



5365 Cherry Avenue Opportunities for Learning Charter School

Administrative Draft
Initial Study – Negative Declaration

prepared by
City of Long Beach
333 West Ocean Boulevard, 5th Floor
Long Beach, CA 90802

prepared with the assistance of
Rincon Consultants
706 South Hill Street, Suite 1200
Los Angeles, CA 90014

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Appendix A	Air Quality and Greenhouse Gas Emissions Modeling Results
Appendix B	Noise Measurement Data
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Initial Study

1 Project Title

5365 Cherry Avenue Opportunities for Learning Charter School

2 Lead Agency Name and Address

City of Long Beach
333 West Ocean Boulevard, 5th Floor
Long Beach, California 90802

3 Contact Person and Phone Number

Craig Chalfant, Senior Planner
(562) 570-6368

4 Project Location

The project site is located in the City of Long Beach at the southwest corner of Cherry Avenue and East Market Street at 5365 Cherry Avenue. The Assessor Parcel Number (APN) for the project site is 7129-003-029. Figure 1 shows the regional location of the project site and Figure 2 shows the project location in its neighborhood context.

5 Project Sponsor's Name and Address

Applicant

Opportunities for Learning Charter School
320 N. Halstead St., Suite 220
Pasadena, CA 91107

Owner

Robert Ranaldi, Director
Far West Media Services, Inc.
4140 Norse Way
Long Beach, CA 90808

6 Existing Setting

The project site is currently a shoe store (WSS) and paved parking lot located in the Jackson neighborhood of Long Beach, east of Interstate (I) 710 and south of State Route (SR) 91. The other three corners of the intersection where the project site is located are also developed with commercial uses, including a liquor store, Walgreen's pharmacy, an auto shop, and a couple of fast food vendors (El Pollo Loco and Granny's Donuts). Surrounding uses include residential, commercial, and industrial uses. Figure 3 shows photos of the site and surrounding area.

7 General Plan Designation

The project site currently has two General Plan land use designations. The western portion of the site is designated for mixed styled homes (LUD-2), while the eastern portion of the site is designated for mixed retail/ residential strip (LUD-8R). The applicant is requesting a General Plan amendment for the LUD-2 portion of the site so that the entire site is designated for mixed retail/ residential strip (LUD-8R). Figure 4 shows the existing land use designations for the project site and Figure 5 shows the proposed designation.

8 Zoning

The western portion of the project site is currently zoned Two-Family Residential (R-2-N), while the eastern portion of the site is zoned as Community Commercial Automobile-Oriented (CCA). The applicant is proposing a zone amendment change so that the entire site is zoned CCA. Figure 6 shows the existing zoning and Figure 7 shows the proposed zoning for the project site.

9 Description of Project

The applicant is proposing the lease of a 23,580-square-foot site at 5365 Cherry Avenue to be used as an independent study learning center by the Opportunities for Learning (OFL) Charter School program. The site includes a one-story, 6,804 square-foot commercial building currently being used as a shoe store, and surface parking lots to the west and south of the existing building. The proposed project would retain the existing parking lots and the existing building frame, with modifications to the interior of the building. Table 1 provides a summary of the project components, Figure 8 shows the project site plan, and Figure 9 shows renderings for the project.

The OFL program is a publicly funded charter school that serves grades 7-12 across Central and Southern California. The OFL program is unique in that students attend school for only two 1.5 hour appointments each to receive curriculum from their teachers. Students are required to study and complete coursework independently for 4-6 hours each day and are able to participate in small group instruction classes, take tests, meet with college advisors, and, if needed, receive additional instruction from a tutor at independent study learning centers. Under this educational model, OFL does not provide food service, gyms, playgrounds, or transportation for its students.

The proposed center would serve a maximum of 40-45 students with six teachers and two support staff members. Each teacher serves a maximum of 7-8 students at a time. The OFL center would be open Monday through Friday from 8:00 a.m. to 5:00 p.m., except for lunch hour, which goes from 12:00 p.m. to 1:00 p.m. The OFL centers are also open four Saturdays per year for SAT and CASHEE prep testing from 9:00 a.m. to 12:00 p.m.

Figure 1 Regional Location



Imagery provided by ESRI and its licensors © 2016.



ISMND_Fig1_Reg_Loc

Figure 2 Project Location



Figure 3 Site Photos



Looking south along Cherry Avenue at existing use



Parking lot of existing use

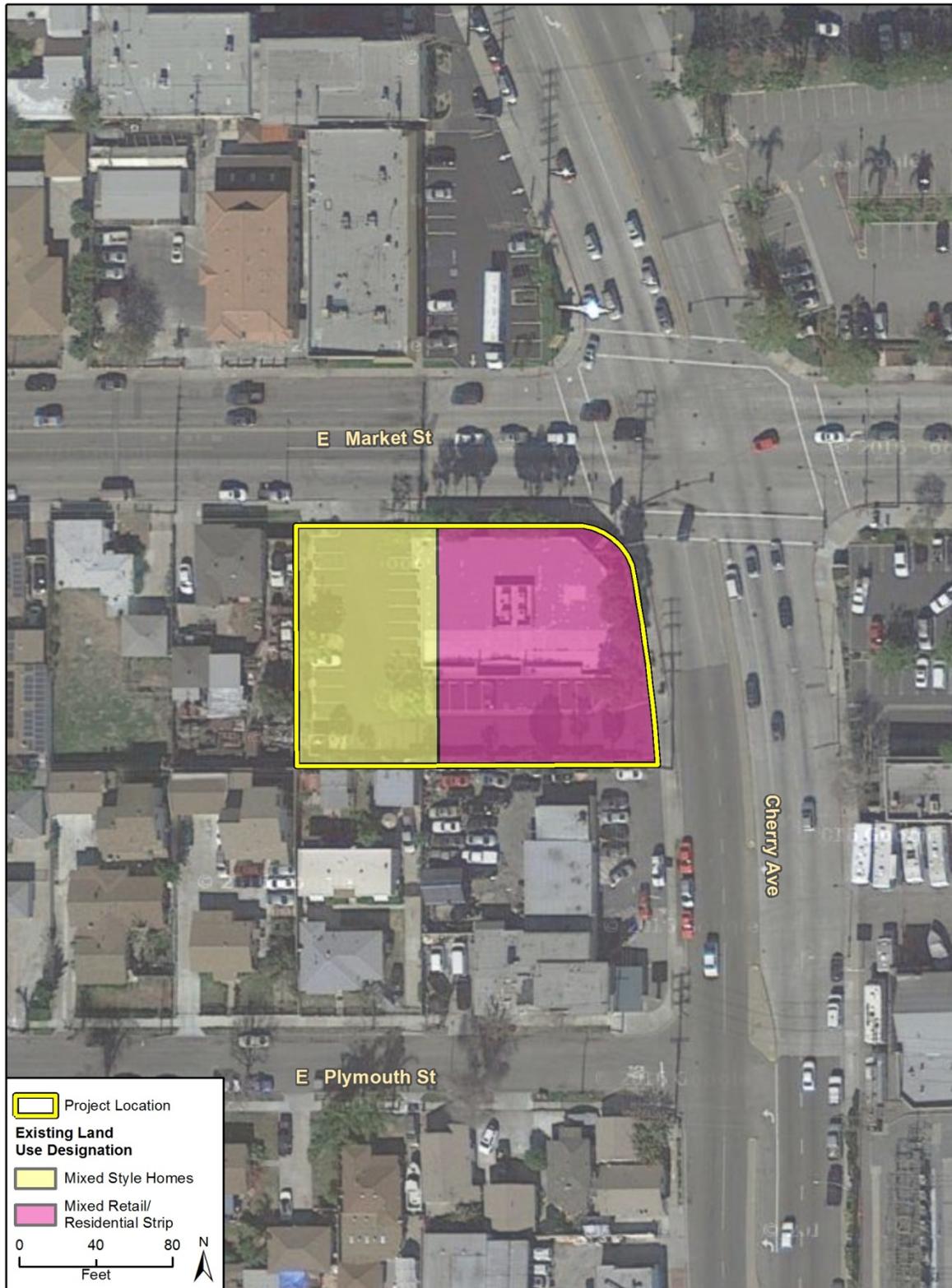


Looking south along Cherry Avenue



Looking west along Market Street

Figure 4 Existing Land Use Designation



Imagery provided by Google and its licensors © 2016.

Figure 5 Proposed Land Use Designation

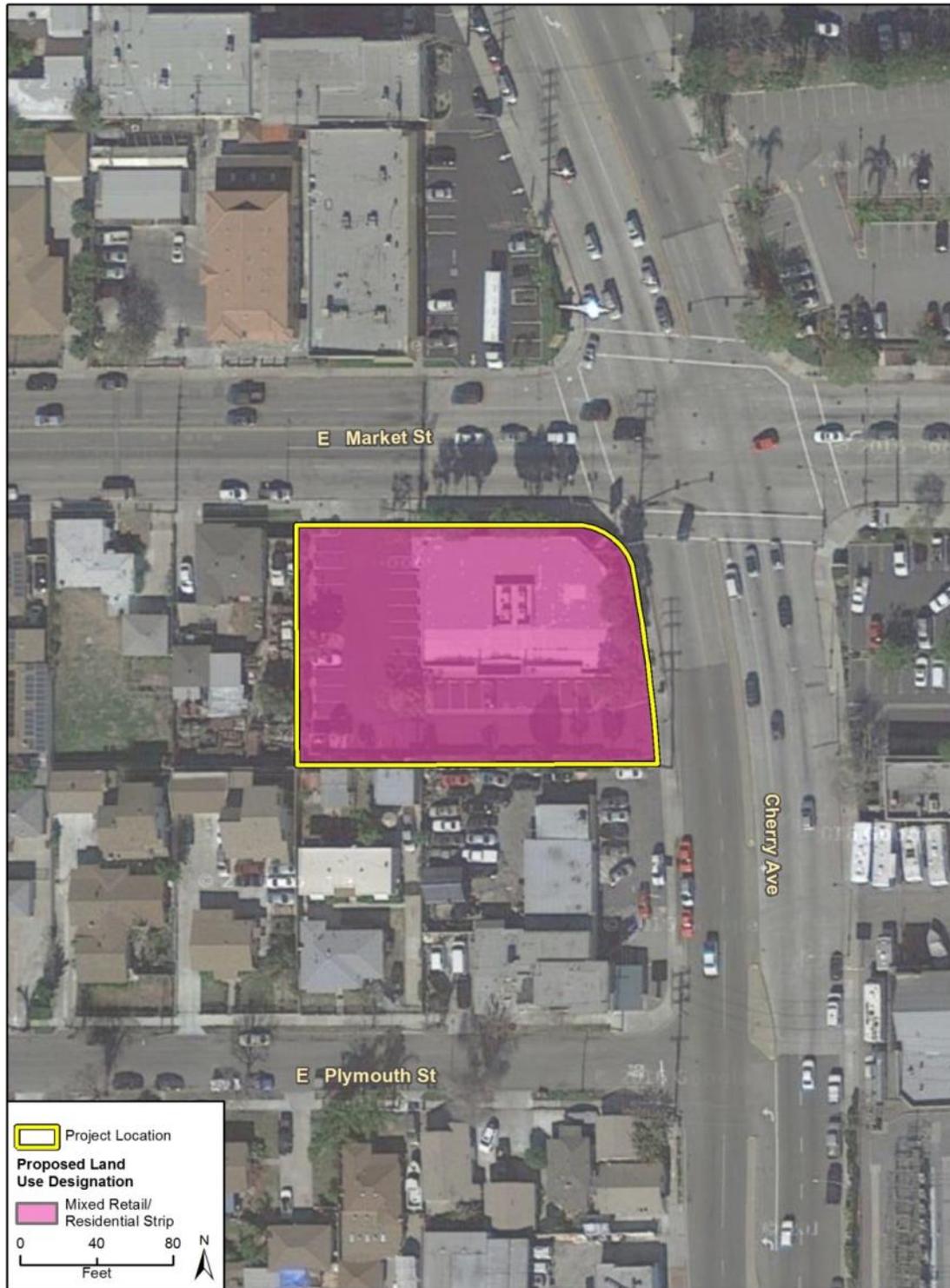


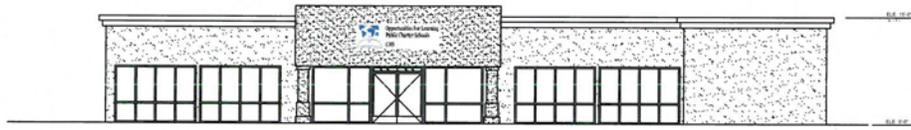
Figure 6 Existing Zoning



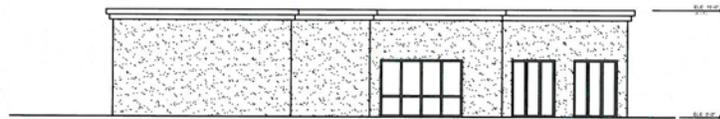
Figure 7 Proposed Zoning



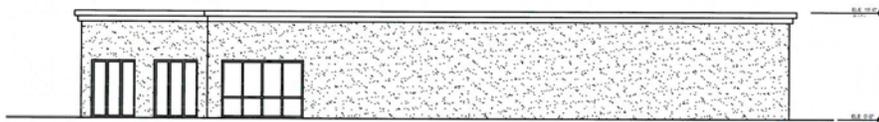
Figure 9 Project Renderings



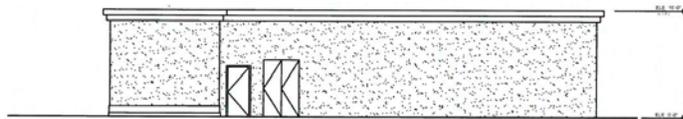
1 North Elevation
Scale: 3/16"=1'-0"



2 West Elevation
Scale: 3/16"=1'-0"



3 South Elevation
Scale: 3/16"=1'-0"



4 East Elevation
Scale: 3/16"=1'-0"

Table 1 Project Summary

Building Area	
Learning Center	6,804 sf
Subtotal	6,804 sf (26.4 % site coverage)
Parking Stalls	
Standard (9'x19')	27 stalls
Handicap (9'x19')	2 stalls
Subtotal	29 stalls 17,376 sf (73.6% site coverage)
Total Site Area	23,580 sf

Modification of the existing commercial space into an OFL center would require interior demolition and construction. Construction work is expected to include the building of new partition walls, flooring, doors, windows, electrical outlets, light fixtures, T-bar ceiling grids, and plumbing fixtures. The project would also be required by the City to provide minor landscape improvements, such as adding new plants and trees, a few minor architectural improvements, and an irrigation system with improved water efficiency.

Access and Parking

Due to its independent learning model, OFL does not provide transportation to its students and the majority of OFL students use public transportation to attend OFL centers. A total of 29 parking stalls are currently planned to serve OFL students, staff, and visitors. Available parking would include two ADA stalls to serve non ambulatory students. The site parking lot would be accessible via two “right-turn only” driveways: one on East Market Street heading east and one on Cherry Avenue, heading south.

10 Required Approvals

The following approvals are required for the proposed development:

- General Plan amendment to designate entire site LUD-8R
- Zone change of eastern portion of site to CCA
- Conditional Use Permit to allow a secondary school in CCA zone

11 Surrounding Land Uses and Setting

Areas surrounding the project site include a mix of residential, commercial, and industrial uses. Immediately to the south of the project site along Cherry Avenue is a mixed use building with an auto body and paint shop and flower shop on the first floor, and residences above. To the west and southwest lie primarily single-family residences. Directly to the north along Cherry Avenue are more commercial uses (e.g., grocery stores, auto shops). Directly to the east along Market Street are public storage units and condominiums. There are railroad tracks one block east of the site and an industrial lot less than a block south of the site. Primarily residential areas are further east of the railroad tracks.

12 Other Public Agencies Whose Approval is Required

The City of Long Beach is the lead agency with responsibility for approving the proposed project. Approval from other public agencies is not required.

13 California Native American Tribe Consultation

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

Consultation has not been requested by California Native American tribes traditionally and culturally affiliated with the project area.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

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

Determination

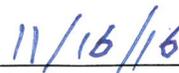
Based on this initial evaluation:

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



Signature


Printed Name



Date


Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Substantial adverse effect on a scenic vista	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Would the project have a substantial adverse effect on a scenic vista?

The project site is located on the southwest corner of Cherry Avenue and East Market Street in an urbanized area of Long Beach. No scenic vistas can be viewed from the project site or scenic vistas that would be obstructed by the project. Additionally, the project would not result in the construction of any new structures, but only the modification of an existing building, which is currently serving as a WSS shoe store. The nearest scenic elements are a couple of small parks located within three blocks of the project site. Cherry Cove Park consists of a small open grass area and a playground, while Biscailluz Park provides an open grass area, baseball fields, a playground, and basketball courts. Neither park is visible from the project site, nor is the project site visible from the parks. There would be no impact to scenic vistas.

NO IMPACT

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

The project site lies within two miles of two highways: I-710 and SR-91. Neither highway is designated a state scenic highway in this area of Los Angeles County and the project site is not visible from either highway. In addition, the project would not affect any trees, rock outcroppings, historic buildings, or other identified scenic resources. Therefore, the project would not result in substantial damage to scenic resources in a state scenic highway and there would be no impact.

NO IMPACT

- c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The project would not result in the demolition of existing structures or the construction of any new structures. Interior construction within the existing building, which is currently used as a shoe store, would primarily consist of interior modifications, such as new wall partitioning, or modest modifications to the architectural design and facade, such as additions of new windows and a new wall color. These changes would not result in any major changes to the visual character or quality of the site.

The project lies on the southwest corner of a commercial intersection that includes a liquor store, Walgreen's pharmacy, an auto shop, and a couple of low-quality food vendors (El Pollo Loco and Granny's Donuts). In light of the existing visual character at the corner of Cherry Avenue and Market Street, and the minor architectural and design modifications that the proposed project would require, the addition of an OFL learning center to the intersection would not degrade the existing visual character or quality of the site or its immediate surroundings. In addition, the project would be required by the City to provide minor landscape improvements, such as adding new plants and trees, and a few minor architectural improvements. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The OFL Charter School program offers an independent learning model where students are required to meet with teachers for only two 1.5-hour sessions each week. Students are expected to study independently for 4-6 hours each day and are provided resources to help them do so at OFL learning centers. Because these centers do not function as schools and students are not required to attend for their independent study hours, OFL centers do not provide the same facilities and services that traditional schools do. Consequently, the proposed project would not include a cafeteria, playground, or gym, and there would be no school buses to transport students. While there is a paved lot on the site that would offer 29 parking spaces to students, staff, and visitors, most students would utilize public transportation to attend the learning center.

Due to the unique nature of the OFL program, the proposed project would not involve many of the light and glare sources generally associated with educational facilities, such as bus headlamps and outdoor lights for gyms, athletic fields, and cafeterias. The primary sources of light would be indoor lighting during the center's hours of operation (Monday-Friday, 8:00 a.m. to 5:00 p.m., as well as four Saturdays per year, 9:00 a.m. to 12:00 p.m.), headlamps from vehicles associated with OFL operation, and outdoor lighting around the building premises. Construction activities to modify the existing building and parking lots may also provide additional sources of indoor lighting, glare from shiny equipment, and headlamp light associated with construction vehicles and worker vehicles.

Impacts to the surrounding areas from the light sources described above would be similar to what currently exists and would be mitigated by a number of factors. Indoor lighting would be dampened by the project's exterior windows, which would be equipped with tint and anti-graffiti film. This is a standard feature of all OFL centers, which strive to provide a safe educational environment for their students (OFL, 2016). In addition, light from vehicle headlamps would be minimal as vehicles would be coming and going from the OFL center primarily during operational hours, which coincide with daytime hours. Similarly, construction activities are prohibited on weekends and from 7 p.m. to 7 a.m. on weekdays and federal holidays, which would reduce impacts from vehicle headlamps and any associated impacts to nighttime views (City of Long Beach Municipal Code Sect. 8.80.202-A).

