

California Environmental Protection Agency



Staff Report

Analysis of Sites

for the

Southern California Consolidation Project

February 2016

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California Environmental Protection Agency
Air Resources Board

STAFF REPORT

Analysis of Sites for the Southern California Consolidation Project

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This report has been reviewed by the staff of the Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board.

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Comments

Interested members of the public may present comments orally or in writing at the March 17, 2016, Board meeting and may provide comments by postal mail or by electronic submittal before the meeting. To allow full consideration by the Board, ARB requests that written comments not physically submitted at the meeting be received no later than 5:00 pm, March 14, 2016, and addressed to the following:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>.

Please note that under the California Public Records Act (Government Code section 6250 et seq.), your written and verbal comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request.

Further inquiries regarding this matter should be directed to Ms. Deidre Cyprian, ARB Space Acquisition Manager, at (916) 322-2384.

TABLE OF CONTENTS

Executive Summary and Staff Recommendation	i
I. Introduction	1
II. Background.....	2
A. Existing Facilities.....	2
B. Proposed New Facility.....	2
C. Budget Approval Process	3
D. Site Evaluation Process.....	4
III. Site Descriptions	7
A. Pomona #1 – Pomona Boulevard.....	7
B. Riverside #1 – Technology Court.....	11
C. Riverside #2 – Iowa Avenue.....	13
IV. Comparison of Site Attributes	15
A. Mandatory Attributes	15
B. Site Area	16
C. Transportation and Circulation.....	18
D. Location.....	42
E. Architectural and Engineering.....	49
F. Financial.....	51
G. Zoning, Local Codes, and Ownership.....	54
H. Environmental	56
I. Security	71
J. Neighborhood Character and Immediate Surroundings	72
K. Staff Amenities and Diverse Uses	76
L. LEED Certification – Points Related to Site Selection.....	78
M. Zero Net Energy Analysis.....	80
N. Alternative Fueling Options.....	82
V. Other Site Selection Considerations	83
A. Cal Poly Pomona Agriculture Student Concerns.....	83
B. Potential University Collaborations	83
C. South Coast AQMD Proposed Endowment	85
D. Riverside Public Utilities and Southern California Edison Incentives.....	85
E. ARB Staff Feedback on Potential Site Locations.....	86
VI. Summary	87

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EXECUTIVE SUMMARY AND STAFF RECOMMENDATION

The Air Resources Board (ARB/Board) is proposing to construct and operate a world-class emissions testing and research facility to support California's air quality and climate change mandates and goals through at least 2050. The existing facilities no longer meet ARB's programmatic requirements. The overall effort is referred to as the Southern California Consolidation Project.

The work done at the existing facilities has contributed to the development of rigorous approaches to testing and certification of emission control systems on virtually every kind of engine used in California. The scientific data collected has led to regulations that lower harmful smog-forming and toxic air pollutants and greenhouse gases from vehicles and engines. In addition, extensive testing of existing vehicles also helps identify non-compliant vehicles. For example, testing conducted in 2015 at the existing facilities was instrumental in confirming the presence of defeat devices in light-duty Volkswagen diesel engines. Over the past forty years, many other states and international jurisdictions have adopted California's vehicle emission regulations. ARB expects this success to continue in the future with the proposed new facility.

The proposed new facility would also provide a national and international destination for policy and technical assessments of air pollution and climate change. By supporting programs such as the Sustainable Freight Initiative, the facility will enhance ARB's overall environmental justice program in those communities that are significantly burdened by, and vulnerable to, high levels of pollution. Furthermore, in consideration of the Governor's initiatives for green buildings and sustainable development, the facility would showcase how sustainability and energy efficiency goals can be integrated into facility building design and operations. To that extent, ARB will seek to achieve Leadership in Energy and Environmental Design (LEED) Platinum certification and achieve Zero Net Energy (ZNE) performance. Finally, the facility design should promote zero emissions vehicles by providing sufficient fueling capacity.

ARB received funding in this budget year to evaluate sites for the proposed facility. As part of the budget process, ARB agreed to evaluate sites for the proposed facility in both Pomona and Riverside. The site locations in these areas will not result in acquisition costs to the State. In cooperation with the Department of General Services (DGS), ARB evaluated the following three sites:

- Pomona #1 – Pomona Boulevard: This proposed 19-acre site is located on a northeast section of an approximately 150-acre piece of property that the California State Polytechnic University, Pomona (Cal Poly Pomona) owns. The College of Agriculture currently uses the land in their educational program for students as a working farm and to supply produce to the University. The property is located approximately one mile from the Cal Poly Pomona campus. The area was initially referred to as Innovation Village II, but is now referred to as Spadra. For the purposes of this report, the names are used interchangeably.

- **Riverside #1 – Technology Court:** The proposed 16.7-acre site is located near the intersection of Technology Court and Research Park Drive within the University Research Park area of Riverside. Riverside County representatives indicated that additional land is available if needed for the project. The University Research Park is a hub that has been developed through a partnership between the City and County of Riverside and University of California, Riverside (UCR). The site borders the 1,100 acres Box Springs Mountain Reserve/Park and is about one-half mile from UCR’s Center for Environmental Research and Technology (CE-CERT) facility. The site is currently undeveloped.

Riverside #2 – Iowa Avenue: The proposed 18.3-acre site is located on the northeastern border of a 100-acre site near the intersection of University Avenue and Iowa Avenue. The Regents of the University of California owns the property. UCR currently uses the land in their agricultural research program, but has indicated that any ongoing research would be relocated if this site is chosen. The balance of the property is planned for campus development. The site is approximately three-quarters of a mile from the main UCR campus, two miles from downtown Riverside, and about three miles from the Technology Court site.

ARB and DGS developed detailed information on each site. This information is presented in the staff report. The report also includes background information on the budget process and detailed descriptions of each site. Using this information as a basis, ARB then developed a staff recommendation. This summary presents the results of this analysis, including the staff recommendation.

A. SITE EVALUATION PROCESS

To inform this site selection phase, ARB and DGS used an informational matrix that was developed during the budget process as a framework for the analysis.¹ Table ES-1 lists the general attribute categories in the informational matrix. In addition to these attribute categories, ARB considered other information that was available that might have an impact on the siting recommendation.

To assist in this evaluation, DGS contracted with four specialized contractors. These contractors provided preliminary information to support the environmental, geotechnical, LEED, and ZNE analyses. The final reports are provided on the ARB website.²

Table ES-1
Informational Matrix Attributes

- *Mandatory Attributes*
- *Site Area*
- *Transportation and Circulation*
- *Location*
- *Architectural and Engineering*
- *Financial*
- *Zoning, Local Codes, and Ownership*
- *Environmental*
- *Security*
- *Neighborhood Character/Surroundings*
- *Staff Amenities/Diverse Uses*
- *LEED Certification*
- *Zero Net Energy*
- *Alternative Fueling*

¹ Air Resources Board Informational Matrix, August 5, 2015; http://www.arb.ca.gov/html/socalfacility/site_evaluation_matrix_080515_final.pdf.

² Reference: <http://www.arb.ca.gov/socalfacility/>.

The information is not designed to replace any necessary environmental review that will be required as part of the process carried out to comply with the California Environmental Quality Act (CEQA). ARB used the information to provide a characterization of each site and identify any potential issues that may affect site selection, acquisition, or development. The information also allowed for a comparison of the individual sites. The appropriate level of CEQA review will be performed before ARB considers whether to approve any facility development project.

There are location-specific and site-specific attributes related to the site evaluations. A general discussion of these attributes is presented in the following sections of this Executive Summary. The evaluation of all the attributes is described in the main report. All three sites were competitive and generally met the objectives of the project. For example, all three sites:

- Are available at essentially no cost to the State;³
- Provide more acreage than the minimum required 14 acres;
- Can be transferred to the State free of encumbrances, restrictions, or clouds on the title;
- Can be financed through lease revenue bonds;
- Meet minimum development requirements;
- Are consistent with the land use development plans put forth by the respective responsible authorities;
- Have onsite and offsite utility infrastructures that support development;
- Have roads that allow for heavy-duty vehicles;
- Provide necessary public services;
- Have easy access to major highways;
- Have a comparable cost-of-living, including the availability of reasonably affordable housing;
- Can potentially achieve about the same number of LEED points to help achieve LEED-Platinum certification; and
- Provide similar access to electric vehicle charging infrastructures.

B. LOCATION-SPECIFIC ATTRIBUTES

1. *Riverside*

The Riverside representatives provided an impressive coordinated response to providing sites. The City and County of Riverside, the Riverside Public Utilities, UCR, the Riverside Chamber of Commerce, and others have been directly involved with the siting process. These representatives indicated that they would work closely with us throughout the development process. In addition, there is no question that Riverside as

³ UCR indicated that the Regents of the University of California is prepared to transfer the real estate to CARB for \$1. Email from Ms. Rebeccah Goldware, UCR, to Mr. Robert Fletcher, ARB, dated January 22, 2016.

a community is advancing an innovative and sustainable agenda for the future, as evidenced by the awards that the City has received in recent years.

ARB received written support letters from a number of elected officials and other organizations, including California State Senator Richard Roth, California Assembly Member Jose Medina, the Riverside County Board of Supervisors, the County of Riverside, the City of Riverside, UCR, and the Greater Riverside Chambers of Commerce.

The Riverside Public Utilities (RPU) is the City of Riverside's source of electric power and water and would serve either Riverside site. RPU recently reported that the electric rates are 19 percent less than Southern California Edison.⁴ Using estimates of the electricity consumption for the new facility, RPU estimated that the facility would save approximately \$275,000 per year in electricity costs if located in Riverside. In addition, RPU estimated incentives that may be available to ARB for new construction energy efficiency rebate programs, custom energy technology grants, and commercial photovoltaic incentive programs.⁵ RPU indicated that these incentive program benefits may be as high as \$335,000. Therefore, RPU estimates that there may be benefits associated with lower electricity costs and incentive programs in Riverside that would result in first year savings of approximately \$610,000, with about \$275,000 in ongoing savings.

In September 2015, the South Coast Air Quality Management District (South Coast AQMD) approved an endowment for the UCR's CE-CERT if ARB selected Riverside as the site for the new facility.⁶ The endowment was in the amount of \$1 million. The funds originated from an enforcement action settlement with a southern California refinery. According to information that UCR provided, the funds would be used to develop a training and research program for South Coast AQMD and ARB staff. ARB staff supports the intent of the ACT Program to provide continuing education of both South Coast AQMD and ARB staff. Therefore, ARB staff support its implementation regardless of the site selected.

2. Pomona

Cal Poly Pomona and the Cal Poly Pomona Foundation (Foundation) have been responsive to ARB needs. ARB has met with the City of Pomona, as has the Foundation. Coordination between the University, the City of Pomona, and ARB has been limited to date on this project. ARB would expect to work more closely with the University and the City of Pomona to move the project forward if this site is selected.

⁴ Reference: <http://www.riversideca.gov/utilities/pdf/2015/Board-Update-Meeting-Summary-12-18-2015.pdf>.

⁵ Riverside Proposal entitled "Air Resources Board Southern California Consolidation Project", Response to Department of General Services Solicitation 136676, April 23, 2015.

⁶ Reference: South Coast Air Quality Management District; [SCAQMD Endowment to UCR and the October 29, 2105 formal presentation to ARB. See http://www.arb.ca.gov/html/socalfacility/socalfacility.htm](http://www.arb.ca.gov/html/socalfacility/socalfacility.htm).

ARB received written support letters from a number of elected officials and other organizations, including several Congressional representatives, California legislators, the Los Angeles County Board of Supervisors, the City of Pomona Chamber of Commerce and other business-related entities in Los Angeles County, and the Three Valleys Municipal Water District.⁷

Southern California Edison (SCE) is the City of Pomona's source of electric power and would serve the Pomona site. SCE participates in the Savings by Design Program. This Program provides incentives for the building owner (\$150,000 maximum) and design team (\$50,000 maximum). Given the sustainability goals of this project, the State anticipates receiving the maximum amount of the Program's incentives. However, ARB has not investigated other SCE programs that may be equivalent to the RPU programs.

While supportive of the concept of the proposed facility, a number of Cal Poly Pomona College of Agriculture students expressed concerns about the siting of the ARB facility on the Innovation Village II property. Currently, essentially all of the property is used as an educational farm for the students, as well as a source of local produce for the University. Of the approximately 150-acre site, Cal Poly Pomona representatives have indicated that the College of Agriculture will be able to use 70 acres for the next five years while the University develops an academic strategic plan. ARB understands the students' concerns about the long-term development of the property. However, ARB's planned use of the property is consistent with the University's long-term plans for the property. ARB has been in contact with the students on an ongoing basis and has provided background information on the project and the process. If the Pomona site is selected, ARB is committed to continuing to work with Cal Poly Pomona and the students on opportunities for coordinated program development.

C. SITE-SPECIFIC ATTRIBUTES

As discussed above, ARB and DGS used an informational matrix as a framework for the analysis. Within each general site-specific category, there was a number of specific attributes that ARB and DGS evaluated. There were many site attributes that ARB and DGS staff analyzed where the differences between sites were not significant. These are discussed in the main report. The following analysis presents examples of site-specific attributes that ARB staff evaluated. It is important to note that ARB has not identified any issues that would preclude development at any of the three sites.

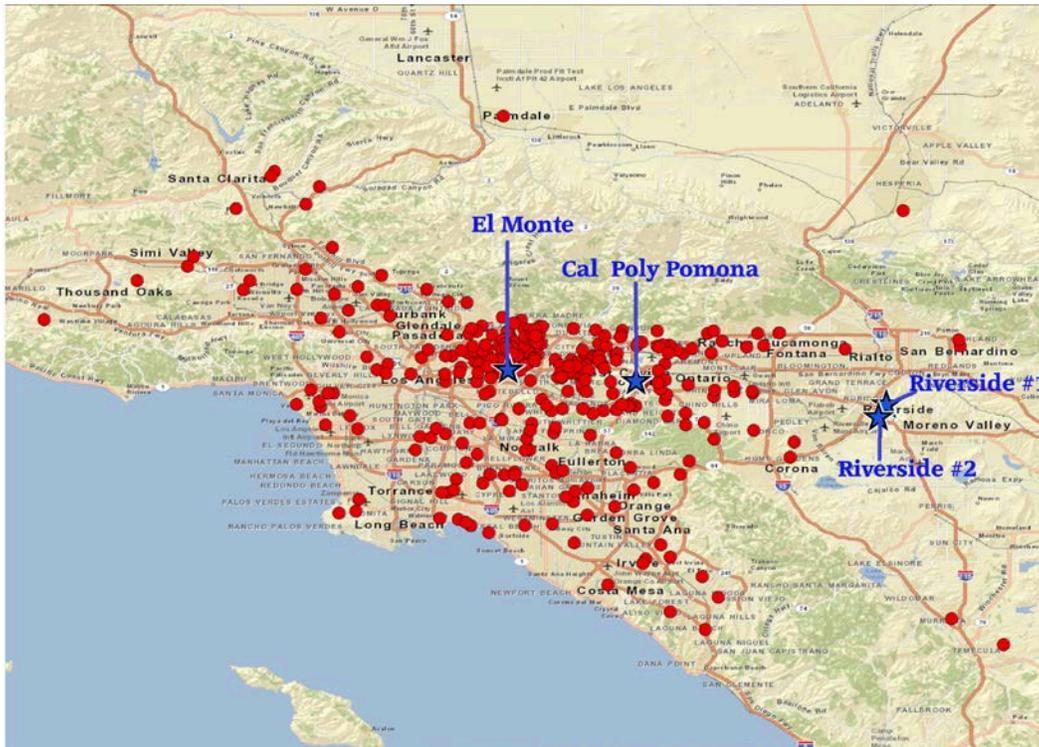
⁷ Support letters received from: Congresswoman Judy Chu; Congressman Edward Royce; Congresswoman Grace Napolitano; California State Senators Connie Leyva, Dr. Ed Hernandez, and Bob Huff; California State Assembly Members Freddie Rodriguez, Ling Ling Chang, and Chris Holden, the Los Angeles County Board of Supervisors, the Chamber of Commerce representing Pomona, Glendora, City of Industry, the Regional San Gabriel Valley, and Pasadena; the San Gabriel Valley Economic Partnership, the Arcadia Association of Realtors, and the Three Valleys Municipal Water District.

1. Proximity

ARB evaluated the proximity of the sites to the common stakeholders and to ARB's staff. By virtue of its more central location within the heavily populated areas of the Los Angeles area, the Pomona site is generally closer to various entities than the Riverside sites. In 2015, ARB recorded about 2,900 visitors to the El Monte facilities. In addition, ARB staff also travel to meet with stakeholders and ARB's enforcement staff visit major ports, rail yards, refineries, fuel terminals, and bulk plants throughout southern California. The Pomona site is also located within five miles of the South Coast AQMD and would encourage better coordination on a variety of policy and technical issues. This includes, but is not limited to, programs for the State Implementation Plan, the Sustainable Freight Initiative, and the environmental justice programs. Therefore, proximity is an important consideration for site selection.

ARB staff resides throughout southern California, but is generally located in the Los Angeles area. Figure ES-1 shows the geographic distribution of staff residences relative to the proposed sites.

**Figure ES-1
Geographical Distribution of Air Resources Board Employees
Working at the El Monte Facilities**



Based on current employee location information, ARB analyzed the impact of site location on ARB staff commutes. This analysis provides an indication of the driving distance, driving time, and public transit time that the staff would face relative to the sites in either Pomona or Riverside. ARB used the Pomona #1 site and the Riverside #2-Iowa Avenue sites as the basis for the analysis. For comparison purposes, ARB also evaluated the incremental changes in the round-trip driving distance for the two sites relative to the existing El Monte facilities. Table ES-2 summarizes the information.

**Table ES-2
Impact of Round Trip Driving Distance, Driving Time, and Transit Times
to the Pomona and Iowa Avenue Sites**

Metric	Pomona #1 Pomona Blvd	Riverside #2 Iowa Avenue
Round Trip		
Median Driving Distance, miles	41	91
Median Driving Time, minutes	62	115
Percent of Employees with a Driving Commute Time of Less Than or Equal to 60 minutes	46%	3%
Percent of Employees with a Driving Commute Time of Less Than or Equal to 90 minutes	75%	21%
Median Public Transit Commute Time, minutes	231	351
Incremental Change Over Existing Commute from Home to El Monte (Round Trip)		
Median Incremental Change in Driving Distance, miles	19	64
Annual Vehicle-Miles-Travelled (Round Trip)		
Total Annual VMT, miles	3,413,800	6,893,800
Incremental Change in Annual VMT, miles	603,300	4,083,300
Estimated Annual Incremental Driving Costs per employee per year	\$1,100	\$7,500

The information shows that the median round-trip driving distance to the Riverside site is over twice the driving distance to the Pomona site. About half of the staff would have round-trip commute driving times to Riverside that would be greater than about two hours. Furthermore, only three percent of the staff would have a round-trip driving commute to the Riverside site of less than or equal to 60 minutes; only about 20 percent of the staff would have a round-trip driving commute to Riverside of less than or equal to 90 minutes. This compares to just under half of the staff having a round-trip driving

commute to the Pomona site of less than or equal to 60 minutes; about 75 percent of the staff would have a round trip driving commute to Pomona of less than or equal to 90 minutes. The incremental vehicle-miles-travelled and associated additional costs also indicate that the driving commutes to Riverside are more difficult than to Pomona.

The analysis also shows that public transit is problematic for both sites, but basically unrealistic for almost all of the ARB staff attempting to go to Riverside from their current residences. In fact, only two employees would currently have a one-way public transit commute time of less than 90 minutes.

For either Pomona or Riverside, the existing ARB staff would have to decide whether to relocate, resign, retire, or continue to commute. Given the differences in driving commutes and the long public transit commutes, it is unlikely that the majority of the existing workforce would continue to commute to Riverside. Therefore, a move to Riverside would likely involve relocation, resignation, or retirement of ARB employees. A move to Pomona would be likely retain more of ARB's existing and highly trained workforce necessary to support ARB's ability to carry out its responsibilities by minimizing travel times and travel distances.

Employee relocation is predicated on whether an employee has the ability and desire to move. Individual situations that make it difficult to move may include an upside-down mortgage, partner/spouse employment locations, children and elderly day care needs, community involvement, proximity to friends, and preferred recreational opportunities. A move to the Pomona location would be much less disruptive to ARB's operations because there would be less disruption to ARB employees.

One other related consideration is the cost of relocation expenses for ARB employees that chose to relocate to Riverside. ARB would have to pay relocation expenses as a result of a recent change in State requirements due to a change in the Professional Engineers in California Government (PECG) Bargaining Unit 9 Memorandum of Understanding (MOU) with the State. Per the new MOU, ARB must now pay relocation expenses if a Bargaining Unit 9 employee is reasonably required to relocate to a new headquarters that is located more than 35 miles from the old headquarters. The distance from El Monte to Riverside #2-Iowa Avenue site is approximately 48 miles. ARB's analysis indicates that almost 80 percent of the staff may be eligible for relocation expenses. ARB estimated the relocation costs could range from about \$1.0 million to about \$7.3 million, assuming that about 34 and 244 employees, respectively, chose to relocate.

2. *Environmental Attributes*

The environmental attributes provide preliminary information about the local environmental conditions of the sites, as well as potential areas that would need further evaluation or possible mitigation as part of the environmental review process for proposed site development. As part of the preliminary environmental analysis, each site was evaluated for impacts for a number of different attributes that included, but were not

limited to nearby pollution sources, biological resources, agricultural resources, cultural resources, and potential environmental hazards. The DGS contractors performed much of this work and the results are summarized in the main report and discussed in detail in the reports that are posted on ARB's website. This preliminary information does not replace any necessary environmental review required as part of CEQA.

The Pomona site is the only site that appears to have any issue with pollution sources. There are heavily used railroad tracks that run along the southern boundary of the property. As part of the full environmental review process, ARB would evaluate whether any measures are necessary to address air pollution based on the proximity of the railroad tracks to the site if this site is selected.

Each site had some considerations that would likely need to be addressed as part of the site development process. Considerations that are common among the three sites are not presented here, but are discussed in the main report. For example, all three sites have the potential to support nesting bird species and would likely need to comply with the Migratory Bird Treaty Act and California Fish and Game Code. In summary, there are a few differences in the assessments, but none of the findings identified issues that would preclude any of the sites from development or cannot be mitigated.

3. *Potential for University Collaborations*

Both sites are near major universities. UCR has more of a research focus than does Cal Poly Pomona. UCR has masters and doctoral programs in many of the fields relevant to ARB and a new medical school. Cal Poly Pomona offers masters degree programs in many of the fields relevant to ARB and takes more of a hands-on approach to education. Both have value to ARB. ARB management closely considered the issue of whether proximity to a university is critical to developing and expanding existing partnerships and decided it is not critical. For example, ARB is in the early planning stages of establishing an intellectual partnership on emissions testing that will involve national and international experts in the field of engine and vehicle emissions testing and research. The purpose of the partnership would be to help guide not only the design of the new facility, but eventually its use and operation. This broader approach strengthens our relationships with the emissions testing community and helps guide our efforts not only on our current needs, but on the future needs to meet critical and evolving air quality and climate change goals.

Proximity to a university does allow for convenient collaborations. These opportunities are win-win propositions that can assist ARB in addressing a wide range of challenging policy and technical issues and provide unique experiences for university faculty and staff. Both Cal Poly Pomona and UCR provide this opportunity for collaboration. The main report lists examples of potential collaborations. Note, however, that these collaborations are not limited to the adjacent university; ARB has been, and will continue to support collaborations with any university where there are mutual interests. Furthermore, ARB will continue to contract with those universities and entities that can

provide the best value to the State, regardless of the physical location of ARB's facilities.

In summary, proximity to a university is not necessary for broad intellectual partnerships, but does provide win-win opportunities for both the university and ARB.

4. Other Site-Specific Attributes

The following discussion presents additional examples of site-specific attributes that the staff evaluated.

- Site Construction and Preparation Costs. These estimated costs are approximately the same for the Pomona and Iowa Avenue sites. The Technology Court site estimated costs are approximately 15 percent higher than either the Pomona or Iowa Avenue sites. These estimated costs are higher because this site will require additional costs to address the sloped topography of the site. The Pomona site includes special costs to address the installation of pile foundations for the parking garage and the taller office building due to the soil conditions present at the site.
- Traffic Congestion. The intersections surrounding the Pomona site are operating at very congested conditions during the peak commutes. As part of the environmental review process, ARB would need to fully evaluate the potential traffic impact in accordance with the CEQA requirements and implement appropriate measures. There are no observable traffic issues adjacent to either of the Riverside sites.
- Site Amenities, Walkability, and Bikeability of the Sites. The Iowa Avenue has the most amenities within walking distance of the site. These amenities include restaurants, shopping, close proximity to the UCR campus, and nearby recreational opportunities. The Iowa Avenue site is also about two miles from downtown Riverside. The Technology Court site is the least walkable and has the fewest amenities. There is also a new Hunter Park Metrolink station opening near the Technology Court site. The Pomona site is located within one-mile of the Cal Poly Pomona campus and is within walking distance of restaurants, shopping, bus stops, and nearby recreational opportunities. Cal Poly Pomona is also considering the development of a small retail center adjacent to the ARB site. In general, the Riverside area has more opportunities for biking for both recreational and commuting purposes.

5. ARB Staff Feedback on Potential Site Locations

At the December 17, 2015, Board Meeting, Chair Nichols directed staff to "open up a process whereby employees could make their views on this known" (siting). In response, ARB distributed electronic surveys to El Monte staff during the week of January 26, 2016. The staff was asked to provide information about the importance of

site attributes, commute information, and additional information including their vision of ARB's future and any additional feedback they would like considered. ARB received 274 responses (a response rate of approximately 75 percent).

