79.8	E	**93.9**	**F**	**14.1**	**Yes**
		PM	61.3	E	**66.7**	**E**	**5.4**	**Yes**
Rancho Bernardo Rd/ Matinal Rd	Signal	AM	27.6	C	**62.4**	**E**	**34.8**	**Yes**
		PM	11.8	B	**61.0**	**E**	**49.2**	**Yes**
Rancho Bernardo Rd/ W. Bernardo Dr	Signal	AM	51.4	D	**96.7**	**F**	**45.3**	**Yes**
		PM	59.9	E	**66.2**	**E**	**6.3**	**Yes**
Rancho Bernardo Rd/ I-15 Southbound Ramps	Signal	AM	21.9	C	29.6	C	7.7	No
		PM	13.4	B	15.2	B	1.8	No
Rancho Bernardo Rd/ I-15 Northbound Ramps	Signal	AM	16.4	B	17.6	B	1.2	No
		PM	16.5	B	17.7	B	1.2	No
Rancho Bernardo Rd/ Bernardo Center Dr	Signal	AM	34.1	C	35.4	D	1.3	No
		PM	44.0	D	45.0	D	1.0	No
W. Bernardo Dr/ Duenda Rd	Signal	AM	23.2	C	23.5	C	0.3	No
		PM	22.7	C	22.8	C	0.1	No
W. Bernardo Dr/ Via Del Campo	Signal	AM	22.5	B	23.0	C	0.5	No
		PM	22.0	C	23.8	C	1.8	No
W. Bernardo Dr/ Bernardo Center Dr	Signal	AM	16.0	B	16.7	B	0.7	No
		PM	18.5	B	19.0	B	0.5	No

Bold and shading represents a significant cumulative impact

(1) Average delay expressed in seconds per vehicle

(2) LOS = Level of Service

(3) Δ denotes the increase in delay due to project

(4) Sig? = Significant impact, yes or no

Source: LLG 2016

SIGNALIZED DELAY/LOS THRESHOLDS	
Delay	LOS
0.0 ≤ 10.0	A
10.1 to 20.0	B
20.1 to 35.0	C
35.1 to 55.0	D
55.1 to 80.0	E
≥ 80.1	F

UNSIGNALIZED DELAY/LOS THRESHOLDS	
Delay	LOS
0.0 ≤ 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
≥ 50.1	F

Table 4.8-14 Long-Term Roadway Segment Operations

Street Segment	Existing Capacity (LOS E)[1]	Year 2035 Without Project			Year 2035 With Project			Δ[5]	Sig?[6]
		ADT[2]	LOS[3]	V/C[4]	ADT[2]	LOS[3]	V/C[4]		
Rancho Bernardo Road									
Camino San Bernardo to Via Del Campo	40,000	32,570	D	0.814	33,650	D	0.841	0.027	No
Via Del Campo to Matinal Road	40,000	31,800	D	0.795	33,420	D	0.836	0.041	No
Matinal Road to West Bernardo Drive	40,000	30,150	D	0.754	33,145	D	0.829	0.125	No
West Bernardo Drive to I-15 Southbound Ramps[7]	60,000	50,420	D	0.840	54,875	D	0.915	0.075	No
I-15 Northbound Ramps to Bernardo Center Drive	50,000	42,570	D	0.851	43,245	D	0.865	0.014	No
Bernardo Center Drive to Bernardo Oaks Drive	40,000	32,600	D	0.815	33,005	D	0.825	0.010	No
West Bernardo Drive									
Duenda Road to Rancho Bernardo Road	30,000	18,400	C	0.613	18,603	C	0.620	0.007	No
Via Del Campo to Bernardo Center Drive	30,000	16,230	C	0.541	16,770	C	0.559	0.018	No
Via Del Campo									
Rancho Bernardo Road to West Bernardo Drive	15,000	6,030	B	0.402	6,570	B	0.438	0.036	No

[1] Capacities based on City of San Diego Roadway Classification & LOS table (see Appendix G)
[2] ADT = Average Daily Traffic
[3] LOS = Level of Service
[4] Volume to capacity ratio
[5] Δ denotes a project-induced increase in the Volume to Capacity ratio
[6] Sig = Significant impact, yes or no
[7] With a speed limit of 50 mph, a curb-to-curb width of approximately 108 feet, a 20-foot landscaped median and no on-street parking, the characteristics of this segment functions as a Primary Arterial with an LOS E capacity of 60,000 ADT

SIGNALIZED DELAY/LOS THRESHOLDS		UNSIGNALIZED DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

Source: LLG 2016

Cut-Through Traffic Assessment

The project proposes access from the Matinal Road intersection onto Rancho Bernardo Road. Currently, this location primarily serves as access to the Westwood residential community located north of Rancho Bernardo Road. A review of the SANDAG select zone assignment (SZA) computer model indicated one percent of project traffic (33 ADT in Opening Day and 68 ADT at maximum enrollment in Year 2035) would be oriented to/from the community of Westwood via Matinal Road. However, for purposes of being conservative based upon the potential for "cut-through" trips through the residential community, this percentage was doubled to 2 percent of project trips. The likelihood of trips utilizing Matinal Road would be to the result of one of two factors: (1) People living in the Westwood community who would attend the North Education Center; or (2) People oriented further north that would "cut-through" the Westwood community to reach the project site.

Matinal Road serves as a residential roadway providing local access for homes within the area. West Bernardo Drive is the main Collector road in the community lined with feeder roads connecting Westwood residents to their ultimate destination. A travel time study was conducted for two optional routes between the project site and the Duenda Road/West Bernardo Drive intersection in the northern part of the community. The travel time study was conducted to determine the amount of time it would take to travel between these two points during the PM peak hour (4:30-5:30 p.m.) using the Collector road route on West Bernardo Drive and the residential route via Matinal Road.

While the travel time study shows a slight increase in the amount of time it would take to travel from project site to the Duenda Road/West Bernardo Drive intersection using West Bernardo Drive and Rancho Bernardo Road, it would be unlikely that a large amount of drivers located outside the Westwood community would utilize Matinal Road as a "cut-through" route since they would need to be familiar with the local streets. For drivers who are familiar with the area, a reduction in travel time of 36 seconds is relatively small and considered insignificant.

Mitigation Measures

As discussed above, three cumulative significant intersection impacts would result with implementation of the proposed project in Year 2035. Per the TIA prepared by LLG, the following mitigation measures are recommended to mitigate the cumulative intersection impacts associated with the proposed project.

TRA-1 **Rancho Bernardo Road/ Via Del Campo** – The project shall reconstruct the median on the south leg of the intersection and restripe the northbound approach within the existing paved width to provide a third lane (an exclusive left-turn lane), thru lane, and dedicated right-turn lane. Implementation of this improvement reduces the cumulative impact to below significant levels.

TRA-2 **Rancho Bernardo Road/ Matinal Road/ Project Access** – Prior to Opening Day, 1) restripe the northbound approach to provide a shared left-turn/thru lane and a dedicated right-turn lane; or 2) restripe the northbound approach with dedicated left-turn and right-turn lanes (with northbound thru movements prohibited) and the southbound approach with a shared left-turn/right-turn lane and southbound thru movement prohibited. Implementation of these improvements reduces this cumulative impact to below significant levels.

TRA-3 **Rancho Bernardo Road/ West Bernardo Drive** – The Rancho Bernardo Road/ West Bernardo Drive intersection has recently been improved to its ultimate Community Plan classification.

Improvements per the Rancho Bernardo Public Facilities Financing Plan (PFFP) Project No. T-14 widened Rancho Bernardo Road to its current six-lane cross-section, which included additional lanes at the westbound approach to West Bernardo Drive. Extensive research was conducted to determine the feasibility of providing capacity-enhancing improvements at this intersection.

All intersection approaches provide dual left-turn lanes. The westbound and northbound approaches provide dedicated right-turn lanes. Consideration was given toward providing a right-turn overlap phase for the westbound right-turn lane. However, with this improvement, the intersection was calculated to continue to operate at significant LOS F conditions.

In addition, there is no available right-of-way along these roadways. Even if it was feasible to widen Rancho Bernardo Road and/or West Bernardo Drive to include dedicated right-turn lanes at the eastbound and southbound approaches, the analysis proved these improvements would not reduce the impact to below significant levels. Field observations, a review of the available right-of-way, and operational analyses completed with the improvements suggested above concluded that improvements such as additional lanes, signal timing modifications, right-turn overlap phasing, etc. would be physically infeasible and/or do not reduce levels of service to below a level of significance. Therefore, the cumulative impact at this intersection would remain significant and unmitigated.

TRA-4 As part of the proposed project, a Transportation Demand Management (TDM) plan will be implemented and include the following measures to help alleviate peak hour congestion along the study area roadway systems:

a. The project will coordinate with the Metropolitan Transit System to determine the feasibility of providing a bus stop on campus.

b. Bicycle racks and lockers will be provided for student and staff/faculty use.

c. Transportation information will be displayed in common areas accessible to students, faculty and staff. Transportation Information Displays should include, at a minimum, the following materials:

   i. Ridesharing promotional material;
   ii. Bicycle route and parking including maps and bicycle safety information;
   iii. Materials publicizing internet and telephone numbers for referrals on transportation information;
   iv. Promotional materials supplied by North County Transit District, Metropolitan Transit System, and/or other publicly supported transportation organizations; and
   v. A listing of facilities at the site for carpoolers/vanpoolers, transit riders, bicyclist and pedestrians, including information on the availability of preferential carpool/vanpool parking spaces and the methods for obtaining these spaces.

d. Carpool/vanpool parking spaces will be provided in preferentially located areas (closest to building entrances). These spaces will be signed and striped “Car/Vanpool Parking Only.” Information about the availability of and the means of accessing the car/vanpool parking spaces will be posted on Transportation Information Displays located in common areas and the campus website.

e. Provide charging station(s) for electric vehicles.

f. Balance class schedules by spreading classes throughout the course of the day to reduce peak hour volumes during the peak hours of the adjacent street system.