The light and glare impacts that would be associated with the proposed project would not substantially increase lighting in the surrounding area relative to existing levels. The project site lies in an urban area

on a commercialized intersection that includes a liquor store, Walgreen's pharmacy, an auto shop, and fast-food vendors (El Pollo Loco and Granny's Donuts). Most of these businesses utilize nighttime outdoor security lighting and some of these businesses, such as Walgreens, generates bright indoor lighting at night due to nighttime operation. Because the project site is in an already well-lit, urban environment, and any light sources generated by the project would be restricted as described above, the project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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2 Agriculture and Forest Resources

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

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project have any of the following impacts?

a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use or a Williamson Act contract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

-
- a. Would the project convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
 - b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?
 - c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section

4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

- d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?
- e. Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

There are no agricultural zones or forest lands within Long Beach, which has been fully urbanized for over half a century. Additionally, no agricultural or forest land resources are present on the project site, as it is fully developed as a shoe store (WSS) and paved parking lot. The proposed project would have no impact upon agricultural or forest resources.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Conflict with or obstruct implementation of the applicable air quality plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project site is within the South Coast Air Basin (the Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). As the local air quality management agency, the SCAQMD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether or not the standards are met or exceeded, the Basin is classified as being in “attainment” or “nonattainment.” The health effects associated with criteria pollutants upon which attainment of state and federal air quality standards is measured are described in Table 2.

The Basin is a non-attainment area for the federal standards for ozone, PM_{2.5}, and lead, and the state standards for ozone, PM₁₀, PM_{2.5}, NO₂ and lead. This non-attainment status is a result of several factors, the primary ones being the naturally adverse meteorological conditions that limit the dispersion and diffusion of pollutants, the limited capacity of the local airshed to eliminate air pollutants, and the number, type, and density of emission sources within the Basin.

Because the Basin currently exceeds several state and federal ambient air quality standards, the SCAQMD is required to implement strategies to reduce pollutant levels to recognized acceptable standards. To accomplish this requirement, the SCAQMD has adopted an Air Quality Management Plan (AQMP) that provides a strategy for the attainment of state and federal air quality standards.

Table 2 Health Effects Associated with Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: pulmonary function decrements and localized lung edema in humans and animals, risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Carbon monoxide (CO)	Reduces oxygen delivery leading to: (1) Aggravation of chest pain (angina pectoris) and other aspects of coronary heart disease; (2) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (3) impairment of central nervous system functions; and (4) possible increased risk to fetuses.
Nitrogen dioxide (NO ₂)	(1) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (2) risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (3) contribution to atmospheric discoloration.
Sulfur dioxide (SO ₂)	(1) Bronchoconstriction accompanied by symptoms that may include wheezing, shortness of breath, and chest tightness during exercise or physical activity in persons with asthma.
Suspended particulate matter (PM ₁₀)	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma). ^a
Suspended particulate matter (PM _{2.5})	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma. ¹

¹ More detailed discussions on the health effects associated with exposure to suspended particulate matter can be found in the following documents: Office of Environmental Health Hazard Assessment, Particulate Matter Health Effects and Standard Recommendations, www.oehha.ca.gov/air/toxic_contaminants/PM10notice.html#may, May 9, 2002; and EPA, Air Quality Criteria for Particulate Matter, October 2004.

Source: U.S. EPA 2016

The SCAQMD recommends the use of quantitative thresholds to determine the significance of temporary construction-related pollutant emissions and project operations. These thresholds are shown in Table 3.

Table 3 SCAQMD Air Quality Significance Thresholds

Pollutant	Mass Daily Thresholds	
	Operation Thresholds (lbs/day)	Construction Thresholds (lbs/day)
NOX	55	100
ROG ¹	55	75
PM ₁₀	150	150
PM _{2.5}	55	55
SOX	150	150
CO	550	550
Lead	3	3

¹ Reactive Organic Gases (ROG) are formed during combustion and evaporation of organic solvents. ROG are also referred to as Volatile Organic Compounds (VOC).

Source: SCAQMD 2015.

The SCAQMD has also developed Localized Significance Thresholds (LST). LSTs were devised in response to concerns regarding the exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project size, and distance to the sensitive receptor. However, LSTs only apply to emissions within a fixed stationary location, including idling emissions during both project construction and operation. LSTs have been developed for NOX, CO, PM₁₀ and PM_{2.5}. LSTs are not applicable to mobile sources such as cars on a roadway (SCAQMD 2008). As such, LSTs for operational emissions do not apply to onsite development since the majority of emissions would be generated by cars on roadways. The project does not include any construction, therefore, LSTs are not applicable to the project.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

A project may be inconsistent with the AQMP if it would generate population, housing or employment growth exceeding the forecasts used in the development of the AQMP. The proposed school would not increase the population because it does not include residential uses. Students at the facility would be drawn from the local population. Therefore, no impact would occur.

NO IMPACT

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

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

The project does not include construction activities, except for minor interior modifications, which would not require the use of heavy duty construction equipment. Therefore, emissions generated by the proposed project would include long-term operational emissions only. Emissions associated with the

proposed project were estimated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2.

Long-term emissions associated with project operation, as shown in Table 4, would include emissions from vehicle trips (mobile sources), natural gas and electricity use (energy sources), and landscape maintenance equipment, consumer products and architectural coating associated with onsite development (area sources).

Table 4 Operational Emissions (pounds/day)

Pollutant	Total Emissions	Significance Threshold	Significant Impact?
ROG	<1	55	No
NOx	<1	55	No
CO	<1	550	No
SOx	<1	150	No
PM10	<1	150	No
PM2.5	<1	55	No

Source: Appendix A (CalEEMod outputs)

As indicated in Table 4, emissions during operation of the proposed project would not exceed SCAQMD thresholds for any criteria pollutant. Therefore, air quality impacts associated with project operation would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Sensitive receptors are defined as land uses that are more likely to be used by these population groups and include health care facilities, retirement homes, school and playground facilities, and residential areas. The sensitive receptors nearest to the project include residences to the west and south of the project site, including a residence immediately adjacent to the project site’s western boundary. As discussed above, SCAQMD has developed LSTs to evaluate whether a project would expose sensitive receptors to substantial pollutant concentrations. Grading and site preparation activities during construction are the major source of pollutants attributable to development projects because they require the use of heavy duty construction equipment. The project would involve leasing of an existing building and would not include any construction activities, except for minor interior modifications that would not utilize heavy duty construction equipment; therefore, the project would not expose sensitive receptors to substantial pollutant concentrations resulting from construction activities. Furthermore, as shown in Table 4, emissions from project operation would not exceed SCAQMD’s regional operational thresholds.

LESS THAN SIGNIFICANT IMPACT

e. Would the project create objectionable odors affecting a substantial number of people?

The proposed project would not generate any objectionable odors. School uses are not identified on Figure 5-5, *Land Uses Associated with Odor Complaints*, of the 1993 SCAQMD CEQA Air Quality

Handbook, which identifies land uses that may generate significant levels of odors. Therefore, the proposed project would generate objectionable odors affecting a substantial number of people.

LESS THAN SIGNIFICANT IMPACT

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4 Biological Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?
- b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
- c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is located in an urban setting and is developed with a shoe store and paved parking lot. The project site is not within the area of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Ornamental landscaping, including trees, grasses, and shrubs, currently exist on the project site. The site does not include any riparian or sensitive natural communities, wetlands, or wildlife corridors. The project involves renovations to the existing building on-site. Therefore, the project would not impact any special status species or conflict with local policies, such as a tree preservation policy. No biological impacts would occur.

NO IMPACT

5 Cultural Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

The project site currently contains a one-story commercial building and a parking lot. According to the Los Angeles County Office of the Assessor, the existing building was built in 1993 (LA County, 2016). The structure has not been identified as a historic resource in the National Register of Historic Places, or California Office of Historic Preservation, nor does the site contain any historic resources defined under the California Public Resources Code Section 15064.5 (NRHP, 2016; California State Parks, 2013). In addition, the building is not designated as a historic or cultural resource or a potential historic or cultural resource by the City of Long Beach in the Historic Preservation Element of its 2030 General Plan (City of Long Beach, 2009). No historic resources are located in the vicinity of the project site. The closest historic structure designated by the City of Long Beach is American Legion Post #560, located 0.7 miles northwest of the project site. No impact would occur.

NO IMPACT

- b. Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?
- c. Would the project disturb any human remains, including those interred outside of formal cemeteries?
- d. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?

The project site is within an urbanized area. In addition, it has been disturbed to accommodate past and present onsite development and is currently covered with a structure and surface parking lot that was built in 1993. There is no evidence that archaeological or paleontological resources or human remains are present onsite. The project would not involve any excavation as the project would involve only

above-ground modifications of an existing building. In the unlikely event that cultural or paleontological resources are identified as being present at the site and proposed activities would potentially disturb such resources, applicable regulatory requirements pertaining to the handling and treatment of such resources would be followed. If archaeological or paleontological resources are identified, as defined by Section 2103.2 of the Public Resources Code, the site would be required to be treated in accordance with the provisions of Section 21083.2 of the Public Resources Code as appropriate. If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. No impact would occur.

NO IMPACT

6 Geology and Soils

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Strong seismic ground shaking	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Seismic-related ground failure, including liquefaction	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Landslides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on expansive soil, as defined in Table 1-B of the <i>Uniform Building Code</i> , creating substantial risks to life or property	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a.1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

Per Plate 2, "Fault Map with Special Study Zones," of the Seismic Safety Element of the Long Beach General Plan (City of Long Beach 1988), the most significant fault system in the city is the Newport-

Inglewood fault zone. This fault zone runs in a northwest to southeast angle across the southern half of the city. A portion of the Newport-Inglewood Fault Zone is located approximately 3 miles to the southwest of the project site, but no known fault lines cross through the site. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- a.2. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

The Newport-Inglewood fault zone could create substantial ground shaking if a seismic event occurred along that fault. Similarly, a strong seismic event on any other fault system in Southern California has the potential to create considerable levels of ground shaking throughout the City. However, the project site is not subject to unusual levels of ground shaking. Furthermore, the project would involve leasing of an existing building constructed to California Building Code (CBC) standards in 1993 (County of Los Angeles Office of the Assessor 2016).

LESS THAN SIGNIFICANT IMPACT

- a.3. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Liquefaction is a process whereby soil is temporarily transformed to fluid form during intense and prolonged ground shaking or because of a sudden shock or strain. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface and where the soils are composed of poorly consolidated fine to medium sand. As shown in Plate 7, "Liquefaction Potential Areas," of the Seismic Safety Element of the Long Beach General Plan (City of Long Beach 1988), the project site is located in an area where the liquefaction potential is low. Furthermore, the project would involve leasing of an existing building constructed to CBC standards in 1993 (County of Los Angeles Office of the Assessor 2016). This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- a.4. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Per the City of Long Beach Seismic Safety Element, the City is relatively flat and characterized by slopes that are not high (less than 50 feet) or steep (generally sloping flatter than 1-1/2:1, horizontal to vertical). The State Seismic Hazard Zone map of the Long Beach Quadrangle indicates that earthquake induced landslide hazard areas are not present on the project site. Additionally, the project site and the surrounding area are flat. Therefore, there is no risk of landslides on the site.

NO IMPACT

- b. Would the project result in substantial soil erosion or the loss of topsoil?

The project involves the lease of an existing building and would retain the existing parking lots and the existing building frame, with modifications to the building interior. Because the project does not involve any activities that would disturb soil, such as construction activities, it would have no impact related to soil erosion or loss of topsoil.

NO IMPACT

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

Per Plate 9, "Slope Stability Study Areas," the Long Beach General Plan Seismic Safety Element, the project site is not located in an area of slope instability (City of Long Beach 1988). As discussed above, the project site is also located in an area with low liquefaction potential. Furthermore, the project would involve the lease of an existing building and would not include any soil disturbing activities; therefore, the project would not result in on or off site geologic impacts.

NO IMPACT

- d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property?

Per the City of Long Beach Seismic Safety Element, the City is divided into four predominant soil profiles, designated as Profiles A through D (Long Beach, 1988). The project site is located in Profile D, which is composed of predominately cohesionless, granular non-marine terrace deposits overlying Pleistocene granular marine sediments at shallow depths. No issues with expansive soils are known to be present. Furthermore, the project would involve the lease of an existing building constructed to CBC standards in 1993 (County of Los Angeles Office of the Assessor, 2016). This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The entire City of Long Beach, including the existing building on the project site, is served by an existing sewer system. The project would lease the building currently connected to the sewer system and would not involve the use of septic tanks or any other alternative waste water disposal systems. No impact would occur.

NO IMPACT

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7 Greenhouse Gas Emissions

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with any applicable plan, policy, or regulation adopted to reduce the emissions of greenhouse gases	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Climate change is the observed increase in the average temperature of the earth’s atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. Climate change is the result of numerous, cumulative sources of greenhouse gases (GHG), which contribute to the “greenhouse effect,” a natural occurrence that helps regulate the temperature of the planet. The majority of radiation from the sun hits the earth’s surface and warms it. The surface in turn radiates heat back toward the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions. This process is essential to support life on Earth because it warms the planet by approximately 60° Fahrenheit. Emissions from human activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat and contribute to an average increase in Earth’s temperature.

GHGs occur naturally and from human activities. Human activities that produce GHGs include fossil fuel burning (coal, oil, and natural gas for heating and electricity, gasoline and diesel for transportation); methane generated by landfill wastes and raising livestock; deforestation activities; and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆). Since 1750, estimated concentrations of CO₂, CH₄, and N₂O in the atmosphere have increased over by 36 percent, 148 percent, and 18 percent respectively, primarily due to human activity. Emissions of GHGs affect the atmosphere directly by changing its chemical composition. Changes to the land surface indirectly affect the atmosphere by changing the way in the Earth absorbs gases from the atmosphere. Potential impacts in California of global warming may include loss of snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (California Energy Commission [CEC] 2009).

California’s major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the “California Global Warming Solutions Act of 2006,” signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15% reduction below 2005 emission levels; the same requirement as under S-3-05), and requires ARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires ARB to adopt regulations to require reporting and verification of statewide GHG emissions.

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the

California Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

Senate Bill (SB) 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing ARB to develop regional GHG emission reduction targets to be achieved from vehicles for 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPO) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On September 23, 2010, ARB adopted final regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035.

In September 2016, Governor Brown signed SB 32 which requires California to reduce GHG emissions by 40 percent below 1990 levels by the year 2030 (Office of Governor, 2016).

The adopted CEQA Guidelines provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. The 2008 SCAQMD threshold considers emissions of over 10,000 metric tons of carbon dioxide equivalent (CO₂E) per year from industrial development projects to be significant (SCAQMD, 2009). However, the SCAQMD's threshold applies only to stationary sources and is expressly intended to apply only when the SCAQMD is the CEQA lead agency. In the latest guidance provided by the SCAQMD's GHG CEQA Significance Threshold Working Group in September 2010, SCAQMD has considered a tiered approach to determine the significance of residential and commercial projects. The draft-tiered approach is outlined in the meeting minutes, dated September 28, 2010.

Tier 1 - If the project is exempt from further environmental analysis under existing statutory or categorical exemptions, there is a presumption of less than significant impacts with respect to climate change. If not, then the Tier 2 threshold should be considered.

Tier 2 - Consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in CEQA Guidelines section 15064(h)(3), 15125(d) or 15152(a). Under this tier, if the proposed project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If there is not an adopted plan, then a Tier 3 approach would be appropriate.

Tier 3 - Establishes a screening significance threshold level to determine significance. The Working Group has provided a recommendation of 3,000 tons of CO₂e per year.

The City of Long Beach has not adopted a Climate Action Plan or any specific GHG emissions thresholds; therefore, the proposed project is evaluated based on the SCAQMD's recommended Tier 3 screen level threshold of 3,000 metric tons of CO₂e per year (SCAQMD 2010).

The GHG analysis has been conducted using the methodologies recommended by the California Air Pollution Control Officers Association [CAPCOA] (January 2008) CEQA and Climate Change white paper. The analysis focuses on CO₂, N₂O, and CH₄ as these are the GHG emissions that onsite development would generate in the largest quantities. Fluorinated gases, such as HFCs, PFCs, and SF₆, were also considered for the analysis. However, the quantity of fluorinated gases would not be substantial since fluorinated gases are primarily associated with industrial processes. Calculations were based on the methodologies discussed in the CAPCOA white paper (January 2008) and included the use of the California Climate Action Registry General Reporting Protocol (January 2009).

Emissions associated with the proposed project were estimated using the CalEEMod version 2013.2.2. Complete CalEEMod results and assumptions can be viewed in Appendix A.

- a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- b. Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The project’s proposed energy use, daily operational activities, and mobile sources (traffic) would generate GHG emissions. CalEEMod was used to calculate emissions resulting from long-term operation. Since the project would involve only minimal interior renovation, there would be no substantial emissions due to construction. As shown in Table 5, project operation would generate an average of approximately 24 MT of CO₂e per year.

Table 5 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (CO ₂ e) in metric tons
Operational	
Area	<1
Energy	17
Solid Waste	4
Water	3
Mobile	
CO ₂ and CH ₄	<1
N ₂ O	0
Total	24

Source: Appendix A (CalEEMod outputs)

Senate Bill 375, signed in August 2008, requires the inclusion of sustainable communities’ strategies in regional transportation plans for the purpose of reducing GHG emissions. In April 2012, SCAG adopted the 2012-2035 RTP/SCS. SCAG’s RTP/SCS includes a commitment to reduce emissions from transportation sources by promoting compact and infill development and promoting alternative modes of transportation. A goal of the SCS is to “promote the development of better places to live and work through measures that encourage more compact development, varied housing options, bike and pedestrian improvements and efficient transportation infrastructure.” The proposed school project would not conflict with any of these goals because it would allow for the reuse of an existing building located in an urbanized area along a major transportation corridor. As discussed above, the majority of students at the facility would be expected to use public transit to get to school.

The proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs and would be consistent with the objectives of the RTP/SCS, AB 32, SB 97, and SB 375.

LESS THAN SIGNIFICANT IMPACT

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8 Hazards and Hazardous Materials

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project near a private airstrip, would it result in a safety hazard for people residing or working in the project area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Implementation of the proposed charter school would not create a significant hazard to the public or the environment as it would not involve routine transport, use, or disposal of hazardous materials. Materials used by the proposed project would be similar to those found in common household projects such as surface and floor cleaning products utilized for routine janitorial cleaning procedures. These materials would not be accessible to the children attending the school and would not be utilized in large quantities that would not cause a significant environmental or health risk to the public. Also, any use of potentially hazardous materials utilized during construction of the proposed project would comply with all local, state, and federal regulations regarding the handling of potentially hazardous materials. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The proposed project would involve interior renovations to an existing structure for lease as a Charter School. Land uses such as schools, typically do not use or store large quantities of hazardous materials. Operation of the Proposed Project would not create a significant hazard to the public or the environment and would not emit hazardous emissions. Potentially hazardous materials such as fuels, lubricants, and solvents could be used during construction of the project. However, the transport, use, and storage of hazardous materials during the construction of the project would be conducted in accordance with all applicable State and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the California Code of Regulations, Title 22. Adherence to these requirements would reduce impacts to a less than significant level.

LESS THAN SIGNIFICANT IMPACT

- d. Would the project be located on a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The following databases compiled pursuant to Government Code Section 65962.5 were checked by Track Info Services, LLC (2007) for known hazardous materials contamination at the project site:

- Underground Storage Tanks (UST): The UST database contains registered USTs. This database is maintained by the State Water Resources Control Board
- Leaking Underground Storage Tanks (LUST): LUST records contain an inventory of reported leaking underground storage tank incidents. This database is maintained by the State Water Resources Control Board;
- RCRAInfo: RCRAInfo is U.S. EPA's comprehensive information system providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and solid Waste Amendments (HSWA) of 1984, and includes information regarding (treatment, storage or disposal facilities (TSD), large quantity generators, and small quantity generators;
- PERMITS: The PERMITS database tracks establishments issued permits and the status of their permits in relation to compliance with Federal, State, and local regulations that the County oversees. It tracks if a site is a hazardous waste generator, a TSD facility, gas station, has underground tanks, violations, or unauthorized releases. This database is maintained by the County of San Diego; and

- FINDS: Facility Index System. Contains both facility information and pointers to other sources that contain more detail.