Approximately 85 percent of the respondents preferred the Pomona site. The reasons given for this preference were generally based on the commute distance and time. However, the survey respondents also expressed concerns about the impact that a move to Riverside would have not only on their personal life, but also their work. The respondents gave thought to the ability to complete field and outreach tasks within a day versus overnight as well as the impact of proximity to ports, major railroads, cold storage facilities, truck stops, refineries, scales, manufacturers, and airports for international visitors. On a personal level, the respondents shared concerns about how a longer commute to Riverside would impact their families with respect to the needs of their spouse/partner, childcare and schools, community ties, and responsibilities associated with other personal family commitments such as the care of a parent.

Of fifteen attributes, the respondents identified the three most important attributes as proximity to current residence (73 percent), the availability of quality transit to/from work (56 percent), and neighborhood surroundings and site aesthetics (46 percent). In the comments, Riverside was recognized for the availability of affordable new housing nearby, educational opportunities at the university, and a less dense population. The respondents recognized that the facility is expected to serve California many decades into the future, but commented that the facility will only perform as well as the staff the agency attracts. Some respondents noted that siting in Pomona would likely allow ARB to select from a larger candidate pool because of its proximity to the Los Angeles area.

D. STAFF RECOMMENDATION

ARB is fortunate to have had the opportunity to evaluate three sites and appreciates the assistance provided by the Pomona and Riverside representatives. In cooperation with DGS, ARB conducted a site evaluation process that allowed for the full consideration of each site's attributes. The analysis indicated that most of the attributes were comparable and did not factor into the staff recommendation. The staff recommendation came down to a decision between the Pomona #1 – Pomona Boulevard site and the Riverside #2 – Iowa Avenue site. The Technology Court site was too remote and the elongated and sloping site configuration made it somewhat less desirable. Both the Pomona #1 – Pomona Boulevard and Riverside #2 sites would meet ARB needs.

After considering all of the factors, ARB staff is recommending to the Board the Pomona #1 – Pomona Boulevard site for the proposed Southern California Consolidation Project.

The staff recommendation is based on the Pomona site's advantages relative to supporting ARB's operational needs. To this end, proximity is an important consideration. The location of the Pomona site provides benefits in terms of

interactions with stakeholders and facilitates enforcement activities at the ports, the major rail yards, and refineries, fuel terminals, and bulk plants. The proximity to the Los Angeles area also allows greater flexibility on where staff chooses to live, provides more flexibility for spouse/partner employment, and may facilitate recruitment and retention of staff in the future. The close proximity to the South Coast AQMD would encourage better coordination on a variety of policy and technical issues.

As discussed above, the commute distances and times to Riverside for existing ARB staff would more than likely require a large majority of staff to relocate, retire, or resign. The public transit options for buses and trains are not currently conducive to providing the needed public transportation to Riverside. Vanpools and carpools would be impacted by the long driving distances and are not a feasible opportunity for the majority of the staff. Additionally, ARB would not have to pay relocation expenses or administer a relocation expense program for the Pomona site.

The choice to relocate is dependent not only on the needs of the employee, but the needs of the family. Individual situations make it difficult for a variety of reasons. A move to the Pomona location would be much less disruptive to ARB's operations because there would be less disruption to ARB employees. Furthermore, staff may choose to retire than relocate, further affecting the ARB's ability to meet its public health objectives. ARB's objective is to retain as much of the existing and highly trained workforce as possible to carry out our public health responsibilities.

E. NEXT STEPS

The Board will consider the staff evaluation and recommendation at the public meeting in March. The Board may agree with the staff recommendation for a site, choose a different site from the one recommended by staff, or direct the staff to continue the site evaluation process if it deems none of the three proposed sites adequate. If the Board recommends a site, ARB would develop a summary of the Board meeting and forward the summary, the staff report, and the staff recommendation to the Joint Legislative Budget Committee (JLBC) for the required 30-day review.

If the Board recommends the Pomona site and there are no significant issues raised in the 30-day review period that would require the Board to reconsider its recommendation, ARB staff would work with DGS and Cal Poly Pomona representatives to define the specific boundaries of the site and coordinate with the City of Pomona on project development activities. ARB staff would also collaborate with the Cal Poly Pomona agriculture students and Cal Poly Pomona administration regarding the siting of the ARB project on the Innovation Village II site.

I. INTRODUCTION

The Air Resources Board (ARB/Board) conducts extensive motor vehicle and engine emissions testing and research in support of the mobile source control program. This testing is primarily performed at ARB facilities located in El Monte. The cornerstone of the El Monte facilities is the State-owned Haagen-Smit Laboratory (HSL) that opened in 1971. ARB also conducts limited heavy-duty vehicle and engine testing at the Metropolitan Transit Authority (MTA/METRO) facility in Los Angeles.

The work done at these facilities has contributed to the development of rigorous approaches to testing and certification of emission control systems on virtually every kind of engine used in California. In addition, the scientific data collected has led to regulations that lower harmful smog-forming and toxic air pollutants and greenhouse gases from vehicles and engines. Today's passenger car is 98 percent cleaner than a similar mid-1970s model, and new certified diesel engines are 95 percent cleaner than those manufactured during the 1980s. Extensive testing of existing vehicles also helps identify non-compliant vehicles. For example, testing conducted at HSL was instrumental in confirming the presence of defeat devices in light-duty Volkswagen diesel engines in 2015. Over the past forty years, many other states and international jurisdictions have adopted California's vehicle emission regulations.

However, ARB's southern California testing facilities no longer meet ARB's programmatic requirements. The existing southern California facilities are stretched beyond their capacity, cannot support ARB's existing and future testing needs, do not provide adequate infrastructure to expand or upgrade equipment, and are not energy efficient. The HSL property is also too small to accommodate the construction of the needed replacement facility. ARB will not be able to effectively meet its air quality and climate change mandates unless the emissions testing and research capabilities are upgraded in the very near future.

Therefore, ARB is proposing to consolidate and relocate its existing southern California motor vehicle and engine emissions testing and research facilities. This project is referred to as the Southern California Consolidation Project. To support the project, the approved budget for Fiscal Year 2015-2016 included \$5.9 million to evaluate potential sites for the new facility (\$0.2 million) and initiate efforts to develop design guidelines and performance criteria (\$5.7 million).

The project is defined as the acquisition of land for the potential future construction of a new motor vehicle emissions testing and research facility in southern California. As part of this process, the Department of General Services (DGS) will complete the real estate due diligence for site acquisition, including the environmental analysis required by the California Environmental Quality Act (CEQA). This report provides information about each site that will assist in the evaluation and comparison of the sites. At this point in time, ARB proposes to recommend a site for acquisition, but does not propose any specific facility development. The environmental attributes uncovered as part of a preliminary assessment of each site are discussed as part of the site attributes.

However, that information is not designed to replace the environmental review process that will need to be conducted under CEQA for a particular site once it is selected, and prior to the approval of facility development at that site.

This report provides the staff recommendation for a site, including the rationale and supporting documentation for the recommendation. The Board will consider the report and recommendation at the public meeting scheduled for March 17, 2016. Additional information on the approval process is provided in this report.

II. BACKGROUND

A. Existing Facilities

In El Monte, ARB operates the State-owned HSL and all or part of five leased facilities, with approximately 400 staff. ARB also operates a heavy-duty testing facility located at the Los Angeles Metropolitan Transportation Authority (MTA) that has one test cell equipped with a chassis dynamometer. Given the limited size of HSL, ARB conducts the testing of heavy-duty diesel engines and trucks at the MTA facility.

B. Proposed New Facility

Planning for a new facility in southern California began in 2006 with an initial study of the needs, size, and requirements of a new facility.⁸ This study was expanded and updated in 2014 to include a broad range of changes and new regulatory and other workload requirements, including the added mission to develop and implement climate change mitigation strategies.⁹ The study, entitled Program Update Report, indicated that the proposed new facility would encompass approximately 299,000 square feet of testing, laboratory, and office space, and would require a minimum of 14 acres. Additional details on the proposed new facility are provided in the Program Update Report.

The challenge for the proposed new facility is to continue providing current services for existing internal combustion engine technologies, while ramping up and expanding the scope of testing needed to support the development and deployment of the new generation of energy-efficient vehicles and associated diversified fuel sources.

The new facility will be critical in ARB's efforts to meet current and future federal air quality mandates under the Clean Air Act and statutory climate change requirements. These capabilities are needed for support of new fuels and vehicles in development and various stages of commercialization to transform the State's transportation system. Some of these mandates and requirements in the future include:

⁸ Design for Science, Final Report, September 12, 2006.

⁹ Program Update Report, IBI Group, dated January 7, 2015, <http://www.arb.ca.gov/html/socalfacility/socalfacility.htm>.

- By 2023, California must achieve the federal 1997 8-hour ozone air quality standard in all regions of California.
- By 2030, California must achieve the federal 2012 annual PM_{2.5} air quality standard in all regions of California.
- By 2031, California must achieve the more stringent 2008 federal 8-hour ozone standard in all regions of California.
- By 2037, California must achieve the more stringent 2015 federal 8-hour ozone standard in all regions of California.
- By 2050, California must reduce its GHG emissions to 80 percent less than 1990 levels overall, and specifically 80 percent less than 1990 levels for the transportation sector.

One significant advantage of the proposed new facility is the ability to increase the amount of research and testing of heavy-duty trucks and engines. This is especially important as ARB embarks on the Sustainable Freight Initiative to reduce emissions from the way freight is transported in California by supporting innovative and feasible zero and near-zero emission technologies in the freight sector. The Sustainable Freight Initiative will continue to build upon the substantial benefits already derived from California's Diesel Risk Reduction Program, including reducing diesel particulate matter from heavy-duty trucks in communities that are most significantly burdened by, and vulnerable to, high levels of pollution. This includes, but is not limited to, communities with diverse racial and ethnic populations and communities with low-income populations. These communities are often located around California's ports and intermodal rail yards. Thus, the new facility would be a critical component of ARB's overall environmental justice program.

The new facility will also provide the technical foundation for California to continue to support clean vehicles, engines, and fuels, protect public health, and meet federal and State air quality standards and climate change requirements well into the future. The facility will support and advance air pollution research and climate-related science in support of regulatory and other programs enhancing public health and environmental protection. Additional information about the Southern California Consolidation Project can be found on ARB's web page at <http://www.arb.ca.gov/html/socalfacility/socalfacility.htm>.

C. Budget Approval Process

Based on the Program Update Report, ARB prepared a detailed Capital Outlay Budget Change Proposal (COBCP) to relocate and consolidate the southern California motor vehicle and engine testing operations into a single facility.¹⁰ The COBCP was released as part of the Governor's proposed budget for Fiscal Year 2015-16 (FY 15-16). In the COBCP, the total project cost was estimated to be approximately \$366 million, including about \$102 million in testing and laboratory equipment.

¹⁰ Capital Outlay Budget Change Proposal, dated January 7, 2015, <http://www.arb.ca.gov/html/socalfacility/socalfacility.htm>

As part of the proposed budget, ARB specifically requested \$5.9 million in FY 15-16 to assess the suitability of a proposed new site (\$0.2 million) on State-owned land in Pomona and develop detailed design guidelines and performance criteria that would be used for soliciting proposals to design and build the facility (\$5.7 million).

The Legislature and the Governor approved the project for the \$5.9 million originally requested. However, as part of the budget process, ARB agreed to evaluate sites in both Pomona and Riverside. Budget bill language specifies that ARB must allow both Pomona and Riverside representatives to make on-site presentations to the ARB and DGS site evaluation team. In addition, ARB must submit to the Joint Legislative Budget Committee for 30-day review a summary of the site selection action that the Board takes.

D. Site Evaluation Process

During the budget approval process, ARB proposed a comprehensive site evaluation process. The key steps in the site evaluation process and the status of each step are presented below.

- ***Finalize a Comprehensive Site Evaluation Matrix.*** ARB, with the assistance of DGS, committed to finalize a comprehensive informational matrix that would be used to as a framework to evaluate the sites. In early August, the informational matrix was completed, posted on ARB's website, and copies provided to the designated representatives from Pomona and Riverside. A copy of the informational matrix is provided on the ARB website.

The informational matrix includes mandatory and desirable attributes. Mandatory attributes are those attributes that must be met for the site to be acceptable; desirable attributes provide information on each site that assists in the evaluation and comparison of each site. In addition to the mandatory and desirable attributes, ARB considered any other information that would be helpful in evaluating the sites.

- ***Complete the Preliminary Site Evaluation Process.*** ARB and DGS then initiated the process of evaluating the sites. As part of this process, DGS secured independent contracts to provide preliminary environmental, geotechnical, LEED, Zero Net Energy (ZNE), and other specific site information necessary to provide a comprehensive assessment of the sites. In general, DGS provided technical support to ARB during the site evaluation process. The informational matrix was used as a framework for the evaluations. The specific information for each of the attributes is presented in this report, and supported by the DGS contractor reports that are provided on the ARB website.

ARB initially committed to evaluate one site in Riverside and two sites in Pomona. The Riverside site is known as Technology Court. The Pomona sites were both on property owned by the California State Polytechnic University,

Pomona (Cal Poly Pomona) and were designated as Innovation Village I and Innovation Village II,¹¹ respectively. However, the Innovation Village I site was dropped from consideration shortly after the evaluations began because the site acreage was not adequate and ARB's intended use would have been inconsistent with the current business model for Innovation Village I.

On October 29 and 30, 2015, representatives from Riverside¹² and Cal Poly Pomona,¹³ respectively, provided formal presentations to ARB and DGS management and staff. Three ARB Board members attended the presentations: Chair Mary Nichols, Mrs. Barbara Riordan, and Mr. Hector De La Torre. Based on these formal presentations and the preliminary evaluations, ARB staff requested that representatives from both Riverside and Pomona consider whether there were any alternatives to the two sites provided.

The Riverside representatives provided two additional alternatives. One site, referred to as the Palmyrita and Michigan site, was located relatively close to the Technology Court site. However, ARB staff determined that this site was similar to the Technology Court site and did not provide any additional benefits. The second site is on property owned by the Regents of the University of California and is under the control of the University of California, Riverside. ARB determined that this site merited further evaluation as a potential site for the new facility. This second site is referred to as the Iowa Avenue site.

The Cal Poly Pomona representatives offered one new site and a new location on the existing Innovation Village II property. The new site would be located on the former Lanterman Development Center property that was recently transferred to Cal Poly Pomona from the State of California. However, ARB determined that the uncertainties associated with developing any site on this property were greater than any potential advantages and the site was dropped from further consideration.

The Cal Poly Pomona representatives did provide an alternative location for the facility on the Innovation Village II site. Initially, the location of the Innovation Village II site was essentially in the middle of the property. In response to concerns raised by both ARB and the College of Agriculture, Cal Poly Pomona committed to work with ARB to provide a new location on the Innovation Village II property near the corner of Pomona Boulevard and State Street. ARB agreed that this represented an improvement over the originally proposed location.

¹¹ Cal Poly Pomona now refers to the property as Spadra and is used interchangeably with Innovation Village II.

¹² The Riverside formal presentation team consisted of representatives from the City and County of Riverside, the Riverside County Board of Supervisors, the San Bernardino County of Supervisors, the University of California, Riverside, the Riverside Public Utilities, the Greater Riverside Chambers of Commerce, California State Senator Richard Roth, and the James Irvine Foundation.

¹³ The Pomona formal presentation team consisted of representatives from Cal Poly Pomona, the Cal Poly Pomona Foundation, the California State University Chancellor's Office, and the Los Angeles County Board of Supervisors.

In summary, ARB and DGS evaluated three sites: Pomona #1 (Pomona Boulevard); Riverside #1 (Technology Court); and Riverside #2 (Iowa Avenue). Details of the three sites are presented in the following Chapter. Figure 1 presents a summary of the location of the three sites relative to the existing ARB El Monte facilities.

**Figure 1
General Location of All Sites**



At the Board's public meeting on December 17, 2015, staff provided an update on the site evaluation efforts to date. The presentation included a discussion of all three potential sites. The Board heard public comments from representatives of the County and City of Riverside, Cal Poly Pomona, and two Cal Poly Pomona agricultural students. At the meeting, the Board directed the staff to conduct a detailed comparison of the Iowa Avenue and Pomona Boulevard sites and to conduct a detailed evaluation of the transit options for both ARB staff and the people who ARB routinely does business or interacts with in southern California.

- ***Provide Final Report and Recommendation to the Board for Consideration.*** Based on the site evaluations, the formal presentations, and the comments presented at the December Board meeting, ARB staff has prepared this staff report. This staff report includes the staff recommendation for site selection.

Based on its consideration of the staff evaluation as well as stakeholder input at the March 17, 2016, public meeting, the Board may agree with the staff recommendation for a site, choose a different site from the one recommended by

staff, or direct the staff to continue the site evaluation process if it deems none of the three proposed sites adequate. If the Board makes a recommendation and following the public meeting, ARB will post a summary of the Board's actions on its website and provide copies of the summary to the designated representatives of Riverside and Pomona. If no site is acceptable, ARB would work with DGS and the Department of Finance (DOF) to initiate the process for evaluating additional sites.

Per the budget bill language, ARB will also provide a report to the Joint Legislative Budget Committee for 30-day review. This report will include the basis of siting recommendations made to the Board, complete with a detailed description of the Board's actions.

- **State Public Works Board (SPWB)¹⁴ Action.** If the Board recommends approval of a specific site, ARB will request that DGS complete the negotiations and prepare all documents to secure that site. The acquisition of the Technology Court property would require SPWB approval. The transfer of either the Pomona Boulevard or Iowa Avenue properties would not require SPWB approval as they are currently State property that would simply require transferring jurisdiction of the property between State entities.

III. SITE DESCRIPTIONS

A. Pomona #1 – Pomona Boulevard

This proposed 19-acre site is located on a northeast section of an approximately 150-acre piece of property that Cal Poly Pomona owns. The College of Agriculture currently uses the land in their educational program for students as a working farm and to supply produce to the University. The property is located approximately one mile from the Cal Poly Pomona campus. The area was initially referred to as Innovation Village II, but is now referred to as Spadra. For the purposes of this report, the names are used interchangeably.

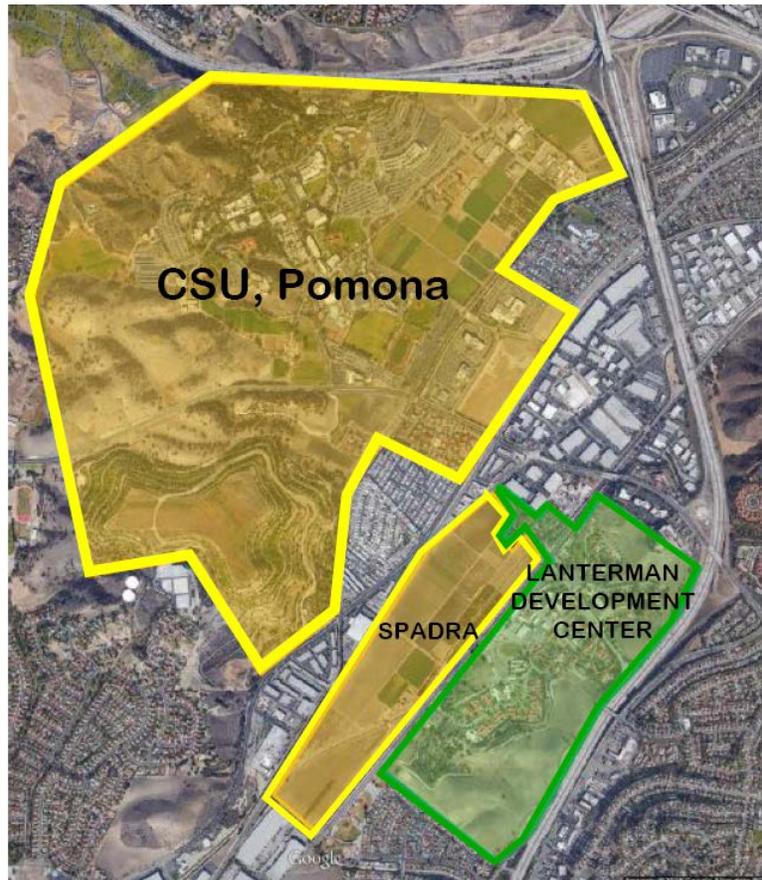
In August 2015, Cal Poly Pomona released a draft Environmental Impact Report (DEIR) for Innovation Village II.¹⁵ The project analyzed in the DEIR was intended to be a long-range development plan for the property. Subsequent to the release of the DEIR, Cal Poly Pomona took ownership of the Lanterman Development Center property from the State of California. Cal Poly Pomona is now considering plans for both properties. Due to the acquisition of this property, Cal Poly Pomona halted the DEIR process to reevaluate the development plan and issue a comprehensive development plan for the

¹⁴ The State Public Works Board (Board) was created by the Legislature to oversee the fiscal matters associated with construction of projects for state agencies, and to select and acquire real property for state facilities and programs. The Board is also the issuer of lease-revenue bonds, which is a form of long-term financing used to pay for capital projects. Additional information is available at <http://www.spwb.ca.gov/>.

¹⁵ Draft Environmental Impact Report, Innovation Village @ Campus South, California State Polytechnic University, Pomona, prepared by Parsons Brinckerhoff, dated August 2015.

both the Lanterman Development Center and the Innovation Village II properties. Figure 2 shows the boundaries of Innovation Village II, the Lanterman Development Center, and the Cal Poly Pomona campus.

Figure 2
Overview of the Pomona Site on Innovation Village II



In the interim, Cal Poly Pomona has proposed uses for the Innovation Village II property. These uses include 48 acres in the eastern portion of the property for commercial development and 105 acres for continued farming and commercial development. Of the 105 acres, Cal Poly Pomona has indicated that the College of Agriculture will be able use 70 acres for continued farming. During that time, Cal Poly Pomona will be developing a strategic plan for the use of the property. Figure 3 shows the approximate boundaries of the 48 acres and the 105 acres on the Innovation Village II property.

Figure 3
Development Boundaries for the Pomona #1 Site



In a letter dated December 4, 2015, Dr. Soraya Coley, President of Cal Poly Pomona, committed to make available to ARB a parcel of land for the proposed facility near the corner of Pomona Boulevard and State Street. In addition, Dr. Coley committed to participate in conceptual planning of the site, including how a retail component could be incorporated into the project. It is understood by all parties that there would be no cost for the land.

On January 6, 2016, ARB and DGS staff met with Cal Poly Pomona representatives to review two options that Cal Poly Pomona presented for locating ARB's facility on the designated 48-acre site. Cal Poly Pomona representatives also committed to work with ARB if neither of these two options were acceptable. In general, Cal Poly Pomona representatives proposed a 14-acre building site for the ARB project, with an additional five acres for parking and potentially the installation of photovoltaic panels. The five-acre parking would be located near the railroad tracks that split the Innovation II and Lanterman Development Center properties. Figures 4 and 5 present the two options.

As part of this 48-acre development, Cal Poly Pomona is also considering the addition of an 11-acre retail development fronting Pomona Boulevard and additional, unspecified, commercial development. The retail development could include a Child Development Center, restaurants, recreation, small retail, and/or other similar businesses.

The approximate address of the proposed site that we used for this report is: 3614 Pomona Boulevard, Pomona, 91768.

Figure 4
Potential Location of ARB Project on Innovation Village II – Option 1



Figure 5
Potential Location of ARB Project on Innovation Village II – Option 2



B. Riverside #1 – Technology Court

The proposed 16.7-acre site is located near the intersection of Technology Court and Research Park Drive within the University Research Park area of Riverside. The University Research Park is a hub that has been developed through a partnership between the City and County of Riverside and UCR. The site borders the 1,100 acre Box Springs Mountain Reserve/Park. The objective of the collaborative effort is to support and encourage emerging science and technology businesses.

Riverside representatives have indicated that land use zoning for the area supports office space, test facilities, and the ability to store transportation fuels and hazardous waste. The site is located approximately one-half mile from UCR's Center for Environmental Research and Technology facility (CE-CERT). The main UCR campus is located within several miles of the site.

The Spring Ranch Mountain community development is currently under construction within a few miles of the proposed site. The first 400 homes are under construction and the developer has expressed an interest in expanding the community to over 1,000 homes. Additionally, future retail development is planned for a parcel that is approximately one-half mile from the proposed site.

The County is proposing to provide a minimum of 16.7 acres for the project made up of separate parcels. Of this, the County currently owns approximately 7.5 acres; the other parcels are privately owned. The County would transfer all acreage to the State. Riverside County representatives have also indicated that they would be willing to secure and transfer additional privately owned land adjacent to the site if needed to support the project, including any needed land to support ZNE. If selected, the County would initiate the process of acquiring the privately owned land to attain the total acreage desired to support the ARB project. The County would then transfer all acreage to the State. Figure 6 identifies the boundaries of the site.

The approximate address of the proposed site that we used for this report is: 532 Technology Court, Riverside, 92507.

Figure 6
Overview of the Riverside #1 – Technology Court Site



C. Riverside #2 – Iowa Avenue

The proposed 18.3-acre site is located on the northeastern border of a 100-acre site near the intersection of University Avenue and Iowa Avenue. Martin Luther King Boulevard is the southern boundary of the property. The Regents of the University of California owns the property. UCR currently uses the land in their agricultural research program, but has indicated that any ongoing research would be relocated if this site is chosen. The balance of the property is planned for campus development.