4.8.3.2 Issue 2 – Conflict with an Applicable Congestion Management Plan

Would implementation of the proposed project conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Standards of Significance

Based on Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would conflict with an adopted congestion management plan.

Impact Analysis

The closest designated congestion management program (CMP) roadway that serves the project site is I-15, as identified in the Final 2008 Congestion Management Program Update (SANDAG 2008). However, as discussed in Section 4.8.3.1 above, the proposed project would not adversely affect traffic conditions on the I-15 or the surrounding local circulation system. Further, the proposed project does not propose any modifications to the I-15 or access to the I-15 and would not result in a substantial number of new trips on the I-15 during peak hours (refer to Table 4.8-12). Therefore, the proposed project would not conflict with an applicable CMP roadway and impacts would be less than significant.

Mitigation Measures

Impacts related conflicts with an applicable congestion management plan would be less than significant without mitigation. Thus, no mitigation measures are required.

4.8.3.3 Issue 3 – Inadequate Emergency Access

Would the proposed PCCD South Education Center result in inadequate emergency access?

Standards of Significance

Based on Appendix G of the CEQA Guidelines, the proposed project would result in a significant impact related to emergency access if there was inadequate access to the project site for emergency services.

Impact Analysis

The Rancho Bernardo Community Plan does not identify any evacuation routes within the study area (City of San Diego 1988). The proposed project would continue to utilize the existing driveway at the intersection of Rancho Bernardo Road and Matinal Road for site access. Development of the proposed project would also construct an internal looped roadway that would provide access throughout the campus. The proposed project would comply with all applicable design regulations and policies related to

emergency services requirements, such as the fire code and street design requirements for fire trucks. Therefore, the proposed project would provide adequate emergency access to the project site and impacts would be less than significant.

Mitigation Measure

Impacts related to inadequate emergency access would be less than significant without mitigation. Thus, no mitigation measures are required.

4.8.3.4 Issue 4 – Alternative Transportation Facilities

Would the proposed PCCD South Education Center conflict with an adopted plan, policy, or program regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Standards of Significance

Based on Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would conflict with an adopted plan, policy, or program regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Impact Analysis

As described in Section 4.8.1.3 above, the proposed project would continue to utilize the existing driveway at the intersection of Rancho Bernardo Road and Matinal Road for access to the project site. This intersection is signalized, which provides a safe, controlled crossing for pedestrians and bicyclists to cross Rancho Bernardo Road. Sidewalks are provided along the roadways surrounding the project site, including Rancho Bernardo Road and Matinal Road. Class II or Class III bike lanes are also provided along Rancho Bernardo Road in the project area. Implementation of the proposed project would not result in the removal of any of these existing facilities. Additionally, the Rancho Bernardo Transit Station is located in the project vicinity on West Bernardo Drive at the I-15. Implementation of the project would not have any effect on operation of the transit center or on transit circulation in the project area.

The Bicycle Master Plan for the City of San Diego defers to the Rancho Bernardo Community Plan for bicycle improvements in the project area (City of San Diego 2011). The proposed facilities for the area are Class III bike paths along the community's street network. Class II and Class III bicycle lanes are currently provided on Rancho Bernardo Road, and the proposed project would not interfere with the provision of these facilities on any other roadway in the community, including Matinal Road or Olmeda Way. Therefore, implementation of the proposed project would not conflict with the City's Bicycle Master Plan. The Pedestrian Master Plan does not propose any specific pedestrian facilities or goals for the project area. Therefore, the proposed project would not interfere with the Pedestrian Master Plan's overall goals of pedestrian safety, accessibility, connectivity and walkability. Therefore, the project would not conflict with the Pedestrian Master Plan during operation. Thus, implementation of the proposed project would not conflict with any applicable plan, policy or program related to alternative transportation.

Mitigation Measure

Impacts related to the performance of the circulation system would be less than significant without mitigation. Thus, no mitigation measures are required.

4.8.3.5 Issue 5 – Parking

Would the proposed PCCD South Education Center result in inadequate parking supply?

Standards of Significance

Based on Appendix G of the CEQA Guidelines, implementation of the proposed project may have a significant impact if it would result in inadequate parking capacity.

Impact Analysis

As further described in the Parking Impact Analysis memorandum prepared by LLG dated March 2016 (Appendix H), since project-specific parking information was not available, it was determined that the Institute of Transportation Engineers (ITE) parking rate of 0.20 spaces per FTES for junior/community colleges, was most appropriate for calculating the required parking supply. Using the ITE rate, a total of 408 parking spaces would be required for the proposed project at maximum enrollment which is projected at 2,000 students by Year 2035. Additionally, a total of 35-40 staff members is anticipated with maximum enrollment. ITE also provides a rate of 4.8 spaces per 1,000 square feet (KSF) of gross floor area (GFA) for a junior/community college. Using this rate, a total of 480 spaces would be required for the proposed project for existing 110,000 square foot building.

Proposed Parking

Per the most current site plan for the satellite campus, a total of 737 parking spaces are proposed. The total parking spaces would be provided via a 544-space existing parking structure plus 193-space existing surface lot previously constructed for the office land use. Therefore, the proposed project adequately meets the required parking at maximum enrollment.

Available Off-site Parking

Additionally, an off-site parking demand study was conducted in the adjacent residential community of Westwood as described further in the parking memorandum (Appendix H). Within the selected study area, the total on-street parking supply was counted at 511 spaces. The supply amount was calculated by measuring the curb length where on-street curbside parking was permitted along residential streets and discounting any driveways, intersections and red curbs. A conservative length of 25 feet per vehicle was used in the calculations.

A parking occupancy count was conducted during typical peak times for campus activity. The results of the occupancy count indicates that, at most, 27 percent of the supply was occupied by parked vehicles. As such, there is a large amount of existing on-street parking available within the Westwood community. Therefore, implementation of the proposed project would not result in inadequate parking supply on site or off site.

Mitigation Measure

Impacts related to parking capacity would be less than significant without mitigation; therefore, no mitigation measures are required.

4.8.4 Cumulative Impacts

4.8.4.1 Circulation System Performance

The geographic context for the cumulative analysis of circulation system impacts is the City of San Diego. A significant cumulative impact would occur if cumulative projects generated new vehicle trips that would have the potential to exceed the current capacity of the City's circulation system. Thus, there is the potential for a significant cumulative impact related to the degradation of the circulation system performance to occur.

The Opening Day and Year 2035 scenarios discussed in Section 4.8.3.1 above include the projected increase in traffic for the project and cumulative growth. Therefore, cumulative impacts associated with increases in traffic and exceedances of LOS standards are discussed in Section 4.8.3.1 above. According to this analysis, the proposed project would adversely affect existing traffic conditions at three intersections in Year 2035; thus, these cumulative impacts would be significant. However, implementation of the proposed mitigation measures described in Section 4.8.3.1 combined with the TDM plan proposed for the project would help to reduce the cumulative impacts to below significant levels. Therefore, after mitigation, the proposed project would not result in a cumulatively considerable contribution to the potentially significant cumulative impact associated with degradation of the circulation system performance.

4.8.4.2 Congestion Management Plan

The geographic context for the cumulative analysis of CMP impacts is I-15 in the project vicinity. As described above, the closest designated CMP roadway that serves the project site is I-15, as identified in the Final 2008 Congestion Management Program Update (SANDAG 2008). However, as discussed in Section 4.8.3.1 above, the proposed project would not adversely affect traffic conditions on the I-15 or the surrounding local circulation system. Further, the proposed project does not propose any modifications to the I-15 or access to the I-15 and would not result in a substantial number of new trips on the I-15 during peak hours (refer to Table 4.8-12). Therefore, the proposed project would not result in a cumulatively considerable contribution to the potentially significant cumulative impact with an applicable CMP roadway.

4.8.4.3 Inadequate Emergency Access

The geographic context for the cumulative analysis of emergency access impacts is the roadway in the project vicinity. As described above, the Rancho Bernardo Community Plan does not identify any evacuation routes within the study area (City of San Diego 1988). The proposed project would continue to utilize the existing driveway at the intersection of Rancho Bernardo Road and Matinal Road for site access. Development of the proposed project would also construct an internal looped roadway that would provide access throughout the campus. The proposed project would comply with all applicable design regulations and policies related to emergency services requirements, such as the fire code and street

design requirements for fire trucks. Therefore, the proposed project not result in a cumulatively considerable contribution to the potentially significant cumulative impact related to emergency access to the project site.

4.8.4.4 Alternative Transportation Facilities

The geographic context for the cumulative analysis of alternative transportation is the alternative transportation facilities in the study area identified in the Traffic Impact Analysis (Appendix G of this EIR). If cumulative development in the study area would not implement the applicable portions of the Bicycle Master Plan and Pedestrian Master Plan, or would result in new safety hazards to those who use alternative transportation facilities, a cumulative impact would occur. As discussed is Section 4.8.3.3 above, the project would not result in a long-term impact to alternative transportation facilities and would not conflict with the applicable master plans. Further, the proposed project does not include any modifications to pedestrian or bicyclists' facilities. Therefore, a significant cumulative impact related to alternative transportation would not occur.

4.8.5 CEQA Checklist Items Deemed Not Applicable to the Project

Would the proposed project 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?

The project site is not located in close proximity to any airports, and the proposed PCCD South Education Center would not change existing air traffic patterns or volumes in any measurable way that would otherwise result in substantial safety risks; therefore, no further evaluation is necessary.