Rincon Consultants conducted a follow-up database search GeoTracker to map the nearest hazardous sites. Review of the above databases found no listing of the project site as containing hazardous materials. There is only one Leaking Underground Storage Tank (LUST) within 1,000 feet for the project site. This single occurrence is located approximately 100 feet southeast of the site, directly below Cherry Avenue. The LUST site involved J & S Auto Body, and gasoline as the potential contaminant of concern to the Coastal Plain of Los Angeles Central groundwater basin, and the Los Angeles River watershed. The LUST site was cleaned up and the case was closed in December 1999 (GeoTracker, 2015). Given the status of the case and the fact that there are no other relevant listings for potential contamination, no impact would occur.

NO IMPACT

- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- f. For a project near a private airstrip, would it result in a safety hazard for people residing or working in the project area?

The proposed project would not be located within an airport influence area and would not conflict with adopted or planned airport land use plans and would not result in a safety hazard for students or employees. The project site is located approximately 1.85 miles north of the nearest edge of the Long Beach Municipal Airport, 4.6 miles from the Compton Woodley Airport (General Aviation) and 15 miles east of the Los Angeles International Airport. The proposed project would not be located within any of the above mentioned airport influence areas (ALUC, 2009). Specifically, the proposed project would be located 1.47 miles north of the nearest edge of the Long Beach Municipal Airport influence area boundary (Long Beach Airport, 2008). Therefore, no impact would occur.

NO IMPACT

- g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The proposed project would not involve the development of structures that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The Department of Disaster Preparedness and Emergency Communications was formed in 2013 to better prepare the City of Long Beach for disasters, and create a centralized space for accessing emergency resources (Long Beach, 2016a). Additionally, in accordance with the Public Safety Element of the General Plan, emergency response and evacuation procedures would be developed through the City in coordination with the police and fire departments. The proposed project would not require the development of additional streets or introduce new features that would interfere with or obstruct an adopted emergency response plan. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- h. Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The project site is located in an urbanized area in Long Beach, surrounded primarily by paved surfaces and structures. The nearest areas of dense vegetated open space include Cleveland National Forest over

20 miles southeast of the site, and the Angeles National Forest located over 20 miles north of the site. Given that the proposed project would not be located in or adjacent to any wildlands, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

9 Hydrology and Water Quality

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Violate any water quality standards or waste discharge requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Otherwise substantially degrade water quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Place structures in a 100-year flood hazard area that would impede or redirect flood flows	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including that occurring as a result of the failure of a levee or dam	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. Result in inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Would the project violate any water quality standards or waste discharge requirements?

The project site consists of an existing structure and would remain connected to the existing municipal sewage system. Stormwater and other runoff patterns from the site would not be altered as a result of the implementation of the proposed project. The proposed land use would not generate waste water that would exceed or violate any water quality standards or requirements. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site is located in an urbanized environment in Long Beach, and all adjacent land uses are predominately built-out. Existing pervious and impervious surfaces would not be altered as a result of the proposed project. Therefore, the existing ground water recharge rates would remain and would not be altered by the implementation of the proposed project. Overall, impacts on the local groundwater table levels would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project substantially alter the existing drainage pattern of the site or area, including by altering the course of a stream or river, in a manner that would result in substantial erosion or siltation on or offsite?

The proposed project would involve renovations to an existing structure in a flat, urban setting with minor landscape improvements, such as the addition of new plants and trees. No alterations of the existing drainage patterns of the site or adjacent areas would result from the implementation of the proposed project. Therefore, no impact would occur.

NO IMPACT

d. Would the project substantially alter the existing drainage pattern to the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite?

The project site is located in an urbanized environment and implementation of the proposed project would not alter the existing drainage patterns to the site. Stormwater runoff would be directed into the nearest municipal storm drains and would not be altered or obstructed by the proposed project. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- e. Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
- f. Would the project otherwise substantially degrade water quality?

As previously stated, the proposed project would remain connected to the existing municipal wastewater infrastructure. Given that the proposed project does not involve exterior construction or ground disturbance, project construction and operation would not contribute to water runoff that would exceed the capacity of existing or planned stormwater drainage systems. The only pollution associated with surface runoff would be residual hydrocarbons from in the parking lot, but no increase in pollutants beyond existing conditions is anticipated. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- g. Would the project place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map?
- h. Would the project place in a 100-year flood hazard area structures that would impede or redirect flood flows?
- i. Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding including that occurs as a result of the failure of a levee or dam?
- j. Would the project result in inundation by seiche, tsunami, or mudflow?

According to the Federal Emergency Management Agency (FEMA), the project site is located in Zone X, which is defined as an area outside of a 500-year flood plain (FEMA 2008). In addition, according to Plate 11 of the Seismic Safety Element of the General Plan, Tsunami and Seiche Influence Areas, the project site is not located within an area of the City susceptible to tsunami and seiche and it is not located in the vicinity of a levee or dam. Therefore, the impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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10 Land Use and Planning

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Physically divide an established community	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Conflict with an applicable habitat conservation plan or natural community conservation plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

The project site is located on the corner of Cherry Avenue and East Market Street in an urbanized area of Long Beach. Within one block of the site, there are residential, commercial, and industrial uses and the existing building at the project site is currently serving as a WSS shoe store. A single-family residential area begins to the west of the project site and continues along East Market Street as well as south of Market Street. A residential area also begins one block east of the project site beyond a railroad track running north to south. The project does not include new roads or other facilities that would divide an established community.

The proposed use of the property would require amendments to current zoning and General Plan land use designations. Specifically, as discussed in the Project Description, the western portion of the site would need to be rezoned to CCA and would require a General Plan amendment to LUD-8R. The project would also require a conditional use permit (CUP) to allow a secondary school in CCA zone. Any necessary amendments and permits would need to be adopted in conjunction with project approval and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?

The project site is not located within an area subject to a habitat conservation plan or natural community conservation plan (USFWS, 2016; CDFW, 2015). There would be no conflict with a conservation plan and no impact would occur.

NO IMPACT

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11 Mineral Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project have any of the following impacts:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The project site is located in a highly urbanized setting in Long Beach that is already fully developed for residential, commercial, and industrial uses with no mineral resource extraction activities occurring on site or in adjacent areas. A query of known mineral resources using the USGS Mineral Resources Data System did not detect any occurrence of mineral resources at the site (USGS, 2015). The nearest known mineral resources or producers were more than three miles away and were all past producers: Atkinson Pit, a past producer of clay; Torrance Brick Co, a past producer of clay; Empire Quarry, a past producer of limestone; R Loynes, a past producer of clay; and Miller Bros. Vollmer Pit, a past producer of silica. The California Geological Survey (CGS) Information Warehouse was also searched for mineral land classification of the proposed project site (CA Department of Conservation, 2015). Los Angeles County depends on the California Geological Survey to identify deposits of regionally-significant resources, particularly minerals used in construction aggregate and oil and natural gas resources. The General Plan identifies the valuable regional mineral resources that have been detected by the CGS (Los Angeles County, 2009). While oil and gas resources of value are present in Long Beach, they do not lie on or in the vicinity of the project site. As there are no known mineral resources or mineral resource extraction at or in the vicinity of the project site, the project would have no impact on the availability or recovery of mineral resources.

NO IMPACT

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12 Noise

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. A substantial permanent increase in ambient noise levels above those existing prior to implementation of the project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above those existing prior to implementation of the project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project near a private airstrip, would it expose people residing or working in the project area to excessive noise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Noise is defined as unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA).

Some land uses are considered more sensitive to ambient noise levels than other uses due to the amount of noise exposure and the types of activities involved. Residences, motels, hotels, schools, libraries, churches, nursing homes, auditoriums, parks and outdoor recreation areas are more sensitive to noise than are commercial and industrial land uses.

The City of Long Beach uses the State Noise/Land Use Compatibility Standards, which suggests a desirable exterior noise exposure at 65 dBA Community Noise Equivalent Level (CNEL) for sensitive land uses such as residences. Less sensitive commercial and industrial uses may be compatible with ambient

noise levels up to 70 dBA. The City has adopted a Noise Ordinance (Long Beach Municipal Code Chapter 8.80) that sets exterior and interior noise standards.

Vibration is a unique form of noise. It is unique because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise; e.g., the rattling of windows from passing trucks. This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, groundborne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB) in the U.S.

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel wheeled trains, and traffic on rough roads.

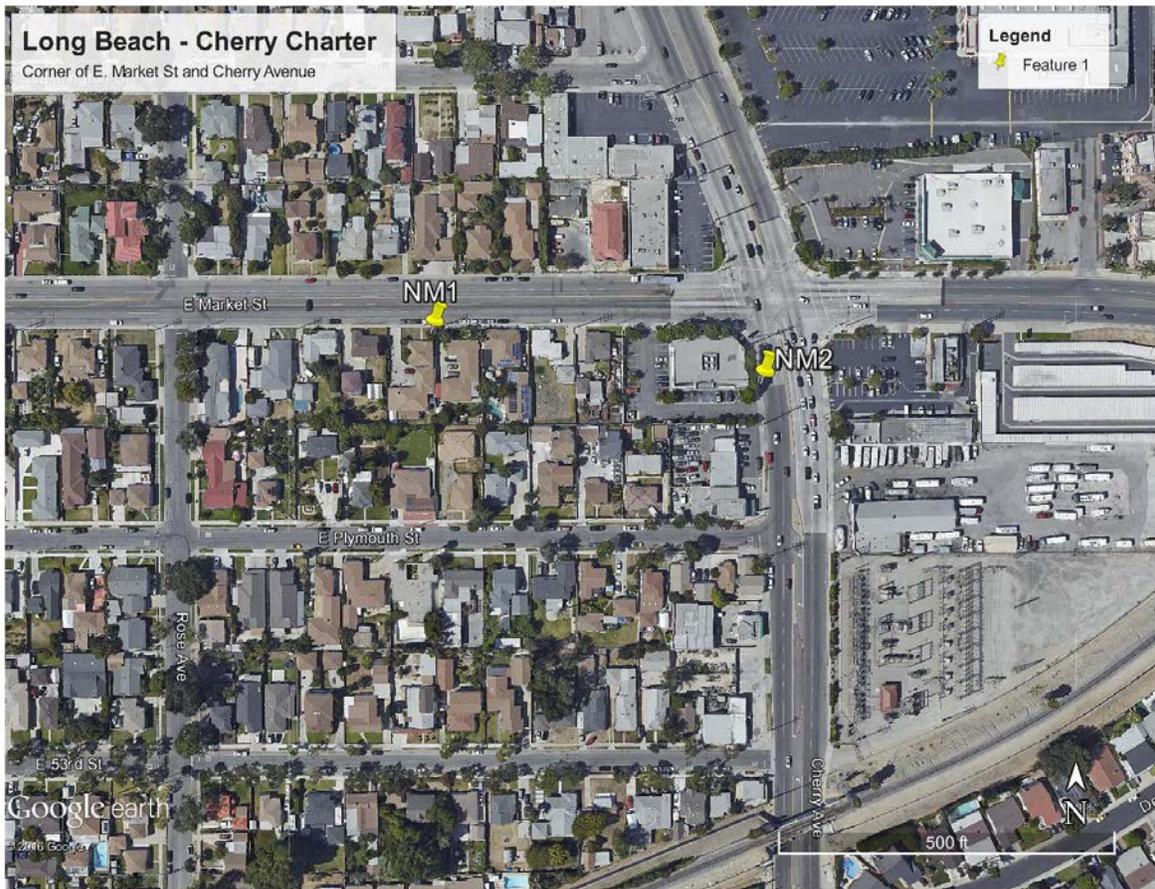
Vibration impacts would be significant if they exceed the following Federal Railroad Administration (FRA) thresholds:

- 65 VdB where low ambient vibration is essential for interior operations, such as hospitals and recording studios
- 72 VdB for residences and buildings where people normally sleep, including hotels
- 75 VdB for institutional land uses with primary daytime use, such as churches and schools
- 95 VdB for physical damage to extremely fragile historic buildings
- 100 VdB for physical damage to buildings

Construction-related vibration impacts would be less than significant for residential receptors if they are below the threshold of physical damage to buildings and occur during the City's normally permitted hours of construction, as described above, because these construction hours are during the daytime and would therefore not normally interfere with sleep.

Noise measurements were taken on the project site on Wednesday, September 8, 2016 during PM peak hour (between 4 PM and 6 PM). One measurement was taken adjacent to the project site along Cherry Avenue and another measurement was taken along East Market Street, approximately 500 feet west of the project site (Figure 10). The measured noise levels at these locations were 76.9 dBA Leq on Cherry Avenue and 70.0 dBA Leq on East Market Street. Appendix B provides the noise measurement results.

Figure 10 Noise Measurement and Sensitive Receptor Locations



Source: Rincon, Inc. September 8, 2016. Onsite noise measurements.

- a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Construction Noise

The project would use the existing shoe store building and all construction would take place within the existing the building. Therefore, no demolition, site preparation, grading, installation of new utilities, paving or building construction would occur. Renovation activities would involve smaller power tools and which would not generate a substantial increase of noise levels in the area. The predominant noise sensitive land uses in the vicinity of the project site are single-family residences east of the project site with one residence directly adjacent to the projects' site boundary. Construction activities would only occur inside the existing building, approximately 100 feet from the adjacent single-family residences. Therefore, noise-sensitive uses would not be exposed to increased temporary noise levels during construction activity on the project site. Even so, Section 41.40 of the LAMC also prohibits construction activity and repair work between the hours of 7:00 P.M. and 7:00 A.M. Monday through Friday, and

between 7:00 P.M. on Friday and 9:00 A.M. on Saturday. Required compliance with these time restrictions would limit construction noise to times when people are generally less sensitive to noise and reduce construction equipment noise. Therefore, potential noise impacts associated with construction would be less than significant.

Operational Noise

Because all educational activities would occur within the building and there would be no outdoor playgrounds, the operational noise of the building would be comparable to the noise levels now, which is minimal. Noise associated with operation of the proposed school would primarily be caused by increased traffic on local roadways. Permanent project-related changes in noise would be primarily due to increases in traffic on Market Street, Cherry Avenue, and into the project site. For traffic-related noise, impacts would be significant if project-generated traffic results in exposure of sensitive receptors to unacceptable noise levels. The FTA recommendations in the May 2006 Transit Noise and Vibration Impact Assessment were used to determine whether or not increases in roadway noise would be significant. The allowable noise exposure increase changes with increasing noise exposure, such that lower ambient noise levels have a higher allowable noise exposure increase. Table 6 shows the significance thresholds for increases in traffic related noise levels caused by the project. Noise measurements taken on local roadways indicate that noise levels are 70 dBA Leq on Market Street and 77 dBA Leq on Cherry Avenue. See Appendix B for noise measurement results and Figure 10 for measurement locations. Therefore, the project would result in a significant operational roadway noise impact, if it would increase roadway noise by 1 dBA.

Table 6 Significance of Changes in Operational Roadway Noise Exposure (DNL or LEQ in dBA)

Existing Noise Exposure	Allowable Noise Exposure Increase
45-50	7
50-55	5
55-60	3
60-65	2
65-75	1
75+	0

Source: FTA 2006

The United States Housing and Urban Development’s (HUD) Day/Night Noise Level (DNL) Calculator was used to calculate existing roadway noise on Market Street and Cherry Avenue, as well as roadway noise under an existing plus project scenario based on traffic volumes from the Traffic Study prepared by LLG (Appendix C). As shown in Table 7, the project would not increase roadway noise on Lakewood Boulevard, but would increase roadway noise on Cherry Street by 0.1 dBA DNL. This increase is well within the 1.0 dBA significance threshold. Therefore, development of the proposed project would not create a substantial permanent increase in ambient noise levels above levels existing without the project. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Table 7 Comparison of Pre-Project and Post-Project Traffic Noise on Local Roadways

Receptor #	Location	Projected Noise Level (dBA DNL)		Change in Noise Level (dBA DNL)	Exceed Significance Threshold?
		Existing (1)	Existing + Project (2)	Due to Project Traffic (2-1)	
1	Market Street north of the project site	76.9	77.0	0.1	No
2	Cherry Avenue east of the project site	69.8	69.8	0	No

Source: Calculated using HUD DNL calculator. See Appendix B for noise model outputs and assumptions.

Notes: Leq is the equivalent noise level over a period of time, typically one hour.

Estimates of noise generated by traffic are from the centerlines of northbound/eastbound and southbound/westbound lanes on road segments during PM peak-hour traffic conditions.

On roadways with existing noise exposure less than 60 dBA, an increase of over 5 dBA is considered significant; between 60 and 65 dBA, an increase of 3 dBA is considered significant, and greater than 65 dBA, an increase of 1 dBA is considered significant.

- b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

As project construction activities are anticipated to include only renovation of the existing building approximately 100 feet from any sensitive receptor, vibration would not be felt on properties in the vicinity of the project site. Additionally, the Long Beach Noise Ordinance prohibits construction outside daytime hours; therefore, construction vibration would not be significant at these receptors because activities would occur outside hours when people normally sleep. Therefore, the project would not result in excessive ground-borne vibration or noise. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site is located approximately two miles from Long Beach Airport. The project site is not within the Long Beach Airport Planning Boundary or Airport Influence Area (Los Angeles County Airport Land Use Commission, 2003). The site is not in the vicinity of a private airstrip. According to the Long Beach Airport Influence Plan, the project site is not within the airport’s 65 dBA CNEL noise contour (Long Beach Airport, 2008). Therefore, no impacts would occur.

NO IMPACT

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13 Population and Housing

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project result in any of the following impacts?

a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial amounts of existing housing, necessitating the construction of replacement housing elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

The proposed project would involve the renovations to an existing building for a OFL learning center that would serve a maximum of 40-45 students with six teachers and two support staff members. The project would not provide additional residential units or a large number of employment opportunities that may induce population growth. In addition, OFL learning centers are meant to serve the surrounding community, rather than bring in students from distant locations, and do not serve a large number of students. Finally, the project site is in a developed urban area and would not require the expansion of infrastructure or roads that might also facilitate population growth. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The proposed project would replace an existing WSS shoe store with an OFL learning center. No residential units would be affected or residents displaced and there would be no impact to existing housing or any impact that would cause residents to be displaced.

NO IMPACT

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14 Public Services

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project result in any of the following impacts?

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

1. Fire protection	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Police protection	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Parks	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Other public facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?

Fire protection in Long Beach is provided by the Long Beach Fire Department (LBFD) which consists of approximately 527 full time employees (LBFD). LBFD Station 11 is located 1.4 miles west of the project site, on East Market Street. LBFD Station 12 is located approximately 1.5 miles north of the project site. LBFD Station 16 is located approximately 2.6 miles south of the project site, adjacent to the Long Beach Airport. Additionally, Los Angeles County Fire Department Station 45 is located approximately 1.4 miles east of the project site, on Candlewood Street.

The proposed project would comply with all Fire Prevention Bureau provisions required by the Long Beach Fire Department and is located within an area that is already served by the LBFD; therefore, it would not result in substantial adverse impacts or the need for additional facilities. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered

governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?

Police protection services in Long Beach are provided by the Long Beach Police Department (LBPD). LBPD consists of approximately 800 sworn police officers and total staffing of over 1,200 employees (LBPD, 2016). Based on a current total population of 484,958 (Department of Finance 2016), the current officer to population ratio is 1.6 sworn officers per 1,000 residents. For additional support, the LBPD maintains mutual aid agreements with the Los Angeles County Sheriff's Department and the Signal Hill Police Department. The proposed project is located in an area that is already served by the LBPD; therefore, it would not result in substantial adverse impacts or the need for additional facilities. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools?

The proposed project involves replacing a commercial land use retail store with a charter school. As previously stated the school would have the capacity to serve 40 to 45 students, six teachers and two support staff members. Therefore, no impact would occur.

NO IMPACT

- a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?

The proposed project would not generate a significant demand for recreational space or require the provision of new recreational facilities. The City of Long Beach has approximately 162 parks, 26 community centers, and six miles of beaches. The City's current population is approximately 484,958 (California Department of Finance, 2016).

The proposed project would accommodate 40-45 students, six teachers and two support staff members. Given that the proposed project is a charter school, the students attending the school already live in the community. Therefore, the project would not generate increased demands on parks impacts to recreational facilities would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- a.5. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?

The total population of the proposed charter school, including students and employees, would include a maximum of 53 people. This represents 0.01% of the population and would not result in a substantial demand for additional public facilities. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

15 Recreation

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project result in any of the following impacts?