The site is located in the University Neighborhood area of Riverside. The site is approximately three-quarters of a mile from the main UCR campus, two miles from downtown Riverside, and about three miles from the Technology Court site. There are a number of amenities such as restaurants, hotels, shopping, and other developments within walking distance of the site.

Figure 7 provides an overview of the two Riverside sites and Figure 8 provides an overview of the Iowa Avenue Site. The potential location of the ARB project on the property is shown in Figure 9.

The approximate address of the proposed site that we used for this report is: 4000 Iowa Avenue, Riverside, 92507.

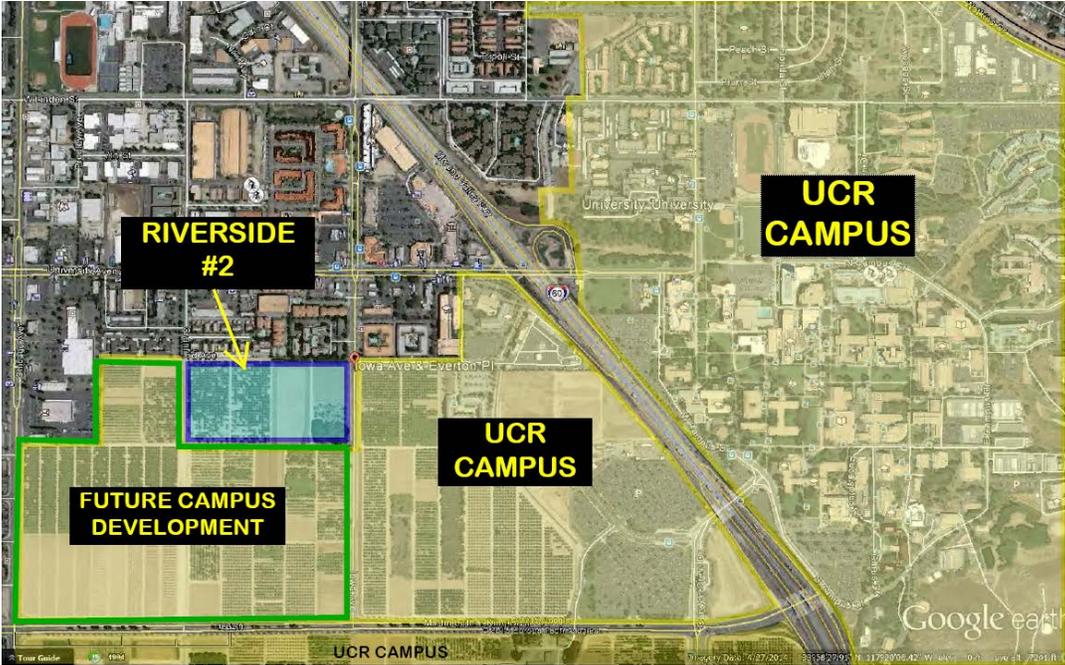
Figure 7
Overview of the Two Riverside Sites



Figure 8
Overview of the Riverside #2 – Iowa Avenue Site



Figure 9
Potential Location of the ARB Project on the Iowa Avenue Site



IV. ASSESSMENT OF SITE ATTRIBUTES

This chapter presents information about the mandatory and desirable attributes for each of the three sites evaluated. Section A addresses the mandatory attributes. Section B through section M addresses the desirable attributes. Mandatory attributes are those attributes that must be met for the site to be acceptable; desirable attributes provide information on each site that assists in the assessment of each site. In addition to the mandatory and desirable attributes, ARB considered any other information that would be helpful in evaluating the sites. This other information is presented in Chapter V.

To assist with the evaluation, ARB and DGS assessed the attributes for each site using an informational matrix as a framework. The general attribute categories are listed in Table 1. DGS hired four contractors to assist with the environmental, geotechnical, LEED, and zero net energy analysis. The contractor reports are provided on the ARB website.¹⁶ Note that the information is not designed to replace any necessary environmental review that will be required as part of the process carried out to comply with CEQA. ARB used the information to provide a characterization of each site and identify any potential issues that may affect site selection, acquisition, or development. The information also allowed for a comparison of the individual sites.

Table 1 Informational Matrix Attributes
• <i>Site Area</i>
• <i>Transportation and Circulation</i>
• <i>Location</i>
• <i>Zoning, Local Codes, and Ownership</i>
• <i>Architectural and Engineering</i>
• <i>Environmental</i>
• <i>Security</i>
• <i>Neighborhood Character/Surroundings</i>
• <i>Staff Amenities/Diverse Uses</i>
• <i>LEED Certification</i>
• <i>Zero Net Energy</i>
• <i>Alternative Fueling</i>

Some costs are identified; others are not. The purpose of the assessment was to provide information about the sites, but not to conduct a full environmental or technical assessment of all of the issues or the costs of development. This would be done as the normal due diligence process of final site acquisition. This assessment will inform the next steps and identifies issues that should be considered as part of the site evaluation process.

A. Mandatory Attributes

The matrix includes six mandatory attributes. These attributes are listed below:

- Required site area (14 acres minimum);
- Financing available through lease revenue bonds;
- Free of encumbrances, restrictions, or clouds on the title that would preclude construction and operation as proposed;
- Proximity of utilities on-site or nearby (civil infrastructure);

¹⁶ Reference: <http://www.arb.ca.gov/socalfacility/>.

- Road infrastructure that supports fully-loaded semi-trucks, truck cabs, buses, and light- and medium-duty vehicles; and
- Appropriate land-use zoning (allows motor vehicle testing, hazardous waste storage, office).

Each site met the requirements specified in the mandatory attributes. The analysis did not identify any specific provisions that would preclude development at the sites. Each of the sites has easements that may need to be addressed prior to development, but none are expected to be an issue. These are discussed in more detail in Section G concerning Zoning, Local Codes, and Ownership.

B. Site Area

The site area attributes are designed to provide basic information about each site. The site area attributes are listed below:

- Located outside 100 year flood zone;
- Minimum/maximum useable site area, site geometry, and site contiguity;
- Expansion capabilities; and
- Potential for State ownership of the property.

All three sites are located outside the 100-year flood plain zone. All three sites have the potential for State ownership of the property. The Pomona site is State property under the jurisdiction of Cal Poly Pomona who has indicated that they would transfer jurisdiction to ARB. For the Technology Court site, the County owns some of the property, but would need to purchase additional acreage to meet the requirements. Riverside County has indicated that they would transfer title of the land to the State. For the Iowa Avenue site, the property is currently owned by the State of California (Regents of the University of California). UCR has indicated that they would transfer jurisdiction to ARB.

For the Iowa Avenue and Technology Court sites, no water or mineral rights reservations, reversionary interests, or Lis Pendens¹⁷ were noted and no other detrimental conditions are noted that would affect the transfer of the property to the State. For the Pomona site, water and mineral rights are reserved in favor of the Bartholomae Corporation by a deed recorded March 29, 1950, Book 32704, Page 214, with no surface rights of entry above 100 feet. Action would be needed to quitclaim these rights, but DGS does not expect this to be a problem. No reversionary interests or Lis Pendens were noted in either the vesting deeds and/or preliminary reports and no detrimental conditions were noted.

Cal Poly Pomona is offering 19 useable acres near the corner of State Street and Pomona Boulevard. Of the 19 acres, five acres are allocated to parking in an area that

¹⁷ Lis Pendens is a written notice that a lawsuit has been filed concerning real estate, involving either the title to the property or a claimed ownership interest in it. The notice is usually filed in the count land record office. Reference: Wikipedia; http://www.wikipedia.org/wiki/Lis_pendens.

is adjacent to the railroad tracks. For the Iowa Avenue site, UCR is offering 18.3 useable acres. Both of these sites are relatively flat with a geometry that would allow buildings to be sited relatively close together.

For the Technology Court site, Riverside County would provide a minimum of 16.7 acres for the project made up of separate parcels. Of this, Riverside County owns approximately 7.5 acres; the balance of the property is privately owned, but the owner is apparently willing to sell any portion necessary for the project. Riverside County has indicated that they would consider providing additional acreage as necessary. If selected, Riverside County would initiate the process to acquire the privately owned parcels to attain the desired acreage for the project. Full use of the 16.7 acres would require the use of retaining walls. Acreage available without retaining walls would be about 8 acres. The site is sloped, narrow in spots and not rectangular in shape. This geometry reduces the useable area and would require the buildings to be laid out in a linear fashion.

The potential for expansion considers both the short-term and long-term availability of land. However, the potential for expansion was not considered in the staff recommendation. ARB has not formally requested or required any land in excess of 17 acres, consistent with the original intent of the project and presents the following information on the availability of land for information purposes. Relative to short-term needs, ARB plans to meet zero net energy (ZNE) requirements for the proposed facility. Preliminary analyses indicate that a total project site of approximately 21 acres is desirable. Both Cal Poly Pomona and the Riverside representatives have indicated a willingness of work with ARB and DGS to evaluate options for meeting ZNE requirements. The long-term availability of land is based on an anticipated need in the future for the potential expansion of ARB operations. Historically, ARB's programs have grown, and then outgrown, its facilities in Southern California. Therefore, the nearby availability of land might be useful in the future. Future expansion was not discussed with either Cal Poly Pomona or Riverside representatives.

As discussed above, Riverside County has indicated that they would consider purchasing additional land adjacent to the Technology Court site to support ZNE. UCR has indicated that additional acreage to meet ZNE may be able to be met via partnership with UCR or may be met through means other than additional acreage. UCR has indicated that the land adjacent to the proposed ARB property would not likely be available for ZNE purposes as it is committed to campus development. Cal Poly Pomona has land adjacent to the project that is currently not committed to any other commercial development, including additional acreage adjacent to the railroad tracks, and has indicated a willingness to discuss making additional land available. For any of the sites, additional land would be negotiated as part of the site acquisition process and may incur some costs.

For potential long-term expansion, both the Pomona and Technology Court sites have undeveloped acreage adjacent to the property. In addition to the remaining acreage on the 48 acres on the Innovation Village II site, Cal Poly Pomona has the entire 250-acre

property that was formerly the Lanterman Development Center. The Technology Court site has undeveloped land that runs down to the new Metrolink station. In addition, there is undeveloped land near the intersection of Michigan and Palmyrita that could be used for future expansion. There is acreage surrounding the Iowa Avenue site that is either committed to campus development or used in UCR's agricultural research programs.

In summary, representatives from all three sites have indicated a willingness to explore ways to achieve ZNE, either through the acquisition of additional land or through an ARB/UCR partnership.

C. Transportation and Circulation

The purpose of the Transportation and Circulation section is to provide information about existing and future traffic circulation patterns, public transportation and alternative modes of transportation, such as shuttles, walkways, and bicycles, and specific transportation-related impacts on ARB staff. The transportation and circulation attributes from the informational matrix framework are listed below:

- Access to major and minor freeways;
- Description of the traffic congestion surrounding the site;
- Special requirements for roadways or streets;
- Infrastructure modifications to allow ingress/egress;
- Public transit;
- Walkability;
- Bike paths;
- Public parking areas;
- Shuttle services;
- Proximity to SCAG-defined high quality transit areas; and
- Impact on ARB staff commute.

The following general sections address each of the specific attributes above, but have been organized to group those that are similar. Specifically, there are six subsections:

- General Transportation and Circulation Attributes
- Traffic Congestion
- Public Transit
- Walking Around the Sites
- Biking Around the Sites
- Impact on ARB Staff Commutes

1. **General Transportation and Circulation Attributes**

These transportation and circulation attributes include basic information about transportation and circulation near the sites. There are some differences between the sites for these general attributes and these are summarized in Table 2.

All three sites would need some modifications to accommodate access. Iowa Avenue is currently a two-lane street and would need to be widened, with appropriate turnouts. In addition, improvements to the Cranford Avenue would likely be required at the Iowa Avenue site. ARB would need to either pay a fair share cost of these modifications or pay the entire cost depending on the direct impact to the project. The Pomona site would need to have access roads constructed, but the specific location is dependent on the final design. There is no significant difference in the other attributes.

**Table 2
General Transportation and Circulation Attributes**

Attribute	Pomona #1 Innovation Village II	Riverside #1 Technology Court	Riverside #2 Iowa Avenue
Access to major and minor freeways	Access to 10, 57, and 71 freeways within 2.5 miles	Access to 215/60 and 91 freeways within 2 miles	Access to 215/60 and 91 freeways within 2 miles
Special requirements for roadways or streets and infrastructure modifications	Modifications necessary to provide site access; specific requirements depend on final design	Modifications necessary to construct site access points at Research Drive and Technology Drive and to construct the cul-de-sac at the termination of Marlborough Avenue; specific requirements depend on final design	Modifications necessary to widen Iowa Avenue; fair share or completion of improvements depending on direct project impacts; modifications to extend Cranford Ave. to the project site; specific requirements depend on final design
Public parking areas	No significant public parking available; proposed project to have adequate parking	No significant public parking available; proposed project to have adequate parking	No significant public parking available; proposed project to have adequate parking
Shuttle services	Cal Poly Pomona has a point-to-point shuttle service serving the campus, but there are currently no stops adjacent to the property	UCR has a point-to-point shuttle service serving the campus, but the site does not currently fall within the service area.	UCR has a point-to-point shuttle service serving the campus, but there are currently no stops adjacent to the site.
Proximity to SCAG high quality transit areas	Based on 2008 and 2035 maps, the specific site is within HQTAs boundaries	Based on 2008 and 2035 maps, the site is 0.3 miles outside the HQTAs boundaries	Based on 2008 and 2035 maps, the site is within HQTAs boundaries

2. Traffic Congestion

Dudek, one of DGS's contractors, analyzed traffic flows around the Pomona and Technology Court sites. DGS staff analyzed traffic flows around the Iowa Avenue sites. Based on an analysis of traffic counts collected in 2014, Dudek found that the following intersections around the area Pomona site operated at below Level of Service (LOS) C. This designation means that the intersections are approaching congested conditions.

- Valley Boulevard and Temple Avenue operated at LOS D in the morning;
- Pomona Boulevard and Temple Avenue operated at LOS D in the morning and LOS E in the afternoon.

Based on an analysis of traffic presented in the Cal Poly Pomona DEIR for Innovation Village II, the following intersections were projected by 2030 to operate at a service level of LOS F in the morning and afternoon:

- Pomona and State Street;
- Valley Boulevard and Temple Avenue; and
- Pomona Boulevard and Temple Avenue.

At LOS F conditions, traffic is moving in lockstep with the vehicle in front of it, with frequent slowing required. As part of the aforementioned DEIR, the following strategies were identified:

- Pomona Boulevard and State Street: Install a traffic signal, with the distribution of costs to be determined based on the proposed development.
- Valley Boulevard and Temple Avenue: Add an exclusive eastbound right-turn lane. Dudek stated that this measure is currently being implemented as mitigation for Parking Structure #2 at the Cal Poly Pomona campus.
- Pomona Boulevard and Temple Avenue: Improve the intersection to provide two left-turn lanes and one shared through/right-turn lane on the southbound approach, with two right-turn lanes, one through lane, and one left-turn lane on the northbound approach. As this intersection currently operates poorly, the project may likely be required to implement this mitigation.

In summary, the intersections surrounding the Pomona site are operating at very congested conditions during the peak commutes. If this site is selected, ARB would evaluate and address any potential traffic impact in accordance with applicable CEQA requirements.

For both the Iowa Avenue and Technology Court sites, there is no observable congestion adjacent to the site and the roadways are lightly traveled at the site locations. According to City of Riverside 2014 traffic study, intersections in the site areas operate at LOS C or better during peak hours of travel. For the Technology Court site, two stop-controlled intersections on the west side of the Columbia / I-215 Interchange operate at deficient levels of service during peak hours, but the interchange

operation should improve as it is already included in the Western Riverside Council of Government’s regional transportation improvement funding program. Note that ARB would also need to fully evaluate the potential traffic impact in accordance with CEQA requirements and implement appropriate measures if either of these sites was selected.

3. Public Transit

The Owen Group and ARB staff evaluated the public transit in the area of the three sites. Access to quality transit is an important site characteristic for LEED purposes. Additional details are provided in the LEED section analysis. This section highlights the location of bus stops and Metrolink stations, future transit plans, transit costs, and vanpool information.

- Buses and Metrolink. The Pomona site is served by transit operated by the Los Angeles County Metropolitan Transportation Authority (METRO), Foothill Transit, Metrolink, and the Cal Poly Pomona Bronco Express. The Riverside sites are served by transit operated by the Riverside Transit Authority (RTA), SunLine, and Metrolink. Tables 3 and 4 summarize the nearest bus stops and Metrolink stations to the Pomona site and Riverside sites, respectively.

**Table 3
Location and Approximate Distance From Bus and Metrolink Stations
to the Pomona Site**

Bus and Metrolink Stations by Site	Bus/Metrolink Location	Approximate Distance to Site	General Route
Pomona #1			
• Metro Line Routes 190/194	Pomona Ave and Temple Blvd	0.25	El Monte Station to Cal Poly Pomona via Ramona Bl and Valley Bl
• Foothill Transit Route 195	Temple Ave and Pomona Blvd	0.25	Pomona Transit Center via Reservoir
• Foothill Transit Route 482	Temple Ave and Pomona Blvd	0.25	Pomona Transit Center– Diamond Bar (SCAQMD) -Rowland Heights – Puente Hills
• Foothill Transit Route 480	Valley Blvd and Temple Ave	0.50	Montclair – Pomona – West Covina via Mission Blvd
• Pomona North Metrolink Station	205 Santa Fe Street Pomona, CA 91767	7.0	San Bernardino Line; LA Union Station to San Bernardino; Cal Poly Metrolink Connect Shuttle Service transfer to Cal Poly Pomona
• Industry Metrolink Station	600 South Brea Canyon City of Industry, CA	3.4	Riverside Line; LA Union Station to Riverside-Downtown; Foothill Transit transfer to Cal Poly Pomona
• Pomona-Downtown Metrolink Station	101 West First Street Pomona, CA 91766	4.6	Riverside Line; LA Union Station to Riverside-Downtown; Foothill Transit transfer to Cal Poly Pomona

**Table 4
Location and Approximate Distance From Bus and Metrolink Stations
to the Riverside Sites**

Bus and Metrolink Stations by Site	Bus/Metrolink Location	Approximate Distance to Site	General Route
Technology Court			
• Riverside Transit Route 14	Iowa Ave and Columbia Ave	1.0	Galleria at Tyler to Riverside Downtown Terminal to Loma Linda VA Hospital
• Riverside Transit Route 13	Marlborough Ave and Iowa Ave	1.0	Hunter Park Metrolink Station, Galleria at Tyler - Riverside
• Hunter Park Metrolink Station	1101 Marlborough Ave Riverside, CA 92507	0.5	91 Line; Perris Valley – LA Union Station (Scheduled to open in early 2016)
Iowa Avenue			
• Riverside Transit Route 1	University Ave and Iowa Ave	0.1	UCR/Riverside Downtown Terminal to W. Corona Metrolink Station
• Riverside Transit Route 14	University Ave and Iowa Ave	0.1	Galleria at Tyler to Riverside Downtown Terminal to Loma Linda VA Hospital
• Riverside Transit Route 16	University Ave and Iowa Ave	0.1	Riverside Downtown Terminal to Moreno Valley Mall
• Riverside Transit Route 204	University Ave and Iowa Ave	0.1	CommuterLink Express; Riverside – Montclair Transcenter
• Riverside Transit Route 51	Iowa Ave and Linden St (University Village Tower)	0.3	Crest Cruiser UCR to Canyon Crest Towne Centre (UCR academic days only)
• Riverside Transit Route 13	Chicago Ave and University Ave	0.4	Hunter Park Metrolink Station, Galleria at Tyler - Riverside
• Riverside Transit Route 22	Chicago Ave and University Ave	0.4	Riverside Downtown Terminal to Lake Elsinore Outlet Center
• Hunter Park Metrolink Station	1101 Marlborough Ave Riverside, CA 92507	1.9	• 91 Line; Perris Valley – LA Union Station (Scheduled to open in early 2016)
• Riverside-Downtown Metrolink Station	4066 Vine St Riverside, CA 92507	2.0	• Riverside Line; LA Union Station to Riverside-Downtown • Inland Empire-Orange County Line; San Bernardino-Downtown Riverside – Oceanside • 91 Line; Perris Valley – LA Union Station (Scheduled to open in early 2016) Transfers to Riverside Transit.

The information shows that there are a number of bus stops near the Iowa Avenue site serving the Riverside area, with connections to the Riverside-Downtown Metrolink station and other mass transit service centers. There are three Metrolink lines that stop at that station. Currently, the 91 Line only operates one train from the Los Angeles (LA) Union Station to the Riverside-Downtown station in the morning (5:45 am) and one train from the Riverside-Downtown station in the afternoon/evening (6:02 pm). The transit time is approximately 90 minutes.

The Riverside Line currently does not run any eastbound trains to Riverside in the morning and only one westbound train to LA Union Station at about 3:07 pm in the afternoon. The third line is the Inland Empire-Orange County Line that runs from Oceanside to the Riverside-Downtown station. The earliest train leaves Oceanside at 7:37 am and arrives at the downtown station at 9:50 am. The latest return train leaves at 3:00 pm from the Downtown-Riverside station.

The Technology Court site has very limited access to bus stops, but there is a new Hunter Park Metrolink station that is scheduled to open in early 2016. This station is approximately one-half mile from the Technology Court site. The Hunter Park station is an extension of the Metrolink 91 line.

The Pomona site also has a number of bus stops that service the Pomona area, with connections to the Metrolink stations in the area. There are two Metrolink lines that service the Pomona area: the Riverside Line and the San Bernardino Line. As discussed above, the Riverside line basically runs from west to east in the morning; therefore, there is some benefit of this line for coming into the Pomona-Downtown station from the eastern Inland Empire. The Industry station is also on the Riverside line, so there is not much current value from a commute perspective of this station. The San Bernardino Line runs trains from San Bernardino to the LA Union Station and has a full complement of morning and afternoon trains. The San Bernardino Line stops at the Pomona-North station.

- Future Transit Plans - Both Riverside and Pomona have planning documents that outline various plans to improve transit opportunities, reduce the number of vehicle miles travelled, and increase ridership.

Regarding planned transit stops in Pomona, a search of the transit service operator's websites and published documents, there does not appear to be any planned bus, streetcar, or rideshare stops within ¼ mile of the Pomona site. The City of Pomona General Plan¹⁸ mentions the potential for a new transit Metrolink station at the Lanterman Development Center and two Metro Gold light rail stations. The potential for new transit opportunities will depend on the development plans for the Lanterman Development Center and development surrounding the ARB project.

The Riverside planning documents identify that much of Riverside's anticipated population and job growth will occur along the "L" Corridor of Magnolia Avenue, Market Street, and University Avenue. While historically served by several RTA bus routes, the anticipated level of activity along the "L" Corridor will be sufficient to support more sophisticated bus rapid transit, or BRT. Using dedicated travel lanes, quicker boarding facilities, synchronized signal lights, BRT systems have proven to be far more efficient than traditional buses yet much less expensive. BRT along the "L" Corridor will offer alternatives for in-town travel.¹⁹

¹⁸ Reference: <http://www.ci.pomona.ca.us/index.php/280-announcements/1310-general-plan>.

¹⁹ Reference: <https://www.riversideca.gov/planning/gp2025program/general-plan.asp>.

In the long term, Phase 2 of the California High Speed Rail²⁰ system is considering extending the high speed rail line from Los Angeles to San Diego through the inland empire. Potential stations are identified in Pomona, San Bernardino, March Air Reserve Base, and Corona, among others.

- **Transit Costs** – The specific transit costs will depend on the routes. However, a general indication of the transit costs is presented in Table 5. These data represent the typical monthly pass costs for the transit agencies referenced in the Table above. The costs for a monthly pass range from \$50 to \$364. The cost of a Metrolink monthly pass cost is calculated using a distance-based formula that uses the shortest driving distance between stations, with an 80-mile maximum charge for monthly passes. Note that the State of California provides a transit subsidy in an amount not to exceed \$65/month. At some transit stations, there is a fee for parking. For example, at the LA Union Station, the parking fees range from \$8/day to \$16/day, depending on the lot chosen.

**Table 5
Typical Costs for Monthly Transit Passes**

Transit Agency	Cost for a Monthly Pass
Metrolink; LA Union Station to Pomona-Downtown	\$252
Metrolink; LA Union Station to Riverside-Downtown	\$364
Metro EZ Pass Covering Foothill Transit	\$110 - \$220
Foothill Transit	\$105
Riverside Transit – CommuterLink Fare	\$75

There is some reciprocity between transit agencies, but the specific allowances are dependent on the route. For example, Metrolink passes are good on both Foothill Transit and Riverside Transit transfer routes, and also serve as Metro EZ passes.

- **Vanpools** - ARB explored the availability of vanpool programs serving Los Angeles, Ventura, Orange, San Bernardino, and Riverside counties. The information was gathered from respective county vanpool program websites and the California Vanpool Authority. Information was also obtained from Riverside representatives and verbally from the Orange County Transit Authority.

The analysis shows that vanpool programs are structured relatively the same. For example, an individual can submit an application to an agency to become a

²⁰ Reference: California High Speed Rail Authority website:
http://www.hsr.ca.gov/docs/newsroom/maps/LA_to_San_Diego.pdf.

vanpool driver if they demonstrate at least five other parties are interested in vanpooling. The potential driver is required to lease a van through an authorized leasing agency designated by the vanpool program. Vehicle lease costs vary depending on commute distance, vehicle capacity, and vehicle class. A potential driver serves in a volunteer capacity and is responsible for various administrative tasks (e.g. maintain occupancy level, collecting rider payments, completing documentation, etc.), fueling and vehicle maintenance, and abiding by specified terms and conditions.

