36120 Ruschin Drive Project
Draft Initial Study/Mitigated Negative Declaration
City of Newark, Alameda County, California

Prepared for:
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Report Date: August 28, 2014

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SECTION 1: INTRODUCTION

1.1 - Purpose

The purpose of this Initial Study/Mitigated Negative Declaration (IS/MND) is to identify any potential environmental impacts from implementation of the 36120 Ruschin Drive Project (project) in Newark, California. Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15367, the City of Newark (City) is the Lead Agency in the preparation of this IS/MND and any additional environmental documentation required for the project. The City has discretionary authority over the project. The intended use of this document is to determine the level of environmental analysis required to adequately prepare the project IS/MND and to provide the basis for input from public agencies, organizations, and interested members of the public.

The remainder of this section provides a brief description of the project location and the characteristics of the project. Section 2 includes an environmental checklist giving an overview of the potential impacts that may result from project implementation. Section 2 elaborates on the information contained in the environmental checklist, along with justification for the responses provided in the environmental checklist.

1.2 - Project Location

The project site consists of a single parcel (assessor's parcel number 92A-775-46) located at 36120 Ruschin Drive in the City of Newark, Alameda County, California (Exhibit 1). The 10.1 acre project site contains a former elementary school and is surrounded by single-family residential uses along McDonald Avenue (west), single-family residential uses along Sandalwood Street (north), single-family residential uses along Fernwood Drive (east), and Ruschin Drive (south) (Exhibit 2).

1.3 - Environmental Setting

1.3.1 - Existing Conditions and Land Use

The project site contains a former elementary school consisting of approximately 33,000 square feet of building space, made up of three wings of classrooms and support rooms separated by two courtyards. The remainder of the project site contains an asphalt-paved playground area, a large open field that formerly supported ball fields, and one mobile home with boarded windows that formerly housed a "Vandal Watch" program.

The elementary school was constructed in or around 1962 and records indicate that the mobile home was placed onsite between 1976 and 1981, being occupied from at least 1981 through 1991. The school was closed in June 1989 and has been declared surplus property by the Newark Unified School District. Portions of the school have since been leased to a church, pre-school, and non-profit organization. Some classrooms are being used for storage by the School District and the church.

The project site is approximately 20 feet above mean sea level and generally flat. The ground surface in the vicinity of the project site slopes gently to the southwest.

There are 24 trees located throughout the project site, primarily surrounding the onsite buildings. The open fields onsite are no longer irrigated but have been routinely mowed.

1.3.2 - General Plan and Zoning Designations

The project site is designated as Low Density Residential by the Newark General Plan (less than 8.7 units per net acre) and Residential (R-6000) by the Newark Zoning Ordinance.

1.4 - Project Description

The project consists of demolishing the existing 33,000-square-foot school facility, mobile home, and related infrastructure, and subsequent construction of 85 single-family residences ranging from 1,793 to 2,322 square feet (Exhibit 3a and Exhibit 3b). Resulting density would be 8.4 dwelling units per acre. Residential floor plans would include 3- or 4-bedrooms and a 2-car garage.

Circulation would be provided via a private loop road that would allow parallel on-street parking. The new street would connect to the intersection of Rosewood Drive/Ruschin Drive and create a new intersection with Ruschin Drive approximately 200 feet east of McDonald Avenue. Internal access streets would connect across the loop road and provide access to residences within the loop. Sidewalks would be provided on both sides of the private loop road and along Ruschin Drive. On-street parking would be provided.

Residences along the outside of the private loop road would be one story in height and would be located on approximately 5,390-square-foot lots, with backyards adjoining the existing surrounding residences. Residences inside the private loop road would be two stories in height and would be located on lots ranging from 2,666 to 3,480 square feet.

Traditional architecture would be implemented consisting of predominantly stucco exterior with accent siding and composite shingle roofing.