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <p>a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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

The project would not directly affect any existing parks or create a substantial increase in demand for recreational facilities or otherwise degrade existing facilities. The project would employ six teachers and two support staff, who may incrementally increase demand for recreational facilities. There are three parks located approximately 0.3 miles from the project site, including Jackson Park, Cherry Clove Park, and Biscailuz Park, with the nearest being Jackson Park, located 0.27 miles southwest of the site. These facilities would be adequate to meet any demands associated with the project. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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16 Transportation

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
a. Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Linscott, Law & Greenspan, Engineers (LLG) prepared a Traffic Analysis for the proposed project, dated October 14, 2016 (Appendix C). The following analysis is based on their findings.

The total vehicle trip generation for the proposed project was developed using the charter school's operation schedule and deriving vehicular trips from the expected enrollment of 180 students and 8 staff

members. Given that the OFL center would be open from 8:00 AM to 5:00 PM on weekdays, it was presumed that 100% of school staff would arrive during the weekday AM peak hour and depart in the PM peak hour. It is also presumed that school staff would depart for a lunch break at 12:00 PM and arrive back to campus by 1:00 PM.

At the proposed center, student appointments begin at 9:00 AM, 10:30 AM, 1:00 PM and 2:30 PM for 1.5 hour sessions each. As a conservative measure, it is assumed that a maximum of 45 students are enrolled for each appointment time. Based on this information, it was presumed that 45 students would arrive during the weekday AM peak hour to attend class at 9:00 AM, and 45 students would depart in the PM peak hour after the last scheduled class at 2:30 PM. Similarly, it was presumed that students would be arriving and departing the school during the non-peak hours based on the remaining appointment times. Of these students, it is presumed that 33% of students are able to drive themselves while the remaining 67% of students are dropped-off at school. An additional 10% reduction factor was applied to account for students carpooling.

Based on these assumptions, the project would generate an estimated 317 new daily trips, including 71 trips during the a.m. peak hour and 71 trips during the p.m. peak hour. Table 8 summarizes the project trip generation. Project trips were distributed to the surrounding roadway network based on the location of the project in relation to surrounding land uses.

Table 8 Estimated Net Traffic Trip Generation

Proposed Land Use	Weekday Peak Hour		Total Daily Trips
	AM	PM	
Charter School	71	71	317

Source: LLG, Traffic Analysis 2016 (Appendix C)

Note: Discounts for trips due to existing retail use.

According to the City of Long Beach, Level of Service (LOS) D is the minimum acceptable condition that should be maintained during the peak commute hours, or the current LOS if the existing LOS is worse than LOS D (i.e. LOS E or F). The proposed project would result in a significant impact if, prior to mitigation, it would do one or more of the following:

- The project causes a study intersection to deteriorate from Level of Service (LOS) D to LOS E or F.
 - The project increases traffic demand at the study intersection by 2 percent of capacity causing or worsening LOS E or F when an intersection is operating at LOS E or F in the baseline condition.
- a. Would the project conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?

The Traffic Analysis (Appendix C) performed by LLG analyzed the existing conditions of the area and the existing conditions plus the proposed project. Table 9 summarizes the peak hour LOS results at the one key study intersection and two project driveways for Existing and Existing Plus Project traffic conditions. The first column (1) of Table 9 presents a summary of Existing AM and PM peak hour traffic conditions. The second column (2) lists Existing Plus Project traffic conditions with current intersection geometry/lane configurations. The third column (3) shows the increase in ICU/HCM value due to the added peak hour project trips and indicates whether the traffic associated with the Project will have a significant impact based on the significant impact criteria defined in this letter.

Column (1) of Table 9 summarizes the Existing (Year 2016) peak hour levels of service for the key study intersection based on existing traffic volumes and current street geometries. As Table 9 indicates, the intersection of Cherry Avenue at Market Street currently operates at acceptable LOS D in the AM peak hour and unacceptable LOS E in the PM peak hour.

Review of Columns (2) and (3) of Table 4 indicates that the traffic associated with the proposed project would not significantly impact the key study intersection of Cherry Avenue at Market Street. During the AM peak hour, the ICU increase (0.021) would not worsen the LOS to E. During the PM peak hour, the intersection of Cherry Avenue at Market Street is forecast to operate at unacceptable LOS E; however, the proposed project would add less than 0.02 to the ICU value. The two (2) project driveways are forecast to operate at acceptable LOS C or better. Therefore, based on the City’s performance criteria, the project would not result in any significant impacts to study area intersections under any scenario. Therefore, impacts are less than significant.

LESS THAN SIGNIFICANT IMPACT

Table 9 Existing Plus Project Peak Hour Intersection Capacity Analysis Summary

Key Intersection	Control	Time Period	(1) Existing Traffic Condition		(2) Existing Plus Project Traffic Conditions		(3) Significant Impact	
			ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No
Cherry Avenue at Market Street	5 S signal	AM	0.819	D	0.840	D	0.021	No
		PM	0.954	E	0.960	E	0.006	No
<i>Project Driveway 1 at Market Street</i>	<i>One-way stop</i>	AM	--	--	<i>10.9 s/v</i>	<i>B</i>	--	--
		PM	--	--	<i>12.3 s/v</i>	<i>B</i>	--	--
<i>Cherry Avenue Project Driveway 2</i>	<i>One-way stop</i>	AM	--	--	<i>15.9 s/v</i>	<i>C</i>	--	--
		PM	--	--	<i>12.3 s/v</i>	<i>B</i>	--	--

Source: LLG, Traffic Analysis 2016 (Appendix C)

Notes:

~~S~~ = Phase

LOS = Level of Service, please refer to Tables 1 and 2 for the LOS definitions

s/v = seconds per vehicle (delay)

Italicized text corresponds to an unsignalized/stop-controlled intersection

Bold ICU/LOS and HCM/LOS values indicate adverse service levels based on the LOS standards mentioned in this report

- b. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The Los Angeles County Congestion Management Program (CMP) requires an analysis of all arterial segments and arterial monitoring intersections on the CMP roadway network where the project adds 50 or more peak hour trips. Additionally, the CMP requires evaluation of all mainline freeway monitoring locations where the project adds 150 or more peak hour trips. The proposed project would generate 576 new average daily trips. According to the project traffic impact analysis, the project would not add 150 or more peak hour trips to any freeway segment. Therefore, a CMP freeway analysis is not required. The nearest CMP arterial roadway to the project is the Long Beach Freeway (State Route [SR] 710) approximately two miles from the project site. The project would not add 50 trips to the Long Beach Freeway. Therefore, a CMP analysis is not required and impacts to SR 710 would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No airport or airstrip is located immediately adjacent to the project site. The nearest airport is Long Beach Airport, located approximately two miles southeast of the project site. The proposed project involves the conversion of a shoe store to an educational facility and consequently, would not affect air traffic patterns. Therefore, no impact would occur.

NO IMPACT

- d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

The proposed project does not include any design features that would alter the existing site access or increase hazards. The conversion of a shoe store to an educational facility would not result in vehicles or equipment, such as farm equipment or tractors, that would be incompatible with the existing land uses surrounding the area. Therefore, no impact would occur as a result of the proposed project.

NO IMPACT

- e. Would the project result in inadequate emergency access?

The proposed project would not result in inadequate emergency access because it would be subject to Los Angeles County Fire Department review and acceptance of site plans, and structures prior to occupancy to ensure that required fire protection safety features, including adequate driveway access to buildings and adequate emergency access, are implemented. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- f. Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?

The proposed project involves the creation of an educational facility on a site previously used for commercial purposes. The proposed project would be limited to site-specific improvements and would not damage the performance or safety of any public transit, bikeway or pedestrian facilities. Sidewalks are provided along all key roadways in the project site vicinity and pedestrian crosswalks with walk lights are provided at signalized intersections in the project area. The proposed project would maintain the current sidewalks. In addition, it is anticipated that students would use public transit to get to the project site, which is transit-accessible and within walking distance of several Long Beach Transit bus stops.

The project would not conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, and would not otherwise substantially reduce the performance or safety of such facilities. Therefore, impacts of the proposed project would be less than significant.

LESS THAN SIGNIFICANT IMPACT

17 Tribal Cultural Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| g. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Cod Section 2024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significant of the resource to a California Native American tribe. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

a.,b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is (a) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or (b) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 2024.1?

Tribal cultural resources are defined in Public Resources Code 21074 as one of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - (a) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
 - (b) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

The project site is in an urban setting and has been previously developed. The proposed project would not involve any excavation or exterior demolition. Thus, the project would not disturb native soils and would not affect a tribal cultural resource listed or eligible for listing in the state or local register of historical resources, or determined by the lead agency to be significant to a California Native American tribe. No impact would occur.

NO IMPACT

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18 Utilities and Service Systems

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Comply with federal, state, and local statutes and regulations related to solid waste	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The project site is located within the jurisdiction of the Los Angeles Regional Water Quality Control Board (LA RWQB). The proposed educational facility would not generate pollutants that would exceed wastewater treatment requirements. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- c. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- e. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed project would serve approximately 40-45 students and would include six teachers and two support staff for a total of approximately 53 people. This represents about 0.0002 percent of the service population of approximately 250,000 people currently serviced by the Long Beach Water Reclamation Plant (WRP) and the Joint Water Pollution Control Plant (JWPCP). The JWPCP has a 400 million gallon per day processing capacity. The facility processes an average of 255 million gallons of water per day, leaving 145 million gallons per day of remaining capacity (JWPCP, 2016). The proposed project would utilize an estimated 0.81 million gallons of water per year according to CalEEMod estimations. Assuming 100 percent of this water use would be treated as waste water, 0.81 million gallons per year (0.0022 million gallons per day) represents less than 0.01 percent of the remaining daily capacity. The existing storm water drains would remain intact with no changes or increase in surface runoff. The proposed project would not require the construction of new treatment facilities as the JWPCP would have adequate capacity to treat the wastewater produced by the proposed project. Overall, wastewater impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The proposed project would utilize an estimated 0.81 million gallons of water per year for both indoor and outdoor use. The City's potable water supply is sourced from two main sources, local groundwater and imported water. When groundwater resources are insufficient, the City of Long Beach purchases water from the Metropolitan Water District of Southern California (MWD) sources water from the Colorado River Aqueduct (CRA) and the California State Water Project (SWP) Northern California's Bay-Delta Region Aqueduct (Long Beach Water Department). Potable water for the proposed development would be supplied by the Long Beach Water Department (LBWD, 2016a). Non-potable water resources are supplied by the Long Beach Water Reclamation Plant. Sewage and waste water is treated and reused to irrigate landscapes, parks, and golf courses (LBWD, 2016b).

Pursuant to the California Code of Regulations, Title 23, Section 864.5(g), the LBWD determined the City would have sufficient water supplies to meet the water demand for the next three years. The City evaluated all water supplies and submitted a *water supply reliability self-certification* to the SWRCB on June 21, 2016 that determined 58,735 acre feet of water would be available to the City through 2019 (LBWD, 2016c). Additionally, as shown in Table 10, the LBWD projects that water supplies will be sufficient to meet all demand through the year 2040 during normal, single dry year, and multiple dry year hydrologic conditions. The proposed project's water demand (0.81 million gallons/ 0.000003 acre feet per year) would represent 0.00000004 percent of the total water demand, and 0.00000002 percent of the remaining surplus in a multiple dry year scenario. Overall, impacts would be less than significant.

Table 9 LBWD Water Supply in Normal, Single Dry and Multiple Dry Years (acres in feet)

	2020	2025	2030	2035	2040
Normal Year					
Supply Totals	77,291	77,791	78,291	78,791	79,291
Demand Totals	63,643	63,410	63,454	63,609	64,137
<i>Surplus (Supply – Demand)</i>	<i>13,648</i>	<i>14,381</i>	<i>14,836</i>	<i>15,182</i>	<i>15,154</i>
Single Dry Year					
Supply Totals	77,291	77,791	78,291	78,791	79,291
Demand Totals	63,643	63,410	63,454	63,609	64,137
<i>Surplus (Supply – Demand)</i>	<i>13,648</i>	<i>14,381</i>	<i>14,836</i>	<i>15,182</i>	<i>15,154</i>
Multiple Dry Year					
Supply Totals	77,291	77,791	78,291	78,791	79,291
Demand Totals	63,643	63,410	63,454	63,609	64,137
<i>Surplus (Supply – Demand)</i>	<i>13,648</i>	<i>14,381</i>	<i>14,836</i>	<i>15,182</i>	<i>15,154</i>

Source: Table 9, "Water Supplies Exceed Demands in All Hydrologies," of the 2015 Urban Water Management Plan (City of Long Beach Board of Water Commissioners 2015)

LESS THAN SIGNIFICANT IMPACT

- f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?

The Long Beach Environmental Services Bureau and private permitted waste haulers provide solid waste service for the City. Waste generated from the Project Site would be disposed at various facilities based on the contract made between a permitted waste hauler and the building occupant. One such facility is the Republic Services Bel Art Transfer station located approximately three miles north of the project site. It is not guaranteed that the waste generated at the proposed charter school would be transported to this specific transfer station. However, if waste was transported to this facility, there would be adequate daily capacity to process the materials. The Bel Art Transfer Station has approximately 1,500 ton per day capacity and processes approximately 1,000 tons per day, leaving approximately 500 tons per day of remaining capacity (Republic Services, 2016). Given the proposed project is estimated to generate 8.84 tons of waste per year, this represents 0.6 percent of the total daily capacity and 1.8 percent of the daily remaining capacity. Materials leaving transfer stations could be transported to a variety of destinations. One such destination may be a permitted landfill. According to Cal Recycle, there are 19 active permitted landfills in Los Angeles County (CalRecycle, 2009). Of the 19 landfills, Savage Canyon (Class III) Landfill is the nearest to the project site, although this would not necessarily be the landfill accepting materials generated by the project site, as that would be determined in part by a contract with a waste hauler. The Savage Canyon landfill is located approximately 12 miles north east of the project site. The landfill is inspected monthly and has a 3,350 ton per day maximum permitted throughput capacity. CalEEMod results estimate the proposed project would generate approximately 8.84 tons of solid waste per year, or 0.02 tons per day, which represents 0.0007 percent of the landfill’s daily capacity. As of December 31,

2011, the landfill has a remaining capacity of 9,510,833 cubic yards. The nearest landfill has sufficient capacity to accept solid waste materials generated from the proposed project and overall impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

The primary state regulations that the proposed project would need to comply with include Assembly Bill (AB) 341, AB 1826 which require commercial facilities to divert materials from the landfill through mandatory recycling and composting collection for facilities that generate over a certain volume of materials. Effective April 1, 2016, commercial facilities generating eight or more cubic yards of solid waste must engage in a hauling service for organic materials. However, effective January 1, 2019, facilities generating waste amounting to four cubic yards or more per week must comply with diversion requirements and participate in a composting program. In the year 2020, CalRecycle will assess if the State is achieving desired diversion goals. If materials are not meeting the State's diversion rate standards, the threshold for compliance may be reduced to require higher rates of participation in organics and recycling diversion programs. These policies are in place to reduce GHG emissions associated with organic material decaying in landfills under anaerobic conditions. The City of Long Beach has surpassed the State goal to divert 50 percent of all material bound for the landfill, through recycling and composting programs (Long Beach, 2016b). The City is also on track to comply with the 75 percent diversion goal effective January 1, 2020. The proposed project would comply with the City's mandatory composting and recycling programs; therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

19 Mandatory Findings of Significance

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

As noted in Section 4, *Biological Resources*, the project site is located in an urban area that lacks native biological habitats. The site does not include any sensitive natural communities or historic or prehistoric resources. The project involves modifications to the interior of the building. No impacts would occur.

NO IMPACT

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

As described in the discussion of environmental checklist Sections 1 through 17, the proposed project would have no impact or a less than significant impact with respect to all environmental issues. The proposed project would involve renovations of a structure to reuse an existing building in a highly

urbanized area. Cumulative impacts of several resource areas have been addressed in the individual resource sections. Section 3, *Air Quality*, Section 12, *Noise*, and Section 16, *Transportation* considered the effects of the project in combination with other forecast development and did not identify any potential significant impacts. CalEEMod was utilized to assess the air quality and greenhouse gas impacts resulting from the proposed project, concluding less than significant impacts. A noise study and a traffic study both provided technical studies to calculate noise and traffic impacts on the community, also concluding less than significant impacts. Therefore, cumulative impacts resulting from the proposed project would be less than significant, not cumulatively considerable.

LESS THAN SIGNIFICANT IMPACT

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

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As detailed in the preceding sections, the proposed project would not result, either directly or indirectly in adverse hazards related to air quality, hazardous materials, or noise. As discussed in Section 8, *Hazards and Hazardous Materials* the proposed project would not be located in an area containing hazardous materials and operation of the charter school would not require routine transport, handling or release of hazardous materials into the environment and would not result in substantial adverse effects on human beings. Section 12, *Noise* concluded that construction activities would be short term and would occur inside the existing building, and noise impacts were determined to be less than significant. Operational noise levels would remain similar to the existing land use; however, noise resulting from increased traffic from the project would result in an increase of 0.1 dBA, which is below the threshold of 1.0 dBA for significant impacts. Overall, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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Rincon Consultants, Inc. (Rincon) prepared this IS-ND under contract to the City of Long Beach. Rincon coordinated with Craig Chalfant and Monica Dergevorgian, project Planners from the City of Long Beach, for preparation of the analyses. Rincon personnel involved in project management, data gathering and analysis, and quality control include the following.