The California Van Authority (CalVans) offers a slightly different program structure. They are not associated with any specific county transit agency. Instead of leasing a van through an authorized agency, potential drivers must submit an application and identify enough riders to form a vanpool. Depending upon the number of riders, CalVans assigns an older model 7-, 8-, or 15-passenger van and fuel card to the driver. From the fares charged, CalVans provides gas, maintenance, repairs, and a \$10 million insurance policy. The driver and riders all pay the same monthly fare.

Monthly vanpool fares through the county programs may range from \$100 to \$200 based on the number of participants, the type of vehicle leased (luxury crossover, standard crossover, small bench van, or large bench van), commute distances, cleaning and fuel costs, tolls, parking, and express lane equipment. Calculation of fares typically reflects an equal division of the costs of leasing (includes insurance and maintenance) and operating the vehicle. Fare charged to the driver may be an exception since they may ride for free or for a discounted fare in exchange for driving and added responsibility.

For counties providing lease-subsidies, the subsidy is sent directly to the leasing agency to be deducted from the monthly lease cost. The subsidy is an incentive to the entire vanpool; therefore, monthly fares are calculated on the lease cost after the subsidy is subtracted.

Lastly, through the State of California Commute Program, vanpool riders are eligible to receive a rider reimbursement up to a 75 percent of commute costs, up to a maximum of \$65 per month. In lieu of a rider reimbursement, drivers are eligible to receive \$100 per month as long as they meet eligibility criteria and comply with program procedures developed for primary State vanpool drivers. After reimbursement, a monthly vanpool fare could potentially range from \$35 to \$135. Additionally, participants are eligible to receive benefits provided under the Guaranteed Ride Home Program that provides free emergency rides, or reimbursement, to certain destinations in the event of a valid emergency (e.g., personal illness, illness of immediate family member, or illness of vanpool driver). Reimbursement must meet specified criteria.

A search of the Metro²¹, Orange County Transit Authority²², Ridematch²³ (as directed by the Ventura County Transportation Commission), and IE511²⁴ websites was performed to identify existing vanpool opportunities traveling to both potential sites from Anaheim, Long Beach, Simi Valley, Temecula, Whittier, and Yorba Linda; only one partial match was found for the Simi Valley to Pomona commute. From this brief analysis, it is evident that ARB will need to strengthen its Southern California commute program regardless of the site selected.

4. ***Walking Around the Sites***

ARB and Dudek analyzed the walkability of the sites. ARB used the website Walk Score²⁵ and conducted a visual inspection of each site. For a specific address, Walk Score assigns a score between 1 and 100 based on their proprietary methodology. According to the Walk Score website, they use the following methodology to determine walkability.²⁶

Walk Score measures the walkability of any address using a patented system. For each address, Walk Score analyzes hundreds of walking routes to nearby amenities. Points are awarded based on the distance to amenities in each category. Amenities within a 5 minute walk (.25 miles) are given maximum points. A decay function is used to give points to more distant amenities, with no points given after a 30 minute walk. Walk Score also measures pedestrian friendliness by analyzing population density and road metrics such as block length and intersection density. Data sources include Google, Education.com, Open Street Map, the U.S. Census, Localeze, and places added by the Walk Score user community.

The Walk Scores fall within the following categories:

Walk Score	Description
90 – 100	Walker’s Paradise: Daily errands do not require a car.
70 – 89	Very Walkable: Most errands can be accomplished on foot.
50 – 69	Somewhat Walkable: Some errands can be accomplished on foot.
25 – 49	Car-Dependent: Most errands require a car.
0 – 24	Car-Dependent: Almost all errands require a car.

Both the Pomona and Riverside Iowa Avenue sites are “Somewhat Walkable,” with scores of 58 and 63, respectively. The Technology Court was classified as “Car-Dependent” with a score of 7.

²¹ Reference: <https://www.metro.net>.

²² Reference: <http://www.octa.net/Vanpool/Overview/>.

²³ Reference: <https://www.ridematch.info/>.

²⁴ Reference: <http://www.ie511.org>.

²⁵ Reference: Walk Score; <https://www.walkscore.com>.

²⁶ Reference: Walk Score; specific reference to the methodology on walkability: <https://www.walkscore.com/methodology.shtml>.

These scores are based on the current site configurations and nearby amenities. The Pomona site may improve with the development of the retail complex that is being considered as part of the development of the Innovation Village II property and the development of the Lanterman Development Center property. Similarly, the development of the Iowa Avenue site is expected to improve with the development of the additional acreage adjacent to the site. Riverside representatives expect the walkability of the Technology Site to improve with the construction of several amenities including a community park and trail system, a master planned community, and the Metrolink Station.

ARB staff also toured the sites on multiple occasions. Based on these tours, the analysis above is reasonable. The Iowa Avenue site is in the University Village neighborhood. This site is within walking distance of a number of amenities, including shopping centers, restaurants, hotels, public transportation and UCR. One drawback on walkability at the Iowa Avenue site is the access ramps to the I215/60 freeway off University Avenue on the path to UCR. The Pomona site does not have the same level of access to amenities, but does have access to a reasonable number of amenities. There are virtually no amenities near the Technology Court site. Additional information on the nearby amenities to each site is presented in the section on the LEED analysis.

The Dudek analysis was based on assessing the amenities within a one-half mile radius of the Pomona site and the Technology Court site. They did not conduct an analysis of the Iowa Avenue site. The Dudek report is provided on ARB's website and is consistent with these findings.

5. Biking Around the Sites

ARB encourages the use of bikes for commuting and healthy exercise purposes. Therefore, ARB evaluated the availability of bikeways around the site. ARB used Google Maps and local resources to identify bikeways around the three sites. Dudek also analyzed bikeways for the Pomona site and the Technology Court sites.

In general, the California Department of Transportation identifies three classes of bikeways. Class I bicycle paths are completely separate from motor vehicle traffic; for example, an off-street path along a river. Class II bicycle lanes are located on streets and allow bicyclist to use a separate lane of traffic. Class III bicycle routes are designated only with signs. Cyclists share the travel lane with motor vehicle traffic on these routes. A visual representation of bike lanes around each site can be viewed on Google Maps with the bicycle layer selected. A brief description of bikeways for Pomona and Riverside are presented below.

- Pomona – There are very limited bike lanes in the City of Pomona. The November 2012 Pomona Active Transportation Plan²⁷ identifies only two short segments of Class I multi-use paths: the Village Loop Road path that runs from Pala Mesa Drive to Phillips Ranch Road and the Skyline Lane path that runs

²⁷ Reference: Pomona Active Transportation Plan

from Deer Creek Road to Rainbow Ridge Road. Neither of these paths is particularly useful for either commuting or exercise. There are also only a few Class II and Class III facilities identified in the vicinity of the Pomona site. Currently, Class II bike lanes exist along two roadways in the area, including:

- South Campus Drive from Kellogg Drive to East Campus/SR-57;
- Innovation Way from Kellogg Drive to Temple Avenue; and
- Kellogg Drive from South Campus Drive to Valley Boulevard.

Class III bike lanes currently exist along several roadways in the area, including:

- South Campus Drive from Temple Avenue to Kellogg Drive; and
- East Campus/SR-57 to Ridgeway Street.

The March 2014 Pomona General Plan²⁸ identified the need to develop a Bicycle Master Plan Active Transportation Plan that will closely evaluate various bicycle routes and refine the proposed network.

- Riverside – Riverside has three listed Class I off-street bike paths on its Bicycle Program website.²⁹ The Santa Ana River Trail parallels the Santa Ana River to the north of the City. The trail, when completed, will travel the length of the Santa Ana River between the San Bernardino National Forest to the Pacific Ocean at Huntington Beach. The Victoria Avenue Trail starts about three miles from the Iowa Avenue site. The trail parallels a scenic parkway. As the six-mile trail continues southwest, the views become more rural with stand of orange groves. The third Class I bicycle path listed on the City of Riverside’s Bicycling Program website is called the Gage Canal Trail. It is an unpaved access road, but is currently being used by bicyclists. Finally, there are unpaved bike paths located for recreation in Box Spring Mountain Reserve/Park. Limited surrounding streets have dedicated bike lanes.

The streets around both the Iowa Avenue and Technology Court sites have Class II bicycle lanes. For the Iowa Avenue site, this includes University Avenue, Iowa Avenue, West Blaine, 3rd Street, West Linden Street, Canyon Crest Drive, Martin Luther King Boulevard, and Chicago Avenue south of the site. In addition, there are bicycle lanes running through the UCR campus. For the Technology Court site, the Class II bicycle lanes include Columbia Avenue, Marlborough Avenue, Iowa Avenue, and Palmyrita Avenue. While these bikeways provide access through the area on major roads, they are not fully interconnected so using them for commuting would require some planning to ensure a safe commute.

²⁸ Reference: Pomona General Plan

²⁹ Reference: <http://riversideca.gov/publicworks/traffic/bicycleprogram/>.

The City of Riverside published a Bicycle Master Plan in 2007. The Master Plan sets forth its strategy for developing its bikeways network.³⁰

In addition to the analysis of bikeways, ARB used the Walk Score website to calculate a Bike Score for the Iowa Avenue and Technology Court site. The Walk Score website did not provide a Bike Score for the Pomona site; ARB does not know why there is no score for Pomona. Similar to the Walk Score, the Bike Score uses a scale from 1 to 100. According to the Walk Score methodology, the Bike Score is based on four equally weighted components: bike lanes; hills; destinations and road connectivity; and bike commuting mode share. Additional details on the methodology are presented on the website. The Bike Scores fall within the following categories:

Bike Score	Description
90 – 100	Biker’s Paradise: Daily errands can be accomplished on a bike.
70 – 89	Very Bikeable: Biking is convenient for most trips.
50 – 69	Bikeable: Some bike infrastructure.
0 – 49	Somewhat Bikeable: Minimal bike infrastructure.

The Iowa Avenue site was classified as “Very Bikeable” with a Bike Score of 83. The Technology Court was classified as “Somewhat Bikeable” with a Bike Score of 31.

6. Impact on ARB Staff Commutes

ARB analyzed the impact of site location on ARB staff commutes. This analysis provides only an indication of the impact on ARB staff today; the staff will not likely make a decision to relocate, retire, resign, or commute until closer to the actual time that the building is ready for occupancy. However, this analysis provides an indication of the driving distance, driving time, transit options, and transit time staff would face relative to the sites in either Pomona or Riverside. ARB used the Pomona #1 site and the Riverside #2 Iowa Avenue sites as the basis for the analysis. Due to the close proximity of the two Riverside sites, ARB expects the results for Iowa Avenue to be similar to the Technology Court site. For comparison purposes, ARB also evaluated the incremental changes in driving distance and driving time for the two sites relative to the existing El Monte facilities.

The El Monte facilities have been in existence for over 40 years. Therefore, over time, most employees appear to have located near the facility. Figure 10 visually shows the distribution of ARB employees in southern California.

³⁰ City of Riverside, Bicycle Master Plan, Adopted May 22, 2007; <http://riversideca.gov/publicworks/traffic/bicycleprogram/>.

allow for an incremental analysis of the difference in driving distance and driving time that ARB staff would generally encounter over their existing commute. Table 6 provides the analysis of driving distances for ARB employees to the three locations, as well as the incremental distances.

Table 6
Driving Distance and Incremental Driving Distance
to the El Monte, Pomona, and Riverside Sites

Metric	El Monte Headquarters	Pomona #1 Pomona Blvd	Riverside #2 Iowa Avenue
Number of Data Points	314	314	314
Shortest One-Way Commute, miles	1.2	1.3	11.6
Longest One-Way Commute, miles	78.7	89.1	104.0
Distance from Home to Site			
Average Driving Distance, miles	18.8	22.5	45.6
Median Driving Distance, miles	15.4	20.1	45.4
Avg. Incremental Driving Distance, miles		3.7	26.8
Median Incremental Driving Distance, miles		9.4	31.4
Distance from Site to Home			
Average Driving Distance, miles	18.5	22.8	45.9
Median Driving Distance, miles	15.6	20.5	45.7
Avg. Incremental Driving Distance, miles		4.3	27.4
Median Incremental Driving Distance, miles		9.6	32.2

The analysis shows that the average commute distance for ARB employees would be about 23 miles to the Pomona site and about 46 miles to the Iowa Avenue site. Currently, the average commute distance to the El Monte site is about 19 miles. On average, ARB employees would have a change in commute distance of about four miles to the Pomona site and 27 miles to the Iowa Avenue site. The median changes would be about 10 miles to the Pomona site and 32 miles to the Iowa Avenue site. The driving distances on the return routes are similar, but differ as Google Maps attempts to minimize the driving time and may identify a slightly different route. Figure 11 presents the driving distances for each ARB employee to the three sites. Figure 12 presents the incremental driving distances for each employee to the Pomona and Iowa Avenue sites.

Figure 11

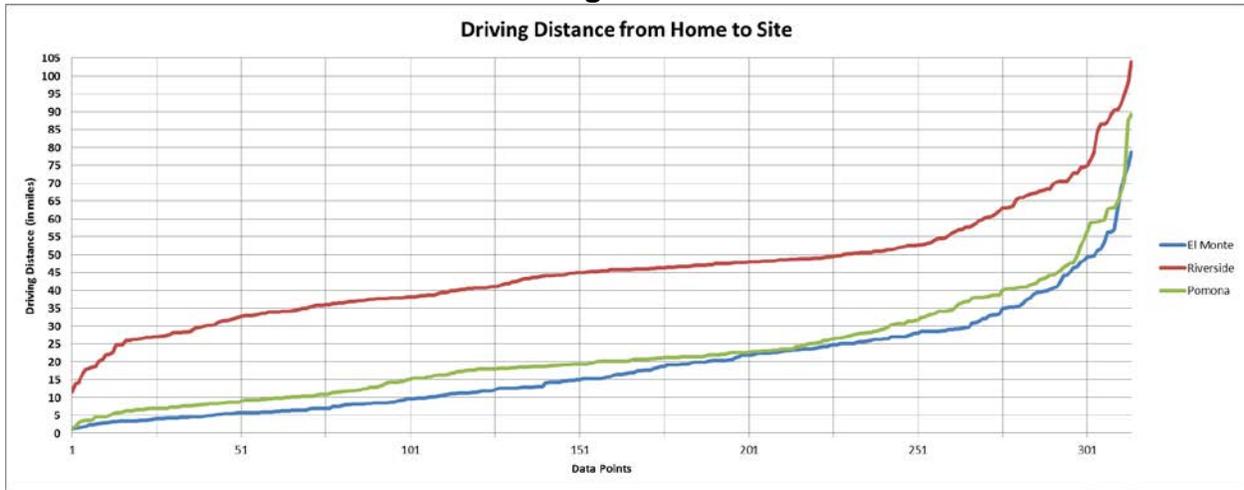
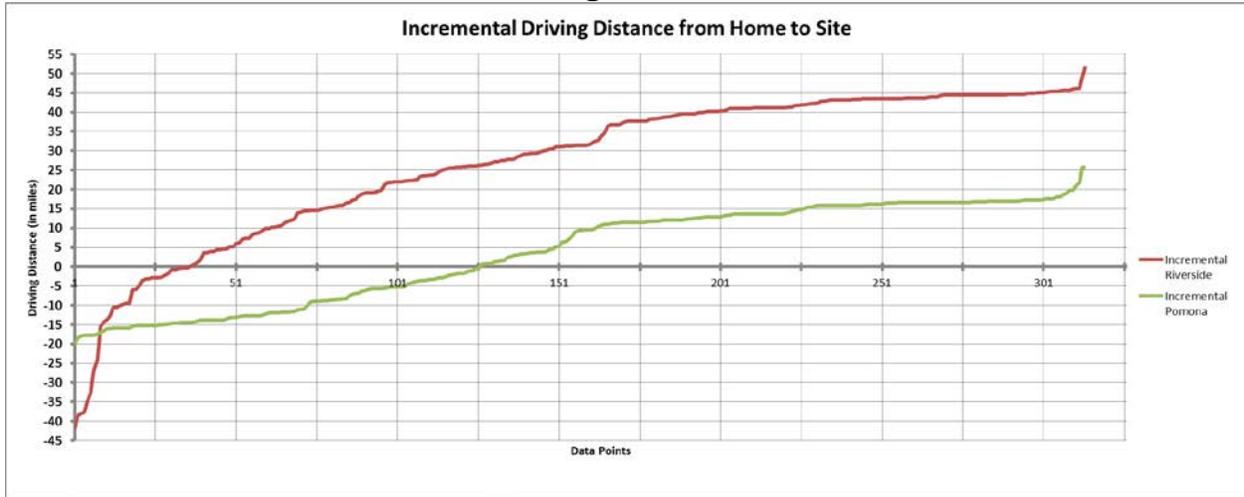


Figure 12



Please note that the figures represent data points. Therefore, an individual data point may represent different employees. However, Figure 11 shows the driving distance to the Iowa Avenue site is generally longer than the driving distance to Pomona or El Monte. Figure 12 shows that about 89 percent of the employees have a longer commute to Riverside than they currently have to El Monte. For Pomona, about 60 percent of the staff would have longer commutes than they currently have to El Monte, but that commute is typically shorter than the incremental increase in commute time to Riverside.

Table 7 provides an analysis of the average driving time and average incremental driving time. In this analysis, Google Maps provides a typical range of commute times. From these data, ARB calculated an average of the low and high driving times.

Table 7
Driving Time and Incremental Driving Time
to the El Monte, Pomona, and Riverside Sites

Metric	El Monte Headquarters	Pomona #1 Pomona Blvd	Riverside #2 Iowa Avenue
Number of Data Points	314	314	314
Time from Home to Site			
Average Driving Time, minutes	35	32	57
Median Driving Time, minutes	30	27	55
Avg. Incremental Driving Time, minutes		-3	23
Median Incremental Driving Time, minutes		5	35
Time from Site to Home			
Average Driving Time, minutes	40	40	65
Median Driving Time, minutes	34	35	60
Avg. Incremental Driving Time, minutes		0	25
Median Incremental Driving Time, minutes		2	29

These data show that the average home to site driving time for Pomona is about 32 minutes versus an average driving time of 57 minutes for the Iowa Avenue site. Currently, the average commute time to the El Monte site is about 35 minutes. On average, ARB employees would have a slightly lower commute time to the Pomona facility and an increase of 23 minutes to the Iowa Avenue site. The median changes would be an increase of 5 minutes to the Pomona site and 35 minutes to the Iowa Avenue site.

About 90 percent of the employees would experience about a 15-minute increase in afternoon commutes to either Pomona or Riverside due to afternoon traffic delays as estimated by Google Maps. There are a few percent of the employees that would experience a larger increase in afternoon commute times between 30 and 50 minutes. Note that this analysis is based on specific times for departure in both the morning and afternoon. Selection of other times will result in different results. In addition, the analysis cannot consider the impacts of other traffic delays such as construction or accidents.

Figures 13 and 14 graphically present the results for average driving time from an employee's home to the three sites and the incremental driving time from an employee's home to El Monte versus home to Riverside and Pomona. Figure 13 shows that about 60 percent of the employees would have a longer commute to Pomona, whereas about 80 percent of the employees would have a longer commute to Riverside.

Figure 13

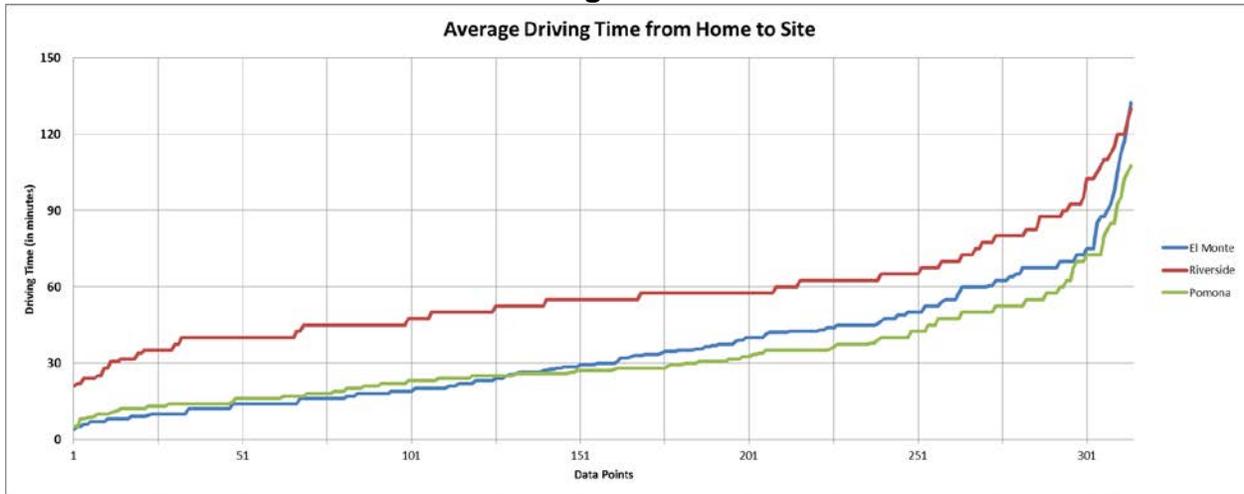
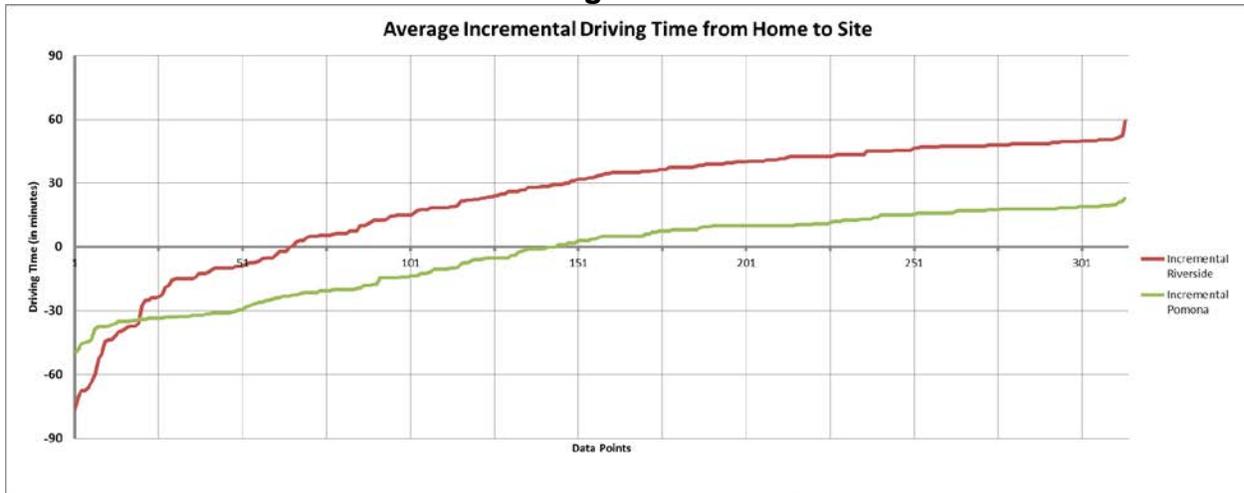


Figure 14



In addition to driving distances and driving times, ARB analyzed transit commute times. On an average basis, ARB used the Google Maps transit option to analyze the transit commute times, the walk times, the number of buses, the number of trains, and the frequency with which a train was included in the transit option. In some cases, Google Maps did not provide a transit option. Therefore, the number of data points is a little less than that for the analysis of driving distance and driving times. ARB also removed excessive transit times (generally greater than 5 hours one way). Table 8 presents the results of this analysis.

The analysis generally indicated that transit options were limited and generally long for both sites. In general, average transit takes about 3 times longer than driving. On

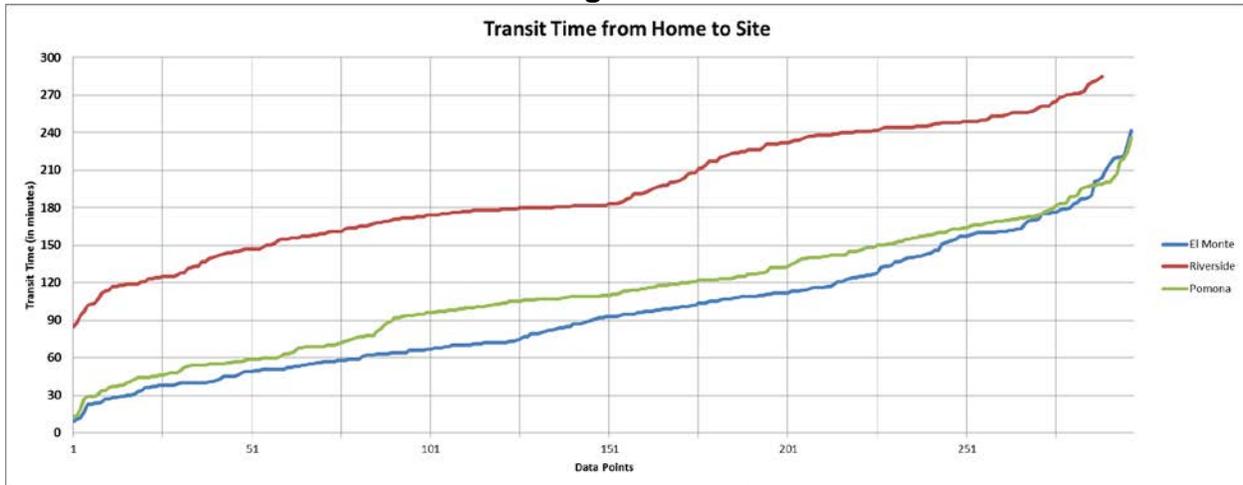
average, it takes between six and four minutes per driving mile to take transit to Pomona and Riverside, respectively. The time per driving mile for Riverside is lower because staff spends more time on the freeways. In the section on public transit, ARB identified the various modes of transit available. This analysis did not include carpools or vanpools, although it is likely that some ARB employees would pursue these options.