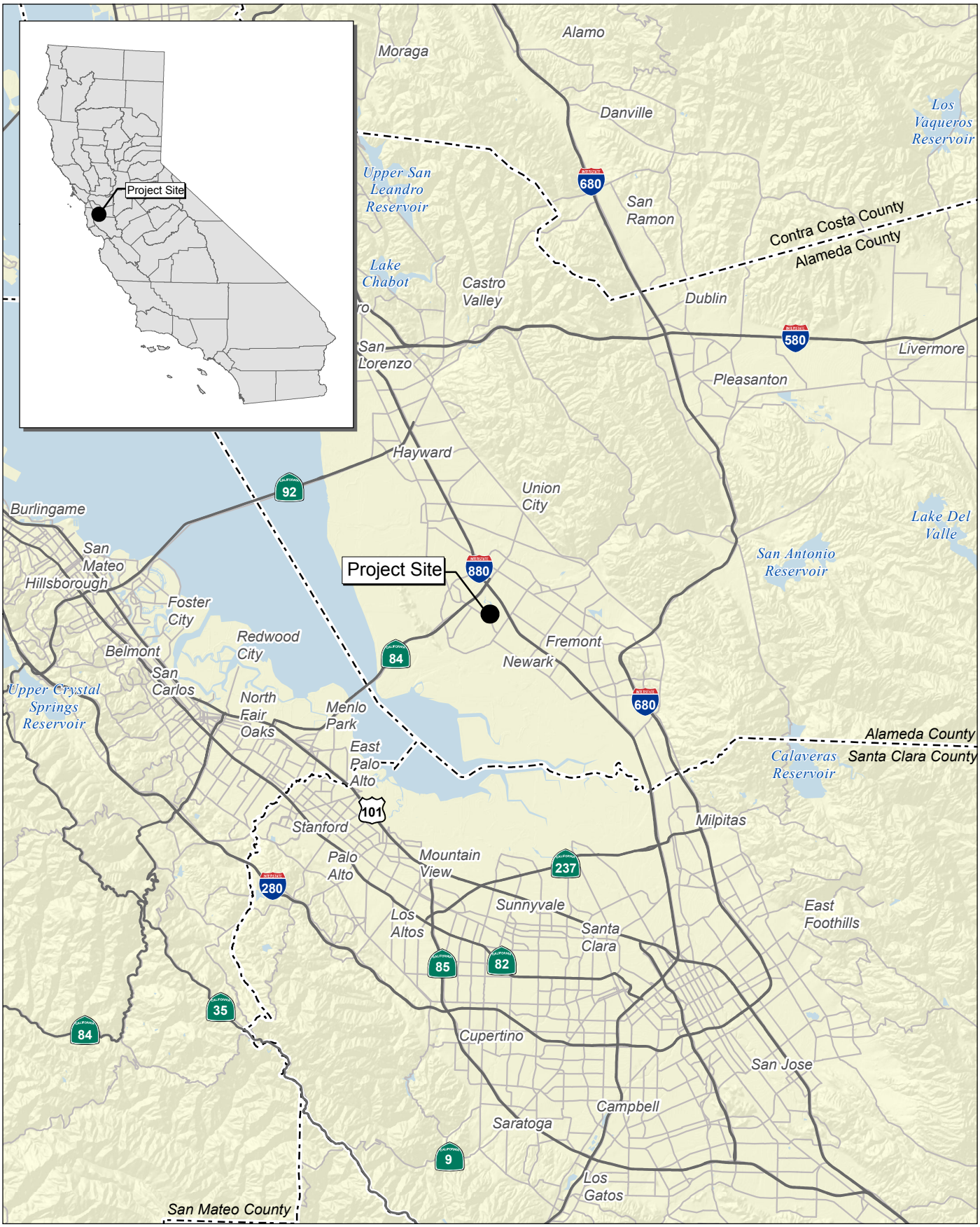
Landscaping areas would include planter pockets on each side of the private drive's sidewalks, and along the public sidewalk on Ruschin Drive. All existing onsite trees would be removed as part of the redevelopment. New trees would be planted within the residential front yards (Exhibit 3a and Exhibit 3b).

All existing potable water, sewer, and storm drainage facilities within the project site would be removed, and new connections would be installed to provide services to the residences.

Construction could begin as early as March 2015.

Rezone

The project would also require a rezone from R-6000, which requires a minimum lot size of 6,000 square feet to LDR-FBC (Low Density Residential - Form Based Code). The LDR-FBC zoning designation is intended for single-family neighborhoods. The allowable density range is zero to 14 dwelling units per gross developable acres. Applying the Form Based Code allows for flexibility that other residential zoning designations do not provide, and accommodates the proposed smaller lot sizes. Approval of a Planned Unit Development would also be required for minor setback variations.