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Appendix A

Air Quality and Greenhouse Gas Emissions Modeling Results

Cherry Charter School
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	6.80	1000sqft	0.16	6,804.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction emissions, renovation only

Off-road Equipment -

Vehicle Trips - Traffic Analysis by LLG

Area Coating - SCAQMD Rule 1113

Area Mitigation - SCAQMD Rule 1113

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0289	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004
Energy	4.0000e-004	3.6300e-003	3.0500e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	16.9995	16.9995	6.8000e-004	2.0000e-004	17.0746
Mobile	1.7000e-004	6.2000e-004	2.2700e-003	1.0000e-005	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.1000e-004	0.0000	0.4562	0.4562	2.0000e-005	0.0000	0.4566
Waste						0.0000	0.0000		0.0000	0.0000	1.7944	0.0000	1.7944	0.1061	0.0000	4.0215
Water						0.0000	0.0000		0.0000	0.0000	0.0716	2.6873	2.7589	7.4800e-003	2.0000e-004	2.9778
Total	0.0295	4.2500e-003	5.4100e-003	3.0000e-005	3.9000e-004	2.9000e-004	6.8000e-004	1.1000e-004	2.9000e-004	3.9000e-004	1.8661	20.1431	22.0092	0.1142	4.0000e-004	24.5306

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0258	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004
Energy	4.0000e-004	3.6300e-003	3.0500e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	16.9995	16.9995	6.8000e-004	2.0000e-004	17.0746
Mobile	1.7000e-004	6.2000e-004	2.2700e-003	1.0000e-005	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.1000e-004	0.0000	0.4562	0.4562	2.0000e-005	0.0000	0.4566
Waste						0.0000	0.0000		0.0000	0.0000	1.7944	0.0000	1.7944	0.1061	0.0000	4.0215
Water						0.0000	0.0000		0.0000	0.0000	0.0716	2.6873	2.7589	7.4800e-003	2.0000e-004	2.9777
Total	0.0264	4.2500e-003	5.4100e-003	3.0000e-005	3.9000e-004	2.9000e-004	6.8000e-004	1.1000e-004	2.9000e-004	3.9000e-004	1.8661	20.1431	22.0092	0.1142	4.0000e-004	24.5305

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	10.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Renovation	Architectural Coating	1/1/2017	12/30/2016	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,206; Non-Residential Outdoor: 3,402 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Renovation	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Renovation	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.7000e-004	6.2000e-004	2.2700e-003	1.0000e-005	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.1000e-004	0.0000	0.4562	0.4562	2.0000e-005	0.0000	0.4566
Unmitigated	1.7000e-004	6.2000e-004	2.2700e-003	1.0000e-005	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.1000e-004	0.0000	0.4562	0.4562	2.0000e-005	0.0000	0.4566

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	0.34	0.00	0.00	1,038	1,038
Total	0.34	0.00	0.00	1,038	1,038

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	4.0000e-004	3.6300e-003	3.0500e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9540	3.9540	8.0000e-005	7.0000e-005	3.9781
NaturalGas Unmitigated	4.0000e-004	3.6300e-003	3.0500e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9540	3.9540	8.0000e-005	7.0000e-005	3.9781
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	13.0454	13.0454	6.0000e-004	1.2000e-004	13.0965
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	13.0454	13.0454	6.0000e-004	1.2000e-004	13.0965

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
High School	74095.6	4.0000e-004	3.6300e-003	3.0500e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9540	3.9540	8.0000e-005	7.0000e-005	3.9781
Total		4.0000e-004	3.6300e-003	3.0500e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9540	3.9540	8.0000e-005	7.0000e-005	3.9781

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
High School	74095.6	4.0000e-004	3.6300e-003	3.0500e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9540	3.9540	8.0000e-005	7.0000e-005	3.9781
Total		4.0000e-004	3.6300e-003	3.0500e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9540	3.9540	8.0000e-005	7.0000e-005	3.9781

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	45586.8	13.0454	6.0000e-004	1.2000e-004	13.0965
Total		13.0454	6.0000e-004	1.2000e-004	13.0965

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	45586.8	13.0454	6.0000e-004	1.2000e-004	13.0965
Total		13.0454	6.0000e-004	1.2000e-004	13.0965

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0258	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004
Unmitigated	0.0289	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.3400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0246					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004
Total	0.0289	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0246					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004
Total	0.0258	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	2.7589	7.4800e-003	2.0000e-004	2.9778
Mitigated	2.7589	7.4800e-003	2.0000e-004	2.9777

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	0.225792 / 0.580607	2.7589	7.4800e-003	2.0000e-004	2.9778
Total		2.7589	7.4800e-003	2.0000e-004	2.9778

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	0.225792 / 0.580607	2.7589	7.4800e-003	2.0000e-004	2.9777
Total		2.7589	7.4800e-003	2.0000e-004	2.9777

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.7944	0.1061	0.0000	4.0215
Unmitigated	1.7944	0.1061	0.0000	4.0215

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	8.84	1.7944	0.1061	0.0000	4.0215
Total		1.7944	0.1061	0.0000	4.0215

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	8.84	1.7944	0.1061	0.0000	4.0215
Total		1.7944	0.1061	0.0000	4.0215

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Cherry Charter School
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	6.80	1000sqft	0.16	6,804.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction emissions, renovation only

Off-road Equipment -

Vehicle Trips - Traffic Analysis by LLG

Area Coating - SCAQMD Rule 1113

Area Mitigation - SCAQMD Rule 1113

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1586	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Energy	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279
Mobile	1.3500e-003	4.4200e-003	0.0176	5.0000e-005	3.0900e-003	7.0000e-005	3.1500e-003	8.3000e-004	6.0000e-005	8.9000e-004		3.9991	3.9991	1.6000e-004		4.0023
Total	0.1621	0.0243	0.0351	1.7000e-004	3.0900e-003	1.5800e-003	4.6600e-003	8.3000e-004	1.5700e-003	2.4000e-003		27.8831	27.8831	6.2000e-004	4.4000e-004	28.0318

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1413	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Energy	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279
Mobile	1.3500e-003	4.4200e-003	0.0176	5.0000e-005	3.0900e-003	7.0000e-005	3.1500e-003	8.3000e-004	6.0000e-005	8.9000e-004		3.9991	3.9991	1.6000e-004		4.0023
Total	0.1448	0.0243	0.0351	1.7000e-004	3.0900e-003	1.5800e-003	4.6600e-003	8.3000e-004	1.5700e-003	2.4000e-003		27.8831	27.8831	6.2000e-004	4.4000e-004	28.0318

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	10.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Renovation	Architectural Coating	1/1/2017	12/30/2016	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,206; Non-Residential Outdoor: 3,402 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Renovation	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Renovation	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	1.3500e-003	4.4200e-003	0.0176	5.0000e-005	3.0900e-003	7.0000e-005	3.1500e-003	8.3000e-004	6.0000e-005	8.9000e-004		3.9991	3.9991	1.6000e-004		4.0023
Mitigated	1.3500e-003	4.4200e-003	0.0176	5.0000e-005	3.0900e-003	7.0000e-005	3.1500e-003	8.3000e-004	6.0000e-005	8.9000e-004		3.9991	3.9991	1.6000e-004		4.0023

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	0.34	0.00	0.00	1,038	1,038
Total	0.34	0.00	0.00	1,038	1,038

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279
NaturalGas Unmitigated	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	203.002	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279
Total		2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	0.203002	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279
Total		2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	0.1586	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Mitigated	0.1413	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0238					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1347					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Total	0.1586	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.4800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1347					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Total	0.1413	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Cherry Charter School
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	6.80	1000sqft	0.16	6,804.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction emissions, renovation only

Off-road Equipment -

Vehicle Trips - Traffic Analysis by LLG

Area Coating - SCAQMD Rule 1113

Area Mitigation - SCAQMD Rule 1113

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1586	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Energy	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279
Mobile	1.4000e-003	4.6700e-003	0.0173	4.0000e-005	3.0900e-003	7.0000e-005	3.1500e-003	8.3000e-004	6.0000e-005	8.9000e-004		3.8249	3.8249	1.6000e-004		3.8282
Total	0.1621	0.0246	0.0348	1.6000e-004	3.0900e-003	1.5800e-003	4.6600e-003	8.3000e-004	1.5700e-003	2.4000e-003		27.7089	27.7089	6.2000e-004	4.4000e-004	27.8577

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1413	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Energy	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279
Mobile	1.4000e-003	4.6700e-003	0.0173	4.0000e-005	3.0900e-003	7.0000e-005	3.1500e-003	8.3000e-004	6.0000e-005	8.9000e-004		3.8249	3.8249	1.6000e-004		3.8282
Total	0.1449	0.0246	0.0348	1.6000e-004	3.0900e-003	1.5800e-003	4.6600e-003	8.3000e-004	1.5700e-003	2.4000e-003		27.7089	27.7089	6.2000e-004	4.4000e-004	27.8577

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	10.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Renovation	Architectural Coating	1/1/2017	12/30/2016	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,206; Non-Residential Outdoor: 3,402 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Renovation	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Renovation	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	1.4000e-003	4.6700e-003	0.0173	4.0000e-005	3.0900e-003	7.0000e-005	3.1500e-003	8.3000e-004	6.0000e-005	8.9000e-004		3.8249	3.8249	1.6000e-004		3.8282
Mitigated	1.4000e-003	4.6700e-003	0.0173	4.0000e-005	3.0900e-003	7.0000e-005	3.1500e-003	8.3000e-004	6.0000e-005	8.9000e-004		3.8249	3.8249	1.6000e-004		3.8282

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	0.34	0.00	0.00	1,038	1,038
Total	0.34	0.00	0.00	1,038	1,038

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279
NaturalGas Unmitigated	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	203.002	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279
Total		2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	0.203002	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279
Total		2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003		23.8825	23.8825	4.6000e-004	4.4000e-004	24.0279

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	0.1586	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Mitigated	0.1413	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0238					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1347					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Total	0.1586	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.4800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1347					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Total	0.1413	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Appendix B

Noise Measurement Data

AMBIENT NOISE SURVEY DATA SHEET

Project: Long Beach-Cherry Charter
 Date: 9/8/16
 Operator: Vanessa Villanueva

Job Number: _____

4:50

Station: <u>E Market St</u> Begin: <u>4:25</u> Measurement No. <u>1</u> Finish: <u>4:40</u> Wind: _____ mph Direction: _____ Temperature: _____ Cloud Cover Class Daytime <input type="checkbox"/> 1 - Overcast >80% <input type="checkbox"/> 2 - Light 20-80% <input checked="" type="checkbox"/> 3 - Sunny <20% Nighttime <input type="checkbox"/> 4 - Clear <50% <input type="checkbox"/> 5 - Overcast >50% Primary Noise Source: <u>traffic flow</u> Distance: <u>~ 1 ft</u> Secondary Noise Sources: _____ Notes: <u>2 lanes each way + 1 center turning lane</u> Traffic LDA/T: <u>413</u> MDT: <u>1</u> HDT: _____ Leq: <u>70</u> L(10): <u>74.5</u> Lmin: <u>51.5</u> L(33): _____ Lmax: <u>84.3</u> L(50): <u>68.9</u> Peak: _____ L(90): <u>58.7</u> 95: <u>55.7</u> Calibration Start: <u>94</u> dB End: <u>94</u> dB Response: <input type="checkbox"/> Slow <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Peak <input type="checkbox"/> Impulse Weighting: <input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> Linear Octave Filter: <input type="checkbox"/> NA <input type="checkbox"/> _____ Hz	Station: <u>Cherry Ave</u> Begin: <u>4:50</u> Measurement No. <u>2</u> Finish: <u>5:05</u> Wind: _____ mph Direction: _____ Temperature: _____ Cloud Cover Class Daytime <input type="checkbox"/> 1 - Overcast >80% <input type="checkbox"/> 2 - Light 20-80% <input checked="" type="checkbox"/> 3 - Sunny <20% Nighttime <input type="checkbox"/> 4 - Clear <50% <input type="checkbox"/> 5 - Overcast >50% Primary Noise Source: <u>traffic flow</u> Distance: <u>~ 6 ft</u> Secondary Noise Sources: _____ Notes: <u>2 lanes each way</u> Traffic LDA/T: <u>579</u> MDT: <u>11</u> HDT: <u>11</u> Leq: <u>76.9</u> L(10): <u>76.5</u> Lmin: <u>51.0</u> L(33): _____ Lmax: <u>102.3</u> L(50): <u>70.6</u> Peak: _____ L(90): <u>61.9</u> 95: <u>60.2</u> Calibration Start: <u>94</u> dB End: _____ dB Response: <input type="checkbox"/> Slow <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Peak <input type="checkbox"/> Impulse Weighting: <input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> Linear Octave Filter: <input type="checkbox"/> NA <input type="checkbox"/> _____ Hz
--	---

Note: Provide Sketch of Location on Back.

[Environmental Review Main \(/programs/environmental-review/\)](/programs/environmental-review/)

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the Day/Night Noise Level Calculator Electronic Assessment Tool Overview (<https://onecpd.info/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/>).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID

Record Date

User's Name

Road # 1 Name:

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text" value="13"/>	<input type="text"/>	<input type="text"/>
Distance to Stop Sign	<input type="text" value="105"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="50"/>	<input type="text"/>	<input type="text"/>
Average Daily Trips (ADT)	<input type="text" value="46260"/>	<input type="text"/>	<input type="text"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text"/>	<input type="text"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>

Vehicle DNL

Road # 2 Name:

Road #2

Vehicle Type **Cars** **Medium Trucks** **Heavy Trucks**

Effective Distance

Distance to Stop Sign

Average Speed

Average Daily Trips (ADT)

Night Fraction of ADT

Road Gradient (%)

Vehicle DNL

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (<https://www.onecpd.info/programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (<https://www.onecpd.info/resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the Barrier Performance Module (<https://onecpd.info/programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (<https://www.onecpd.info/resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (<https://www.onecpd.info/resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

[Environmental Review Main \(/programs/environmental-review/\)](/programs/environmental-review/)

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the Day/Night Noise Level Calculator Electronic Assessment Tool Overview (<https://onecpd.info/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/>).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID

Record Date

User's Name

Road # 1 Name:

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text" value="13"/>	<input type="text"/>	<input type="text"/>
Distance to Stop Sign	<input type="text" value="105"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="50"/>	<input type="text"/>	<input type="text"/>
Average Daily Trips (ADT)	<input type="text" value="46836"/>	<input type="text"/>	<input type="text"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text"/>	<input type="text"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>

Vehicle DNL	77		
-------------	----	--	--

Calculate Road #1 DNL	77	Reset
-----------------------	----	-------

Road # 2 Name:	Market Street
----------------	---------------

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
--------------	--	--	---------------------------------------

Effective Distance	30		
--------------------	----	--	--

Distance to Stop Sign	200		
-----------------------	-----	--	--

Average Speed	40		
---------------	----	--	--

Average Daily Trips (ADT)	31816		
---------------------------	-------	--	--

Night Fraction of ADT	15		
-----------------------	----	--	--

Road Gradient (%)			
-------------------	--	--	--

Vehicle DNL	69.8		
-------------	------	--	--

Calculate Road #2 DNL	69.8	Reset
-----------------------	------	-------

Add Road Source

Add Rail Source

Airport Noise Level	
---------------------	--

Loud Impulse Sounds?	<input type="radio"/> Yes <input type="radio"/> No
----------------------	--

Combined DNL for all Road and Rail sources	77.8
--	------

Combined DNL including Airport	N/A
--------------------------------	-----

Site DNL with Loud Impulse Sound	
----------------------------------	--

Calculate

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (<https://www.onecpd.info/programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (<https://www.onecpd.info/resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the Barrier Performance Module (<https://onecpd.info/programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (<https://www.onecpd.info/resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (<https://www.onecpd.info/resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

Appendix C

Traffic Study



October 14, 2016

Mr. Joe Power
Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

LLG Reference: 2.16.3742.1

Subject: Focused Traffic Analysis for the North Jordan Opportunities for Learning Public Charter School
Long Beach, California

Engineers & Planners
Traffic
Transportation
Parking

Linscott, Law & Greenspan, Engineers
2 Executive Circle
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Dear Mr. Power:

Linscott, Law & Greenspan, Engineers (LLG) is pleased to present the findings of a focused traffic analysis for the proposed North Jordan Opportunities for Learning Public Charter School (hereinafter referred to as “Project”) in the City of Long Beach. The project site is generally located south of Market Street and west of Cherry Avenue at 5365 Cherry Avenue. The proposed charter school is a for-profit school that will provide an Opportunities for Learning (OFL) program compliant with state ADA regulations to serve non-ambulatory students in grades 7-12. The expected enrollment for the school is 40 to 45 students per 1.5 hour appointment time offered four times on a typical weekday. The number of school employees is expected to consist of 6 teachers and 2 support staff members. The proposed Project will be replacing an existing 6,750 square-foot (SF) WSS shoe store.

Pasadena
Irvine
San Diego
Woodland Hills



This focused traffic analysis will determine and evaluate the potential traffic impact needs associated with the proposed Project. Included in this evaluation is a site access analysis and weekday peak hour level of service calculations for the following conditions:

- a) Existing traffic conditions;
- b) Existing Plus Project traffic conditions;
- c) Traffic in (b) plus mitigation, if required.

This following one (1) study intersection and two (2) project site driveways have been selected for evaluation in this analysis:

1. Cherry Avenue at Market Street
2. Project Driveway 1 at Market Street
3. Cherry Avenue at Project Driveway 2

Philip M. Linscott, PE (1924-2000)
Jack M. Greenspan, PE (Ret.)
William A. Law, PE (Ret.)
Paul W. Wilkinson, PE
John P. Keating, PE
David S. Shender, PE
John A. Boarman, PE
Clare M. Look-Jaeger, PE
Richard E. Barretto, PE
Keil D. Maberry, PE

PROJECT DESCRIPTION

The project site is generally located south of Market Street and west of Cherry Avenue at 5365 Cherry Avenue. *Figure 1* presents a vicinity map which illustrates the general location of the project and depicts the surrounding street system. The subject property is currently developed with a 6,750 SF commercial building now occupied by WSS, a shoe store. The property is composed of three lots, totaling 23,580 SF. Currently the site has two general plan designations and is split zoned. The applicant is proposing a general plan amendment and a zone change to allow the change of the land use designation to be LUD #8R, Mix Retail Residential Strip District and zone change to be Community Commercial Automobile zone. The approval of the general plan amendment and zone change will allow the process of the Conditional Use Permit at the subject site for charter school. *Figure 2* presents an aerial image of the existing site.

Figure 3 presents the proposed site plan for the project and *Figure 4* presents the proposed floor plan. Vehicular access to the campus will be provided via two (2) “right-turn only” driveways located on Market Street and Cherry Avenue. A review of the preliminary floor plan shown in *Figure 4* indicates that within 6,750 SF of floor area, the following areas will be provided:

- Small group construction (SGI) rooms (3),
- A conference room (1),
- Kitchenette (1),
- Restrooms (4),
- IT/Storage space (1), and
- Business area/open collaboration/tutoring/training area

OFL students attend school for two 1.5 hour appointments per week. During the appointments, students receive their curriculum from their teachers. Additionally, students are able to attend small group instruction classes, take tests, meet with college advisors, and if needed, receive additional instruction from a tutor. Students are required to study and complete coursework independently for 4 to 6 hours each day.

At the proposed center, there will be 40 to 45 students with 6 teachers and 2 support staff members. Each teacher serves a maximum of 7 to 8 students per 1.5 hour appointment. Typical student appointments are at 9:00 AM, 10:30 AM, 1:00 PM and 2:30 PM.

OFL centers are open Monday through Friday from 8:00 AM to 5:00 PM, closed for lunch from 12:00 PM to 1:00 PM, and closed most Saturdays and all Sundays. Additionally, OFL offers Saturday school 4 times a year for SAT and CASHEE prep testing from 9:00 AM to 12:00 PM.

EXISTING CONDITIONS

Existing Circulation Network

A comprehensive inventory of the street system within the study area was undertaken to develop a detailed description of existing traffic conditions. *Figure 5* illustrates the existing roadway conditions and lane configurations.

Existing Traffic Volumes

Figure 6 illustrates the existing weekday AM and PM peak hour traffic volumes, at the one (1) key study intersection. The weekday AM and PM peak period traffic counts were conducted by Transportation Studies, Inc. in September 2016. The traffic counts are attached at the end of this letter report in *Appendix A*.

Intersection Peak Hour Level of Service Methodology

Existing AM and PM peak hour operating conditions for the key signalized study intersections were evaluated using the *Intersection Capacity Utilization (ICU)* methodology for signalized intersections and the *Highway Capacity Manual (HCM)* methodology for unsignalized intersections.

Intersection Capacity Utilization (ICU) Methodology

In conformance with City of Long Beach and LA County CMP requirements, existing weekday peak hour operating conditions for the key signalized study intersections were evaluated using the Intersection Capacity Utilization (ICU) method. The ICU technique is intended for signalized intersection analysis and estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

Per LA County CMP requirements, the ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through, and right-turn lanes, and dual left turn capacity of 2,880 vph. Per City of Long Beach requirements, a clearance interval of 0.10 is also added to each Level of Service calculation.

The ICU value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding ICU value range and are shown in *Table 1*. The ICU value is the sum of the critical volume to capacity ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements.

Highway Capacity Manual (HCM) Methodology (Unsignalized Intersections)

The HCM unsignalized methodology for stop-controlled intersections was utilized for the analysis of the unsignalized intersections. This methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. For all-way stop controlled intersections, the overall average control delay measured in seconds per vehicle, and level of service is then calculated for the entire intersection. For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst side street delay, measured in seconds per vehicle and determines the level of service for that approach. The HCM control delay value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding HCM control delay value range, as shown in **Table 2**.

Minimum LOS Thresholds and Significant Traffic Impact Criteria

According to the City of Long Beach, LOS D is the minimum acceptable condition that should be maintained during the peak commute hours, or the current LOS if the existing LOS is worse than LOS D (i.e. LOS E or F).

Impacts to local and regional transportation systems are considered significant if:

- The project causes a study intersection to deteriorate from Level of Service (LOS) D to LOS E or F. The City of Long Beach considers LOS D (ICU = 0.801 - 0.900) to be the minimum acceptable LOS for all intersections; or
- The project increases traffic demand at the study intersection by 2% of capacity (ICU increase ≥ 0.020), causing or worsening LOS E or F (ICU > 0.901) when an intersection is operating at LOS E or F in the baseline condition.

PROJECT TRAFFIC VOLUMES

A multi-step process was utilized to develop Project traffic forecasts. The first step is Project traffic generation, which estimates the total arriving and departing traffic at the Project site. The second step of the forecasting process is Project traffic distribution, which involves the development of a geographic trip distribution pattern that identifies the origins/destinations of Project traffic. The third step is Project traffic assignment, by which Project-generated trips are allocated on the street system.

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation factors and equations found in the 9th Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington, D.C., 2012] are typically applied in trip forecasting procedures.

Proposed Project Trip Generation

Since ITE trip rates do not specifically account for the unique trip making characteristics of the proposed project, project-generated traffic was estimated based on the charter school's operation schedule and deriving vehicular trips from the expected enrollment of 180 students and 8 staff members.