Table 8
Analysis of Public Transit
to the El Monte, Pomona, and Riverside Sites

Metric	El Monte Headquarters	Pomona #1 Pomona Blvd	Riverside #2 Iowa Avenue
Number of Data Points	297	289	287
Time from Home to Site			
Average Transit Commute Time, minutes	91	106	178
Median Transit Commute Time, minutes	92	110	182
Average Walk Time, minutes	17	19	16
Average Number of Buses	2	3	2
Range of Number of Trains	0 – 2	0 – 1	0 - 3
Time from Site to Home			
Average Transit Commute Time, minutes	99	115	154
Median Transit Commute Time, minutes	96	121	169
Average Walk Time, minutes	17	19	17
Average Number of Buses	2	2	2
Range of Number of Trains	0 – 2	0 – 3	0 - 3

Figure 15 graphically shows the range of transit commute times from home to the three sites. Table 9 presents the one-way transit times using a combination of buses and trains to go from an employee’s home to the two sites.

Figure 15



**Table 9
Analysis of One-Way Public Transit Times
to the Pomona and Riverside Sites**

One-Way Transit Times	Percent of Employees	
	Pomona #1 Pomona Blvd	Riverside #2 Iowa Avenue
60 minutes or less	20%	0%
90 minutes or less	30%	1%
120 minutes or less	58%	7%
150 minutes or less	77%	19%
180 minutes or less	93%	47%

These analyses show that public transit using a combination of buses and trains is challenging at both sites, but Riverside is significantly more challenging. For the Pomona site, 30 percent of the employees would have a one-way transit time of 90 minutes or less; 58 percent of the employees would have a one-way transit time of two hours or less. For the Riverside site, two employees would have a transit time of 90 minutes or less; only seven percent of the employees would have a one-way transit time of two hours or less. For either site, ARB will need to work with the transit operators to identify options for transit, including the use of vanpools and carpools.

ARB also looked at the potential change in vehicle miles travelled (VMT) under two different scenarios using the driving distances from the previous Google Maps analysis. The first scenario assumed that everyone drives to the three sites. The second scenario assumed that anyone that has more than a 100-minute transit commute would drive. Table 10 summarizes the analysis. The analysis included the number of VMT

traveled in each direction, the annual VMT, and the incremental VMT travelled to the Pomona and Riverside sites over the VMT estimated for the El Monte site assuming that all employees currently drive to the El Monte site. The analysis also assumed that the employees remain at their current address.

Table 10
Analysis of Vehicle Miles Travelled
to the El Monte, Pomona, and Riverside Sites

Metric	El Monte Headquarters	Pomona #1 Pomona Blvd	Riverside #2 Iowa Avenue
All Employees Drive to Sites			
Number of Data Points	314	314	314
Total Home to Site, miles	5,890	7,060	14,310
Total Site to Home, miles	5,820	7,170	14,410
Total Annual VMT, miles ¹	2,810,500	3,413,800	6,893,800
Incremental VMT, miles		603,300	4,083,300
All Employees with Commute Time > 100 Minutes Drives to Sites			
Number of Data Points	314	314	314
Total Home to Site, miles	4,280	5,820	14,230
Total Site to Home, miles	4,500	6,260	14,160
Total Annual VMT, miles ¹	2,108,640	2,898,400	6,814,300
Incremental VMT, miles		789,800	4,705,600

¹ Assumes 240 days per year.

Based on the current employee's addresses, the total VMT to go from an employee's current address to the Pomona site is about 3.4 million miles versus about 6.9 million miles to the Riverside site. If all employees drove to work, the incremental VMT over current trips to El Monte is about 0.6 million miles for Pomona and about 4.0 million miles for Riverside for the first scenario. There is only about a 15 percent reduction in the VMT for the Pomona site and a one percent reduction in VMT for the Riverside under the second scenario.

In summary, the Pomona site has fewer impacts on employee commutes than commutes to the Riverside sites. Table 11 summarizes the data on a round-trip basis. Note that in this table, the data are reported as median values, meaning that half of the employees would be less than the value reported and the other half would have values higher than the value reported.

Table 11
Summary of Round-Trip Driving Distance, Driving Time, and Transit Times
to the Pomona and Iowa Avenue Sites

Metric	Pomona #1 Pomona Blvd	Riverside #2 Iowa Avenue
Round Trip		
Median Driving Distance, miles	41	91
Median Driving Time, minutes	62	115
Percent of Employees with a Driving Commute Time of Less Than or Equal to 60 minutes	46%	3%
Percent of Employees with a Driving Commute Time of Less Than or Equal to 90 minutes	75%	21%
Median Public Transit Commute Time, minutes	231	351
Incremental Change Over Existing Commute from Home to El Monte (Round Trip)		
Median Incremental Change in Driving Distance, miles	19	64
Annual Vehicle-Miles-Travelled (Round Trip)		
Total Annual VMT, miles	3,413,800	6,893,800
Incremental Change in Annual VMT, miles	603,300	4,083,300
Estimated Annual Incremental Driving Costs per employee per year	\$1,100	\$7,500

Table 11 shows that the median driving distances and driving times to the Riverside site are about twice what they would be to reach the Pomona site. Table 11 also shows that the transit time using public transit is relatively lengthy to both sites. About half of the staff would have commute driving times to Riverside that would be greater than about two hours. Furthermore, only three percent of the staff would have a round trip driving commute to the Riverside site of less than or equal to 60 minutes; only about 20 percent of the staff would have a round trip driving commute to Riverside of less than or equal to 90 minutes. This compares to just under half of the staff having a round trip driving commute to the Pomona site of less than or equal to 60 minutes; about 75 percent of the staff would have a round trip driving commute to Pomona of less than or equal to 90 minutes.

ARB employees that chose not to relocate and to drive alone to each site would incur additional costs based on the incremental VMT analysis. Based on the federal standard mileage rate of 57.5 cents per mile, the increased costs for driving to Pomona would be about \$350,000 per year; the increased costs for driving to Riverside would be approximately \$2.3 million per year. This equates to increased annual costs for driving

to the Pomona site of about \$1,100 per year; the increased annual costs to drive to the Riverside site would be about \$7,500 per year. Clearly, ARB will need to work with the staff to assess transportation options to any of the sites.

ARB acknowledges that this analysis may change over time regardless of whether ARB selects the Pomona or Riverside sites. For either Pomona or Riverside, ARB staff would have to decide whether to relocate, resign, retire, or accept the commute. However, the short-term impacts of potential early retirements and resignations are more likely with a move to Riverside than with a move to Pomona. This could cause short-term and long-term disruptions in ARB's talented and experienced workforce and could adversely affect operations due to the need to hire and train new staff.

The ability to relocate is predicated on whether an individual employee has the flexibility to move and their personal decision on where they choose to live. For example, living on the coastal areas would be extremely difficult with the Riverside site. Individual situations that make it difficult to move may include upside-down mortgages, partner/spouse employment situations, children and elderly day care needs, community involvement, friends, and other family circumstances. A move to the Pomona location would be much less disruptive to ARB's operations because there would be less disruption to ARB employees.

7. Potential Costs Related to Relocation Expenses

If the selected site is in Riverside, ARB would be responsible for potential costs associated with relocation expenses. The Professional Engineers in California Government (PECG) Bargaining Unit 9 represents most of ARB's employees in Southern California. In the current memorandum of understanding (MOU) between PECG and the State of California, Article 7.8³² now specifies:

Whenever a Unit 9 employee is reasonably required by the State to change his/her place of residence, the State shall reimburse the employee for approved items in accordance with the lodging, meal, and incidental rates and time frames found in Section 7.1 (Business and Travel Expenses), and in accordance with Government Code section 19841 and CalHR [California Department of Human Resources] Regulation 2CCR [California Code of Regulations] 599.714 as currently written.

Section 599.714 specifies four provisions that must be met for an employee to qualify for reimbursement. These are listed below:

The normal commute distance must be as designated between all the following locations:

- At least 35 miles between the old headquarters and the new headquarters;
- At least 35 miles between the old residence and the new residence; and

³² Reference: <http://pecg.org/wp-content/uploads/Unit-9-MOU-2015-2018-for-web.pdf>.

- At least 35 miles between the old residence and the new headquarters; and
- The new residence shall not be farther from the new headquarters than the old residence is from the new headquarters.

The significant change in the MOU is that the “normal commute distance” requiring relocation costs to be paid used to be at least 50 miles between the locations cited above. As indicated previously, the normal commute distance between the El Monte facilities and the Iowa Avenue site is approximately 48 miles; the normal commute distance between the El Monte facilities and the Pomona site is approximately 17 miles. If ARB selected either of the Riverside sites, ARB would now be required to pay relocation expenses for those employees that choose to relocate and meet the provisions above.

ARB conducted an analysis of potential relocation costs based on the current location of ARB employees using the criteria specified in the California Code of Regulations.³³ ARB included in the analysis ARB’s southern California employees that would potentially be eligible for relocation expenses. Of the three employee-specific criteria listed above, the only criteria that can be evaluated at this time is the distance between the old residence and the new headquarters. The other two criteria would need to be evaluated once an actual move occurs.

The results indicate that approximately 244 employees (out of 314 that were analyzed) would have a commute that is at least 35 driving miles from the Iowa Avenue site.³⁴ This represents approximately 78 percent of the staff. The results are similar for the Technology Court site.

Using this information, ARB then calculated potential relocation costs under three scenarios. The first scenario assumed that all employees that were eligible for relocation expenses requested reimbursement. While this is not a likely scenario, it represents an estimate of the upper bound of potential costs. The second scenario assumed that employees with a driving distance of 50 miles or more would relocate; this represents about 85 employees or about 27 percent of the employees. The third scenario assumed that employees with a driving distance of 65 miles or more would relocate; this represents about 34 employees or about 11 percent of the employees. In all of these scenarios, ARB assumed that the employee owned a house or condominium.

In analyzing costs, State law and the bargaining unit MOUs specify the categories that are eligible for reimbursement. ARB focused on two categories that are likely to result in the most significant costs. These categories and the assumptions ARB used in the calculations are presented below:

- Reimbursement for the Sale of a Residence, including:

³³ Reference: California Code of Regulations; Title 2, Division 1; Chapter 3; Article 7; Sections 599.714 et seq; www.calregs.com/.

³⁴ The analysis was based only on the number of employees where ARB had sufficient information to calculate distances.

- Brokerage Commission (5 percent of median home price in Los Angeles County estimated at \$513,000 according to Zillow, or \$25,650 per move);
- Title Insurance (Actual cost estimated at \$300); and
- Escrow Fees (Actual cost estimated at \$2.00 per thousand dollar of purchase price, plus \$250, or \$1,276 per sale).
- Reimbursement for Moving Household Effects, including
 - Moving Costs (not to exceed 11,000 pound – assume average cost of \$2,000 per move at an average weight of 7,500 pounds); and
 - Insurance (1.0 percent of the value of the goods; assume \$50,000, or about \$500 per move for insurance).
- Miscellaneous Expenses (Assume \$200 per move).

Table 12 summarizes the estimated costs for relocation expenses. ARB recognizes that many ARB employees rent either apartments or houses. However, the scenarios account for this variability by providing a broad range of potential costs.

Table 12
Summary of Potential Relocation Reimbursement Costs

Expense	Estimated Relocation Reimbursable Costs By Scenario		
	Scenario 1 (244 Employees)	Scenario 2 (85 Employees)	Scenario 3 (34 Employees)
Brokerage Commission	\$6,258,600	\$2,180,300	\$872,100
Title Insurance	\$73,200	\$25,500	\$10,200
Escrow Fees	\$311,300	\$108,500	\$43,400
Moving Costs	\$488,000	\$170,000	\$68,000
Insurance	\$122,000	\$42,500	\$17,000
Miscellaneous Expenses	\$48,800	\$17,000	\$6,800
Total Estimated Costs	\$7,301,900	\$2,543,700	\$1,017,500

The three scenarios resulted in a cost estimate of \$7.3 million, \$2.5 million, and \$1.0 million for scenarios 1, 2, and 3, respectively. The range of potential costs is wide, as expected given the uncertainty of what employees would actually do when the facility is ready for occupancy. However, the estimates do indicate that there is likely to be some costs that ARB would incur to relocate employees that choose to move. In addition to these costs, ARB staff would have to use existing resources to administer the program and management would have to address the inherent uncertainties and productivity issues associated with such a major and potentially disruptive move.

D. Location

The location attributes provide information about nearby sources of pollution that might affect the siting of the facility. Nearby sources of pollution impacts might affect the facility occupants, facility operations, or both. At the December Board meeting, ARB staff was asked to conduct a detailed evaluation of the transit options for both ARB staff and the stakeholders that ARB routinely does business with, or interacts with, in southern California. The location attributes provide information in response to this request. ARB did not conduct a transit analysis, but rather focused on driving distance. As discussed in the previous section, transit options are generally challenging in southern California.

The location attributes are listed below:

- Distance from major pollution sources (factories, refineries); desirable: > 1000 feet;
- Distance from heavily trafficked roadway; desirable: > 500 feet;
- Distance from heavily trafficked rail line using diesel locomotives; desirable: > 1000 feet;
- Distance from rail yard, distribution center, or other toxic contaminant source; desirable: > 1000 feet;
- Distance from existing ARB facilities at 9528 Telstar Ave, El Monte;
- Distance to the South Coast Air Quality Management District;
- Convenient access for the general public; and
- Convenient access to major airports.

1. Proximity to Major Pollution Sources

The Pomona site is the only site that appears to have any issue with pollution sources. There are Union Pacific (UP) railroad tracks that run along Pomona Boulevard, as well as tracks that run along the Southern boundary of the site. Pursuant to a recent Settlement Agreement, the use of the tracks running along Pomona Boulevard should be discontinued in 2016. However, the heavily used railroad tracks at the back of the property will continue to be used. Parts of the proposed ARB site would likely be within 1000 feet. Figure 16 shows the location of the railroad tracks. The blue dashed line represents railroad tracks along Pomona Boulevard and the yellow lines represent the tracks that will continue to be in use for both freight and passenger rail.

Figure 16
Location on the Railroad Tracks Near the Pomona #1 Site



The two UP lines combined operate up to a total of 60 freight and passenger trains daily (~45-50 freight and ~10-15 passenger); significant increases are expected in the future.³⁵ It is important to note that these are “through” trains that would not idle near the site. ARB developed advisory recommendations for siting sensitive receptors near rail yards.³⁶ The following recommendations were based on the significant number of diesel emissions sources within a rail yard (locomotives, heavy-duty diesel trucks, cargo handling equipment) that operate and idle in rail yards:

- Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard.
- Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.

As part of the full environmental review process, ARB would evaluate whether any measures are necessary to address air pollution based on the proximity of the railroad tracks to the site if this site is selected.

³⁵ Reference: [Comprehensive Regional Goods Movement Plan and Implementation Strategy - Regional Rail Simulation Findings.pdf](#)

³⁶ Reference: <http://www.arb.ca.gov/ch/handbook.pdf>

2. Proximity to the South Coast Air Quality Management District

The Pomona site is located within five miles of the South Coast AQMD; the Iowa Avenue sites are about 30 miles from the South Coast AQMD. The proximity of the Pomona site to the South Coast AQMD would encourage better coordination on a variety of policy and technical issues. This includes, but is not limited to, programs for the State Implementation Plan, the Sustainable Freight Initiative, and the environmental justice programs. In addition, the proximity to the Pomona site would allow for the effective use of time for ARB Sacramento staff that could visit both South Coast AQMD and ARB facilities in a single day. In the past, ARB management typically did not visit ARB facilities if they were attending meetings at the South Coast AQMD, or vice versa.

3. Proximity to the General Population of Southern California

One measure of public access is the proximity of the facility to the general population in southern California. ARB used a program developed by the Missouri Census Data Center (MCDC) to evaluate population around the Pomona #1 and Riverside #2 sites. The MCDC Program operates under a memorandum of understanding between the Office of the Missouri Secretary of State and the U.S. Bureau of the Census. The Missouri State Library in the Office of the Missouri Secretary of State is the lead agency responsible for the program.

MCDC maintains a program that allows a user to evaluate distances around a specific location as represented by the site's latitude and longitude. The program is referred to as the Circular Area Profiling System.³⁷ Table 13 shows the addresses and the corresponding latitude and longitude for the two sites using Google Maps.

**Table 13
Latitude and Longitude for the Pomona and Riverside Sites**

Site	Site Address	Latitude	Longitude
Pomona #1	3614 Pomona Boulevard	34.045997	-117.81252
Riverside #2	4000 Iowa Avenue	33.973763	-117.33985

ARB staff analyzed population at the following distances around each site: 35 miles; 50 miles; 75 miles; 100 miles; and 120 miles. The 120-mile distance analysis basically extends the analysis to Oxnard in the west, San Diego to the South, Lebec to the North, and Palm Springs to the East. The analysis is based on the 2010 census data. The results are presented in Table 14.

³⁷ Circular Area Profiling System: <http://mcdc.missouri.edu/websas/caps10c.html>. Missouri Census Data Center.

Table 14
Analysis of Population Around the Pomona and Riverside Sites

Statistic	Population	
	Pomona #1 Pomona Blvd	Riverside #2 Iowa Avenue
35 Mile Radius	12,347,000	5,436,000
50 Mile Radius	15,914,000	10,450,000
75 Mile Radius	17,666,000	17,963,000
100 Mile Radius	20,140,000	20,553,000
120 Mile Radius	21,777,000	21,085,000

The analysis simply indicates that there are more people closer to the Pomona facility than the Riverside facility. This is significant to the extent that the new facility is a focal point for events, symposia, and workshops, as well as educational opportunities. Locating closer to more people would tend to provide more diverse opportunities for interactions.

4. Proximity to Common Stakeholders

In 2015, ARB had approximately 2,900 visitors that signed in at the HSL front desk. However, the estimate is likely low as it is not mandatory that all visitors sign-in, particularly if they are visiting staff in the other El Monte facilities. This also does not include people attending public meetings at the El Monte facilities. Of the people that signed-in, about half were equipment manufacturers or automotive manufacturers; the rest were contractors, government representatives, international visitors, private citizens, or media representatives. About a quarter of the visitors could not be classified as there was insufficient individual information available on the sign-in sheets.

ARB has many and diverse stakeholders throughout southern California. Some of these stakeholders routinely interact with ARB staff; others only occasionally. ARB does not maintain a comprehensive list of all stakeholders. Therefore, ARB looked at the proximity to the sites of a few common stakeholders. The stakeholders included automobile manufacturers, independent emissions testing laboratories, and community and environmental justice organizations. These stakeholders may come to the ARB facility or ARB staff may travel to meet with the stakeholders. ARB also looked at ports, rail yards, refineries, fuel terminals, and bulk plants where ARB El Monte enforcement staff conducts inspections.

The analysis only considered the Pomona #1 and Riverside #2 sites. The analysis would be essentially the same for the Riverside #1 site as it is only a few miles from the Riverside #2 site. The following tables summarize the driving distances for common stakeholders. The analysis was done using addresses and Google Maps. In general,

the analysis indicates that most of the stakeholders are closer to the Pomona site than the Riverside site.

Table 15
Driving Distance from Various Automobile Manufacturers to the Proposed Sites

Stakeholder	City	Driving Distance to the Proposed Site		
		Pomona #1	Riverside #2	Difference
		Miles	Miles	Miles
BMW	Oxnard	92	119	27
Honda	Torrance	44	65	21
Hyundai	Chino	7	25	18
Kia	Irvine	35	40	5
Mazda	Irvine	39	44	5
Mercedes	Long Beach	39	59	21
Mitsubishi	Cypress	28	49	21
Toyota	Gardena	42	63	21
VW/Audi	Oxnard	87	114	27

Table 16
Driving Distance from Various Independent Emissions Testing Laboratories to the Proposed Sites

Stakeholder	City	Driving Distance to the Proposed Site		
		Pomona #1	Riverside #2	Difference (Riverside – Pomona)
		Miles	Miles	Miles
Catalytic Solutions, Inc.	Oxnard	90	117	27
Olson-Ecologic Engine Testing Laboratories, LLC	Fullerton	16	43	27
SEMA Garage Emissions Laboratory	Diamond Bar	5	32	27
Mercedes-Benz Service Corporation – Los Angeles Technology Center	Long Beach	38	60	22
California Environmental Engineering (CEE)	Santa Ana	29	45	17
Quantum Technologies Emissions Laboratory	Lake Forest	39	44	5
Automotive Testing & Development Services, Inc. (ATDS)	Ontario	20	15	-5
CE-CERT, UC Riverside	Riverside	30	2	-28

Table 17
Driving Distance from Various Community and Environmental Justice Organizations to the Proposed Sites

Stakeholder	City	Driving Distance to the Proposed Site		
		Pomona #1	Riverside #2	Difference (Riverside – Pomona)
		Miles	Miles	Miles
Coalition for Clean Air	Los Angeles	30	59	30
East Yard Communities for EJ	Commerce	25	54	29
Communities for a Better Environment	Huntington Park	30	59	28
Pacoima Beautiful	Pacoima	47	74	27
Concerned Citizens of South Central LA	Los Angeles	31	58	27
East Yard Communities for EJ	Long Beach	37	61	24
Coalition for a Safe Environment	Wilmington	44	65	21
EndOil	Long Beach	41	62	21
Del Amo Action Committee	Torrance	41	63	21
Long Beach Alliance for Children with Asthma	Long Beach	41	61	21
Incredible Edible Community Garden	Upland	13	24	11
Center for Community Action and EJ	Jurupa Valley	22	8	-14
Comite Civico Del Valle	Brawley	176	143	-33

Table 18
Driving Distance from Various Ports and Major Rail Yards to the Proposed Sites

Stakeholder	City	Driving Distance to the Proposed Site		
		Pomona #1	Riverside #2	Difference (Riverside – Pomona)
		Miles	Miles	Miles
Port of Hueneme	Port Hueneme	73	119	46
Port of Los Angeles	San Pedro	47	69	22
Port of Long Beach	Long Beach	38	58	21
Port of San Diego	San Diego	116	98	-18
UP - City of industry	City of Industry	8	37	29
BNSF – Hobart	Commerce	28	55	27
BNSF – Commerce	Commerce	29	55	27
UP – Commerce	Commerce	27	54	27
UP – LATC	Los Angeles	28	56	27
BNSF – Watson	Wilmington	41	66	25
UP – ICTF	Long Beach	40	62	22
BNSF – San Bernardino	San Bernardino	37	13	-24
UP – Colton	Colton	27	9	-18
UP – Mira Loma	Mira Loma	19	13	-6

Table 19
Driving Distance from Various Refineries, Fuel Terminals, and Bulk Plants
to the Proposed Sites

Stakeholder	City	Driving Distance to the Proposed Site		
		Pomona #1	Riverside #2	Difference (Riverside – Pomona)
		Miles	Miles	Miles
Chemoil	Carson	20	62	42
Kinder Morgan	Carson	20	62	42
Kern Oil	Bakersfield	137	172	35
Paramount Petroleum	Bakersfield	139	166	27
San Joaquin Refining	Bakersfield	139	166	27
Chevron	El Segundo	46	72	27
Phillips 66	Los Angeles	38	65	27
Chevron	Montebello	24	51	27
Tricor Refining	Oildale	141	168	27
Kinder Morgan	Orange	19	46	27
Tesoro	South Gate	31	58	27
Chevron	Van Nuys	47	74	27
Sawyer	Van Nuys	45	72	27
Shell	Van Nuys	53	80	27
Exxon Mobil	Vernon	29	56	27
Paramount Petroleum	Paramount	30	55	25
Shell	Carson	39	60	21
Tesoro	Carson	40	61	21
Tesoro	Long Beach	33	55	21
Chevron	Huntington Beach	33	54	21
Petro Diamond	Long Beach	43	64	21
Tesoro	Long Beach	42	63	21
Shell	Signal Hill	38	59	21
Exxon Mobil	Torrance	45	66	21
Phillips 66	Torrance	48	69	21
Phillips 66	Wilmington	47	68	21
Tesoro	Wilmington	42	63	21
Valero	Wilmington	43	64	21
Exxon Mobil	Anaheim	17	36	19
Kinder Morgan	Dagget	102	90	-12
Chevron	San Diego	120	98	-22
Kinder Morgan	San Diego	112	90	-22
Tesoro	San Diego	120	98	-22
Phillips 66	Colton	29	5	-25
Shell	Colton	29	5	-25
Tesoro	Colton	29	5	-25
Kinder Morgan	Colton	31	5	-26
Kinder Morgan	Imperial	186	153	-33

5. Proximity to Regional Airports

ARB also analyzed the driving distance to the regional airports. Table 21 presents the results.

Table 21
Driving Distance from the Regional Airports to the Proposed Sites

Destination	Driving Distance to the Proposed Site		
	Pomona #1	Riverside #2	Difference (Riverside – Pomona)
	Miles	Miles	Miles
Ontario Airport	17	19	2
Los Angeles International Airport	45	72	27
Burbank Airport	41	68	27
Santa Ana Airport (John Wayne)	31	43	12
Long Beach Airport	36	58	22
Palm Springs Airport	86	54	-32

The Ontario airport is essentially the same distance from both sites and would be the likely airport for Sacramento employees to get to either the Pomona or Riverside sites. The Pomona site does provide slightly improved access to other nearby major airports and provides some flexibility relative to flight schedules.