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

As discussed in Section 4.8.3.1 above, the proposed project would continue to utilize the existing driveway to access the project site and, as such, operation of the proposed project would not increases current levels of LOS. Further, the proposed project would be in compliance with all applicable roadway design guidelines and regulations for the construction of the internal looped roadway as well as project site access. The proposed project would not include any hazardous design features or accommodate incompatible uses. Therefore, the proposed project would not substantially increase hazardous due to a design feature or incompatible uses; thus, no further evaluation is necessary.

4.8.6 References

City of San Diego. 2006. City of San Diego Pedestrian Master Plan. December 2006.

City of San Diego. 2008. City of San Diego General Plan Mobility Element. March 2008.

City of San Diego. 2011. City of San Diego Bicycle Master Plan Update. June 2011.

Linscott, Law and Greenspan, Engineers (LLG). 2016. Traffic Impact Analysis, Palomar Community College District South Education Center, San Diego, California. March. (Appendix G of this EIR.)

San Diego Association of Governments. 2008. Final 2008 Congestion Management Program Update. November 2008.

San Diego Association of Governments. 2011. 2050 Regional Transportation Plan. October 2011.

Chapter 5 OTHER CEQA CONSIDERATIONS

This chapter of the EIR addresses the following considerations pursuant to Sections 15126.2 and 15128 of the CEQA Guidelines, as follows:

- Effects not found to be significant;
- Growth-inducing impacts of the proposed project; and
- Significant and unavoidable environmental effects which cannot be avoided if the proposed project is implemented; and
- Significant irreversible environmental changes which would be involved in the proposed project should it be implemented

5.1 Effects Not Found to be Significant

Section 15128 of the CEQA Guidelines requires that an EIR contain a brief statement disclosing the reasons why various possible environmental effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. The proposed PCCD South Education Center project has been reviewed against the potential issues contained in the Initial Study in Appendix G of the CEQA Guidelines. Environmental topics for which potentially significant impacts have been identified are addressed in Chapter 4, Environmental Impact Analysis, of this EIR. This section addresses the environmental topics for which impacts have been found not to be significant.

Agriculture and Forestry Resources

Would the proposed project 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?

The proposed project is located in an area designated as “Urban and Built-up Land” on the San Diego County Important Farmland 2010 map (California Department of Conservation 2013), prepared pursuant to the Farmland Mapping and Monitoring Program. There are no areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) within or in the vicinity of the project site. Thus, the proposed project would not convert farmland to non-agricultural use, and no impact would occur.

Would the proposed project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The PCCD is constitutionally exempt from local zoning and land use regulations. In addition, due to their tax-exempt status, land owned by the PCCD is not subject to Williamson Act land use/tax contracts. Irrespective of this exemption, the proposed project is located in an area designated as "Built-Up Land" on the San Diego County Williamson Act Lands 2013/2014 map (California Department of Conservation 2013). There are no parcels zoned for agricultural use and no lands under Williamson Act contract within or in the vicinity of the project site. Thus, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and no impact would occur.

Would the proposed project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)) or timberland (as defined by Public Resources Code Section 4526)?

The proposed project is located in a developed urban area with surrounding parcels zoned for industrial and residential uses. The 2010 Assessment of California's Forests and Rangelands (California Department of Forestry and Fire Protection 2010) does not designate forest land or timberland within or in the vicinity of the project site. Thus, the proposed project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland, and no impact would occur.

Would the proposed project result in the loss of forest land or conversion of forest land to non-forest use?

As discussed above, the 2010 Assessment of California's Forests and Rangelands (California Department of Forestry and Fire Protection 2010) does not designate forest land or timberland within or in the vicinity of the project site. Thus, the proposed project would not result in the loss of forest land or conversion of forest land into non-forest use, and no impact would occur.

Would the proposed project 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 into non-forest use?

As discussed above, there are no areas designated as Farmland or forest land within or in the vicinity of the project site. Thus, the proposed project would not involve other changes in the existing environment which could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use, and no impact would occur.

Cultural Resources

Would the proposed project cause a substantial adverse change in the significance of an historical or archeological resource as defined in Section 15064.5 of the CEQA Guidelines?

According to the previously approved MND for Rancho Bernardo Industrial Park North – Lot 11 project that was prepared for the existing development on the project site (City of San Diego 2005), there were no significant historical resources located within the project site. The project site is currently developed with an unfinished light industrial park that was constructed in 2008/2009. Adjacent properties also do not contain buildings or structures that are 45+ years old. As such, there are no potential historical resources on the project site or adjacent properties eligible for listing in the National Register of Historic

Places, California Register of Historical Resources, or City of San Diego Register of Historic Resources. Thus, the proposed project would not cause a substantial adverse change in the significance of an historical resource, and no impact would occur.

Would the proposed project disturb any human remains, including those interred outside of formal cemeteries?

As discussed above, the previously approved MND for Rancho Bernardo Industrial Park North – Lot 11 project did not identify any cultural resources within the project site. In addition, because the site has been previously graded, any excavation associated with construction of the proposed project would occur on imported or non-native soils. As such, the disruption of human remains is not likely to occur and no direct mitigation would be required for development of the project site. Thus, impacts would be less than significant.

Geology and Soils

Would the proposed project expose people or structures to potential substantial adverse effects, including 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;

The proposed project is not located within an Alquist-Priolo Earthquake Fault Zone (California Department of Conservation 2007). According to the updated geotechnical investigation for the project site (Geocon Incorporated 2012), a review of geologic literature indicates that there are no known or potentially active faults at the project site. An unnamed fault was discussed in a previous geotechnical investigation (Woodward-Clyde 1997) and has been mapped approximately within the area of previous grading at the north end of the project site. This fault was exposed within the Santiago Peak Volcanics and has not been documented to have displaced Quaternary or Holocene-aged deposits. As such, this fault is considered to be "inactive" as defined by the current California Geological Survey criteria. Thus, impacts associated with rupture of a known earthquake fault would be less than significant.

ii. Strong seismic ground shaking;

According to the updated geotechnical investigation for the project site (Geocon Incorporated 2012), seven known active faults are located within a search radius of 50 miles from the project site, as summarized in Table 5-1. The nearest active faults are the Newport-Inglewood and Rose Canyon fault zones, which are located approximately 13 miles west of the project site and represent the dominant source of potential ground motion. In the event of a major earthquake these or other faults in the southern California and northern Baja California area, the project site could be subjected to moderate to severe seismic ground shaking. However, the proposed project would be engineered to withstand the expected ground accelerations that may occur at the project site from regional active faults. Proper engineering and adherence to the California Building Code seismic design criteria and the 2012 geotechnical investigation recommendations would minimize the risk to life and property from potential ground motion at the project site. Thus, impacts associated with strong seismic ground shaking would be less than significant.

Table 5-1 Peak Ground Acceleration at Project Site from Regional Active Faults

Fault Name	Distance from Project Site (miles)	Maximum Earthquake Magnitude (Mw)	Peak Ground Acceleration (g)[1]		
			Boore-Atkinson 2008 Model	Campbell-Bozorgnia 2008 Model	Chiou-Youngs 2008 Model
Newport-Inglewood	13	7.5	0.21	0.17	0.21
Rose Canyon	13	6.9	0.17	0.15	0.15
Elsinore	22	7.85	0.17	0.13	0.16
Coronado Bank	27	7.4	0.13	0.09	0.10
Palos Verdes Connected	27	7.7	0.14	0.10	0.12
Earthquake Valley	31	6.8	0.09	0.07	0.06
San Jacinto	44	7.88	0.10	0.08	0.09

[1] Peak ground acceleration was calculated using three models based on different acceleration-attenuation relationships. Ground acceleration is expressed in units of acceleration due to gravity (g), where 1 g corresponds to the vertical acceleration force due to gravity.

Source: Geocon Incorporated 2012

iii. Seismic-related ground failure, including liquefaction; or

Liquefaction typically occurs when a site is located in a zone with seismic activity, on-site soils are cohesionless or silt/clay with low plasticity, groundwater is encountered within 50 feet of the surface, and soil densities are less than about 70 percent of the maximum dry densities. If these four criteria are met, a seismic event could result in a rapid pore water pressure increase from the earthquake-generated ground accelerations. According to the updated geotechnical investigation for the project site (Geocon Incorporated 2012), due to the lack of a near-surface groundwater table and dense nature of the underlying compacted fill and formational rock materials, the potential for liquefaction at the project site is considered very low. Thus, impacts associated with liquefaction would be less than significant.

iv. Landslides?

According to the updated geotechnical investigation for the project site (Geocon Incorporated 2012), landslide deposits have been previously mapped on the project site. However, the landslides have been mitigated using conventional grading practices (i.e., buttresses, stability fills, complete removal). Landslides left in place on the project site have been stabilized with buttress fill and are located outside the area of the proposed improvements. As such, landslide hazards at the project site are considered low. Thus, impacts associated with landslides would be less than significant.

Would the proposed project result in substantial soil erosion or the loss of topsoil?

The proposed project would involve grading and excavation, which would result in disturbed soils and temporary stockpiles of excavated materials that would be exposed to erosion. As discussed in further detail in Section 4.5, Hydrology and Water Quality, implementation of construction BMPs in compliance with the NPDES Construction General Permit would minimize the potential for erosion and siltation. Following construction, any remaining disturbed soils would be stabilized with landscaping and no stockpiles would remain on the project site. Thus, impacts associated with soil erosion or loss of topsoil would be less than significant.

Would the proposed project 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, liquefaction, or collapse?

According to the updated geotechnical investigation for the project site (Geocon Incorporated 2012), based on the subsurface conditions encountered during the field investigation, the project site is not expected to be subject to hazards from ground subsidence or seismic settlement. Furthermore, as discussed above, liquefaction and landslide hazards at the project site are considered low. Thus, impacts associated with an unstable geologic unit or soil would be less than significant.