Given that the OFL center will be open from 8:00 AM to 5:00 PM on weekdays, it was presumed that 100% of school staff would arrive during the weekday AM peak hour and depart in the PM peak hour. It was also presumed that the school staff would depart for a lunch break at 12:00 PM and arrive back to campus by 1:00 PM.

At the proposed center, student appointments begin at 9:00 AM, 10:30 AM, 1:00 PM and 2:30 PM for 1.5 hour sessions each. As a conservative measure, it is assumed that a maximum of 45 students are enrolled for each appointment time. Based on this information, it was presumed that 45 students would arrive during the weekday AM peak hour to attend class at 9:00 AM, and 45 students will depart in the PM peak hour after the last scheduled class at 2:30 PM. Similarly, it was presumed that students will be arriving and departing the school during the non-peak hours based on the remaining appointment times. Of these students, it is presumed that 33% of students are able to drive themselves while the remaining 67% of students are dropped-off at school. An additional 10% reduction factor was applied to account for students carpooling.

The upper half of *Table 3* summarizes the proposed Project trip generation rates and forecast vehicular trips. As shown, the proposed Project is forecast to generate 576 daily trips (one half arriving and one half departing) on a typical weekday, with 76 trips (49 inbound, 27 outbound) produced in the AM peak hour and 76 trips (27 inbound, 49 outbound) produced in the PM peak hour.

Existing Land Use

Trip generation was forecasted for the existing WSS shoe store. The lower half of *Table 3* presents the trip generation rates used and forecasted vehicular trips. As shown, the trip generation potential of the existing land use was estimated using trip rates for ITE Land Use 820: Shopping Center. The existing land use is forecast to generate 259 daily trips (one half arriving, one half departing) on a typical weekday, with 5 trips (3 inbound, 2 outbound) produced in the AM peak hour and 16 trips (8 inbound, 8 outbound) produced in the PM peak hour. Please note that as a conservative measure, a pass-by reduction of 10% for the daily and AM peak hour and 34% for the PM peak hour was applied.

Proposed Project vs. Existing Land Use

As shown in *Table 3*, a comparison of the proposed Project and the Existing Land use results in a net trip generation forecast of 317 daily trips (one half arriving, one half departing) on a typical weekday, with 71 trips (46 inbound, 25 outbound) produced in

the AM peak hour and 60 trips (19 inbound, 41 outbound) produced in the PM peak hour. The potential traffic impact of these Project trips is assessed in this analysis.

Figure 7 illustrates the trip distribution pattern developed for the Project for a typical weekday. The project-generated traffic volumes were then distributed and assigned to the adjoining street system. The Project-generated traffic volumes during the weekday AM and PM peak hours are presented on **Figure 8**. **Figure 9** presents Existing Plus Project AM and PM peak hour volumes.

PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Table 4 summarizes the peak hour Level of Service results at the one (1) key study intersection and two (2) project driveways for Existing and Existing Plus Project traffic conditions. The first column (1) of **Table 4** presents a summary of Existing AM and PM peak hour traffic conditions. The second column (2) lists Existing Plus Project traffic conditions with current intersection geometry/lane configurations. The third column (3) shows the increase in ICU/HCM value due to the added peak hour project trips and indicates whether the traffic associated with the Project will have a significant impact based on the significant impact criteria defined in this letter.

Existing Traffic Conditions

Column (1) of **Table 4** summarizes the Existing (Year 2016) peak hour levels of service for the key study intersection based on existing traffic volumes and current street geometries. As **Table 4** indicates, the intersection of Cherry Avenue at Market Street currently operates at acceptable LOS D in the AM peak hour and unacceptable LOS E in the PM peak hour.

Existing Plus Project Traffic Conditions

Review of Columns (2) and (3) of **Table 4** indicates that the traffic associated with the proposed project **will not** significantly impact the key study intersection of Cherry Avenue at Market Street. While the intersection of Cherry Avenue at Market Street is forecast to operate at unacceptable LOS E in the PM peak hour, the proposed Project is expected to add less than 0.20 to the ICU value. The two (2) project driveways are forecast to operate at acceptable LOS C or better.

The ICU/HCM/LOS calculation worksheets are attached at the end of this letter report in **Appendix B**.

SITE ACCESS

Site Access Analysis

Access to the project site will be provided via two “right-turn only” stop-controlled driveways located on Market Street at Cherry Avenue. Based on our evaluation, of the project driveway traffic volumes and forecast acceptable service levels at the two

intersections identified above, site access will be adequate. Motorists entering and exiting the Project site will be able to do so comfortably, safely, and without undue congestion.

To ensure adequate access and egress to the site is provided, it is recommended to install a “STOP” sign and bar at the proposed Project driveways, along with all appropriate striping, signage and/or pavement legends per City of Long Beach standards/requirements.

Sight Distance Evaluation

At intersections and/or project driveways, a substantially clear line of sight should be maintained between the driver of a vehicle waiting at the crossroad and the driver of an approaching vehicle. Adequate time must be provided for the waiting vehicle to either cross all lanes of through traffic, cross the near lanes and turn left, or turn right, without requiring through traffic to radically alter their speed.

Sight distance evaluations were prepared for the project driveways based on the criteria and procedures set forth by the California Department of Transportation (Caltrans) in the State’s *Highway Design Manual (HDM)*. Stopping sight distance was utilized for the evaluation. Stopping sight distance is defined in the State of California Department of Transportation (Caltrans) *Highway Design Manual (HDM)* as the distance required by the driver of a vehicle, traveling at a given speed, to bring his vehicle to a stop after an object on the road becomes visible. Stopping sight distance is measured from the driver’s eyes, which are assumed to be 3.5 feet above the pavement surface, to an object 0.5-foot high on the roadway. The speed used in determining stopping sight distance is defined as the “critical speed” or 85th percentile speed which is the speed at which 85% of the vehicles are traveling at or less. The critical speed is the single most important factor in determining stopping sight distance. Table 201.1 in the HDM is used in determining stopping sight distance based on the critical speed of vehicles on the affected roadway.

Hence, for this analysis, a design speed (posted speed limit) of 35 miles per hour (mph) for Market Street and 40 mph for Cherry Avenue was utilized. Using Table 201.1, titled *Sight Distance Standards*, in the State’s *Highway Design Manual* for stopping, a minimum stopping sight distance of 250 feet and 300 feet apply based on the critical speed of 35 mph and 40 mph, respectively.

Figure 10 presents a schematic of the sight distance evaluations performed at the proposed Project driveways, which illustrates the actual sight distances and corresponding limited use areas. As shown, a motorist’s sight distance may be obstructed by future landscaping and/or hardscapes. Therefore, any landscaping and/or hardscapes should be designed such that a driver’s clear line of sight is not obstructed and does not threaten vehicular or pedestrian safety, as determined by the City Engineer (see limited use areas on *Figure 10*).

CONCLUSION

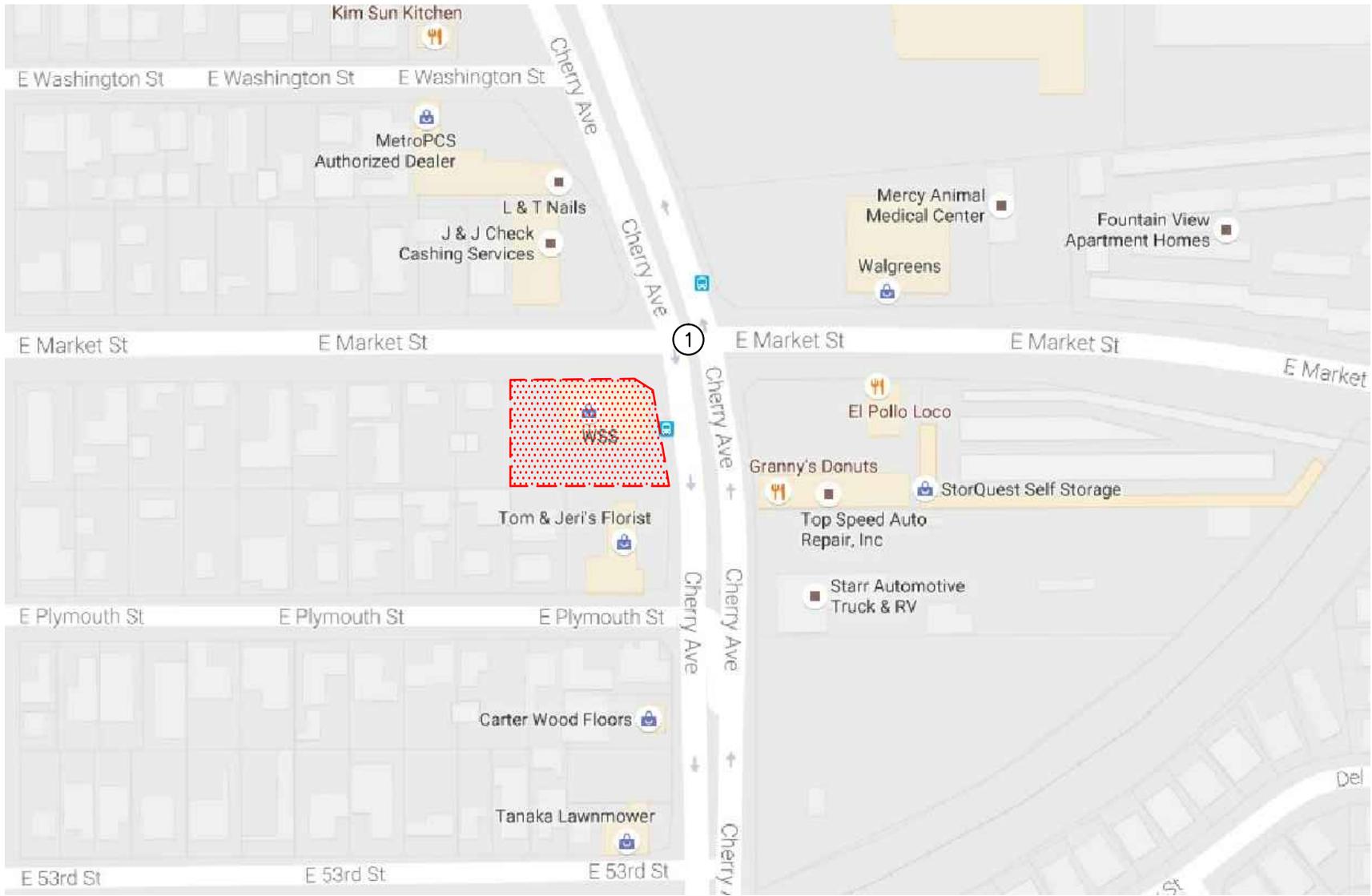
Based on the data presented above, it is concluded that the proposed North Jordan OFL Public Charter School will not create any traffic impacts at the intersection of Cherry Avenue at Market Street. Additionally, site access to the proposed Project is expected to be adequate and motorists entering and exiting the Project site will be able to do so comfortably, safely, and without undue congestion.

We appreciate the opportunity to work on this project. If you have any questions regarding this letter, please do not hesitate to call me at (949) 825-6175.

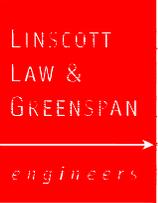
Sincerely,
Linscott, Law & Greenspan, Engineers



Trissa (de Jesus) Allen, P.E.
Senior Transportation Engineer



n:\3700\2163742 - north_jordan_ofl_public_charter_school_long_beach\dwg\3742_f-1.dwg LDP 11:50:08 10-14-2016 aguilera



SOURCE: GOOGLE

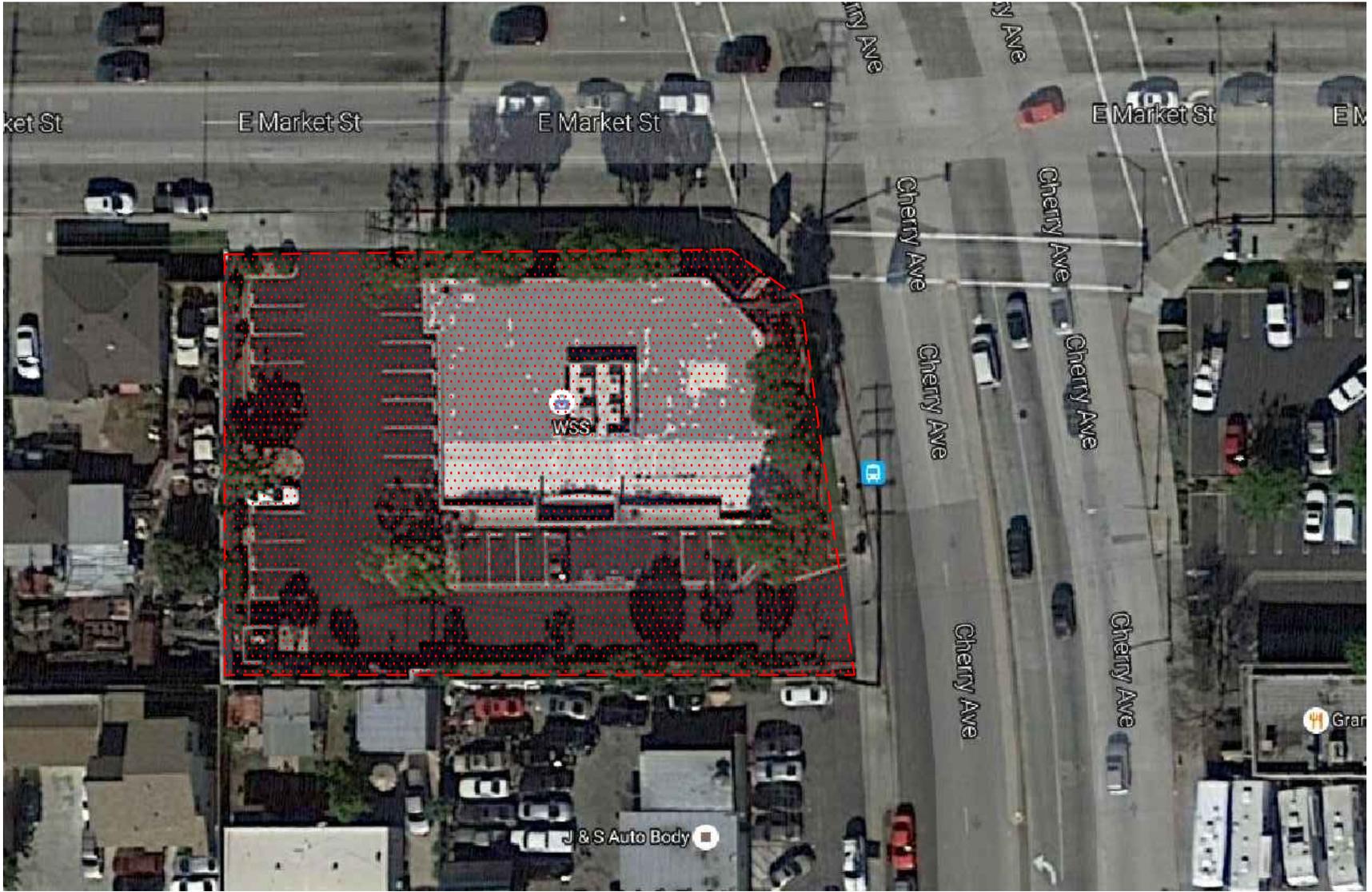
KEY

-  = STUDY INTERSECTION
-  = PROJECT SITE

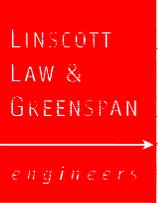
FIGURE 1

VICINITY MAP

NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH



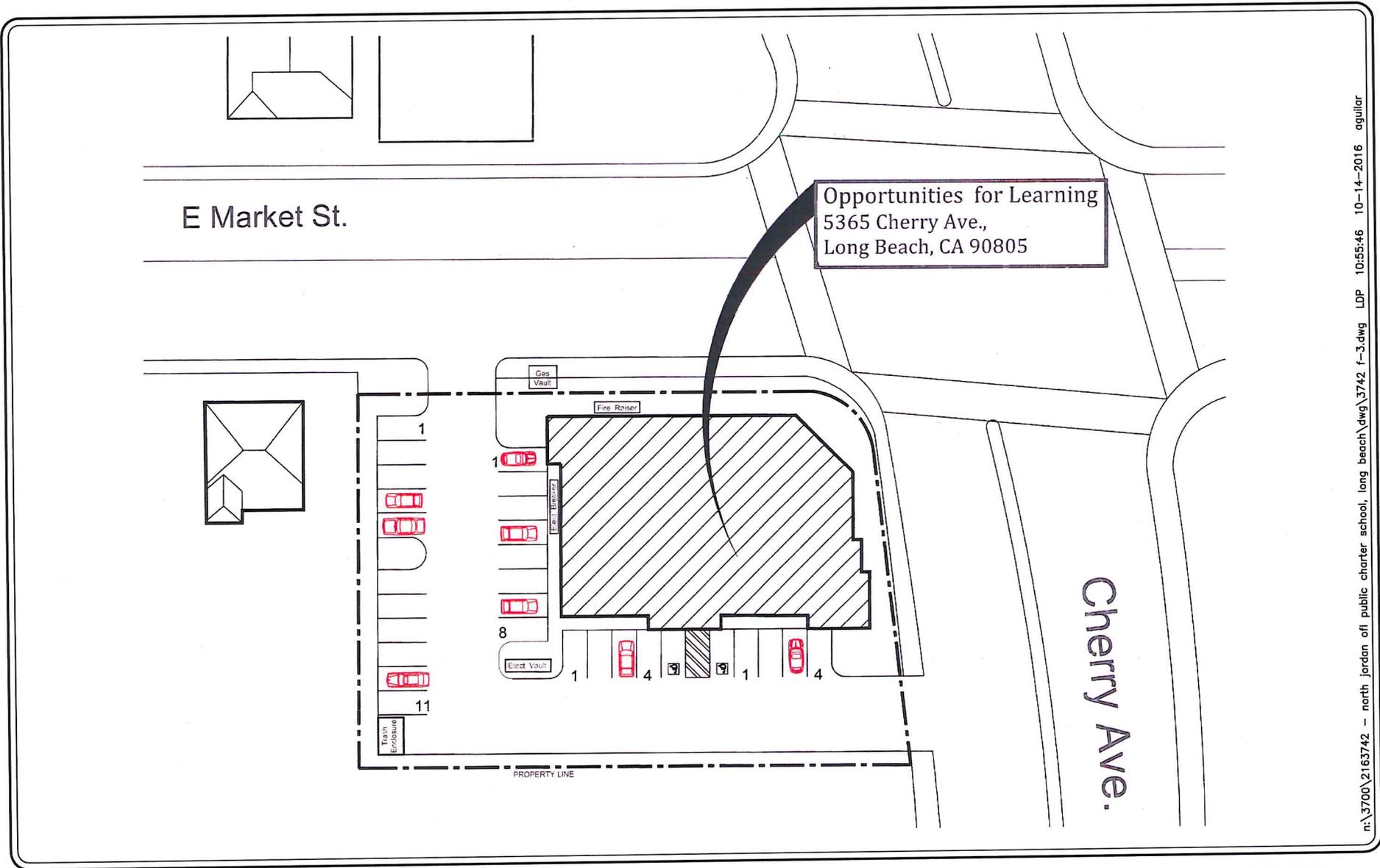
n:\3700\2163742 - north jordan ofl public charter school, long beach\dwg\3742 f-2.dwg LDP 10:53:06 10-14-2016 aguilar



SOURCE: GOOGLE
 KEY
 [Red dotted box] = PROJECT SITE

FIGURE 2

EXISTING AERIAL SITE PLAN
 NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH



n:\3700\2163742 - north_jordan_ofl_public_charter_school_long_beach\dwg\3742 f-3.dwg LDP 10:55:46 10-14-2016 aguilera