E. Architectural and Engineering

The architectural and engineering attributes provide information about what characteristics of the sites need to be addressed during site development. These attributes include:

- Civil engineering and structural needs;
- Onsite site work needs;
- Offsite site work needs;
- Hydrology;
- Topography;
- Physical features;
- Existing vegetation and landscape;
- Geotechnical, subsurface, and soil conditions;
- State and local seismic requirements, parameters, and zones;
- Ability of site to provide needed utility and infrastructure requirements; and
- Local sanitary sewer capacity and conditions.

The assessments of these attributes did not identify any particular characteristic that would preclude the construction of the proposed facility at any of the sites. As identified in the mandatory attributes evaluation, all of the sites are outside of the 100-year flood zone areas. All three sites have the ability to provide needed utility and infrastructure

requirements, such as gas, water, storm drains, sewer, and electricity. Specific connections and sizing would need to be further evaluated in the design phase of the project. Site-specific considerations are discussed below.

For the Technology Court site, the topography would have an impact on site development. The Technology Site is adjacent to the 1,100-acre Box Springs Mountain Reserve/Park, part of which will drain to the site. Existing storm water ditches slow and divert the water to basins where the water then dissipates across the site to the adjacent streets. DGS does not expect drainage problems. However, a storm water drainage system needs to be designed for the site to meet low impact development and/or hydro-modification requirements. In addition, on the site, there are steep slopes with graded building pads. This configuration limits the area on the site for buildings. Benching and significant retaining walls are needed to satisfy ARB's needs.

The Pomona site is currently being used in the Cal Poly Pomona's academic program as farmland. The property is located near a flood control channel that can be used to mitigate any storm drainage issues. Grading and storm drain channels would need to be developed for adequate drainage to meet low Impact development and/or hydro-modification requirements. Several bridges may be necessary to go over the flood control channel.

Per the California Department of Conservation, 1998 Seismic Hazard Zones Map, the Pomona site is in an area designated as "liquefiable" and there may be a potential for expansive soils to be present. Liquefaction is a phenomenon in which loose, saturated, relatively cohesion-less soil deposits lose shear strength during strong ground motions. DGS contracted with Geocon West (Geocon) to conduct a preliminary geotechnical evaluation of the Pomona site to be used for development purposes. As referenced earlier, this report is provided on ARB's website. Geocon concluded that neither soil nor geologic conditions are known to exist at the site that would preclude the construction of the proposed facility. However, Geocon recommended that a comprehensive geotechnical investigation, including subsurface exploration, laboratory testing, and engineering analyses be performed for the proposed project. Geocon also noted that there the larger structures of the project, such as the parking garage and a taller office building, may need to be supported on a deep foundation system using typical design and construction techniques. DGS estimated these costs, and they are included in the next section in Table 22, Estimated Site Construction and Preparation Costs.

The Iowa Avenue site is currently being used in the UCR's agricultural research program. The site is not within a floodplain, watershed, or wetland and is not impacted by stream valley buffers. The site is gradually sloped and drainage should not pose issues. Geocon also conducted a preliminary geotechnical evaluation of the Iowa Avenue site. As referenced earlier, this report is presented on ARB's website. This site is characterized as "low" liquefaction potential. While recommending that ARB conduct the comprehensive geotechnical investigation for the proposed site, Geocon also noted that the proposed project would not likely require the sort of foundation system that may be required for the Pomona site.

F. Financial

The financial attributes provide information about the sites that may have a financial impact. These attributes identify whether there are any defining considerations that would affect site selection. The financial attributes include:

- Infrastructure improvements;
- Impacts of existing use, ownership, and control;
- Demolition/remediation costs;
- Site construction and preparation costs;
- Local economic development impact; and
- Site acquisition costs.

There are infrastructure improvements that are required at all three sites; some of these were discussed in previous sections, but none have been identified that would preclude the development of any of the sites. The project would potentially increase economic development in all areas. However, ARB did not attempt to quantify these impacts.

Cal Poly Pomona has jurisdiction of the Pomona site, which is owned by the State. The Regents of the University of California (UC) has jurisdiction of the Iowa Avenue site, which is owned by the State. The County of Riverside owns approximately 7.5 acres of the proposed 16.7-acre Technology Court site. The County of Riverside has committed to secure the additional acreage from a private party for the Technology Court site, if requested. Cal Poly Pomona and the County of Riverside have indicated that the property would be provided at no cost to the State. UCR legal counsel recommended that a cost of \$1 be included to better defend any attempts to contest the transfer of jurisdiction should they arise in the future. In that context, UCR has indicated that:

Given the value that locating the new CARB headquarters next to the UCR Campus will provide to the research and educational mission of the Riverside Campus and the residents of Riverside County and the State of California, the Regents of the University of California is prepared to transfer the real estate to CARB for \$1.³⁸

As the Pomona site is State property, the transfer of jurisdiction for this site would be a straightforward transaction between Cal Poly Pomona and ARB. The County of Riverside and a private party own the Technology Court site. Acquisition of the Technology Court site would first require the County to purchase the land from the private party. Then, after approval of the State Public Works Board (SPWB), the State would acquire the land from the County. UCR's Iowa Avenue property is State property. To transfer jurisdiction of the Iowa Avenue land to the State, UCR would need to obtain the approval of the UC President's Office. ARB understands that discussions are already underway between the UC President's Office and UCR regarding the transfer of the property. UCR has indicated that they do not anticipate any problems with the

³⁸ Email from Ms. Rebeccah Goldware, UCR, to Mr. Robert Fletcher, ARB, dated January 22, 2016.

transfer. The transfer of jurisdiction for UCR's Iowa Avenue site would be a straightforward transaction between UCR and ARB.

The Technology Court site does not have any significant demolition costs. The Pomona site and the Iowa Avenue site would both require some demolition. The Pomona site would require the removal of surface irrigation piping, some agriculture, and some small structures. Cal Poly Pomona has indicated one or more of the wells are currently being used for irrigation and need to remain in operation. In addition, well locations may affect the final orientation of the project on the site. Prior to site redevelopment, some of these wells may need to be destroyed. The Iowa Avenue site would require the removal of an existing citrus orchard, irrigation pipes and valves, and relocation of a research facility. However, in both cases, DGS does not expect the demolition costs to be significant.

Based on the site assessments, DGS estimated the site construction and preparation costs. These estimated costs are presented in Table 22. These are not intended to be design costs, but rather intended to provide an indication of the site construction and preparation costs.

Table 22
Estimated Site Construction and Preparation Costs

Item	Estimated Costs		
	Pomona #1 Pomona Boulevard	Riverside #1 Technology Court	Riverside #2 Iowa Avenue
Mobilization/Demobilization ¹	\$843,000	\$1,095,000	\$935,000
Site Development and Grading ²	\$900,000	\$2,650,000	\$623,000
Significant Retaining Wall Costs	\$0	\$2,356,000	\$0
Pile Foundations	\$966,000	\$0	\$0
Utility Development ³	\$3,362,000	\$3,362,000	\$4,328,000
Site Finishing ⁴	\$1,920,000	\$1,522,000	\$2,157,000
Site Access Upgrades ⁵	\$1,075,000	\$40,000	\$782,000
Utility Connection/Activation Fees	\$1,064,000	\$910,000	\$1,266,000
Review Fees	\$107,000	\$106,000	\$193,000
Subtotal Costs	\$10,237,000	\$12,041,000	\$10,284,000
Conceptual Level Contingency @ 15%	\$1,536,000	\$1,807,000	\$1,543,000
Total Estimated Costs	\$11,773,000	\$13,848,000	\$11,827,000

1. Mobilization/Demobilization is set at 10% of the total project estimated cost.
2. Site Development and Grading includes clearing and grading the site.
3. Utility Development includes power line relocation, excavating trenches, and utilities on a per square foot price.
4. Site Finishing includes flexible and ridged paving, Curbs, and landscaping based on assumed quantities for onsite work.
5. Site Access Upgrades for offsite work includes flexible and ridged paving and a traffic signal cost for Iowa and Pomona sites.

G. Zoning, Local Codes, and Ownership

The zoning, local codes, and ownership attributes were designed to identify whether there were any particular constraints on developing the sites, as well as identifying specific building development requirements. These attributes include:

- Consistency with land use plans and support of local planning initiatives;
- Type of land ownership and site availability;
- Height restrictions;
- Floor area ratios;
- Setback requirements;
- Parking ratios;
- Title report;
- Legal description; and
- Legal review.

The ARB project would be consistent with the intended use of all three sites as identified by the respective jurisdictions. DGS has not identified any particular constraints on developing the sites relate to zoning. The Pomona site is currently designated for public agricultural use. The State is exempt from zoning requirements so the property would not need to be rezoned. The Technology Court site is zoned for commercial development, including offices, manufacturing, research and development. The Iowa Avenue site is zoned for public facilities. As with the Pomona site, the State is exempt from zoning requirements so the property would not need to be rezoned.

All of the parcels are owned in fee³⁹ and are vacant, with no leasehold interests noted. Title to several land parcels on the Technology Court site is vested in the Redevelopment Agency for the County of Riverside. Pursuant to California ABX1 26, all Redevelopment Agencies were to have been eliminated by February 1, 2012. The California Department of Finance (DOF) must approve of the disposal of Redevelopment Agency parcels. An amended Redevelopment Agency Long Range Property Management Plan is in process by the County and will be resubmitted to DOF for final approval. However, this is not expected to have any detrimental effect on the process.

The local code requirements are summarized for the Technology Court and Iowa Avenue site in Table 23. The applicable code requirements for the Pomona site would be identified once the rezoning is completed. None of these requirements are expected to affect project development. ARB would expect to work with appropriate jurisdictions on defining specific parking ratios that may be less than those identified.

³⁹ "Owned in fee" means that owner owns the property without any limitations or conditions.

**Table 23
Local Code Requirements Applicable to Each Site¹**

Item	Technology Court	Iowa Avenue
Height Restrictions, ft	<ul style="list-style-type: none"> • 45 feet 	<ul style="list-style-type: none"> • 60 feet or 4 stories, • whichever is less
Floor Area Ratios	<ul style="list-style-type: none"> • 1.5 	<ul style="list-style-type: none"> • None
Setback Requirements	<ul style="list-style-type: none"> • Side and Rear: 20 feet min, except where a setback area abuts a major arterial/secondary collector, in which case front setbacks prevail. • Front: Parcels fronting major arterial or industrial collector shall have an average setback of 50 feet from right-of-way with min setback of 40 feet from right-of-way. • Parking: Parking setbacks from major arterials/secondary collectors shall be 20 feet from the right-of-way. All other minimum requirements for parking and landscaping setbacks shall be consistent with standards required in the Zoning Code. 	<ul style="list-style-type: none"> • Minimum of 20 feet from all property lines. • If adjacent to zone permitting residential uses, an additional setback of 1 foot for every 2 feet of building height in excess of 45 feet is required for any yard area abutting the residential zone. • All parcels fronting a major arterial or industrial collector shall have average setback of 50 feet from the right-of-way with minimum setback of 40 feet from right-of-way.
Parking Ratios	<ul style="list-style-type: none"> • Office: 1:250 sq ft • Manufacturing: 1:350 sq ft • Warehouse: 1:1000 sq ft • Research/Dev: 1:250 sq ft 	<ul style="list-style-type: none"> • Office: 1:250 sq ft • Manufacturing: 1:350 sq ft • Warehouse: 1:1000 sq ft • Research/Dev: 1:250 sq ft

¹ Note that the State development projects are preempted from local city and county code compliance; however, as a matter of policy, the State typically works with the local city and county jurisdictions in project development.

DGS reviewed the title reports and legal descriptions. In general, DGS did not note any unresolved issues that would adversely impact the beneficial use of the facility. There were some identified title issues that would need to be addressed. These are discussed below.

For the Pomona site, Dudek identified four easements (among others) that are worth noting:

- There is a railroad easement between the State of California and the Alameda Corridor-East Construction Authority running through middle of the southern portion of the property. This easement cannot be relocated and precludes the State from locating in that portion of the property. As the site has been identified on the corner of State Street and Pomona Blvd, this is not an issue.
- There is a flood control channel running along and adjacent to the eastern boundary line of the property. This may require special improvements such as bridge crossings.

- There is a road easement in favor of a private party located in the center portion of the northern parcel. This would require a quitclaim of rights.
- There is a utility easement in favor of Southern California Edison located in the center of the northwestern portion of the property. This may need to be relocated during construction depending on the final location of the site.

For the Technology Court site, the property is impacted by four easements that are worth noting. These easements exist for purposes of irrigating pipelines, flumes and/or water reservoirs and are in favor of either private or undisclosed parties. While the County indicates these easements would not negatively impact any proposed facilities, the easements would need to be removed from the title prior to acquisition.

For the Iowa Avenue site, a preliminary report dated June 21, 2006, was provided. Analysis of an updated preliminary report would be required to proceed with site acquisition. The property is impacted by an easement that is worth noting. This easement is for a pipeline in favor of a private party. This easement may require a quitclaim of rights. Additionally, vesting is identified via a Grant Deed and Final Order of Condemnation. Regarding the Final Order of Condemnation, additional analysis of the preceding document or Stipulation of Judgment would be required to proceed to acquisition.

H. Environmental

The environmental attributes provide preliminary information about the local environmental conditions of the sites, as well as potential areas that would need further evaluation or possible mitigation as part of the environmental review process for proposed site development. This preliminary information does not replace any necessary environmental review required as part of CEQA. The environmental attributes are listed below:

- Air Quality
- Biological resources;
- Environmental hazards;
- Agricultural resources;
- Cultural resources;
- Noise;
- Odor;
- Wind and micro climate;
- Aesthetics; and
- Public services.

In conducting the analysis of environmental attributes, ARB developed the information on air quality and pollution burden. DGS staff, with the assistance of two contractors, conducted the analysis of the other attributes. The contractors were Dudek and Avocet

Environmental (Avocet). The Dudek and Avocet reports are presented on ARB's website.

1. Air Quality

Air quality is potentially an important attribute relative to the operation of the facility as well as the comfort of employees. Therefore, ARB evaluated air quality for both the Pomona and Riverside areas. ARB used data from the ozone and fine particulate matter (PM_{2.5}) air monitoring stations near the potential relocation sites. There are four active air monitoring stations near (within 20 miles) the Pomona Boulevard site: Pomona, Glendora, Upland, and Azusa. Ozone is measured at all four stations, while PM_{2.5} is measured at Glendora, Upland, and Azusa. There are two monitoring stations near the Riverside-Technology Court and Riverside-Iowa Avenue sites: Riverside-Rubidoux and Mira Loma, both of which measure ozone and PM_{2.5}. Distances from the air monitoring stations to each of the three potential relocation sites are presented in Table 24.

**Table 24
Air Monitoring Stations Near Pomona and Riverside Sites**

Monitoring Station	Distance From Monitoring Stations to Relocation Sites (Miles)		
	Pomona Boulevard	Technology Court	Iowa Avenue
Pomona (924 North Garey Ave)	5	30	30
Glendora (840 Laurel Avenue)	10	37	37
Azusa (803 North Loren)	13	41	40
Upland (1350 San Bernardino Rd)	14	24	24
Mira Loma (5130 Poinsettia Place)	20	10	9
Riverside-Rubidoux (5888 Mission Blvd)	27	6	5

The statistics in Table 25 below summarize the air quality status in both the Pomona and Riverside relocation areas with regard to the federal 8-hour ozone standard of 0.075 parts per million (ppm) established in 2008. Both areas have, historically, had ozone concentrations that exceed the 0.075 ppm ozone standard.

The design value is the concentration that is compared to the federal ozone standard to determine attainment status. As shown by the design values, both areas continue to have concentrations that are above the 0.075 ppm federal ozone standard. The 2015 design values exceed the 0.075 ppm standard by an average of 25 percent at Glendora, Upland, and Riverside. The number of days in 2015 with ozone levels above the federal ozone standard ranges from 8 to 36 at the six sites, with the highest number of exceedance days occurring at Mira Loma.

Table 25
Ozone Air Quality Data at Selected Monitoring Stations
Near Pomona and Riverside

Ozone Statistic	Year ¹	Air Monitoring Station					
		Stations Representing Pomona				Stations Representing Riverside	
		Pomona	Glendora	Azusa	Upland	Mira Loma	Riverside Rubidoux
Number of Days Greater than the 0.075 ppm National 8-hour Standard	2015	14	16	8	21	36	18
	2014	33	38	11	42	29	41
	2013	15	24	6	27	21	26
	2012	15	45	10	45	47	47
National 8-hour Design Value, ppm	2015	0.089	0.093	0.083	0.096	0.090	0.093
	2014	0.086	0.093	0.080	0.096	0.091	0.093
	2013	0.085	0.092	0.080	0.098	0.094	0.098
	2012	0.082	0.093	0.080	0.096	0.093	0.098

¹ The data for 2015 are preliminary.

While both of the potential relocation areas have had air quality challenges for a number of years, overall progress shows a long-term trend towards cleaner air in both Pomona and Riverside. The ARB is working with the South Coast AQMD on the development of its Air Quality Management Plan (AQMP) that will define strategies needed to meet the 0.075 ppm 8-hour ozone standard by 2031. This plan is due to U.S EPA in July 2016.

Table 26 presents various PM_{2.5} statistics for the years 2012, 2013, and 2014 for the three monitoring locations with complete data during the three-year period. PM_{2.5} data for 2015 are not available yet.

Table 26
PM_{2.5} Air Quality Data at Selected Sites Near Pomona and Riverside

PM _{2.5} Statistic	Year	Air Monitoring Station ¹		
		Station Representing Pomona	Stations Representing Riverside	
		Azusa	Mira Loma	Riverside Rubidoux
National 24-hour Design Value, µg/m ³	2014	27	38	34
	2013	28	36	33
	2012	31	36	32
National Annual Design Value, µg/m ³	2014	11.1	14.5	12.8
	2013	11.2	14.8	13.2
	2012	11.3	15.2	13.4

¹ The following PM_{2.5} data were not included in the table: Glendora and Upland because both monitors collect data that are not comparable to federal standards; Ontario had incomplete data in 2013 and was closed in June 2014, so most of the metrics could not be computed; and Riverside-Magnolia because of incomplete data in 2012, preventing the metrics from being computed.

The national 24-hour PM_{2.5} standard is 35 micrograms per cubic meter (µg/m³) and the national annual PM_{2.5} standard is 12 µg/m³. The data in Table 26 show that the Azusa monitor has averaged about 18 percent below the 24-hour standard and 7 percent below the annual standard during the past three years. In contrast, Mira Loma was nearly 5 percent above the 24-hour standard and about 24 percent above the annual standard. Riverside-Rubidoux has mixed results. The site recorded design values roughly six percent below the 24-hour standard, but over nine percent higher than the annual standard.

The South Coast AQMD's AQMP being developed this year will also define attainment strategies for meeting the 24-hour PM_{2.5} standard by 2019, and the annual PM_{2.5} standard by 2025.

In summary, air quality improvements are necessary in both locations. However, the air quality at either location would not substantially affect the operation of the facility.

2. Biological Resources

This attribute addresses the preliminary biological resource evaluation of threatened, rare, and endangered species, and conservation program and regulations, as summarized from the Dudek report. The preliminary biological resources evaluation focused on water, wildlife, and vegetation. In addition, Dudek evaluated whether the property was covered by a habitat conservation plan. Only the Technology Court site is covered by a habitat conservation plan. This plan is known as the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). If this site were selected, the State may have to show that the project will not result in long-term indirect effects to the adjacent preserve. For any potential issue identified for each site, Dudek provided a recommended mitigation strategy.

For water, Dudek did not identify any water features that would require mitigation at either the Iowa Avenue or the Technology Court sites. At the Pomona site, there are potential jurisdictional waters on the southeast boundary. This includes South San Jose Creek, which is a concrete channel. There is also an unnamed natural channel on the southwestern boundary. Since the site location is on the eastern side of the property, it is likely that the unnamed channel would not be significant. Potential mitigation measures that would be considered during the full environmental review process include:

- Conducting a formal wetland/water delineation; and
- Obtaining the following permits:
 - Regional Water Quality Control Board (Section 401-Clean Water Act);
 - U.S. Army Corps of Engineers (Section 404 of the Clean Water Act); and
 - California Department of Fish and Wildlife (CDFW) (Section 1600 of the California Fish and Game Code).

All three sites have the potential to support nesting bird species. The project development at all three sites would be carried out in accordance with all existing laws,

including the Migratory Bird Treaty Act and California Fish and Game Code. If the project development would have potentially significant impacts to nesting bird species, the following mitigation measure would be recommended for all three sites as part of the full environmental review process:

- For nesting bird potential and to ensure compliance with the Migratory Bird Treaty Act and California Fish and Game Code, vegetation removal shall occur outside of the bird-breeding season (January 15–August 31). If not possible, a preconstruction bird breeding survey shall occur no more than 72 hours prior to vegetation removal.

At the Pomona site, there is a potential for trees in the southeastern boundary to support the white-tailed kite. This species has special-status as fully protected in the State and all nests must be avoided. Other fairly common raptor species have been reported in the vicinity. Furthermore, the agricultural fields could support foraging for the tricolored blackbird, a State species of special concern (currently being evaluated for listing by the U.S. Fish and Wildlife Service). However, no known nesting colonies have been reported within the region; thus, there is a low potential for these colonies. There also may be migrating waterfowl or shorebirds. Therefore, as part of the full environmental review process ARB would need to conduct a full biological resources survey to determine the extent of migratory waterfowl, shorebird, and raptor species that may use the site for foraging habitat.

Both the Pomona and Technology Court sites have suitable habitat for burrowing owls; a species of special concern in California. However, for the Pomona site, the species has not been recorded within the region so the likelihood of its presence is very low. As mentioned above, this species is a special species of concern in California. Therefore, ARB would need to conduct a focused survey for the burrowing owl as part the environmental review process. Based on the results of this preliminary analysis, ARB may need to consider the following mitigation measures as part of the full environmental review process:

- For the Pomona site, if the burrowing owl is found on site, the mitigation plan is to comply with the Migratory Bird Treaty Act as stated above; the site is not located within a habitat conservation plan area.
- For the Technology Court site, if the burrowing owl is found on site, there are two options for mitigation. One option involves the use of the “take” provision that is available in the MSHCP through the “Participating Special Entity” provision. The PSE fee is five percent of the total project cost. This cost would be approximately \$13 million. The other option involves implementing a passive relocation program and mitigation fees. The drawback on the second approach is the time required to conduct the studies necessary to define the relocation program.

Finally, there is a potential for habitat on the Technology Court site for the California gnatcatcher, a special species of concern in California. Consequently, ARB would need

to conduct a focused survey for the California gnatcatcher as part of the full environmental review process. If the California gnatcatcher is found on site, ARB may need to consider the following mitigation strategy options as part of the full environmental review process:

- Option one involves the use of the “take” provision that is available in the MSHCP through the PSE provision.⁴⁰ The PSE fee is five percent of the total project cost.
- Option two involves conducting additional studies to develop a habitat conservation program, and mitigation fees. The drawback on the second approach is the time required to conduct the studies.

None of the sites have any particular sensitive vegetation (plant species) that would require mitigation.

In summary, there are a few differences in the assessments for biological resources, but none of the findings identified any issues that would preclude any of the sites from consideration for development or that could not be mitigated.

3. *Environmental Hazards*

Avocet conducted the analysis of environmental hazards using a Phase 1 environmental site assessment (ESA). The assessment evaluates the history and current condition of each of the three sites relative to the use, storage, handling, and disposal of potentially hazardous chemicals or wastes that could have adversely impacted the underlying soil and groundwater. The Phase I ESAs are typically considered the first step in the process of environmental due diligence in site assessments. The potential or existing environmental contamination liabilities identified in the Phase 1 ESAs are the basis for further evaluations in a Phase II ESA. A Phase II ESA is a more extensive investigation.

The Phase 1 ESA for the Technology Court site did not identify any concerns.

The Phase 1 ESA for the Iowa Avenue site identified the presence of two pesticides in levels that were significantly less than the U.S. Environmental Protection Agency (U.S. EPA) Region 9 residential screening levels. As there were only two samples collected, Avocet Environmental noted that they could not comment on the overall distribution of the residual pesticides on the site and identified the presence of residual pesticides as a potential concern at the site.

The Phase 1 ESA for the Pomona site identified a number of potential environmental liabilities. These are discussed below.

⁴⁰ Only one PSE fee would be required if both California gnatcatchers and burrowing owls are found on the site.