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

According to the updated geotechnical investigation for the project site (Geocon Incorporated 2012), based on the recent and previous laboratory testing performed at the project site, the upper portion of compacted fill placed within the existing building pads, flatwork, and parking lot areas exhibits a "low" to "medium" expansion potential. The formational materials and other fill materials present on project site have exhibited varying expansion potential ranging from "low" to "high." However, the proposed project would be engineered to address expansive soil that may underlie areas of proposed new development at the project site, including removal of unsuitable deposits, over-excavation, replacement with appropriate backfill material, and compaction. Proper engineering and adherence to the California Building Code standards and the 2012 geotechnical investigation recommendations would minimize the risk to life and property from expansive soil at the project site. Thus, impacts associated with expansive soil would be less than significant.

Would the proposed project 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?

The proposed project is located within the wastewater service area of the City of San Diego Public Utilities Department. There are existing connections to the City's sewer system on the project site. Thus, the proposed project would not require the use of septic tanks or alternative wastewater disposal system, and no impact would occur.

Hazards and Hazardous Materials

Would the proposed project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction of the proposed project would involve the use of fuels, oils, paints, and solvents. Operational activities at the proposed PCCD South Education Center would involve the use of cleaning products and pesticides for facilities and grounds maintenance purposes, as well as various chemicals associated with laboratory activities. Mishandling of hazardous materials could potentially expose the public or the environment to hazardous materials. However, the proposed project would comply with all applicable federal and state regulations related to the handling and storage of hazardous materials, spill containment and cleanup procedures, and worker safety, including the Resource Conservation and Recovery Act, California Fire Code, California Department of Toxic Substances Control regulations, and California Occupational Safety and Health Administration regulations. In addition, pursuant to the California Hazardous Materials Release Response Plan and Inventory Law, the PCCD would prepare a Hazardous

Materials Business Plan which addresses emergency and spill response procedures, including specific emergency response procedures, locations of personnel and equipment resources (e.g., telephone numbers, fire extinguishers, spill kits, safety showers/eyewashes, first aid kits, etc.), and specialty hazard instructions. Adherence to these regulations would minimize the potential for exposure of the public or the environment to hazardous materials. Thus, impacts associated with the routine transport, use, or disposal of hazardous materials would be less than significant.

Would the proposed project 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?

As discussed above, the proposed project would comply with all applicable federal and state regulations related to the handling and storage of hazardous materials, spill containment and cleanup procedures, and worker safety, including the Resource Conservation and Recovery Act, California Fire Code, California Department of Toxic Substances Control regulations, and California Occupational Safety and Health Administration regulations. In addition, pursuant to the California Hazardous Materials Release Response Plan and Inventory Law, the PCCD would prepare a Hazardous Materials Business Plan which addresses emergency and spill response procedures, including specific emergency response procedures, locations of personnel and equipment resources (e.g., telephone numbers, fire extinguishers, spill kits, safety showers/eyewashes, first aid kits, etc.), and specialty hazard instructions. Adherence to these regulations would minimize the potential for leaks and spill and would ensure prompt and effective cleanup in the event of an accidental release. Thus, impacts associated with the release of hazardous materials would be less than significant.

Would the proposed project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are no primary or secondary schools currently located or proposed to be built within one-quarter mile of the proposed project. The closest school is Kinderhouse Montessori School, which is located approximately 0.3 mile southwest of the project site. Thus, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, and no impact would occur.

Would the proposed project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?

According to the previously approved MND for Rancho Bernardo Industrial Park North – Lot 11 that was prepared for the existing development on the project site (City of San Diego 2005), the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Thus, the proposed project would not be located on a hazardous materials site and, as a result, create a significant hazard to the public or the environment, and no impact would occur.

Would the proposed project be 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, and result in a safety hazard for people residing or working in the project area?

The proposed project is not located within two miles of a public airport or public use airport. The closest public airport is Ramona Airport, which is located approximately 9.5 miles east of the project site.

According to the Ramona Airport Land Use Compatibility Plan (San Diego County Regional Airport Authority 2011), the project site is not located within the designated Airport Influence Area, and as such lies outside the boundaries of the airport's safety zones. Thus, the proposed project would not result in a safety hazard associated with a public airport or public use airport for people residing or working in the project area, and no impact would occur.

Would the proposed project be located within the vicinity of a private airstrip, and result in a safety hazard for people residing or working in the project area?

The proposed project is not located within the vicinity of a private airstrip. The closest private airstrip is the Pomerado Hospital Heliport, which is located approximately 2.5 miles southeast of the project site. Due to the distance from the heliport and the limited number of flights, the project site would not be subject to safety hazards related to heliport operations. Thus, the proposed project would not result in a safety hazard associated with a private airstrip for people residing or working in the project area, and no impact would occur.

Would the proposed project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The PCCD Emergency Plan is designed to effectively coordinate the use of both PCCD and community resources to protect life and property immediately following a major natural or accidental disaster affecting any Palomar College campus. The PCCD Emergency Plan would be updated to include the proposed PCCD South Education Center. Thus, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and no impact would occur.

Would the proposed project 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?

According to the High Fire Risk Areas map provided in the City of San Diego General Plan EIR (2007), the project site is located in a high wildland fire hazard area. However, the proposed project would comply with the California Fire Code (California Code of Regulations Title 24, Part 9) and the State Fire Regulations (California Health and Safety Code Section 13000 et seq.), which include building standards and requirements for fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. Implementation of building standards and fire safety requirements in compliance with the California Fire Code and State Fire Regulations would minimize wildland fire hazards, and the proposed project would not expose people or structures to a significant risk involving wildland fires. Thus, impacts would be less than significant.

Land Use and Planning

Would the proposed project physically divide an established community?

The project site is currently developed with an unfinished light industrial park. Thus, the proposed project would not physically divide an established community, and no impact would occur.

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

Pursuant to Section 53094 of the California Government Code, because the project site is owned by and will be developed under the jurisdiction of the PCCD, the proposed project is not subject to municipal plans, policies, and ordinances such as the City of San Diego General Plan and Zoning Code. The applicable planning document is the PCCD Educational Master Plan Update that was completed in May 2010. In order to accommodate the PCCD's future academic space needs, the Educational Master Plan Update identifies the PCCD South Education Center as one of two new educational centers in the PCCD. Although the Educational Master Plan Update does not identify a definitive site for the PCCD South Education Center, it indicates that the facility is to be strategically located in the southern range of the district to target an underserved population. Thus, the proposed project would not conflict with any applicable land use plan, policy, or regulation, and no impact would occur.

Would the proposed project conflict with any applicable habitat conservation plan or natural community conservation plan?

As discussed in Section 4.3, Biological Resources, the proposed project does not occur in the boundaries of the City's MSCP Subarea Plan. The project is not expected to result in any impacts to special-status species, including MSCP covered species and narrow endemic species. The project would not result in impacts to any wildlife corridors or linkages, including lands identified in the City's MSCP Subarea Plan as important habitat linkages or other areas of local or regional wildlife movement importance. The project would not prevent the City from attaining the conservation goals and objectives of the City's MSCP Subarea Plan area, and no impact would occur.

Mineral Resources

Would the proposed project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

According to the General Mineral Land Classification map provided in the City of San Diego General Plan Update EIR (2007), the project site is located in mineral resource zone (MRZ)-3, which denotes areas containing mineral deposits, the significance of which cannot be evaluated from available data. Such mineral resources have not been determined to be of value to the region and the residents of the state. Thus, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, and no impact would occur.

Would the proposed project 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?

Pursuant to Section 53094 of the California Government Code, because the project site is owned by and will be developed under the jurisdiction of the PCCD, the proposed project is not subject to municipal plans, policies, and ordinances such as the City of San Diego General Plan and Zoning Code. Irrespective of this exemption, the City of San Diego General Plan (2008) does not identify areas designated for the managed production of mineral resources within the project site. Thus, the proposed project would not result in the loss of availability of a locally important mineral resource recovery site, and no impact would occur.

Population and Housing

Would the proposed project 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)?

This issue is addressed below in Section 5.2, Growth Inducement.

Would the proposed project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

The project site is currently developed with an unfinished light industrial park. Thus, the proposed project would not displace any existing housing, and no impact would occur.

Would the proposed project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The project site is currently developed with an unfinished light industrial park. Thus, the proposed project would not displace any people, and no impact would occur.

Public Services

Would the project result in substantial adverse physical impacts associated with the provision of 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 following public services?

Fire Protection

The proposed project lies within the service area of the San Diego Fire-Rescue Department. The closest fire station to the proposed project site would be Fire Station 33, located approximately 0.74 miles to the east. As a community college educational center, the proposed project would result in a similar demand for public fire protection services when compared to the previously approved Rancho Bernardo Industrial Park North – Lot 11 project, and would not result in the need for new public fire protection facilities. Thus, impacts would be less than significant.

Police Protection

The PCCD maintains its own police department for security purposes.. The proposed project would not increase demand on public police protection services, and would not result in the need for new public police protection facilities. Thus, no impact would occur.

Schools

As discussed in Section 5.2 below, the proposed project would not be expected to result in population growth or the construction of new housing in the community. The proposed project would not increase demand on public educational services, and would not result in the need for new public school facilities. Thus, no impact would occur.

Parks

As discussed in Section 5.2 below, the proposed project would not be expected to result in population growth or the construction of new housing in the community. The proposed project would not increase demand on public recreational services, and would not result in the need for new public park facilities. Thus, no impact would occur.