Source: Census 2000 Data, The CaSIL

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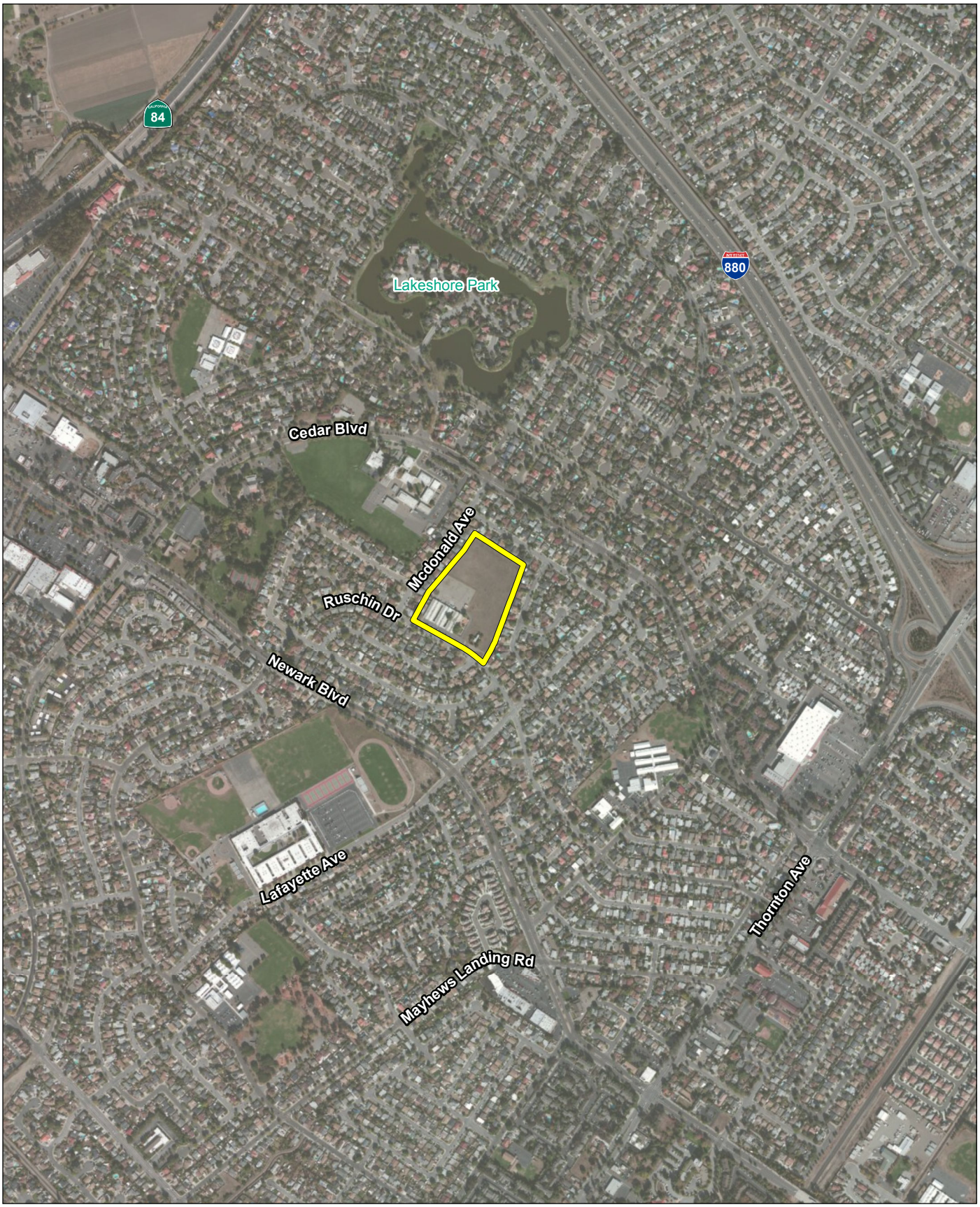
5 2.5 0 5 Miles