- Residual Pesticides – One of two collected soil samples identified the presence of residual pesticides. The level was significantly lower than the U.S. EPA Region 9 residential screening levels. As there were only two samples collected, Avocet Environmental noted that they could not comment on the overall distribution of the residual pesticides on the site and identified the presence of residual pesticides as a potential concern at the site.
- Potential Impacts to Groundwater - The Consolidated Precision Products (CPP) facility is a casting facility that is located adjacent to the western boundary of the site.⁴¹ Since around 1965, the site was used for the casting of aluminum and magnesium parts for the commercial and defense aerospace industries. The facility has undergone extensive remediation for volatile organic compounds (VOC) resulting from leaking equipment. The Los Angeles Regional Water Quality Control Board (LA RWQCB) has determined that a part of the facility that previously had residual VOC concentrations in the soil no longer poses a significant threat to groundwater. However, there is an open action on the main facility. A closure report has been submitted and is awaiting approval. There apparently has not been any offsite investigation to delineate the down-gradient extent of contamination. Therefore, the possibility that contamination from the facility has affected the subsurface beneath the subject site cannot be ruled out. Due to its proximity and upgradient location, VOC contamination from the neighboring facility is a potential environmental liability.
- Potential Impacts to Groundwater - The former TiTech Foundry (TiTech) was located on a nine-acre site adjacent to the southwestern property boundary of the Pomona site, just north of the former CPP facility.⁴² The facility operated as a titanium foundry from 1965 to 2002. Prior to closure of the facility, VOCs were identified in the soil that was from the release of industrial wastewater into the subsurface. After the facility closed, the Department of Toxic Substances Control (DTSC) conducted a remedial action on the site. During 2005, almost 8,200 tons of soil was removed from the site. In 2006, DTSC determined that the site had been remediated to allow for industrial and commercial land use, with identified land restrictions. Based on limited data to adequately define the extent of contamination in groundwater, or the direction of groundwater flow, Avocet was unable to rule out the possibility that the subject site has been impacted by releases which occurred at the former TiTech facility.
- Former Underground Storage Tanks (UST) On-Site – There were two underground storage tanks on the site - one steel UST and one concrete UST. The steel UST contained residual diesel when removed in 2007. There were no detected VOCs in the soil samples beneath the steel tank. The concrete UST did not contain a significant amount of petroleum, but soil samples taken from beneath the concrete UST had low concentrations of VOCs. Subsequent

⁴¹ The facility has been operating since 1965. Until 2000, the facility was known as Teledyne Cast Parts. The facility is located at 4200 West Valley Boulevard, Pomona, 91769.

⁴² The facility was located at 4000 West Valley Boulevard, Pomona, 91769.

analysis indicated that the VOCs were below their respective U.S. EPA screening levels. In an order dated July 28, 2015, the State Water Resources Control Board (SWRCB) found that the corrective action taken to address the unauthorized released of petroleum ensures protection of human health, safety, and the environment. In addition, the corrective action is consistent with the State's low-threat closure policy and other applicable water quality control policies and plans. The order directs closure of the UST case once several identified conditions are satisfied. As those conditions have not yet been satisfied, Avocet identified the contamination associated with the concrete UST as an open issue.

- Former Aboveground Storage Tank – In the past, two aboveground storage tanks (ASTs) were associated with a former wind machine used to combat frost damage to crops. The ASTs and associated wind machine were closed, dismantled, and removed from the site in April 2007. Draining of the ASTs and pertinent deconstruction activities were reportedly conducted over a leak-containment area and all materials were eventually properly disposed offsite. No spills were reported and no confirmation samples were taken. As there were no confirmation samples taken, Avocet identified the former ASTs as a potential issue.
- Abandoned Well – In 1930, the Lamona Oil Association drilled a “wildcat” well near the east central edge of the target property. After being drilled to a reported depth of 970 feet, the well did not encounter oil or natural gas and consequently was never operated as a production well. The drilled well was to be turned over to the property owner at that time with the intention of converting it into a water well. Avocet was unable to locate the abandoned well using the coordinates supplied, but did identify a nearby water well that may actually be the former wildcat well. However, Avocet has not been able to procure any documentation confirming that the well was ever converted or properly abandoned. Concerns related to improperly abandoned wells include their roles as possible conduits for migration of groundwater contaminants to deeper aquifers. Therefore, Avocet flagged the abandoned well as a potential environmental concern.
- Existing Wells – Avocet observed five wells on the site, four of which have been identified and the fifth discussed above. Irrigation Wells 3 and 4 appear to be active and registered with the State, while Well C4-W5, Well C4-W6, and the unidentified well appear to be unmaintained and currently not in use. Their locations may affect the final location of buildings on the site, and relocation of water piping and modifications to the wells may be required.
- Sewer Lift Station, Industrial Manhole, UPR Tracks, and South San Jose Creek – A sanitary sewer lift station is located in the southwest region of the site and is for the former Lanterman Development Center, east of the site. An industrial manhole was found along the eastern property boundary near the UPRR overpass. The industrial manhole is reportedly for brine discharge from the

nearby Cal Poly Pomona. In addition, UPR railroad tracks border the property and the South San Jose Creek flows through the site and along its eastern boundary in a concrete-lined channel. These features may limit future development of the site.

- Former Spadra Landfill – The landfill is approximately 0.2 miles northwest of the site at its closest approach. The landfill is a former Class III municipal landfill that operated from 1957 until 2000, with post closure groundwater monitored on a continual basis. Three groundwater monitoring wells, two along the northern property boundary and one near the southwestern corner of the property, are associated with the landfill. Groundwater flow from the landfill is towards the subject site, so a release from the landfill could impact the subject site. However, if a release were to occur, the County Sanitation Districts of Los Angeles County would be responsible for assessment and remediation of the groundwater.

In summary, there are potential liabilities identified as part of the Phase 1 ESA that need to be considered in developing the Pomona site. However, none of the identified liabilities preclude development of the site.

4. *Agricultural Resources*

The Pomona site is currently used for agricultural sciences academic instruction. Development of the site would reduce the acreage available for sustainable agricultural production. The site is not designated as Prime, Unique, or State or Local Important Farmland, nor is the site under a Williamson Act contract. The site is currently designated for public agricultural use. As indicated previously, the State is exempt from zoning requirements.

Though zoned for public use, the Iowa Avenue site is designated as Prime Farmland on the Farmland Mapping and Monitoring Program of the California Department of Conservation within the California Resources Agency. Potential mitigation includes the purchase of land to convert to agricultural land or pay into a mitigation bank fund for conservation of agricultural land. ARB would be responsible for any costs under this program.

The site is also designated as Prime Farmland under the City of Riverside General Plan. However, the site is not located in the Arlington Heights Greenbelt or the La Sierra Lands identified as being protected in objectives and policies because of their high quality, favorable climate, and low water costs. Therefore, while development of the site would result in the loss of Prime Farmland, it would not result in the loss of protected Prime Farmland.

Historically, the Technology Court site was used for agricultural production, but is now planned and zoned for commercial development.

In summary, two of the sites are currently being used for agricultural production. However, development of all three sites is consistent with the planning objectives of Cal Poly Pomona, UCR, and Riverside County, respectively.

5. Cultural Resources

According to the State of California Native American Heritage Commission (NAHC), cultural resources relate only to remains and sites associated with human activities and include the following:

- Prehistoric and ethno-historic Native American archaeological sites;
- Historic archaeological sites;
- Historic buildings; and
- Elements or areas of the natural landscape that have traditional cultural significance.

Dudek conducted a preliminary assessment of the cultural resources that may be affected by a project development. As part of the assessment, Dudek conducted a search of the California Historical Resources Information System (CHRIS). The CHRIS search included any previously recorded cultural resources and investigations within a quarter-mile radius of the sites. The CHRIS search also included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determination of Eligibility list, and the California State Historic Resources Inventory List. Additionally, and as part of the process of identifying potential cultural resources, Dudek contacted NAHC and requested a review of the Sacred Lands File (SLF). Finally, the NAHC provided a contact list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the proposed sites. Dudek contacted the persons and entities on the contact list requesting information about cultural sites and resources on or near the proposed sites.

For the Pomona site, no previously recorded archaeological resources are located within the site vicinity. There are three historic-age structures and one historic-age irrigation ditch located on the Pomona property. Only one of the structures is located in the area where ARB would locate on that site. If that site was selected, the structure and the irrigation ditch would need to be evaluated for potential eligibility for inclusion on the California Register of Historic Resources. The NAHC indicated that there were no sites present in the Sacred Lands File. However, feedback from one Native American tribal organization indicated that the Pomona site is within a highly sensitive area. Therefore, as part of the environmental review process for that location, ARB would need to conduct a Phase I/Phase II Pedestrian Survey and Significance Evaluation to determine the presence of resources on site and any structure's eligibility for the CRHR. Based on the results of that survey, ARB may need to consider the following mitigation strategies as part of the full environmental review process if the Pomona site is selected:

- Provide cultural resource monitoring to evaluate any cultural resource discoveries during initial earth-moving activities (e.g., grading, excavation).
- Consider hiring a Native American contractor to monitor activities throughout the ground-disturbing activity.

For the Technology Court site, no previously recorded archaeological or historic resources are located on the site. One historical resource, CA-RIV-4768, is located off the site on the western border of the site. In addition, two previously identified resources are located immediately outside the site to the southeast. However, Dudek does not expect that project activity at that location would affect these resources. The NAHC indicated that there were no sites present in the Sacred Lands File. Dudek also did not receive any responses back from the Native American individuals/groups contacted. To determine if the project will impact cultural resources, Dudek recommended that ARB conduct a Phase I/Phase II Pedestrian Survey and Significance Evaluation to determine if there are any previously unidentified cultural resources on site. Any mitigation strategy to protect the CA-RIV-4768 historical resource and any previously identified cultural resources would be determined as part of the full environmental review process if the Technology Court site was selected.

For the Iowa site, no previously recorded archaeological resources are located within the site vicinity. There is a historic-age irrigation system on this site that would need to be evaluated for potential eligibility for inclusion on the CRHC. In addition, there are historic and potentially pre-historic cultural material scattered throughout the eastern section of the site. Dudek contacted the NAHC requesting information on Sacred Lands. The NAHC provided a contact list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources on or near the proposed site on January 28, 2016. Dudek will contact the persons and entities on the contact list requesting information about cultural sites and resources on or near the proposed site and will provide additional information when it becomes available. Therefore, as part of the environmental review process for that location, ARB would need to conduct a Phase I/Phase II Pedestrian Survey and Significance Evaluation to determine the presence of resources on site and any structure's eligibility for the CRHR. Based on the results of that survey, ARB may need to consider the following mitigation strategies as part of the full environmental review process if the Pomona site is selected:

- Provide cultural resource monitoring to evaluate any cultural resource discoveries during initial earth-moving activities (e.g., grading, excavation).
- Consider hiring a Native American contractor to monitor activities throughout the ground-disturbing activity.

In summary, all three sites had potential cultural issues. However, none of the identified issues preclude development of the site.

6. Other Environmental Attributes

Other environmental attributes preliminarily examined include noise, odor, aesthetics, wind and micro-climates, and public services. These attributes can affect site selection if there are sensitive receptors nearby or if the siting would adversely affect aesthetics. In addition, wind can affect issues such as the potential for wind turbine use as a renewable energy source. Micro-climates could affect emissions testing operations or the comfort of staff.

All three sites have sensitive receptors nearby. As a result, as part of the full environmental review process for any of the sites, ARB would need to conduct an analysis of potentially significant adverse noise, odor, and aesthetics impacts on sensitive receptors during both the construction and operational phases. The project would need to comply with local ordinances.

Tables 27 and 28 summarize information on climate in Pomona and Riverside. In summary, the winds are low and will not support the use of wind energy. While the Riverside site is generally warmer than Pomona, the facility operations can be managed within the context of the micro-climate.

Table 27
Summary of Climate Data for Pomona and Riverside⁴³

Month	Temperature				Precipitation, inches	
	Average High °F		Average Low °F		Pomona	Riverside
	Pomona	Riverside	Pomona	Riverside		
January	68	67	43	43	3.1	2.9
February	69	67	45	44	4.6	3.0
March	71	71	47	47	2.6	2.0
April	76	75	49	50	1.2	0.8
May	79	80	54	56	0.2	0.3
June	84	85	57	60	0.1	0.1
July	90	93	62	64	0.0	0.1
August	92	94	62	65	0.0	0.1
September	89	90	60	62	0.2	0.3
October	80	82	55	55	1.1	0.3
November	74	74	47	47	1.6	1.0
December	67	67	42	43	2.5	1.5
Annual Average	78	79	52	53		
Annual Total Rainfall					17.2	12.4

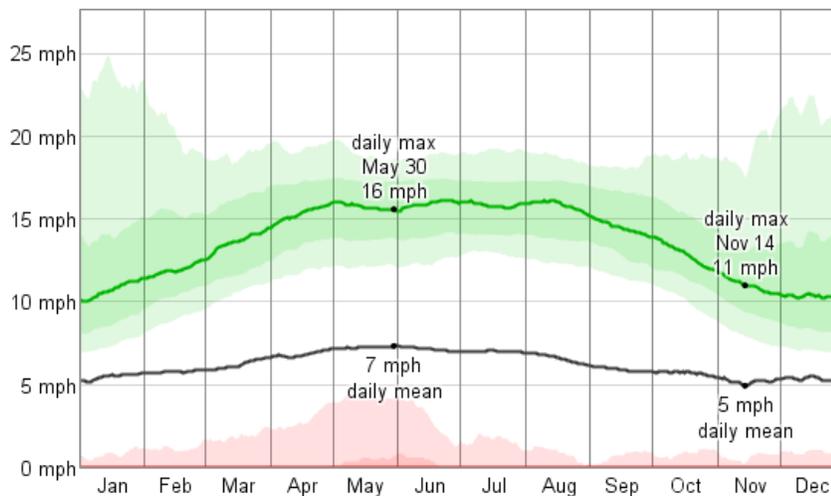
⁴³ Reference: National Oceanic & Atmospheric Administration; National Environmental Satellite, Data, and Information Service: <http://www.ncdc.noaa.gov/cdo-web/datatools/normals>.

Table 28
Summary of Average Annual Days Exceeding Specific Temperatures
in Pomona and Riverside

Data	Pomona	Riverside
Average Number of Days Exceeding 100 °F	8	15
Average Number of Days Exceeding 90 °F	66	86

In Pomona, over the course of the year, typical wind speeds vary from zero mph to 16 mph.⁴⁴ The breeze rarely exceeds 25 mph. The highest average wind speed of seven mph occurs in May, at which time the average daily maximum wind speed is 16 mph. The lowest average wind speed of five mph occurs in November, at which time the average daily maximum wind speed is 11 mph. The wind is most often out of the west (26% of the time) and southwest (17% of the time). Figure 17 graphically presents average wind data for Pomona.

Figure 17
Wind Speed Data for Pomona ¹

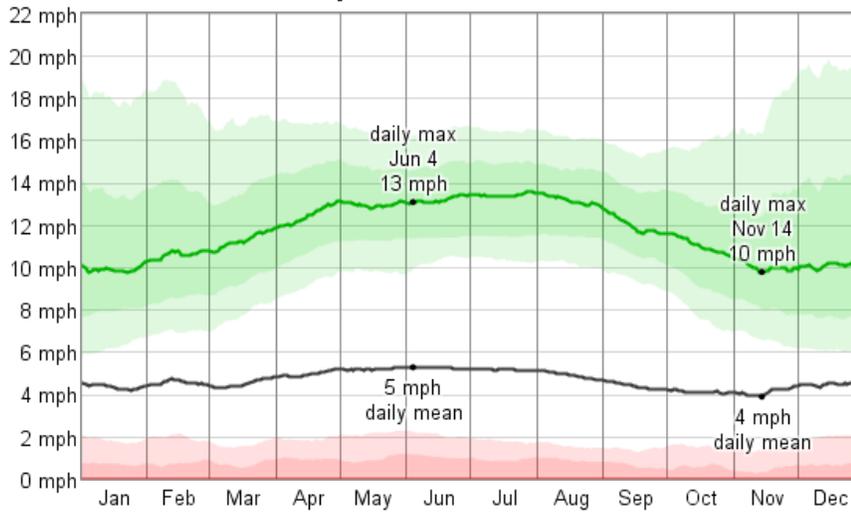


¹ The average daily minimum (red), maximum (green), and average (black) wind speed with percentile bands (inner band from 25th to 75th percentile, outer band from 10th to 90th percentile). Reference: <http://www.weatherspark.com>.

In Riverside, over the course of the year, typical wind speeds vary from zero mph to 14 mph. The breeze rarely exceeds 20 mph. The highest average wind speed of five mph occurs in June, at which time the average daily maximum wind speed is 13 mph. The lowest average wind speed of four mph occurs in November, at which time the average daily maximum wind speed is 10 mph. The wind is most often out of the northwest (25% of the time) and west (15% of the time). Figure 18 graphically presents average wind data for Riverside.

⁴⁴ The wind data for both Pomona and Riverside was extracted from the following website: Reference: <http://www.weatherspark.com>

Figure 18
Wind Speed Data for Riverside ¹



¹ The average daily minimum (red), maximum (green), and average (black) wind speed with percentile bands (inner band from 25th to 75th percentile, outer band from 10th to 90th percentile). Reference: <http://www.weatherspark.com>.

7. Public Services

Table 29 summarizes the responsible agencies for public services at each site.

**Table 29
Agencies Responsible for Providing Public Services at Each Site**

Service	Responsible Agency		
	Pomona	Technology Court	Iowa Avenue
Police	<ul style="list-style-type: none"> • Cal Poly Pomona University Police • Los Angeles County Sheriff’s Department • City of Pomona Police Department • California Highway Patrol 	<ul style="list-style-type: none"> • City of Riverside Police Department 	<ul style="list-style-type: none"> • UCR Police Department • City of Riverside Police Department
Fire	<ul style="list-style-type: none"> • Los Angeles County Fire Department 	<ul style="list-style-type: none"> • City of Riverside Fire Department 	<ul style="list-style-type: none"> • UCR Fire Department • City of Riverside Fire Department
General Services	<ul style="list-style-type: none"> • City of Pomona 	<ul style="list-style-type: none"> • City of Riverside • County of Riverside 	<ul style="list-style-type: none"> • City of Riverside • County of Riverside
Parks	<ul style="list-style-type: none"> • City of Pomona Community Services – Parks and Recreation • County of Los Angeles, Department of Parks and Recreation 	<ul style="list-style-type: none"> • City of Riverside Parks, Recreation and Community Services • Riverside County Regional Park and Open Space • Riverside Corona Resource Conservation District 	<ul style="list-style-type: none"> • City of Riverside Parks, Recreation and Community Services • Riverside County Regional Park and Open Space • Riverside Corona Resource Conservation District
Education	<ul style="list-style-type: none"> • Pomona Unified School District • California Polytechnic University, Pomona 	<ul style="list-style-type: none"> • Riverside County Office of Education • Riverside Unified School District • Riverside City Community College • University of California, Riverside 	<ul style="list-style-type: none"> • Riverside County Office of Education • Riverside Unified School District • Riverside City Community College • University of California, Riverside
Water Service	<ul style="list-style-type: none"> • City of Pomona • Three Valleys Municipal Water District 	<ul style="list-style-type: none"> • Riverside Public Utilities • Western Municipal Water District 	<ul style="list-style-type: none"> • Riverside Public Utilities • Western Municipal Water District
Sewer	<ul style="list-style-type: none"> • City of Pomona 	<ul style="list-style-type: none"> • Riverside Public Utilities 	<ul style="list-style-type: none"> • Riverside Public Utilities
Electrical Service	<ul style="list-style-type: none"> • Southern California Edison 	<ul style="list-style-type: none"> • Riverside Public Utilities 	<ul style="list-style-type: none"> • Riverside Public Utilities
Gas	<ul style="list-style-type: none"> • Southern California Gas Company 	<ul style="list-style-type: none"> • Southern California Gas Company 	<ul style="list-style-type: none"> • Southern California Gas Company

I. Security

For all three sites, a police and fire services evaluation should be prepared to determine if additional funding is necessary to support additional police and fire facilities or services.

The design and development of the facility would incorporate comprehensive safety and security measures, including: alarm systems, safety and security lighting, and other safety features as agreed upon with police and fire officials. The facility would also be required to provide access for all emergency vehicles. Fire safety features include smoke detectors, full sprinkler systems, and fire lines and hydrants with appropriate water flows. ARB also expects to provide security for test vehicles and contract for onsite security for staff and property as it does now.

As part of the analysis, ARB evaluated available crime statistics. The first analysis was based on the cities of Pomona and Riverside. Note that the population for Pomona in 2013 was 151,348.⁴⁵ The population for Riverside in 2013 was 316,619.⁴⁶ Therefore, Table 30 provides data on crime type per 100,000 people. The data was extracted from city-data.com, which uses data reported to the U. S Department of Justice as part of its Uniform Crime Reporting Statistics program.

Table 30
Summary of Crime Statistics for the Cities of Pomona and Riverside

Rate of Particular Crime Type	Pomona				Riverside			
	2010	2011	2012	2013	2010	2011	2012	2013
Violent Crimes - (Rates per 100,000 people)								
Murders	10.5	7.3	11.2	19.2	3.0	4.2	5.1	3.2
Rapes	24.2	35.8	41.6	20.5	25.8	18.5	24.2	24.7
Robberies	211.6	224.8	248.8	194.9	166.3	149.0	164.9	156.4
Assaults	328.2	346.8	372.3	299.9	284.6	254.4	248.8	236.1
Burglaries	567.9	590.1	594.7	559.6	685.1	676.5	716.7	625.1
Thefts	1,575.9	1,709.4	2,009.1	1,711.7	2,131.5	2,042.0	2,262.9	2,184.4
Auto Thefts	806.3	647.2	732.6	631.6	484.0	414.1	470.8	542.9
Arson	10.5	11.3	12.5	11.2	16.2	15.9	20.7	23.7
city-data.com Crime index¹	351.1	356.0	401.8	345.4	316.0	290.8	317.8	305.0

¹ A higher value means more crime; U.S. Average = 294.7

The Pomona and Riverside statistics represent general crime data for the two cities and provide a relative indication of crime in the region. However, the data may not represent crime activity near the specific sites. To evaluate the relative crime near the

⁴⁵ Reference: <http://www.city-data.com/city/Pomona-California.html>.

⁴⁶ Reference: <http://www.city-data.com/city/Riverside-California.html>.

three sites, ARB used the Sperling’s Best Places website.⁴⁷ This website provides a variety of statistics on cities and communities. The data is based on the Uniform Crime Reporting Statistics maintained by the U.S. Department of Justice. Sperling’s website calculates a value between 1 and 100 for both violent crime and property crime. A lower value indicates less crime. Violent crime is composed of four offenses: murder and nonnegligent manslaughter, forcible rape, robbery, and aggravated assault. Property crime includes burglary, larceny-theft, motor vehicle theft, and arson. The site presents data for both zip codes and cities. Table 31 presents the results of this analysis for the zip codes where the facilities would be located, as well as for the cities.

Table 31
Evaluation of Crime Based on Zip Codes for Pomona and Riverside
Source: Sperling’s Best Places

Location	Zip Code	Population	Value by Crime Type (Lower Number Means Less Crime)	
			Violent Crime	Property Crime
Pomona	91768	36,200	57.8	51.1
Riverside	92507	53,800	71.5	73.4
City of Pomona		306,100	63.4	47.6
City of Riverside		149,400	59.8	50.8
United States		318,900,000	41.4	43.5

J. Neighborhood Character and Immediate Surroundings

The neighborhood character and immediate surroundings attributes provide a description of the site’s ambiance, the surroundings, and the overall dynamics of each city associated with the site. Neighborhood character and immediate surroundings attributes are listed below:

- Compatibility with proposed facility;
- Favorable/unfavorable surroundings;
- Improving/declining neighborhood;
- Demographics;
- Median housing value;
- Site visibility; and
- Cost of living.

⁴⁷ Reference: <http://www.bestplaces.net>.

1. Compatibility of the Proposed Facility with the Surroundings

ARB evaluated the compatibility of the surrounding areas while considering the presence of our operations and how activities relative to work processes may affect sensitive receptors in the immediate area. Sensitive receptors include residential areas surrounding the facility, schools, churches, hospitals, day care facilities, and elderly care facilities. Additional considerations include general access areas such as roadways, intersections, sidewalks, parking lots, and vacant and/or occupied lots. ARB expects that the testing and research would not contribute substantial additional amounts of emissions into the surrounding area beyond the levels currently being emitted from vehicles. ARB expects the most substantial change would likely be the amount of vehicle use associated with the increase in staff commute driving distances.

The Pomona site is surrounded by multi-use properties. ARB would develop a portion of the property towards the north end of the property. Cal Poly Pomona has indicated that about 70 acres of the property will continue to be made available to the College of Agriculture for at least the next five years; the rest will be used according to a Master Plan that is under development. Across Pomona Boulevard and before it intersects with Valley Boulevard, there are light industrial and commercial businesses. At the point Pomona and Valley Boulevards intersect and traveling south along Valley Boulevard, there are mobile home parks that span about 0.3 miles. This is a continuation of mobile home parks that start north of the intersection point; combined, the mobile home parks cover about 48 acres. The exact number of mobile homes and occupants are unknown.

The former Lanterman Development Center is adjacent to the southeast boundary of the property. There are additional residential areas located to the south, southeast, and southwest. A Badminton Club and other large buildings that house a variety of businesses are further north along Pomona Boulevard. A combination of commercial, light industrial, and warehouse businesses are southwest of the property along Valley Boulevard.

The Technology Court site is located within the University Research Park area. Commercial, light industrial, and warehouses are to the west and north of the property. Vacant land is located to the northeast, east, and south of the property. Further south in the direction of the UCR campus are residential areas. Another residential area is under development and will be located to the northeast of the property.

The Iowa Avenue site is located west of the UCR campus and is surrounded by multi-use properties and agricultural land. ARB would develop a portion of the property on the north side, adjacent to Iowa Avenue. According to UCR, the land surrounding the ARB property is slated for campus development. There are residential areas and a variety of businesses located to the north and west. UCR will continue to use agricultural land to the south of the property for research.

According to information provided by Pomona and Riverside representatives, ARB's facility would be compatible in any of the settings described above. ARB will take care

during the design process to ensure the facility is visually complementary to the site's respective surroundings while also meeting program needs that include the safety and security of staff and property.