Other Public Facilities

As discussed in Section 5.2 below, the proposed project would not be expected to result in population growth or the construction of new housing in the community. The proposed project would not increase demand on public libraries, community centers, or other public services, and would not result in the need for new public facilities. Thus, no impact would occur.

Recreation

Would the proposed 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?

As discussed in Section 5.2 below, the proposed project would not be expected to result in population growth or the construction of new housing in the community. Thus, the proposed project would not increase the use of existing neighborhood and regional parks or other facilities, and no impact would occur.

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

As discussed in Section 5.2 below, the proposed project would not be expected to result in population growth or the construction of new housing in the community. Thus, the proposed project would not require the construction or expansion of recreational facilities, and no impact would occur.

Utilities and Service Systems

Would the proposed project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The City of San Diego Public Utilities Department provides wastewater treatment services to the project site. In compliance with the Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region (San Diego RWQCB Order No. R9-2007-0005), the proposed project would discharge only domestic wastewater to the City's sanitary sewer system. Thus, the proposed project would not exceed the wastewater treatment requirements of the applicable RWQCB, and no impact would occur.

Would the proposed project 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?

The proposed project is located within the water and wastewater service area of the City of San Diego Public Utilities Department. There are existing connections to the City's water distribution and sanitary sewer systems on the project site. Thus, the proposed project would not require or result in the

construction of new water or wastewater treatment facilities or the expansion of existing facilities, and no impact would occur.

Would the proposed project 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?

The proposed project is located within the service area of the City of San Diego Public Utilities Department. The majority of the site drainage is collected into and routed through an existing on-site underground storm drain system. This storm drain system connects into the public storm drain system along Rancho Bernardo Road (existing 24-inch RCP storm drain pipe). The remainder of site drainage is conveyed to the private storm drain system located in the development to the east (existing 18-inch RCP storm drain pipe). A small portion of the site drains into Rancho Bernardo Road via an existing curb outlet. There is an on-site detention system that was constructed during development of the unfinished light industrial park in 2008/2009. The system consists of multiple detention pipes located throughout the property which reduced runoff to the public storm drain system to pre-development levels (Rick Engineering 2004). Thus, the proposed project would not require or result in the construction of new storm water drainage facilities or the expansion of existing facilities, and no impact would occur.

Would the proposed project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The City of San Diego Public Utilities Department provides water supply services to the project site. The proposed project mitigated water use is estimated to be approximately 7 million gallons per year indoors and approximately 11 million gallons per year outdoors (Atkins 2015). No new or expanded entitlements are needed. Thus, the proposed project would have sufficient water supplies available to serve the project from existing entitlements and resources, and no impact would occur.

Would the proposed project 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?

Wastewater treatment services are provided to the project area by the Hale Avenue Resource Recovery Facility (HARRF) operated by the City of Escondido for the benefit of the City and the Rancho Bernardo area of the City of San Diego. The HARRF is an activated sludge, secondary treatment facility which consists of physical, biological, and chemical treatment methods including screening, sedimentation, chemical precipitation, and biological processes. The HARRF is designed to treat a flow of 18 MGD. The HARRF operates 24 hours a day with an average daily flow of 15.6 MGD which is comprised of Escondido's flow of approximately 11.8 MGD and Rancho Bernardo's flow of approximately 3.8 MGD (HARRF 2013). Collection of project wastewater would occur through existing onsite facilities constructed to serve the previously approved Rancho Bernardo Industrial Park North – Lot 11 project which anticipated a much larger project than currently proposed. Thus, the proposed project would have a wastewater treatment provider to adequately serve the project's projected demand for wastewater treatment services, and no impact would occur.

Would the proposed project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Solid waste generated by the proposed project would be disposed of at the Sycamore Canyon Landfill. The landfill is currently permitted to receive 3,965 tons per day of non-hazardous municipal solid waste (City of San Diego 2012). The proposed project mitigated solid waste use is estimated to be 634 tons per year (Atkins 2015). Sycamore Canyon Landfill would have sufficient capacity to accommodate the project's solid waste disposal needs, and no impact would occur.

Would the proposed project comply with applicable federal, state, and local statutes and regulations related to solid waste?

In accordance with the California Integrated Waste Management Act of 1989 (Assembly Bill 939), the PCCD has achieved the target recycling and waste diversion rate of at least 50 percent. In the future, the PCCD will continue to implement, promote, and improve a comprehensive recycling and waste diversion program, including at the proposed PCCD South Education Center. Thus, the proposed project would comply with federal, state, and local statutes and regulations related to solid waste, and no impact would occur.

5.2 Growth Inducement

As required by Section 15126.2(d) of the CEQA Guidelines, an EIR must include a discussion of the ways in which the proposed project could directly or indirectly foster economic development or population growth, or the construction of additional housing, and how that growth would, in turn, affect the surrounding environment. Growth can be induced in a number of ways, including the elimination of obstacles to growth or the stimulation of economic activity within the region. The elimination of obstacles to growth relates directly to the removal of infrastructure limitations or regulatory constraints that could result in growth unforeseen at the time of project approval. According to Section 15126.2(d) of the CEQA Guidelines, "it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

The proposed project would develop the PCCD South Education Center, which would accommodate an existing need as well as the future academic space needs recommended in the PCCD Educational Master Plan Update to respond to anticipated future growth in the northern San Diego region, consistent with SANDAG projections (PCCD 2010). Thus, implementation of the proposed project would not be considered growth-inducing, but rather responsive to increased demand on the PCCD's educational services.

Although some faculty and staff may relocate to the region from elsewhere to fill new jobs that require specialized skills such as research positions, the majority of students, faculty, and staff are expected to derive locally, as approximately 85 percent of students enrolled in Palomar College are residents of San Diego County (PCCD 2013). In addition, the proposed project would not provide any on-site housing for students, faculty, and staff. Furthermore, as the project site is already developed and the existing infrastructure is adequate to support the proposed land use, the proposed project would not eliminate obstacles to growth through the provision of new infrastructure. Therefore, the proposed project is not anticipated to result in direct or indirect growth inducement.

5.3 Significant and Unavoidable Environmental Effects

As required by Section 15126.2(b) of the CEQA Guidelines, any significant environmental effects that cannot be avoided, including those impacts that can be mitigated but not reduced to below a level of significance even with the implementation of all feasible mitigation measures, must be identified. The final determination of the significance of impacts and the feasibility of mitigation measures will be made by the PCCD as part of their certification action for the Final EIR.

Chapter 4 of this EIR, Environmental Impact Analysis, provides a comprehensive discussion of the potentially significant impacts of the proposed project and the feasible mitigation measures to reduce such impacts. As discussed in Chapter 4, implementation of the proposed project would not result in a significant and unavoidable impact associated with the following issues: aesthetics, air quality, biological resources, greenhouse gas emissions, hydrology and water quality, noise, paleontological resources, or transportation and traffic. Each of the environmental issues were determined to be less than significant, or would be reduced to below a level of significance with implementation of mitigation measures. Thus, there are no impacts that cannot be mitigated to below a level of significance even with the implementation of feasible mitigation measures.

As discussed in Section 5.1 above, implementation of the proposed project would not result in significant impact associated with the following issues: agriculture and forestry resources, cultural resources, geology and soils, hazards and hazardous materials, land us and planning, mineral resources, population and housing, public services, recreation, and utilities and service systems.

Significant Irreversible Environmental Changes

Section 15126.2(c) of the CEQA Guidelines requires that an EIR discuss any significant irreversible environmental changes that would be caused by the proposed project should it be implemented. Specifically, CEQA Guidelines Section 15126.2(c) states:

“Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provide access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.”

The proposed project would establish the PCCD South Education Center on the 27-acre property located at 11111 Rancho Bernardo Road, thereby precluding any other uses for the lifespan of the campus. The PCCD’s ownership of the campus represents a long-term commitment of the property to educational uses.

Short-term construction activities and long-term operational activities associated with implementation of the proposed project would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of water, electricity, natural gas, fossil fuels (including fuel oil), and gasoline for automobiles and construction equipment. However, the amount and rate of consumption of these

resources would not result in a large commitment of resources or the unnecessary, inefficient, or wasteful use of resources.

Furthermore, PCCD's compliance with applicable building codes, including energy conservation features, as well as mitigation measures identified in this EIR, would ensure that nonrenewable resources are conserved to the maximum extent practicable. It is also possible that new technologies or systems may emerge, or become more cost-effective or user-friendly, to further reduce the campus' reliance upon nonrenewable resources in the future.

Regarding the potential for irreversible damage caused by environmental accidents associated with the proposed project, the PCCD would continue to use, transport, store, and dispose of hazardous materials in accordance with applicable federal and state laws. Continued compliance with these regulations would minimize the likelihood and severity of accidents that could result in irreversible damage.

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Chapter 6 **ALTERNATIVES**

In order to fully evaluate the environmental effects of a project, CEQA mandates that alternatives to a project be analyzed. CEQA Guidelines Section 15126.6(a) requires that an EIR "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." This approach is intended to foster informed decision-making and public participation in the environmental process.

This chapter of the EIR identifies a range of reasonable alternatives to the proposed PCCD South Education Center project and evaluates the comparative merits of these alternatives. The alternatives discussion is intended to focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives impede to some degree the attainment of the project objectives, or would become more costly. Thus, in developing the alternatives to be analyzed, it is necessary to consider the objectives and the potentially significant impacts of the proposed project that have been identified in this EIR.