Exhibit 1
Regional Location Map



Source: ESRI Imagery

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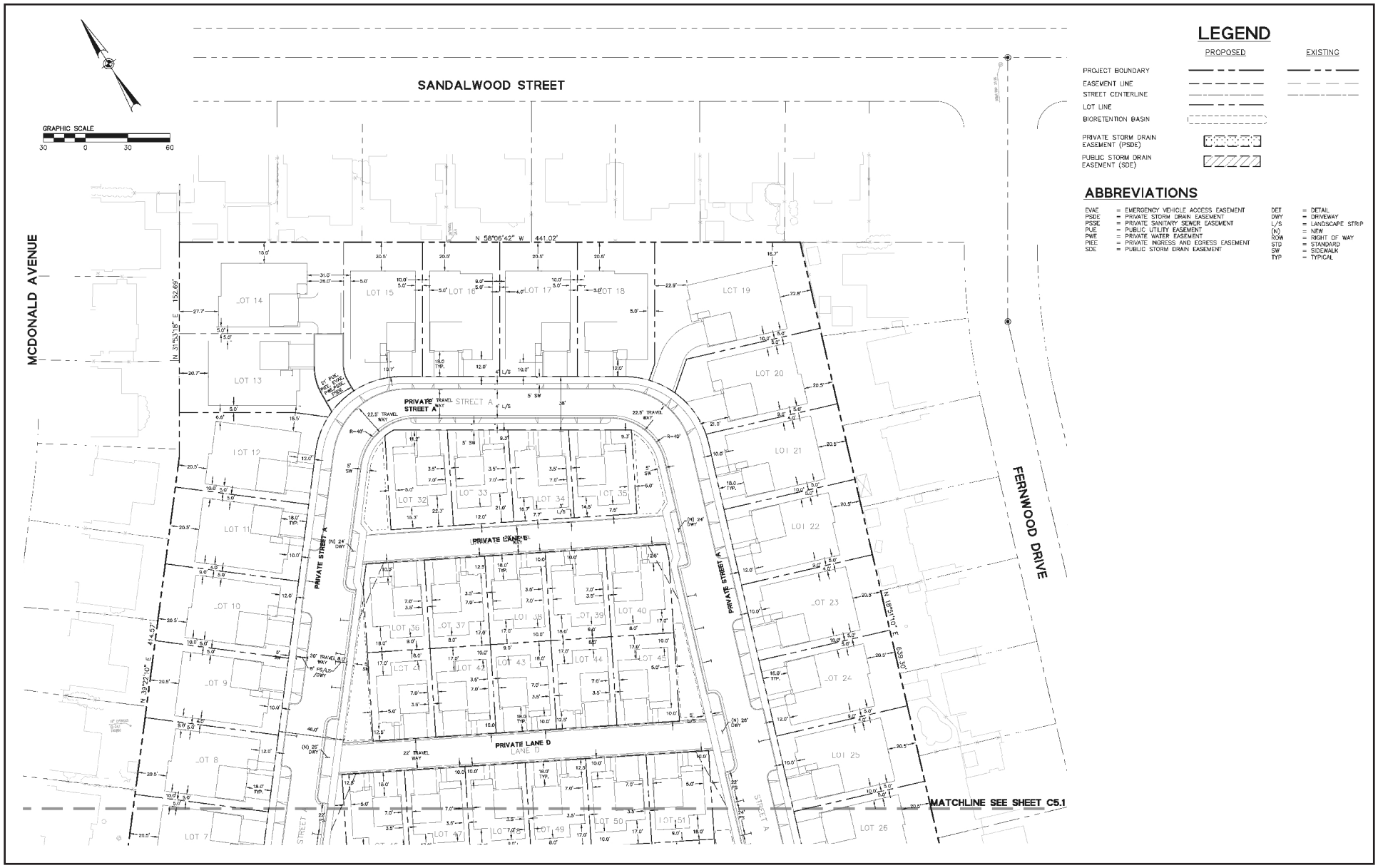
1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map
Aerial Base