2. *Favorable/unfavorable Surroundings*

Surroundings favorable to the Pomona site include its proximity to a college campus, access to a variety of amenities and eateries, and location within a Southern California Association of Governments (SCAG)-defined High Quality Transit Area Transportation Priority Project boundary.⁴⁸ However, it does not appear that the entire Innovation Village II site is within the priority plan, but the proposed site does appear to be within the boundary. Surroundings that would be deemed unfavorable include the proximity of railways, nearby landfill, nearby residences, and active agricultural land.

Surroundings favorable to the Technology Court site include its proximity to UCR's Center for Environmental Research and Technology (CE-CERT). The site is slightly outside of the boundary in SCAG's HQTAs Transportation Priority Project 2035 Plan, but it is expected to be included in the future as public transit options become established. Surroundings that would be deemed unfavorable include the remote location and the inability to access amenities without the use of a vehicle.

Surroundings favorable to the Iowa site are its proximity to a university campus, access to a variety of amenities and eateries, and location within SCAG's High Quality Transit Area Transportation Priority Project 2035 Plan. Surroundings that would be deemed unfavorable include the proximity of housing units and agricultural land used for research purposes.

3. *Improving/declining neighborhood*

None of the sites are located in declining neighborhoods. The Pomona site is expected to benefit by the future redevelopment of the former Lanterman Development Center, the Technology Court site is expected to benefit with the development of a master-planned Spring Mountain Ranch community nearby, and the Iowa Avenue site is expected to benefit by the future development of the acreage surrounding the proposed ARB site and the development of University Avenue.

⁴⁸ SCAG HQTAs areas for all sites: http://maps.scag.ca.gov/web/Ex_4.9_transit_tpp_08_35altb.jpg

4. *Demographics*

Based on the population within the associated zip codes for each site, the following demographics were collected: median household income, home ownership, average family size, and educational attainment.⁴⁹ Table 32 presents the results.

Table 32
Area Demographics

Metric	Demographics	
	91768 – Pomona	92507 - Riverside
Median Household Income	\$46,132	\$39,239
Home Ownership	49.7%	29.6%
Educational Attainment (BA/AA)	11%	19%
Average Family Size	4	4

5. *Median Housing Value*

Table 33 below shows the median housing values of multiple property types (e.g. single family residence and condominium); however, it should be noted the values do not take into consideration the square footage of a home or lot size.⁵⁰

Table 33
Median Housing Values

Property Type	Median Housing Values	
	91768 – Pomona	92507 - Riverside
Overall market	\$329,000	\$281,300
3 Bedroom Single Family Residence	\$332,000	\$290,000
4 Bedroom Single Family Residence	\$331,000	\$355,000
Condominium	\$306,000	No data available

⁴⁹ Demographic data collected through <http://California.hometownlocator.com>

⁵⁰ Median housing values collected through <http://zillow.com>.

6. Site Visibility

Depending upon design and orientation, a portion of ARB's facility will likely be visible from various directions. For the Pomona site, it would be likely be visible from Pomona Boulevard and/or the Lanterman property. For the Technology Court site, it would likely be visible from Research Park Drive, Technology Court, Marlborough Avenue, and from the Box Springs Mountain Reserve/Park. For the Iowa Avenue site, it would likely be visible from Iowa, University, and Chicago Avenues. Regardless of the site selected, the design of the buildings is expected to complement the surrounding area.

7. Cost of Living

Table 34 below shows the estimated cost of living for each area based on a State baseline.⁵¹ The State's cost of living baseline is 136 and considers the cost of groceries, health care, housing, utilities, transportation, and miscellaneous expenses (e.g. clothing, restaurants, repairs, entertainment, and other services).

Table 34
Cost of Living

Cost of Living Index	
91768 – Pomona	92507 - Riverside
119	117

The cost of living for Riverside is 1.6% less expensive than Pomona.

K. Staff Amenities and Diverse Uses

The staff amenities/diverse uses attributes provide information about the availability of staff amenities and the diverse needs of various services that staff may seek on a daily or weekly basis. Staff amenities/diverse uses attributes are listed below:

- Restaurants;
- Supermarket/grocery with produce section;
- Child care;
- Exercise facilities;
- Recreational opportunities; and
- Personal services (e.g., banking, post office, hair care salons, dry cleaner, medical clinic, public library, public park, etc.)

The Owen Group and ARB used a variety of resources to assess the availability of amenities. Additional details are provided in the section on LEED Certification.

⁵¹ State cost of living data collected from <http://www.areavibes.com/cost-of-living-calculator/pomona,+ca-vs-riverside,+ca/>.

1. Restaurants

The Pomona site and the Iowa Avenue site are in close proximity to eateries and restaurants; there is an array of options within reasonable walking distance. In general, the Iowa Avenue site has more restaurant options. The Technology Court site is over one mile away from the nearest eatery.

2. Supermarket/Grocery with Produce Section

The Pomona site and the Iowa Avenue site are in close proximity to supermarket/grocery stores with a produce section; stores are approximately one and 0.5 miles away, respectively. The Technology Court site is approximately two miles away from the nearest supermarket; however, due to the development of a large housing development (Spring Mountain Ranch) within a mile from the site, there are plans to construct a supermarket in closer proximity to the site.

3. Childcare

Both Cal Poly Pomona and UCR operate child development centers. The Pomona site is estimated to be less than one mile away, the Iowa Avenue site is approximately 1.5 miles away, and the Technology Court site is approximately 2.3 miles away. Cal Poly Pomona has indicated that there is a potential to include a new child development center as part of the retail development under consideration for the Innovation Village II site.

The Pomona site is within a three-mile radius of six public elementary schools and one public middle school; the Riverside sites are within a three-mile radius of three public elementary schools and one public middle school.

4. Exercise facilities

All sites are in reasonable proximity to private exercise facilities. Additionally, Cal Poly Pomona and UCR offer gym and recreational facilities for the same fee structure that is offered to their faculty. While both facilities are exceptional, they are also relatively expensive compared to the private facilities.

5. Recreational opportunities

There are numerous recreational opportunities available in the vicinity of all sites. Opportunities in or around the Riverside sites include a variety of museums (International Auto Museum, March Field Air Museum, Mission Inn Museum, and Riverside Art Museum), Mount Rubidoux Park, Fox Performing Arts Center, Castle Park Amusement Center, UCR Botanic Gardens, and a variety of other arts and cultural events such as ballet, Italian Street Festival, and Family Village Festival.

Recreational opportunities in the vicinity of the Pomona site include several movie theaters, drive-in movie, and a bowling alley. Additional activities include a variety of museums (NHRA Motorsports, Ceramic Art, and Train), Pomona Raceway, and the Second Street Promenade.

Both campuses offer events that include, but are not limited to concerts, sporting events, guest lectures, performing arts, exhibits, and other special events. Recreational opportunities that are common to all sites include nearby parks and walking paths.

6. *Personal services (e.g., banking, post office, hair care salons, dry cleaner, medical clinic, public library, public park, etc.)*

The Pomona site and the Iowa Avenue site are in close proximity to a wide array of businesses and public service agencies that offer a wide assortment of personal services; several personal services can be reached without the use of a vehicle. The Technology Court site is more remote and would likely require use of a vehicle.

There are many personal services surrounding the Iowa Avenue site. In addition, development plans for University Avenue should improve the amenities and surrounding area in the future. The development of the additional 80 acres will also create opportunities for diverse uses, as well as create a campus-like setting. There are also personal services around the Pomona site, but not as many as the Iowa Avenue site. Cal Poly Pomona is considering the addition of an 11-acre retail center adjacent to the proposed facility. Furthermore, the long-term development of the remaining 30 acres on Innovation Village and the 250-acre Lanterman Development Center provide for an interesting future potential for improved diverse uses.

L. LEED Certification – Points Related to Site Selection

One objective of this project is to achieve the highest level of LEED (Leadership in Energy and Environmental Design) certification, specifically LEED Platinum. There are several categories of LEED points that are related to siting. Most of the points for LEED certification cannot be specifically determined until the final site is secured and the facility is built. However, there are several categories of LEED points that are related to site selection. DGS contracted with the Owen Group to evaluate potential points possible for each site under consideration. The Owen Group's detailed analysis is provided on ARB's website and summarized in this section.

To achieve LEED Platinum, the project must achieve 80 or more points out of a possible 110 points. The 110 points are derived from the categories listed in Table 35.

Table 35
LEED Categories and Associated Points

Category	Points
Integrative Process	1
Location and Transportation	16
Sustainable Sites	10
Water Efficiency	11
Energy and Atmosphere	33
Materials and Resources	13
Indoor Environmental Quality	16
Innovation	6
Regional Priority	4
Total Points Possible	110

Within each category, there are specific credits listed and requirements that must be met to earn points for each credit. More than one-quarter of the 80 points needed to achieve LEED Platinum certification are related to site selection. In conducting an evaluation, the Owens Group looked at specific credits within the following four general categories where points can be achieved based on site selection. These categories are:

- Location and Transportation (LT);
- Sustainable Sites (SS);
- Materials and Resources (MR); and
- Regional Priority (RP).

Table 36 summarizes the points that can be achieved in each of the identified categories.

**Table 36
LEED Points Achievable at Each of the Three Sites**

Category	Maximum Points Available	Possible Points		
		Pomona #1 Pomona Blvd	Riverside #1 Technology Court	Riverside #2 Iowa Avenue
Location and Transportation				
Neighborhood Development Location	0	0	0	0
Sensitive Land Protection	1	1	1	0
High Priority Site	2	0	0	0
Surrounding Density and Diverse Uses	5	2	3	2
Access to Quality Transit	5	2	0	2
Bicycle Facilities	1	1	1	1
Sustainable Sites				
Site Development-Protect or Restore Habitat	2	2	2	2
Open Space	1	1	1	1
Materials and Resource				
Building Life-Cycle Impact Reduction	5	0	0	0
Regional Priority				
Surrounding Density and Diverse Uses (Pomona) ¹	2	0	N/A	N/A
Surrounding Density and Diverse Uses (Pomona) ¹	1		1	1
Total Pomona	24	9		
Total Riverside	23		9	9

¹ For Regional Priority (RP), the maximum points shown in this table only represent the options available to the site selection categories. LEED provides six options to earn a maximum of four (4) points for the Regional Priority (RP) credit. The project may still be able achieve the maximum allowable points even if the options related to site selection cannot earn the points.

Based on the Owen Group analysis and ARB staff review, all three sites may achieve an equal number of possible LEED points (9 points) for site selection.

M. Zero Net Energy Analysis

Another objective of the project is to evaluate and achieve Zero Net Energy (ZNE) performance if at all feasible. The Owen Group evaluated the potential for achieving ZNE at the three sites. DGS also contracted with the IBI Group (IBI) to evaluate the feasibility and potential cost of achieving ZNE performance at the facility. This report is undergoing final review. However, the IBI study identified several design features to maximize energy efficiency and the need to incorporate photovoltaic (PV) panels into the design of the project to achieve ZNE. In addition, the IBI study identified the need for approximately seven additional acres (21 acres total) to support PV installation. Under contract to DGS, the Owen Group evaluated a number of attributes associated with ZNE. To incorporate geothermal ground source heat pumps, local conditions and available land must support the installation. The Owen Group report is provided on ARB's website and summarized in Table 37.

Table 37
Analysis of Site-Related Attributes to Support Zero Net Energy Performance

Attribute Category	Pomona #1 Pomona Blvd	Riverside #1 Technology Court	Riverside #2 Iowa Avenue
Temperate local climate: <ul style="list-style-type: none"> • Average summer temperature not to exceed high of 85°F. • Average winter temperature not to drop below 40° F. 	The site does not qualify as a temperate local climate. Design considerations need to be incorporated to account for higher temperatures.	The site does not qualify as a temperate local climate. Design considerations need to be incorporated to account for higher temperatures.	The site does not qualify as a temperate local climate. Design considerations need to be incorporated to account for higher temperatures.
Wind Resources <ul style="list-style-type: none"> • Local avg wind speed greater than 12 mph 	The avg wind speed is approximately 6 mph; therefore, wind turbines not likely feasible.	The avg wind speed is approximately 5 mph; therefore, wind turbines not likely feasible.	The avg wind speed is approximately 5 mph; therefore, wind turbines not likely feasible.
Good Solar Access	Located in a relatively flat location; mountains not an issue. Site design process to address any other potential issues.	Located adjacent to mountain to the southeast, but should not affect efficiency; Site design process to address other potential issues.	Located in a relatively flat location; mountains not an issue. Site design process to address other issues.
Sufficiently East-West Lot Line	Address east-west orientation during site design process.	Address east-west orientation during site design process.	Address east-west orientation during site design process.
Rectangular in Shape and Level	Project site is relatively flat and rectangular; site design process must identify any issue associated with exact site layout.	Property slopes east to west and irregular in shape. Site layout must be further researched in site design process, along with any other potential issues.	Project site is relatively flat and rectangular; site design process must identify any issue associated with exact site layout.
Adequate Local Conditions for Local Ground Source Heat Pump Resources	Specific study recommended to evaluate geological conditions available.	Specific study recommended to evaluate geological conditions available.	Specific study recommended to evaluate geological conditions available.
Close Proximity to Biofuel Facility/ Biodigester to support fuel cell.	Closed Spadra landfill within one mile of site. Unknown potential for use of biofuel.	No known nearby source of biofuel.	No known nearby source of biofuel.

Based on the analysis, there are not a lot of significant differences between the sites.

N. Alternative Fueling

In accordance with ARB’s mission of reducing air pollution and promoting the use of non-traditional combustion vehicles, the availability of alternative fuels for use by staff for personal vehicles as well as ARB’s fleet was taken into consideration when

evaluating each site.⁵² Types of alternative fueling include biodiesel, compressed natural gas (CNG), Ethanol-E85, hydrogen, Liquefied Natural Gas (LNG), and Liquefied Petroleum Gas (Propane). While the project is being planned to include on-site electrical vehicle (EV) charging stations, the proximity of existing EV chargers was also explored.

All the sites were found to have some amount of access to alternative fueling options. The Pomona site is approximately 10 miles away from all types of alternative fueling options with the exception of LNG. LNG fueling options are estimated to be approximately 13 miles away. Since the Riverside sites are relatively close to one another, fueling options are common to both sites. The sites are approximately 10 miles away from all types of alternative fueling options with the exception of biodiesel and hydrogen. Biodiesel fueling options are estimated to be approximately 14 miles away and a hydrogen station is approximately 28 miles away.

There are several types of EV charging stations that include Level I, Level II, and DC Fast Chargers (DCFC). Similarly, all the sites were found to have some amount of access to the three types of EV charging. The Pomona site is approximately three, one, and three miles away from each type of EV charging station, respectively. The Riverside sites are approximately 2, 0.5, and 7 miles away from each type of EV charging station, respectively. All sites have very good resources for supporting electric vehicles.

⁵² Location of alternative fueling stations: <http://www.afdc.energy.gov>.

V. OTHER SITE SELECTION CONSIDERATIONS

A. Cal Poly Pomona Agriculture Student Concerns

At the October 29, 2015, formal presentations by Cal Poly Pomona to the ARB/DGS management and staff, several Cal Poly Pomona College of Agriculture students expressed concerns about the siting of the ARB facility on the Innovation Village II property. Apparently, they were not aware of the development plans for the property, which they refer to as Spadra Farms. The entire property is currently used as an educational farm for the students. At the formal presentation, the Cal Poly Pomona representatives suggested several locations on the property that basically were in the middle of the property.

Subsequent to the meeting, ARB requested that Cal Poly Pomona consider alternative sites. As discussed in Chapter II, Cal Poly Pomona suggested two alternatives; one site on the former Lanterman Development Center and one site that was on the northeastern corner of the property. This latter site became the basis for the site evaluations. Cal Poly Pomona representatives have indicated that the College of Agriculture will be able to use 70 acres on the Innovation Village II site for the next five years while the university develops an academic strategic plan.

ARB understands that the students believe that there has been poor communication about the long-term development of the property. ARB has been in contact with the students on an ongoing basis and has provided background information on the project and the process. If the Pomona site is selected, ARB is committed to continuing to work with Cal Poly Pomona and the students on opportunities for coordinated program development.

B. Potential University Collaborations

UCR has more of a research focus than does Cal Poly Pomona. UCR has masters and doctoral programs in many of the fields relevant to ARB and has a new medical school. Cal Poly Pomona offers masters degree programs in many of the fields relevant to ARB. ARB has provided over \$5 million in research contracts to UCR in the last five years. In fact, the Board just approved a \$500,000 research contract with UCR entitled "Heavy-duty On-Road Vehicle Inspection and Maintenance Program."⁵³ ARB has not issued any research contracts for any type of scientific research to Cal Poly Pomona in the last five years. However, the fact that ARB contracts with UCR for research is not a reason to select one site over another. ARB will continue to contract with the universities that provide the best value to the State.

ARB management closely considered the issue of whether proximity to a university is critical to the development of intellectual partnerships and decided it is not critical. For example, ARB is in the early planning stages of establishing an intellectual partnership

⁵³ ARB Resolution 16-1; Heavy-Duty On-Road Vehicle Inspection and Maintenance Program, Research Proposal Number 2799-284, dated January 21, 2016.

on emissions testing that will involve national and international experts in the field of engine and vehicle emissions testing and research. The purpose of the partnership would be to help guide not only the design of the new facility, but eventually its use and operation. This broader approach strengthens our relationships with the emissions testing community and helps guide our efforts not only on our current needs, but on the future needs to meet critical and evolving air quality and climate change goals.

However, proximity to a university does allow for convenient collaborations. These opportunities are win-win propositions that can assist ARB in addressing a wide range of challenging policy and technical issues and provide unique experiences for university faculty and staff. Examples of collaborative opportunities include student internships, student mentoring, public policy forums, curriculum development, and convenient education and teaching opportunities for ARB staff. In addition, there are specific educational collaborative opportunities in a variety of programs, including agriculture, engineering and engineering technology, chemistry, landscape architecture, and urban and regional planning.

The following list highlights just a few examples of potential opportunities that are specific to educational programs. Faculty and students would have the opportunity to observe and participate in these programs.

- Agricultural Education. ARB has worked with agriculture for many years on addressing air quality and climate change issues. As the State focuses on the need to further reduce air pollution and climate change emissions, efforts to work with the agricultural community to develop economically-robust and innovative mitigation strategies will be paramount. The new facility provides a unique opportunity to evaluate the emissions-related issues associated with agricultural equipment and practices. Field studies that involve emissions testing on large off-road agricultural equipment using portable emissions measurement systems would be invaluable in helping students understand emissions issues. Other opportunities include assessing short-lived climate pollutants, such as reducing methane from dairies and wastewater treatment, evaluating potential agricultural compliance offset protocols for greenhouse gases, and conducting field studies on agricultural practices that minimize emissions.
- Engineering and Engineering Technology. The basis for ARB's motor vehicle regulatory programs has been the engineering evaluation of potential engine redesigns and control technology evaluations. The new facility will continue this tradition of innovation.
- Chemistry. ARB conducts virtually all of its own analysis of the chemical constituents for the emissions. In this effort, ARB has developed many new analytical techniques and uses sophisticated analytical equipment.
- Landscape Architecture. ARB expects to achieve LEED Platinum certification of its new facility. Therefore, ARB will be assessing water use and landscaping that

maximizes the potential for LEED points. Facility design and development provides an opportunity to track the real-life construction of a large building.

- Urban and Regional Planning. ARB is the lead agency for the implementation of Senate Bill (SB) 375, the Sustainable Communities and Climate Protection Act of 2008. SB 375 supports the State's climate action goals to reduce greenhouse gas emissions through coordinated transportation and land use planning with the goal of more sustainable communities. In addition to policy considerations, example collaborative opportunities include monitored field studies to assess driver behavior.

In summary, UCR provides potential for a higher level of collaboration on research-studies, whereas Cal Poly Pomona provides a more hands-on approach. Both have value to ARB. ARB staff will continue to issue research contracts to the universities and entities that provide the best value to the State. Furthermore, ARB expects to continue its long association with UCR regardless of the site selected.

C. South Coast AQMD Proposed Endowment

In September 2015, the South Coast AQMD approved a proposed endowment for the UCR's Center for Environmental Research and Technology (CE-CERT) if ARB selected Riverside as the site for the new facility.⁵⁴ The endowment was in the amount of \$1 million. The funds originated from an enforcement action settlement with a Southern California refinery. According to information provided by UCR, the funds would be used to develop a training and research program for ARB and South Coast AQMD staff. The Air Quality and Climate Research Training (ACT) Program would provide basic-to-advanced courses designed for air quality professionals. The interdisciplinary courses would cover six areas:

- Emissions and Air Quality;
- Health Impacts of Air Pollution;
- Climate Change Impacts;
- Sustainable Transportation;
- Improving Policy to Meet Clean Air and Greenhouse Gas Goals; and
- Integrating Renewables into the Grid.

ARB staff supports the intent of the ACT Program to provide continuing education of both South Coast AQMD and ARB staff. Therefore, ARB staff support its implementation regardless of the site selected.

D. Riverside Public Utilities and Southern California Edison incentives

The Riverside Public Utilities (RPU) is the City of Riverside's source of electric power and water and would serve both Riverside sites. There is a potential ongoing cost

⁵⁴ Reference: South Coast Air Quality Management District; SCAQMD Endowment to UCR and the October 29, 2105 formal presentation to ARB. See <http://www.arb.ca.gov/html/socalfacility/socalfacility.htm>.

savings associated with electric power costs. RPU recently reported that the electric rates are 19 percent less than Southern California Edison.⁵⁵ The cost savings would depend on the distribution of gas and electricity use at the new facility so the exact savings are uncertain. Using estimates of the electricity consumption for the new facility, RPU estimated that the facility would save approximately \$275,000 per year in electricity costs. In addition, RPU provides incentives for new construction energy efficiency rebate programs, custom energy technology grants, and commercial photovoltaic incentive programs.⁵⁶ These incentive programs benefits may be as high as \$335,000. Therefore, RPU estimates that there may be benefits associated with lower electricity costs and incentive programs in Riverside that would result in first year savings of approximately \$610,000.

Southern California Edison (SCE) participates in the Savings by Design Program. This Program provides incentives for the building owner (\$150,000 maximum) and design team (\$50,000 maximum). Given the sustainability goals of this project, the State anticipates receiving the maximum amount of the Program's incentives. ARB has not investigated other SCE programs that may be equivalent to the RPU programs.

E. ARB Staff Feedback on Potential Site Locations

Prior to the conclusion of the December 17, 2015, Board Meeting, Chair Nichols directed staff to "open up a process whereby employees could make their views on this known" (siting). Staff was given flexibility in how this feedback would be collected.

During the week of January 26, 2016, ARB distributed electronic surveys to El Monte staff. The staff was asked to provide information about the importance of site attributes, commute information, and additional information including their vision of ARB's future and any additional feedback they would like considered. In total, 274 responses were submitted by February 4, 2016.

Approximately 85 percent of the respondents preferred the Pomona site. The reasons given for this preference were generally based on commute distance. However, the staff also expressed concerns about the impact that a move to Riverside would have not only on their personal life, but also their work. Staff gave thought to the ability to complete field and outreach tasks within a day versus overnight as well as the impact of proximity to ports, major railroads, cold storage facilities, truck stops, refineries, scales, manufacturers, and airports for international visitors. On a personal level, staff shared concerns about how a longer commute to Riverside would impact their families with respect to the needs of their significant other, childcare and schools, community ties, and responsibilities associated with other personal commitments such as the care of a parent.

⁵⁵ Reference: <http://www.riversideca.gov/utilities/pdf/2015/Board-Update-Meeting-Summary-12-18-2015.pdf>

⁵⁶ Riverside Proposal entitled "Air Resources Board Southern California Consolidation Project", Response to Department of General Services Solicitation 136676, April 23, 2015.

Of fifteen attributes, the staff identified the three most important attributes as proximity to current residence (73 percent), the availability of quality transit to/from work (56 percent), and neighborhood surroundings and site aesthetics (46 percent). These responses are symbolic of the value staff has for their role in improving air quality, not only in a work capacity but their personal lives as well. The staff identified the three least desirable attributes as access to higher education Ph.D. courses (9 percent), the opportunity to teach higher education courses (4 percent), and the opportunity for adjunct professor positions (3 percent).

The remaining 15 percent of the respondents either preferred the Riverside sites (10 percent), or expressed no preference (five percent). In the comments, Riverside was recognized for the availability of affordable new housing nearby, educational opportunities at the university, a less dense population, and a smaller number of freeways nearby. The staff recognized that the facility is expected to serve California many decades into the future, but commented that the facility will only perform as well as the staff the agency attracts. Some respondents noted that siting in Pomona would likely allow ARB to select from a larger candidate pool because it is in closer proximity to the Los Angeles area.

VI. SUMMARY

ARB and DGS developed detailed information on three sites; one in Pomona and two in Riverside. To assist in this evaluation, DGS contracted with four specialized contractors. These contractors provided preliminary information to support the environmental, geotechnical, LEED, and ZNE analyses. The information is not designed to replace any necessary environmental review that will be required as part of the CEQA process.

The staff recommendation is based on the Pomona site's advantages relative to supporting ARB's ability to carry out its responsibilities by minimizing travel distance and travel time. To this end, proximity is an important consideration. The location of the Pomona site provides benefits in terms of interactions with stakeholders and facilitates enforcement activities. The proximity to the Los Angeles area minimizes the disruption to ARB staff, allows greater flexibility on where staff chooses to live, provides more flexibility for spouse/partner employment, and may facilitate recruitment and retention of staff in the future. The close proximity to the South Coast AQMD would encourage better coordination on a variety of policy and technical issues.

For these reasons, ARB staff is recommending the Pomona #1-Pomona Boulevard site for the proposed Southern California Consolidation Project.