6.1 Project Objectives

The objectives of the proposed project, as established by the PCCD, are as follows:

1. Locate an education center in the southern region of the district.
2. Implement relevant goals and objectives of the PCCD 2022 Educational Master Plan 2010 Update, specifically Goal 5 which is to "Ensure that existing and future facilities support learning, programs, and services; and Objective 5.3 which is to "Identify and purchase a site for future development of another Education Center in accordance with the Master Plan."
3. Provide a shared community resource with amenities for public use.
4. Attract new students to the PCCD through a well-defined academic program.
5. Be self-sufficient/self-sustaining so as not to create a drain on the resources of the PCCD.
6. Utilize and repurpose an existing facility in order to maximize district resources.
7. Provide high quality education and support services to the southern portion of the district.
8. Develop a comprehensive education center campus experience that reflects its surrounding environment.
9. Offer a broad-based curriculum supported by a class schedule that is convenient for students.
10. Create the feel of a postsecondary campus by placing importance on support amenities, including those for learning resources, food services, and gathering places for students.
11. Ensure that the facility maximizes the safety of the students, faculty and staff.

6.2 Alternatives Considered but Rejected

An EIR must briefly describe the rationale for selection and rejection of alternatives. The lead agency may make an initial determination as to which alternatives are feasible and therefore merit consideration, and those which are infeasible and rejected from consideration. Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered. Alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects.

One alternative that was considered, but ultimately rejected, would involve the expansion of PCCD facilities at other existing or future educational centers in order to accommodate predicted PCCD enrollment. This alternative assumes that the proposed PCCD South Education Center would not be developed and would not serve the expected 1,000 annual FTES at opening day and would not accommodate the 2,000 annual FTES at maximum capacity. The entire PCCD is anticipated to have an enrollment of 47,500 students by 2022, and additional facilities are required for the PCCD to reach its projected enrollment (PCCD 2010). If the proposed project at the PCCD South Education Center were not realized, facilities expansion would be required at other existing or future campuses and educational centers to accommodate the anticipated increase in student enrollment.

According to the PCCD 2022 Education Master Plan Update, the purpose of the South Education Center is to target an underserved population within the District due to its southern location within the District (PCCD 2010). Without the construction of the South Education Center, the other campuses and Northern Education Center would not be able to accommodate the total projected PCCD student enrollment of 47,500 by 2022. Additionally, any facilities expansion at other existing or future campuses and educational centers would result in environmental impacts that may or may not be greater in severity to those evaluated in this EIR for the proposed PCCD South Education Center. Overall environmental impacts are likely to be similar, and may not be reduced under this alternative. Moreover, one of the primary goals of the 2022 Educational Master Plan 2010 Update was to locate an education center in the southern portion of the PCCD to target an underserved population in this region. Thus, this alternative was rejected from further discussion.

6.3 Alternatives Analyzed

This section presents an evaluation of four alternatives to the proposed project: (1) the No Project Alternative, (2) Second Access Road Alternative, (3) Reduced Project Alternative, and (4) Bernardo Center Drive Alternative. For each alternative, a brief description is first presented, followed by a summary impact analysis relative to the proposed project, and an assessment of the degree to which the alternative would meet the project objectives of PCCD. For a discussion of traffic impacts associated with each alternative see Appendix G.

6.4 No Project Alternative

CEQA Guidelines require the analysis of a no project alternative. This no project analysis must discuss the existing conditions of a project site. Because the proposed project is a development project, the following from Section 15126.6(e)(3)(B) of the CEQA Guidelines is directly applicable to the project:

> "If the project is…a development project on an identifiable property, the no project alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against environmental effects that would occur if the project were approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this no project consequence should be discussed. In certain instances, the no project alternative means no build wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment."

The No Project Alternative can either discuss the No Project/No Build scenario or the No Project/Reasonably Foreseeable Development or both. The Reasonably Foreseeable Development Alternative normally identifies the practical result of a project's not being approved, as contrasted with the No Project Alternative, which analyzes a set of artificial assumptions that would be required to preserve the existing physical environment. However, in this case, prior to the District acquiring the site, the Bernardo Industrial Park Lot 11 Final MND (SCH 2005031034) was approved by the City of San Diego on October 13, 2005 and the site was entitled for a total of 330,000 SF of commercial office uses. From this approved development, one of the three 110,000 SF buildings was permitted and constructed. The remaining two buildings have yet to be completed, but could be constructed at any time with issuance of grading permits. Given the site could be built out with the approved commercial office use today as allowed by an approved CEQA environmental document and City permits, a Reasonably Foreseeable Development Alternative is not analyzed in this document as this analysis has already taken place in the Bernardo Industrial Park Lot 11 Final MND which has been incorporated by reference in this EIR. Therefore, a No Project/No Build scenario is analyzed below.

Impact Analysis

Aesthetics

The No Project Alternative would result in fewer impacts to scenic vistas and visual character when compared to the proposed project because the existing partially developed industrial park would remain unchanged on the project site. Additionally, because new development under the No Project Alternative would not occur, impacts associated with lighting and glare would likely be less than the proposed project. Aesthetics impacts would be less than the proposed project.

Air Quality and Energy

Under the No Project Alternative, no new construction or operation related emissions or energy use would occur as there would be no change to existing site conditions. Air quality and energy impacts would be less than the proposed project.

Biological Resources

The No Project Alternative would result in fewer impacts to biological resources when compared to the proposed project. This is due to the fact that no new development would occur and existing site conditions

would be maintained, including existing biological resources. Biological resources impacts would be less than the proposed project.

Greenhouse Gas Emissions

When compared to the proposed project, the No Project Alternative would not result in increased GHG emissions or conflict with applicable GHG plans or policies because this alternative would not involve the use of heavy construction equipment during site preparation and grading activities. Additionally, no additional operational GHG emissions would occur because there would be no new vehicle trips or operational emissions related to occupancy and use of existing facilities. Greenhouse gas emissions would be less than the proposed project.

Hydrology and Water Quality

When compared to the proposed project, the No Project Alternative would not result in changes to the existing hydrology of the project site during construction or operation that would generate new sources of water quality pollutants. In addition, no impacts would occur related to flood hazards, seiches, tsunamis, or mudflows. Hydrology and water quality impacts would be less than the proposed project. Hydrology and water quality impacts would be less than the proposed project.

Noise

Under the No Project Alternative, construction noise associated with the proposed project would not occur. In addition, this alternative would not involve the introduction of new traffic to the site as a result of operations. Similar to the proposed project, impacts related to aircraft noise would be less than significant. Noise impacts would be less than the proposed project.

Paleontological Resources

The No Project Alternative would not impact undiscovered paleontological resources during ground disturbing construction activities because no new construction activity or development would take place on site. Paleontological resources impacts would be less than the proposed project.

Transportation, Traffic, and Parking

This alternative would not generate new traffic on the surrounding roadway network. The project related vehicle trips and impacts to existing roadways and intersections would not occur, as the existing development generates less trips than the proposed project. Therefore, under this alternative transportation and traffic impacts would be less than the proposed project.

Ability to Attain Project Objectives

The No Project Alternative is environmentally superior to the proposed project because it would reduce impacts associated with aesthetics, air quality, biological resources, greenhouse gases, hydrology and water quality, noise, paleontological resources, and transportation and traffic. However, the No Project Alternative would not accomplish any of the project objectives, primarily the Educational Master Plan Update goals to locate an education center in the southern portion of the PCCD to target an underserved population in the region. This alternative would be infeasible because it would preclude the PCCD from providing adequate capacity to accommodate the total projected increase in student enrollment for the southern region. Additionally, under the No Project Alternative the other PCCD facilities would be forced

to serve higher enrollment rates than projected in order to accommodate the total projected increase in student enrollment, which would result in a physical strain on the facilities themselves as well as the faculty.

6.5 Second Access Road Alternative

The Second Access Road Alternative assumes the proposed PCCD South Education Center would be implemented with the construction of a new second access road, rather than an interior looped, east of the main project driveway along Rancho Bernardo Road. The Second Access Road Alternative would also require the construction of one westbound dedicated left-turn lane and one eastbound dedicated right-turn lane and require the installation of a traffic signal and signage prohibiting northbound and southbound through movements at the intersection of Rancho Bernardo Road and Olmeda Way.

Impact Analysis

Aesthetics

The Second Access Road Alternative would result in slightly increased impacts to scenic vistas, light, and glare when compared to the proposed project because of construction and operation of the access road itself and the installation of a new traffic signal and signage. Specifically, the construction of this access road would also result in the creation of a large exposed rock slope on the west side of the access road which would degrade the visual character of the project site. These new facilities would slightly change the visual character of the project area and constitute a minor increase in visual impacts when compared to the proposed project. Therefore, under this alternative aesthetics impacts would be greater than the proposed project.

Air Quality and Energy

The Second Access Road Alternative would result in increased impacts with regard to consistency with the applicable air quality plan, exposure to sensitive receptors, and the production of objectionable odors when compared to the proposed project. Development of the second access road would result in increased emissions and energy use during construction. Operational emissions and energy use would be identical to that of the proposed project. As a result, the Second Access Road Alternative would result in slightly greater construction air emissions and energy consumption when compared to those identified for the proposed project and would produce slightly greater amounts of criteria pollutant emissions.

Biological Resources

The Second Access Road Alternative would result in an increased impact on biological resources when compared to the proposed project. Construction of the access road would potentially directly or indirectly impact the existing on-site permanently protected open space area with a recorded conservation easement. Therefore, the Second Access Road Alternative would result in greater impacts with regard to special status species and sensitive natural communities. The Second Access Road Alternative would result in similar less than significant impacts with regard to consistency with jurisdictional waters and wetlands; wildlife corridors and nursery sites; and consistency with biological resources protection policies, ordinances and adopted habitat conservation plans.

Greenhouse Gas Emissions

The Second Access Road Alternative would result in a slightly increased impact related to direct and indirect generation of GHG emissions when compared to the proposed project. GHG emissions during construction would be slightly increased under this alternative because of additional construction activity. However, the Second Access Road Alternative would result in identical operational GHG emissions as no new facility operational characteristic or new vehicle trips would occur under this alternative. Lastly, the Second Access Road Alternative would result in similar impacts with regard to consistency with applicable GHG emissions plans, policies, or regulations.