SOURCE: LUPINE PROPERTIES

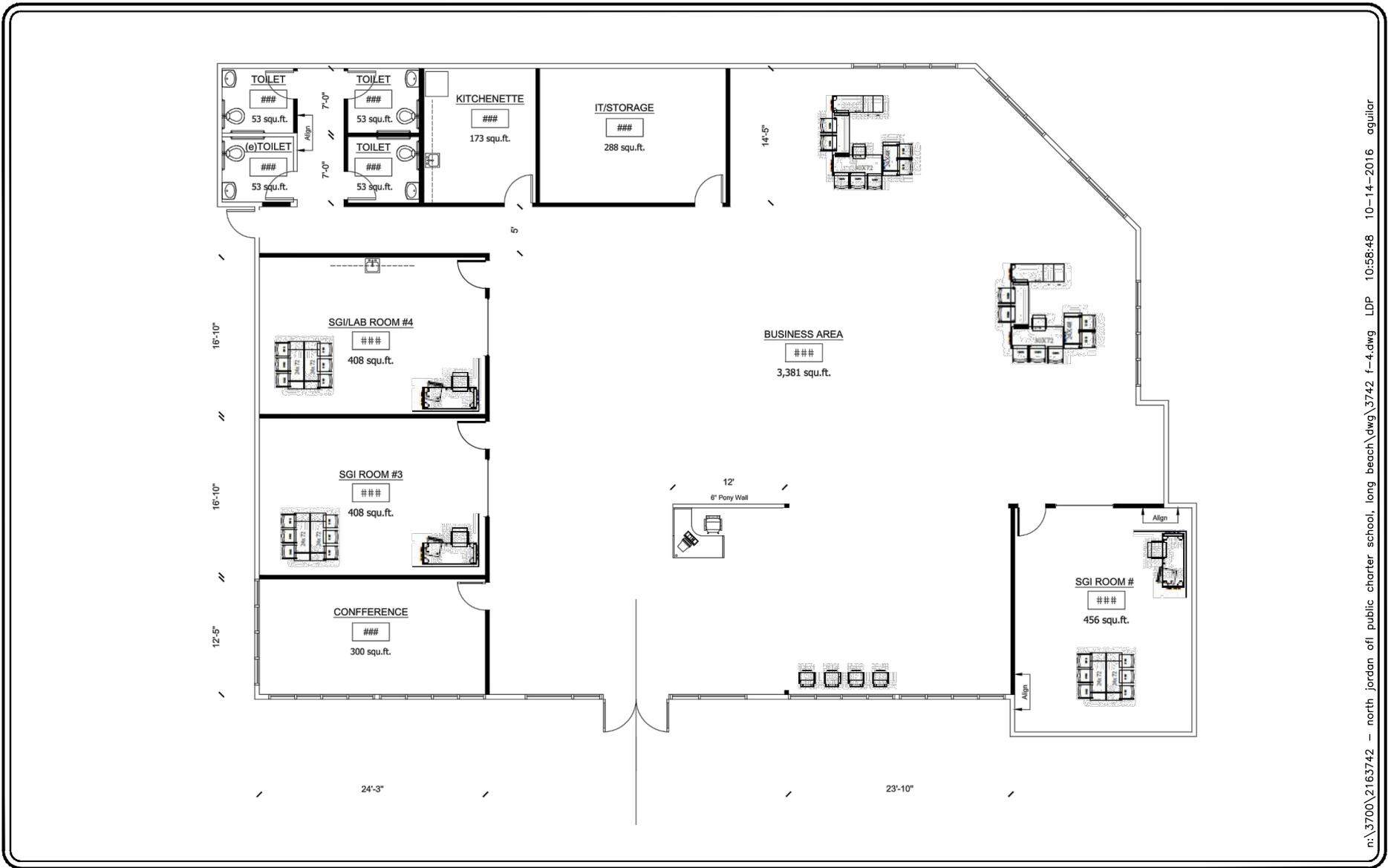
FIGURE 3

PROPOSED SITE PLAN

NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH

LINSCOTT
LAW &
GREENSPAN
engineers





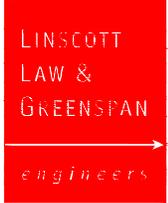
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SOURCE: LUPINE PROPERTIES

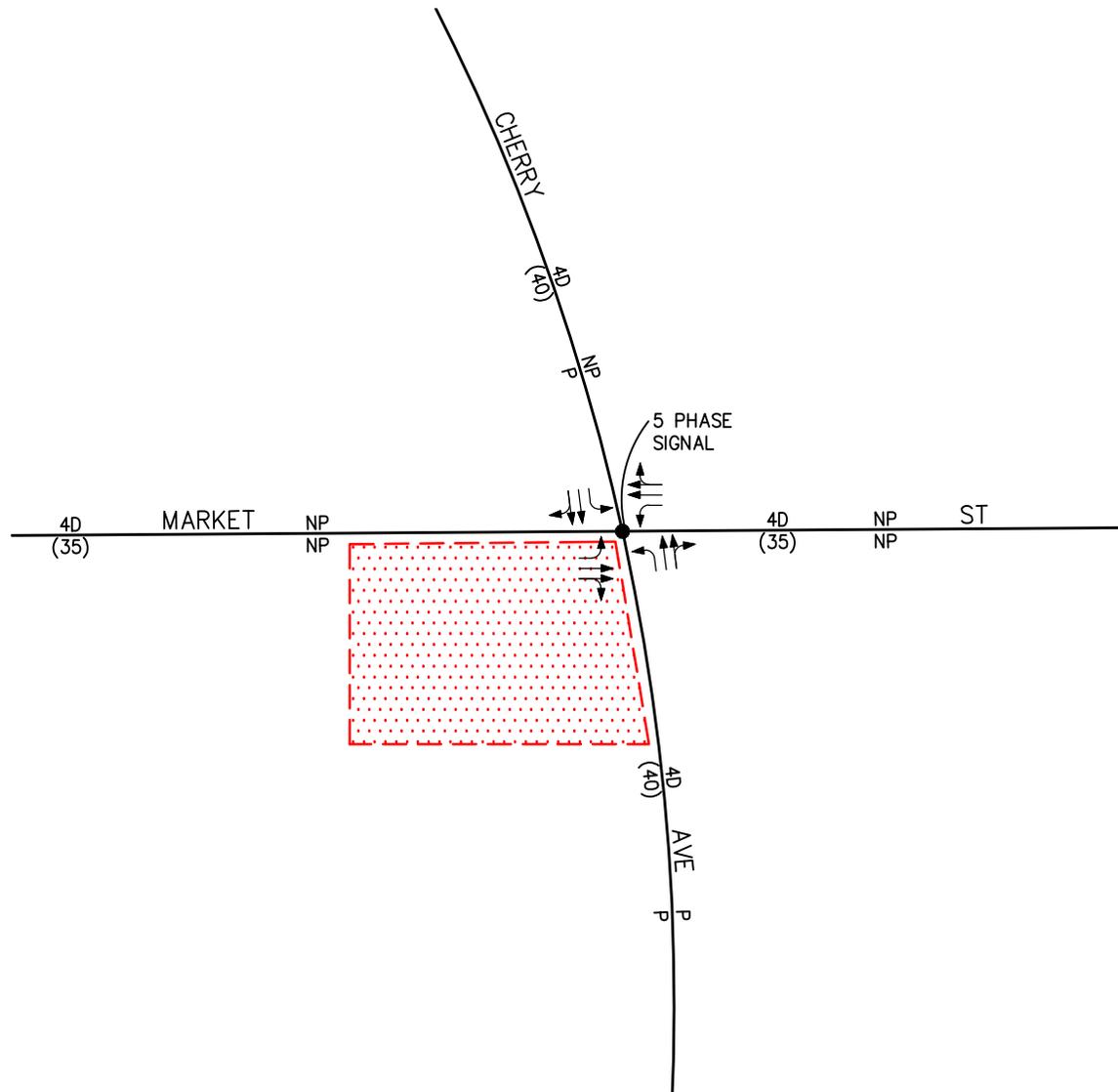
FIGURE 4

PROPOSED FLOOR PLAN

NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH



 NO SCALE



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LINSCOTT
LAW &
GREENSPAN
engineers



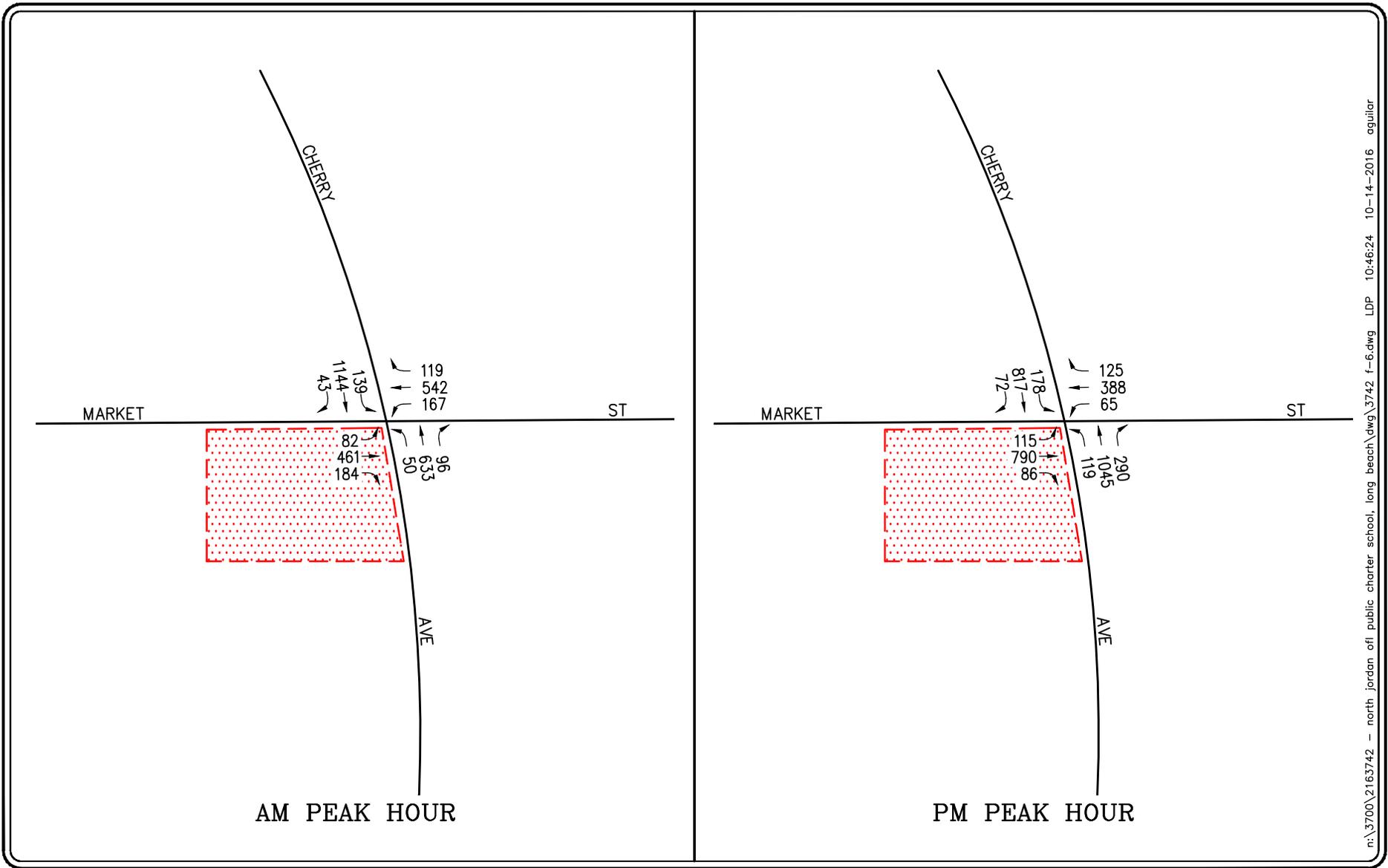
KEY

- ← = APPROACH LANE ASSIGNMENT
- = TRAFFIC SIGNAL, ▼ = STOP SIGN
- P = PARKING, NP = NO PARKING
- U = UNDIVIDED, D = DIVIDED
- 2 = NUMBER OF TRAVEL LANES
- (XX) = POSTED SPEED LIMIT (MPH)
- [Red Hatched Box] = PROJECT SITE

FIGURE 5

EXISTING ROADWAY CONDITIONS
AND INTERSECTION CONTROLS

NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH



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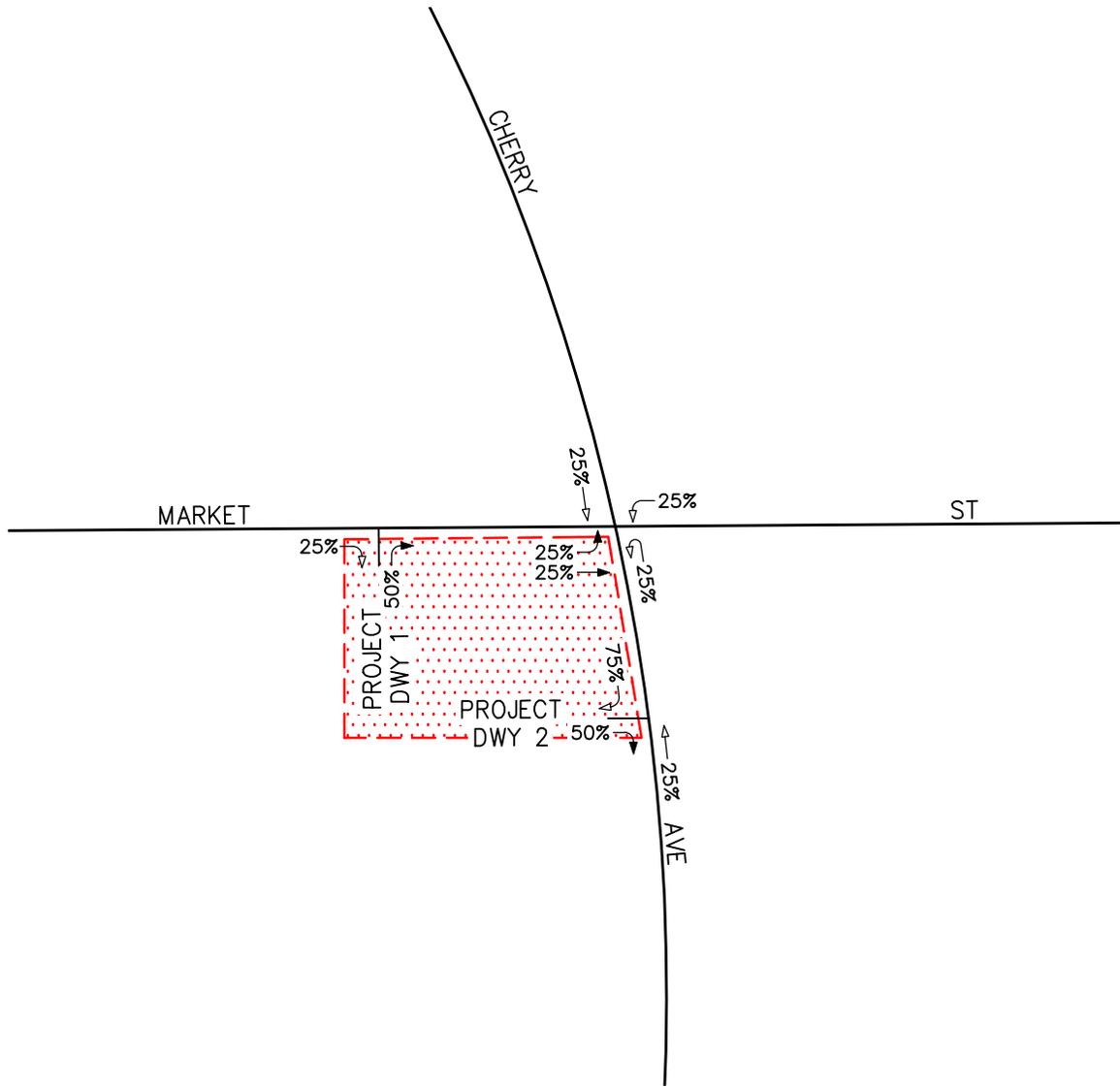
LINSCOTT
LAW &
GREENSPAN
engineers

NO SCALE

KEY
 = PROJECT SITE

FIGURE 6

EXISTING AM AND PM PEAK HOUR TRAFFIC VOLUMES
 NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH



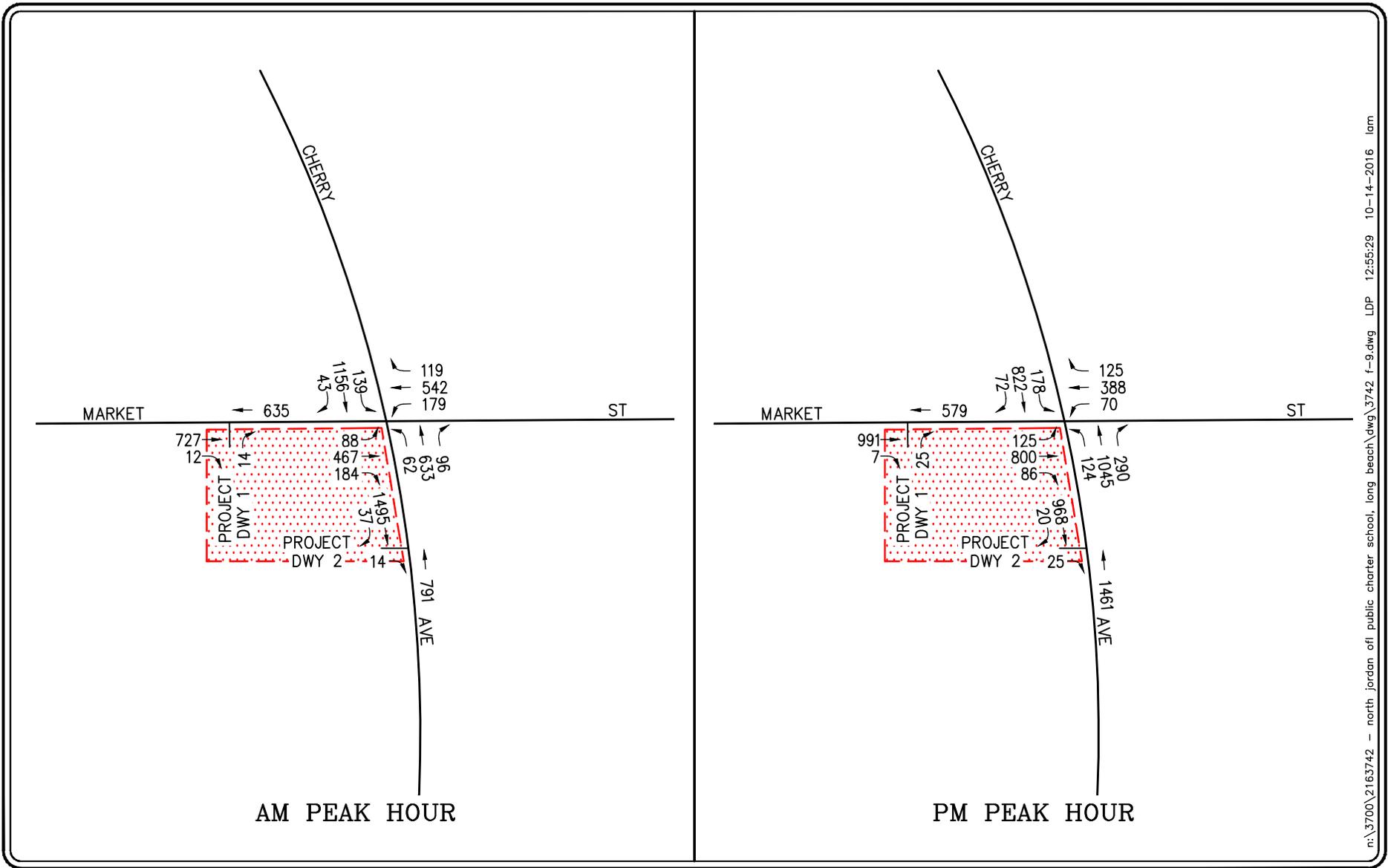
LINSCOTT
LAW &
GREENSPAN
engineers

NO SCALE

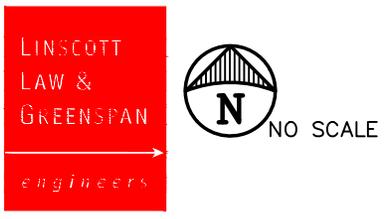
- KEY
- ← = INBOUND PERCENTAGE
 - = OUTBOUND PERCENTAGE
 - [Red Hatched Box] = PROJECT SITE

FIGURE 7

PROJECT TRAFFIC DISTRIBUTION PATTERN
NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH



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KEY
 = PROJECT SITE

FIGURE 9

EXISTING PLUS PROJECT
 AM AND PM PEAK HOUR TRAFFIC VOLUMES
 NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH



n:\3700\2163742 - north jordan ofl public charter school, long beach\dwg\3742 f-10.dwg LDP 12.01.11 10-14-2016 aguilera

SOURCE: GOOGLE

FIGURE 10

SIGHT DISTANCE ANYALYSIS

NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH



SCALE: 1"=60'

TABLE 1
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS (ICU)
NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH

Level of Service (LOS)	Intersection Capacity Utilization Value (V/C)	Level of Service Description
A	≤ 0.600	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.601 – 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 – 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 – 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 – 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

TABLE 2
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS (HCM)¹
NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH

Level of Service (LOS)	Highway Capacity Manual Delay Value (sec/veh)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

¹ Source: *Highway Capacity Manual 2010*, Chapter 19 (Unsignalized Intersections).

TABLE 3
PROJECT TRIP GENERATION FORECAST
NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Rates:							
▪ Charter School (TE/Person) ²	3.00	65%	35%	0.40	35%	65%	0.40
▪ 820: Shopping Center (TE/1000 SF) ³	42.70	62%	38%	0.96	48%	52%	3.71
Generation Forecasts:							
<u>Proposed Project</u>							
▪ Charter School (180 Students + 8 Staff) ²	576	49	27	76	27	49	76
<u>Existing Land Use</u>							
▪ Shoe Store (6,750 SF)	288	4	2	6	12	13	25
<i>Less Pass-by (Daily: 10%; AM: 10%; PM: 34%)</i>	<u>-29</u>	<u>-1</u>	<u>0</u>	<u>-1</u>	<u>-4</u>	<u>-5</u>	<u>-9</u>
Sub-total	259	3	2	5	8	8	16
Net Difference: Proposed Project vs. Existing Land Use	317	46	25	71	19	41	60

Notes:

- TE/Person = Trip end per person
- TE/1000 SF = Trip end per 1,000 SF

² Trips for the proposed Project were estimated based on the expected enrollment of 180 students and 8 staff members as well as the charter school's projected weekday operational schedule.

³ Source: *Trip Generation, 9th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2012).*

TABLE 4
EXISTING PLUS PROJECT PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY
NORTH JORDAN OFL PUBLIC CHARTER SCHOOL, LONG BEACH

Key Intersection	Control Type	Time Period	(1) Existing Traffic Conditions		(2) Existing Plus Project Traffic Conditions		(3) Significant Impact	
			ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No
1. Cherry Avenue at Market Street	5Ø Traffic	AM	0.819	D	0.840	D	0.021	No
	Signal	PM	0.954	E	0.960	E	0.006	No
2. <i>Project Driveway 1 at Market Street</i>	<i>One-Way</i>	<i>AM</i>	--	--	<i>10.9 s/v</i>	<i>B</i>	--	--
	<i>Stop</i>	<i>PM</i>	--	--	<i>12.3 s/v</i>	<i>B</i>	--	--
3. <i>Cherry Avenue at Project Driveway 2</i>	<i>One-Way</i>	<i>AM</i>	--	--	<i>15.9 s/v</i>	<i>C</i>	--	--
	<i>Stop</i>	<i>PM</i>	--	--	<i>12.3 s/v</i>	<i>B</i>	--	--

Notes:

- Ø = Phase
- LOS = Level of Service, please refer to *Tables 1* and *2* for the LOS definitions
- s/v = seconds per vehicle (delay)
- *Italicized* text corresponds to an unsignalized/stop-controlled intersection
- **Bold ICU/LOS and HCM/LOS values** indicate adverse service levels based on the LOS standards mentioned in this report

APPENDIX A
EXISTING TRAFFIC COUNT DATA

City: LONG BEACH
 N-S Direction: CHERRY AVENUE
 E-W Direction: MARKET STREET

File Name : h1609028
 Site Code : 00000000
 Start Date : 9/15/2016
 Page No : 1

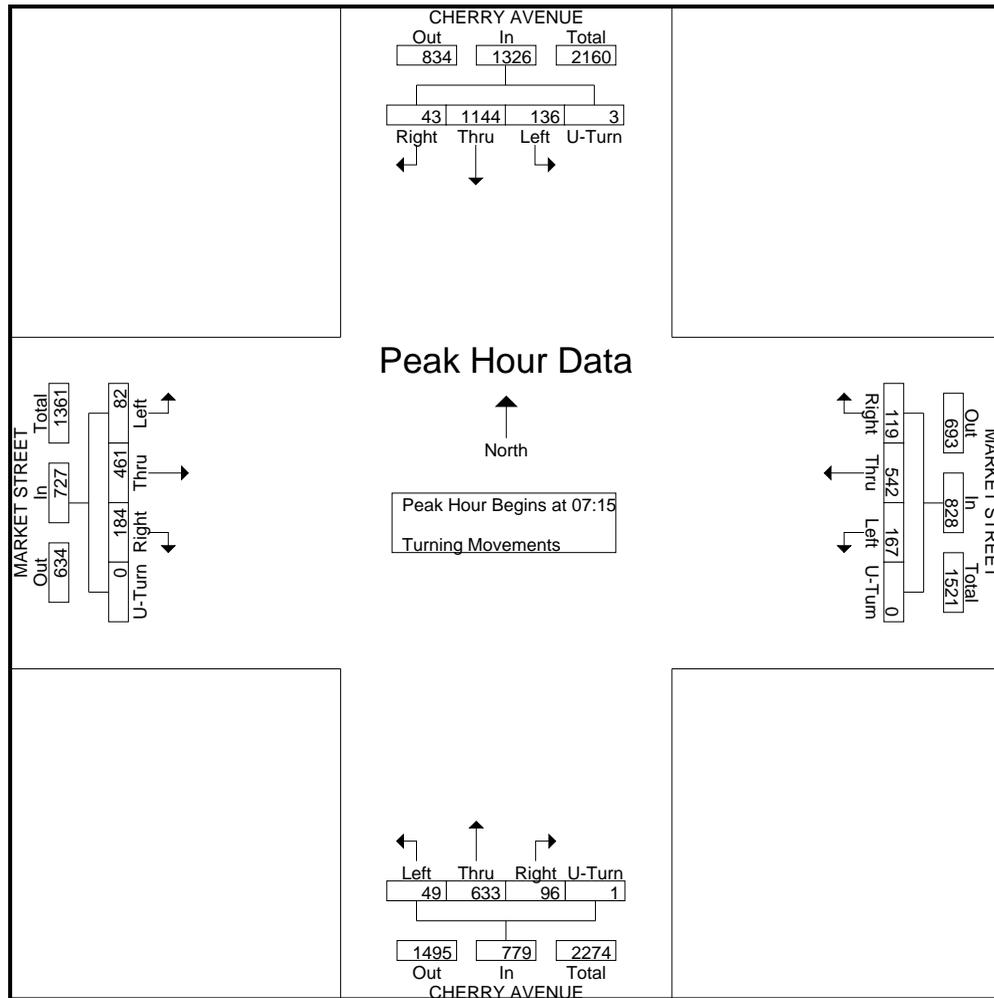
Groups Printed- Turning Movements

Start Time	CHERRY AVENUE Southbound				MARKET STREET Westbound				CHERRY AVENUE Northbound				MARKET STREET Eastbound				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00	8	270	33	0	21	78	27	0	23	118	8	0	43	87	15	0	731
07:15	9	288	41	0	22	126	40	0	18	157	14	0	45	146	17	0	923
07:30	8	300	36	1	32	154	35	0	35	178	8	0	56	109	20	0	972
07:45	12	316	27	1	30	136	47	0	23	142	10	0	41	108	21	0	914
Total	37	1174	137	2	105	494	149	0	99	595	40	0	185	450	73	0	3540
08:00	14	240	32	1	35	126	45	0	20	156	17	1	42	98	24	0	851
08:15	7	231	24	1	18	88	33	0	27	147	11	2	30	81	17	0	717
08:30	10	285	31	1	26	85	29	0	21	185	15	1	34	90	24	0	837
08:45	14	208	15	0	15	73	24	0	19	194	11	0	24	57	33	0	687
Total	45	964	102	3	94	372	131	0	87	682	54	4	130	326	98	0	3092
*** BREAK ***																	
16:00	21	185	25	3	43	107	25	0	45	258	35	0	20	177	28	0	972
16:15	17	181	33	5	29	111	22	0	54	214	25	0	20	175	25	0	911
16:30	10	237	34	2	25	97	21	0	47	230	28	0	33	145	38	0	947
16:45	14	201	40	6	17	85	15	0	47	216	22	0	32	179	32	0	906
Total	62	804	132	16	114	400	83	0	193	918	110	0	105	676	123	0	3736
17:00	10	198	34	4	21	91	16	0	73	290	32	0	28	180	41	0	1018
17:15	20	197	42	5	36	94	16	0	72	240	25	0	21	213	25	0	1006
17:30	15	201	35	3	25	124	18	0	71	267	32	0	17	198	20	0	1026
17:45	27	221	51	4	43	79	15	0	74	248	30	0	20	199	29	0	1040
Total	72	817	162	16	125	388	65	0	290	1045	119	0	86	790	115	0	4090
Grand Total	216	3759	533	37	438	1654	428	0	669	3240	323	4	506	2242	409	0	14458
Apprch %	4.8	82.7	11.7	0.8	17.4	65.6	17	0	15.8	76.5	7.6	0.1	16	71	13	0	
Total %	1.5	26	3.7	0.3	3	11.4	3	0	4.6	22.4	2.2	0	3.5	15.5	2.8	0	

City: LONG BEACH
 N-S Direction: CHERRY AVENUE
 E-W Direction: MARKET STREET

File Name : h1609028
 Site Code : 0000000
 Start Date : 9/15/2016
 Page No : 2

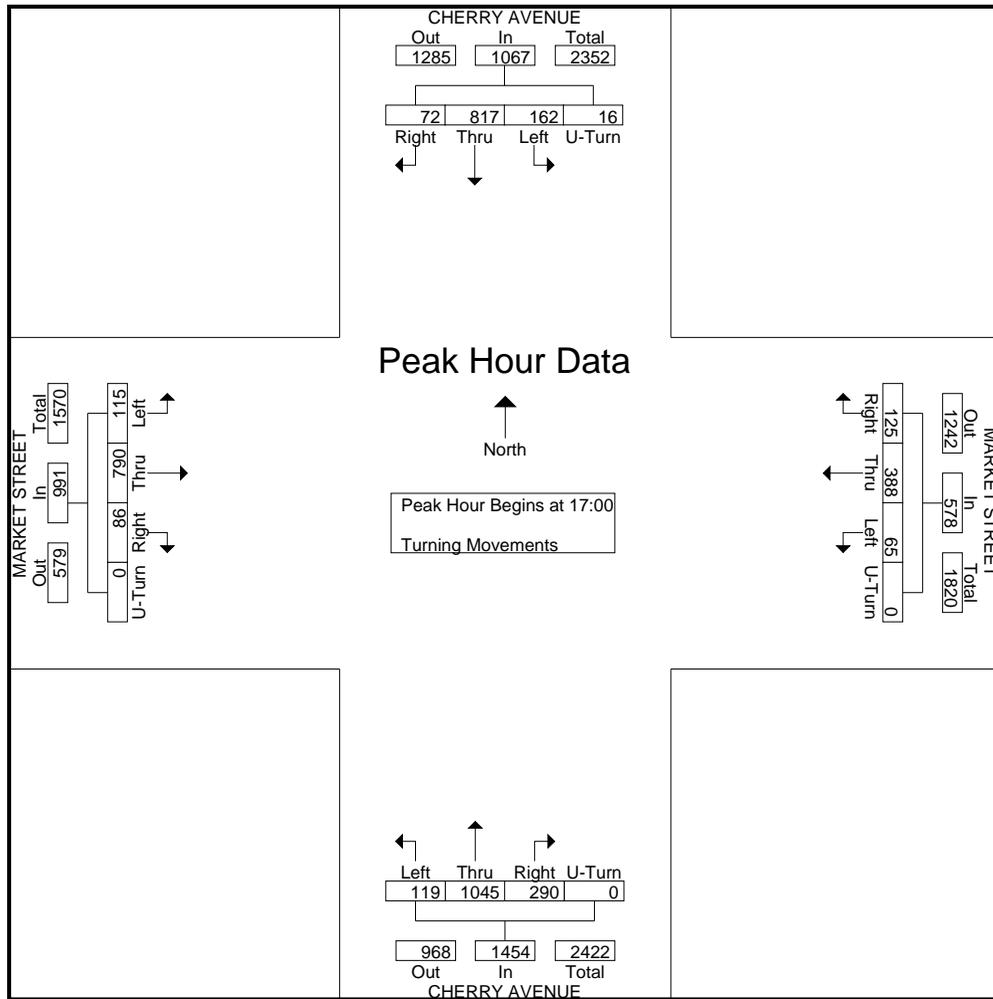
Start Time	CHERRY AVENUE Southbound					MARKET STREET Westbound					CHERRY AVENUE Northbound					MARKET STREET Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	9	288	41														146	17	0	208	923
07:30	8	300	36	1			154			221	35	178			221	56					972
07:45	12	316	27	1	356	30	136	47													
08:00	14	240	32	1	287	35	126	45	0	206	20	156	17	1	194	42	98	24	0	164	851
Total Volume	43	1144	136	3	1326	119	542	167	0	828	96	633	49	1	779	184	461	82	0	727	3660
% App. Total	3.2	86.3	10.3	0.2		14.4	65.5	20.2	0		12.3	81.3	6.3	0.1		25.3	63.4	11.3	0		
PHF	.768	.905	.829	.750	.931	.850	.880	.888	.000	.937	.686	.889	.721	.250	.881	.821	.789	.854	.000	.874	.941



City: LONG BEACH
 N-S Direction: CHERRY AVENUE
 E-W Direction: MARKET STREET

File Name : h1609028
 Site Code : 00000000
 Start Date : 9/15/2016
 Page No : 3

Start Time	CHERRY AVENUE Southbound					MARKET STREET Westbound					CHERRY AVENUE Northbound					MARKET STREET Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	10	198	34	4	246	21	91	16	0	128	73	290	32	0	395	28	213	41	0	259	1006
17:15	20	197	42	5	264	36	94	16	0	146	72	240	25	0	337	21	213	25	0	259	1006
17:30	15	201	35	3	254	25	124	18	0	167	71	267	32	0	370	17	198	20	0	235	1026
17:45	27	221	51		303	43	79	15	0	137	74										1040
Total Volume	72	817	162	16	1067	125	388	65	0	578	290	1045	119	0	1454	86	790	115	0	991	4090
% App. Total	.667	.924	.794	.800	.880	.727	.782	.903	.000	.865	.980	.901	.930	.000	.920	.768	.927	.701	.000	.957	.983



APPENDIX B

**INTERSECTION LEVEL OF SERVICE
CALCULATION WORKSHEETS**

APPENDIX B-1

EXISTING TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 1: Cherry Avenue at Market Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.819

Intersection Setup

Name	Cherry Avenue			Cherry Avenue			Market Street			Market Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right									
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cherry Avenue			Cherry Avenue			Market Street			Market Street		
Base Volume Input [veh/h]	50	633	96	139	1144	43	82	461	184	167	542	119
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	633	96	139	1144	43	82	461	184	167	542	119
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	158	24	35	286	11	21	115	46	42	136	30
Total Analysis Volume [veh/h]	50	633	96	139	1144	43	82	461	184	167	542	119
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	90
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss							
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

Intersection LOS	D
Intersection V/C	0.819

Intersection Level Of Service Report
Intersection 1: Cherry Avenue at Market Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.954

Intersection Setup

Name	Cherry Avenue			Cherry Avenue			Market Street			Market Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵↵↵			↵↵↵			↵↵↵			↵↵↵		
Turning Movement	Left	Thru	Right									
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cherry Avenue			Cherry Avenue			Market Street			Market Street		
Base Volume Input [veh/h]	119	1045	290	178	817	72	115	790	86	65	388	125
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	119	1045	290	178	817	72	115	790	86	65	388	125
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	261	73	45	204	18	29	198	22	16	97	31
Total Analysis Volume [veh/h]	119	1045	290	178	817	72	115	790	86	65	388	125
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	90
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss							
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

Intersection LOS	E
Intersection V/C	0.954

APPENDIX B-II

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 1: Cherry Avenue at Market Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.840

Intersection Setup

Name	Cherry Avenue			Cherry Avenue			Market Street			Market Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right									
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cherry Avenue			Cherry Avenue			Market Street			Market Street		
Base Volume Input [veh/h]	62	633	96	139	1156	43	88	467	184	179	542	119
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	62	633	96	139	1156	43	88	467	184	179	542	119
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	158	24	35	289	11	22	117	46	45	136	30
Total Analysis Volume [veh/h]	62	633	96	139	1156	43	88	467	184	179	542	119
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	90
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss							
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

Intersection LOS	D
Intersection V/C	0.840

Intersection Level Of Service Report
Intersection 2: Project Dwy 1 at Market Street

Control Type:	Two-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

Intersection Setup

Name	Project Dwy 1		Market Street		Market Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Dwy 1		Market Street		Market Street	
Base Volume Input [veh/h]	0	14	727	12	0	635
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	14	727	12	0	635
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	4	182	3	0	159
Total Analysis Volume [veh/h]	0	14	727	12	0	635
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	10.87	0.00	0.00	0.00	0.00
Movement LOS		B	A	A		A
95th-Percentile Queue Length [veh]	0.00	0.07	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	1.71	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.87		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.11					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Cherry Avenue at Project Dwy 2

Control Type:	Two-way stop	Delay (sec / veh):	15.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.041

Intersection Setup

Name	Cherry Avenue		Cherry Avenue		Project Dwy 2	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration			T		R	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Cherry Avenue		Cherry Avenue		Project Dwy 2	
Base Volume Input [veh/h]	0	791	1495	37	0	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	791	1495	37	0	14
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	198	374	9	0	4
Total Analysis Volume [veh/h]	0	791	1495	37	0	14
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.00	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	15.86
Movement LOS		A	A	A		C
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.13
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	3.16
d_A, Approach Delay [s/veh]	0.00		0.00		15.86	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.10					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: Cherry Avenue at Market Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.960

Intersection Setup

Name	Cherry Avenue			Cherry Avenue			Market Street			Market Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right									
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Cherry Avenue			Cherry Avenue			Market Street			Market Street		
Base Volume Input [veh/h]	124	1045	290	178	822	72	125	800	86	70	388	125
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	124	1045	290	178	822	72	125	800	86	70	388	125
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	261	73	45	206	18	31	200	22	18	97	31
Total Analysis Volume [veh/h]	124	1045	290	178	822	72	125	800	86	70	388	125
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	90
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss							
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

Intersection LOS	E
Intersection V/C	0.960

Intersection Level Of Service Report
Intersection 2: Project Dwy 1 at Market Street

Control Type:	Two-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.048

Intersection Setup

Name	Project Dwy 1		Market Street		Market Street	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	↱		↱			
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Dwy 1		Market Street		Market Street	
Base Volume Input [veh/h]	0	25	991	7	0	579
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	25	991	7	0	579
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	6	248	2	0	145
Total Analysis Volume [veh/h]	0	25	991	7	0	579
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.05	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	12.32	0.00	0.00	0.00	0.00
Movement LOS		B	A	A		A
95th-Percentile Queue Length [veh]	0.00	0.15	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft]	0.00	3.80	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.32		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.19					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Cherry Avenue at Project Dwy 2

Control Type:	Two-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.048

Intersection Setup

Name	Cherry Avenue		Cherry Avenue		Project Dwy 2	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration			T		R	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Cherry Avenue		Cherry Avenue		Project Dwy 2	
Base Volume Input [veh/h]	0	1461	968	20	0	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1461	968	20	0	25
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	365	242	5	0	6
Total Analysis Volume [veh/h]	0	1461	968	20	0	25
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.00	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	12.26
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh]	0.00	0.00	0.00	0.00	0.00	0.15
95th-Percentile Queue Length [ft]	0.00	0.00	0.00	0.00	0.00	3.77
d_A, Approach Delay [s/veh]	0.00		0.00		12.26	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.12					
Intersection LOS	B					