Hydrology and Water Quality

The Second Access Road Alternative would result in slightly increased impacts with regard to water quality degradation and drainage as a result of increased construction activity and new operational impervious surfaces when compared to the proposed project. Therefore, water quality impacts from potentially sediment laden runoff during construction and operation would be increased under this alternative.

Noise

The Second Access Road Alternative would result in slightly increased noise impacts when compared to the proposed project as a result of increased construction and the potential need for blasting to construct the access road. Development of the second access road would result in an increase in temporary noise impacts during construction and groundborne vibration. The Second Access Road Alternative would result in slightly increased impacts with regard to permanent ambient noise levels because the operational characteristics of this alternative would result in additional traffic noise on a part of the project area where none currently exists.

Paleontological Resources

The Second Access Road Alternative would result in in slightly increased impacts with regard to potential paleontological resources during ground disturbing construction activities because more ground disturbance would occur associated with construction of the second access road. Therefore, paleontological resources impacts would be greater than the proposed project.

Transportation, Traffic, and Parking

The Second Access Road Alternative would potentially result in reduced impacts related to traffic and project circulation as the second access road would allow for additional access opportunities to the project site. The addition of a second entry and exit point could potentially reduce the significant cumulative intersection impacts at Rancho Bernardo Road/ Via Del Campo, Rancho Bernardo Road/ Matinal Road (proposed project access), and Rancho Bernardo Road/ West Bernardo Drive. However, it is unlikely the secondary access will alleviate the cumulative impacts to less than significant without mitigation. As discussed in Section 4.8, there is no feasible mitigation to reduce the significant cumulative impacts for the Rancho Bernardo Road/ West Bernardo Drive. The Via del Campo and West Bernardo Drive intersections would have no change in volumes with a second access, as the distribution out past the project driveways would remain unchanged. However, access at the project driveway could potentially improve to D or better.

Because the second access road would not change project operations, operational vehicle trips to and from the project site would remain the same and continue to be less than significant for all identified

street segments within the project area. Temporary impacts to bicycle and pedestrian facilities during construction of the second access road at the Olmeda Way driveway and intersections would also occur. Lastly, parking impacts under this alternative would continue to remain less than significant as no change in enrollment would occur under this alternative.

Ability to Attain Project Objectives

The Second Access Road Alternative would have the ability to attain ten out of the eleven project objectives. Objective 7, which is to develop a comprehensive education center campus experience that reflects its surrounding environment, would only be partial obtained because of the increase in impacts to aesthetics, air quality, biological resources, greenhouse gases, hydrology and water quality, noise, and paleontological resources, due to a slightly greater ground disturbance area. Ultimately, this alternative, while resulting in slightly increased environmental impacts, would generally meet most of the project objectives, and is potentially feasible.

6.6 Reduced Project Alternative

The Reduced Project Alternative assumes the proposed PCCD South Education Center would be implemented but operate with 25% reduced FTES. All other construction and operational assumptions would remain the same under this alternative. The purpose of the Reduced Project Alternative is to avoid or reduce one or more of the significant quantitative impacts related to transportation, traffic, and parking, specifically significant cumulative impacts to project area intersections.

Impact Analysis

Aesthetics

The Reduced Project Alternative would result in similar less than significant impacts related to scenic vistas, light, and glare because no additional facilities would be constructed when compared to the proposed project. Overall, under this alternative aesthetic impacts would be similar to that of the proposed project.

Air Quality and Energy

The Reduced Project Alternative would result in similar less than significant impacts with regard to consistency with the applicable air quality plan, exposure to sensitive receptors, and the production of objectionable odors. Development of the Reduced Project Alternative would result in slightly decreased operational emissions as a result of reduced student vehicle trips. In addition the Reduced Project Alternative would likely result in reduced energy consumption as a result of fewer students using proposed facilities.

Biological Resources

The Reduced Project Alternative would not result in additional development on the project site. Therefore, the Reduced Project Alternative would result in similar less than significant impacts with regard to special status species and sensitive natural communities, consistency with jurisdictional waters and wetlands; wildlife corridors and nursery sites; and consistency with biological resources protection policies, ordinances and adopted habitat conservation plans.

Greenhouse Gas Emissions

The Reduced Project Alternative would result in similar less than significant impacts with regard to direct and indirect generation of GHG emissions but at a reduced scale when compared to the proposed project. GHG emissions during construction would be the same as with the proposed project. The Reduced Project Alternative would also result in less operational GHG emissions as a result of reduced student vehicle trips to the project site and as a result of reduced consumption of energy at project facilities. Lastly, the Reduced Project Alternative would result in similar impacts with regard to consistency with applicable GHG emissions reeducation plan, policy, or regulations.

Hydrology and Water Quality

The Reduced Project Alternative would result in similar less than significant impacts with regard to water quality degradation and drainage when compared with the proposed project as there would be no new construction activity or changes in operational assumptions.

Noise

The Reduced Project Alternative would result in similar less than significant impacts with regard to excessive noise levels, excessive groundborne vibration, and temporary ambient noise as a result of construction as there would be no new facilities constructed when compared to the proposed project. The Reduced Project Alternative would also result in similar less than significant impacts with regard to permanent ambient noise levels but at a reduced scale due to less operational traffic trips.

Paleontological Resources

The Reduced Project Alternative would result in similar less than significant impacts to potential paleontological resources as no new ground disturbance would occur under this alternative.

Transportation, Traffic and Parking

The Reduced Project Alternative would potentially result in reduced impacts related to traffic and project circulation as project trips would be reduced by approximately 25 percent. This would improve traffic circulation and would reduce the significant cumulative intersection impacts at Rancho Bernardo Road/ Via Del Campo, Rancho Bernardo Road/Matinal Road (proposed project access), and Rancho Bernardo Road/West Bernardo Drive. However, even with reduced operations, unmitigated cumulative intersection impacts would persist at the Rancho Bernardo Road/ West Bernardo Drive intersection, although at a slightly reduced level. Additionally, as discussed in Section 4.8, there is no feasible mitigation to reduce the significant unavoidable cumulative impacts for the Rancho Bernardo Road/ West Bernardo Drive intersection. Lastly, parking impacts under this alternative would continue to remain less than significant as existing parking supply on- and off-site would continue to exist.

Ability to Attain Project Objectives

The Reduced Project Alternative would have the ability to attain ten of the eleven project objectives. Objective 2, which is to implement the relevant goals and objectives of the PCCD 2022 Educational Master Plan 2010 Update, would only be partially obtained because this alternative would serve a reduced student population which is not consistent with educational goals and policies of the 2010 Plan. In addition, any reduction in FTES potentially reduces the economic viability of the project to a point the project will be unable to be self-supporting, such that the number of FTES does not pay for the operating expenses. While this alternative would generally meet most of the project objectives, would result in less

environmental impacts when compared with the proposed project, it would not completely eliminate the identified significant unavoidable cumulative intersection impacts and is potentially economically infeasible for the PCCD.

6.7 Bernardo Center Drive Alternative

An internet database review of potential existing commercial sites and vacant land for sale was performed in the vicinity of the project site to identify alternative sites that could support an educational facility of similar size to the proposed project and within the southern portion of the PCCD service area (Loopnet, 2016). Only one project site with the potential to support the construction of an approximately 110,000 square-foot office building and space for adequate parking was identified which is located along Bernardo Center Drive and I-15 (Figure 6-1).

Under this Bernardo Center Drive Alternative, PCCD would construct the South Education Center on the 3.9-acre property located at the northwest corner of Rancho Bernardo Road and Interstate 15. Construction of a 110,000-square-foot building and approximately 4 or 5 story 800 space parking structure would take place. Because the project site is substantially smaller than that of the proposed project, surface parking areas would be eliminated and thus would require the construction of a larger parking structure. In addition, construction of a loop road and other open space areas would also be eliminated due to space constraints. Access to the project site would likely be from West Bernardo Road through an easement through an existing parking lot or along Bernardo Center Drive. Intersection improvements, such as new signals and/or signage and striping would likely be required.

Impact Analysis

Aesthetics

The Bernardo Center Drive Alternative would result in an increased impacts to scenic vistas, light, and glare when compared to the proposed project because of the construction of an entirely new facility, including a 4 or 5 story parking structure, in an area that is currently undeveloped. While this development would be partially consistent with planned growth for this area, these new facilities would change the visual character of the project area by constructing a building in a location where no development currently exists and constitute a change in visual character when compared to the proposed project.

Air Quality and Energy

The Bernardo Center Drive Alternative would result in increased impacts with regard to consistency with the applicable air quality plan, exposure to sensitive receptors, and the production of objectionable odors when compared to the proposed project. Development of the project site would require grading and excavation to support the construction of a new parking structure and community college building which would result in increased emissions and energy use during construction. As a result, the Bernardo Center Drive Alternative would result in greater construction air emissions and energy consumption when compared to the proposed project and would produce slightly greater amounts of criteria pollutant emissions. Operational Air Quality and Energy impacts would be similar when compared to the proposed project because operational traffic and operational emissions associated with occupancy of the new facility would be similar to the proposed project.

Source: GoogleEarthPro, Atkins 2015

ATKINS

FIGURE 6-1

Bernardo Center Drive Alternative

Biological Resources

The Bernardo Center Drive Alternative would result in an increased impact on biological resources when compared to the proposed project. Construction of new project facilities in an area that is currently undeveloped would potentially directly and indirectly impact existing biological resources; jurisdictional waters and wetlands; wildlife corridors and nursery sites; and consistency with biological resources protection policies and/or, ordinances.

Greenhouse Gas Emissions

The Bernardo Center Drive Alternative would result in an increased impact with regard to direct and indirect generation of GHG emissions when compared to the proposed project. GHG emissions during construction would be increased under this alternative because of additional construction activity and energy consumption. However, the Bernardo Center Drive Alternative would result in similar impacts in terms of operational GHG emissions as no new facility operational characteristic or vehicle trips would occur under this alternative. Lastly, the Bernardo Center Drive Alternative would result in similar impacts with regard to consistency with applicable GHG emissions reeducation plan, policy, or regulation.

Hydrology and Water Quality

The Bernardo Center Drive Alternative would result in increased impacts with regard to water quality degradation and drainage as a result in increased construction activity and would result in new operational impervious surfaces on a site that is currently undeveloped. Therefore, water quality impacts from sediment laden runoff during construction and operation would be increased under this alternative.

Noise

The Bernardo Center Drive Alternative would result in slightly increased impacts with regard to excessive noise levels, excessive groundborne vibration, and temporary ambient noise when compared to the proposed project as a result of increased construction activity. The Bernardo Center Drive Alternative would result in similar impacts with regard to permanent ambient noise levels because the operational characteristics of this alternative are the same as the proposed project although noise levels would be located in a different geographic area.

Paleontological Resources

The Bernardo Center Drive Alternative would result in in increased impacts with regard to potential paleontological resources during ground disturbing construction activities because more ground disturbance would occur associated with construction of new facilities in an area that is currently undeveloped. Therefore, impacts to paleontological resources would be greater compared to the proposed project.

Transportation, Traffic, and Parking

The Bernardo Center Drive Alternative would potentially result in reduced impacts related to traffic and project circulation along Rancho Bernardo Road within project vicinity as project trips would be redirected away from the project area. This would improve traffic circulation and would reduce the significant cumulative intersection impacts at Rancho Bernardo Road/Via Del Campo, Rancho Bernardo Road/ Matinal Road (proposed project access), and Rancho Bernardo Road/West Bernardo Drive. However, project trips would be redirected to a different geographic area and is likely to result in similar cumulative intersection impacts to roads in the vicinity of the Bernardo Center Drive alternative. Lastly, parking

impacts under this alternative would continue to remain less than significant as the required parking supply would be developed on site.

Ability to Attain Project Objectives

The Bernardo Center Drive Alternative would have the ability to attain eight out of the eleven project objectives. Objective 5, 6, and 10 would not be met as the construction of a new facility would require additional resources, would not repurpose an existing facility, and would limit the amenities available on campus due to the reduced size of the project site. In addition this alternative would result in an increase in impacts to all resource areas analyzed because of the increase in construction activity due to a greater ground disturbance area.

6.8 Environmentally Superior Alternative

Section 15126.6(e) of the CEQA Guidelines requires that an EIR identify the environmentally superior alternative (i.e., the alternative having the potential for the fewest significant environmental impacts) from among the range of reasonable alternatives that are evaluated. Table 6-1 provides a summary comparison of the alternatives analyzed with the purpose of highlighting whether each alternative would result in a similar, greater, or lesser impact than the proposed project. Table 6-2 provides a summary of the selected alternatives' abilities to meet the project objectives.

In general, the environmentally superior alternative is the alternative that would be expected to generate the fewest adverse impacts. If the No Project alternative is identified as environmentally superior, then another environmentally superior alternative shall be identified among the other alternatives.

As presented in the comparative analysis above, and as shown in Table 6-1, the Environmentally Superior Alternative for the proposed project would the No Project alternative. This alternative would avoid all significant and unavoidable impacts that would occur under the proposed project. No substantially adverse and long-term impacts would occur to the environment as a result of this alternative. Aside from the No Project Alternative, the Reduced Intensity Alternative would be the environmentally superior alternative, as it would reduce impacts to cumulative intersections at Rancho Bernardo Road/Via Del Campo, Rancho Bernardo Road/Matinal Road (proposed project access), and Rancho Bernardo Road/ West Bernardo Drive by approximately 25 percent. However, even with reduced operations, cumulative intersection impacts would likely persist, but at a reduced level. As discussed in Section 4.8, there is no feasible mitigation to reduce the significant cumulative impacts for the Rancho Bernardo Road/West Bernardo Drive. Even with a reduced operational size, this cumulative impact would remain significant and unavoidable.

Table 6-1 Summary of Impacts for Alternatives Compared to the Proposed Project

Issue Area	Proposed Project Without Mitigation	Proposed Project With Mitigation	No Project Alternative	Second Access Road Alternative	Reduced Project Alternative	Bernardo Center Drive Alternative
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable ▲ Alternative would likely result in an increased level of impact when compared to the proposed project. — Alternative would likely result in a similar level of impact when compared to proposed project. ▼ Alternative would likely result in a reduce level of impact to issue when compared to proposed project.						
Aesthetics						
Scenic Vistas	LS	LS	—	—	—	—
Visual Character	LS	LS	—	▲	—	▲
Light and Glare	PS	LS	▼	—	—	▲
Air Quality						
Applicable Air Quality Plans	LS	LS	—	—	—	—
Air Quality Standards	S	LS	—	▲	▼	▲
Cumulatively Considerable Emissions	LS	LS	▼	▲	▼	▲
Sensitive Receptors	LS	LS	—	▲	▼	▲
Objectionable Odors	LS	LS	—	—	—	—
Energy	LS	LS	—	▲	▼	▲
Biological Resources						
Special Status Species	PS	LS	▼	▲	—	▲
Sensitive Natural Communities	PS	LS	▼	▲	—	▲
Jurisdictional Waters and Wetlands	PS	LS	▼	—	—	▲
Wildlife Corridors and Nursery Sites	LS	LS	▼	—	—	▲
Biological Resources Protection Policies or Ordinances	LS	LS	▼	—	—	▲
Adopted Habitat Conservation Plan	LS	LS	▼	—	—	—
Greenhouse Gases						
Direct and Indirect Generation of GHG Emissions	LS	LS	▼	▲	▼	▲
Applicable GHG Emissions Reduction Plan, Policy, or Regulation	LS	LS	▼	—	—	—
Hydrology and Water Quality						
Water Quality Degradation	LS	LS	▼	▲	—	▲
Drainage Alterations	LS	LS	▼	—	—	▲
Noise						
Excessive Noise Levels	LS	LS	▼	▲	—	▲
Excessive Groundborne Vibration	LS	LS	▼	▲	—	▲
Permanent Increase in Ambient Noise	LS	LS	▼	—	▼	▲
Temporary Increase in Ambient Noise	LS	LS	▼	▲	—	▲
Paleontological Resources						
Paleontological Resources	PS	LS	▼	—	—	▲

Issue Area	Proposed Project Without Mitigation	Proposed Project With Mitigation	No Project Alternative	Second Access Road Alternative	Reduced Project Alternative	Bernardo Center Drive Alternative
Key: PS = Potentially Significant; LS = Less than Significant; SU = Significant and Unavoidable ▲ Alternative would likely result in an increased level of impact when compared to the proposed project. — Alternative would likely result in a similar level of impact when compared to proposed project. ▼ Alternative would likely result in a reduce level of impact to issue when compared to proposed project.						
Transportation and Traffic						
Increases in Traffic	PS	SU[1]	▼	—	▼	▲
Project Access	LS	LS	▼	▼	▼	▲
Alternative Transportation	LS	LS	▼	—	—	—
Parking	LS	LS	—	—	—	—

Table 6-2 Ability of Alternatives to Meet Project Objectives

Project Objectives	Ability of Alternatives to Meet Project Objectives			
	No Project Alternative	Second Access Road Alternative	Reduced Project Alternative	Bernardo Center Drive Alternative
Objective 1: Locate an education center in the southern region of the district.	No	Yes	Yes	Yes
Objective 2: Implement relevant goals and objectives of the PCCD 2022 Educational Master Plan 2010 Update, specifically Goal 5 which is to "Ensure that existing and future facilities support learning, programs, and services; and Objective 5.3 which is to "Identify and purchase a site for future development of another Education Center in accordance with the Master Plan."	No	Yes	Partial	Yes
Objective 3: Provide a shared community resource with amenities for public use.	No	Yes	Yes	Yes
Objective 4: Attract new students to the PCCD through a well-defined academic program.	No	Yes	Yes	Yes
Objective 5: Be self-sufficient/self-sustaining so as not to create a drain on the resources of the PCCD.	No	Yes	No	No
Objective 6: Utilize and repurpose an existing facility in order to maximize district resources.	No	Partial	Yes	No
Objective 7: Provide high quality education and support services to the southern portion of the district.	No	Yes	Yes	Yes
Objective 8: Develop a comprehensive education center campus experience that reflects its surrounding environment.	No	Yes	Yes	Yes
Objective 9: Offer a broad-based curriculum supported by a class schedule that is convenient for students.	No	Partial	Yes	Yes

[1] Impacts at one intersection would result in a significant and unavoidable cumulative impacts at Year 2035.

Project Objectives	Ability of Alternatives to Meet Project Objectives			
	No Project Alternative	Second Access Road Alternative	Reduced Project Alternative	Bernardo Center Drive Alternative
Objective 10: Create the feel of a postsecondary campus by placing importance on support amenities, including those for learning resources, food services, and gathering places for students.	No	Yes	Yes	Partial
Objective 11: Ensure that the facility maximizes the safety of the students, faculty and staff.	No	Yes	Yes	Yes

6.9 References

City of San Diego, Development Services Department. 2005. Mitigated Negative Declaration, Rancho Bernardo Industrial Park North – Lot 11, Project No. 1096, SCH No. 2005031034. June 23, 2005.

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