Source: BkF, 2014

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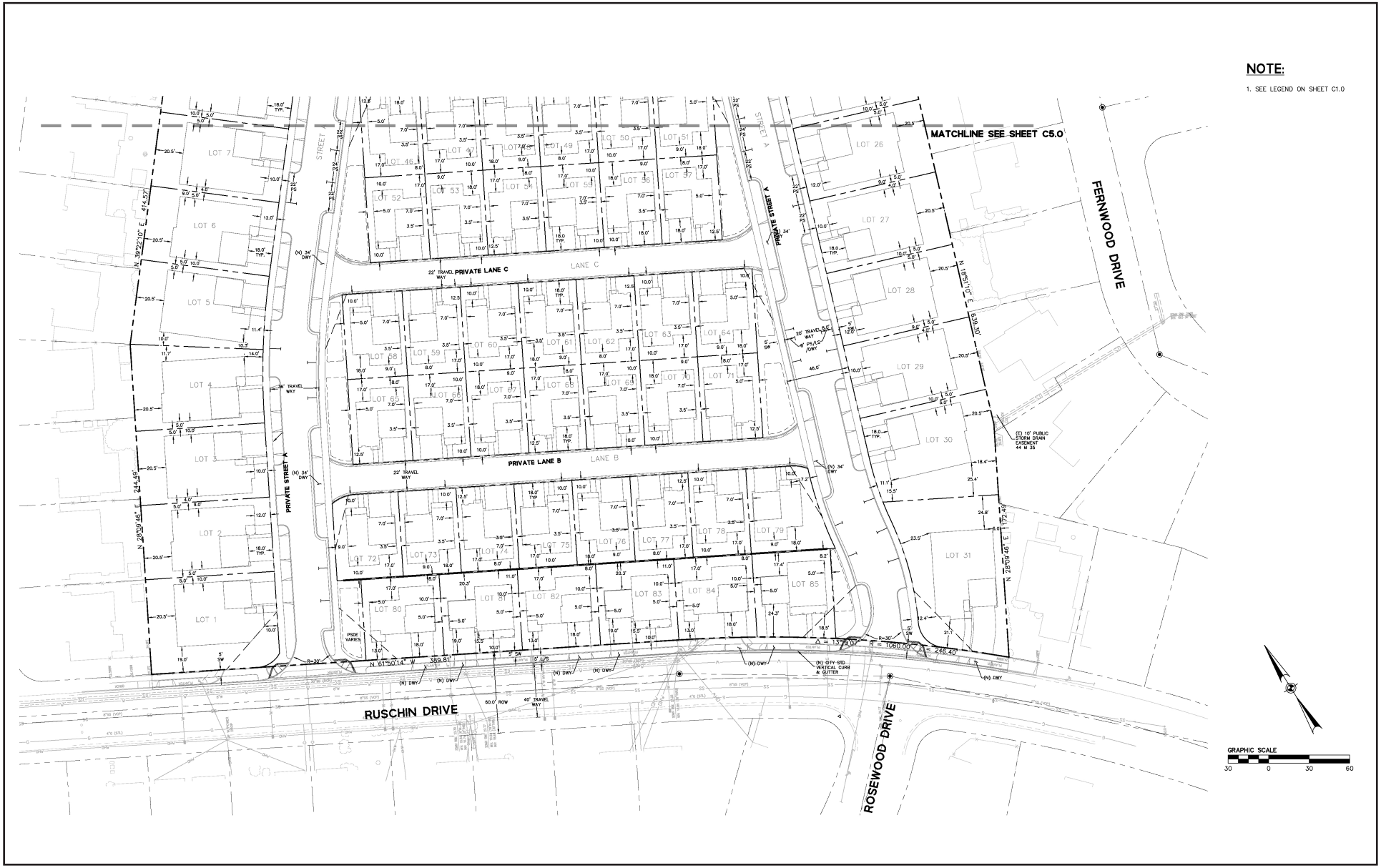
Exhibit 3a
Site Plan



Source: BkF, 2014

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Exhibit 3b
Site Plan

1.5 - Required Discretionary Approvals

The project would require the following discretionary approvals from the City of Newark:

- Rezone
- Tentative Map
- Certification of IS/MND
- Architectural and Site Plan Review
- Planned Unit Development

In addition, the project would require ministerial approvals including issuance of demolition, grading, and building permits from the City of Newark.

1.6 - Intended Uses of this Document

This IS/MND has been prepared to determine the appropriate scope and level of detail required in completing the environmental analysis for the project. This document will also serve as a basis for soliciting comments and input from members of the public and public agencies regarding the project. The IS/MND will be circulated for a minimum of 20 days, during which period comments concerning the analysis contained in the IS/MND should be sent to:

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SECTION 2: ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

Environmental Factors Potentially Affected					
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.					
☐	Aesthetics	☐	Agriculture and Forestry Resources	☒	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Geology/Soils
☐	Greenhouse Gas Emissions	☐	Hazards/Hazardous Materials	☐	Hydrology/Water Quality
☐	Land Use/Planning	☐	Mineral Resources	☒	Noise
☐	Population/Housing	☐	Public Services	☐	Recreation
☐	Transportation/Traffic	☐	Utilities/Services Systems	☒	Mandatory Findings of Significance

Environmental Determination

On the basis of this initial evaluation:

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

☒ I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the 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 measure 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 project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Date: 8-28-14 Signed: Terrence Grindall

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Aesthetics *Would the project:*				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Environmental Evaluation

Would the project:

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

Less Than Significant Impact. Policy LU-4.14 of the Newark California General Plan aims to protect and enhance the vistas of features such as Coyote Hills, Mission Peak, the East Bay and Peninsula Hills, and the San Francisco Bay. Mission Peak and the East Bay Hills can be seen to the east and northeast of the project site respectively. The proposed onsite residences would be consistent in height and character with surrounding residential land uses and would not obstruct the views of these hills as seen from any nearby public viewing locations, such as Newark Community Park or Musick Park. Impacts would be less than significant.

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

No Impact. The nearest freeways to the project are Interstate 880 (I-880) and State Highway 84 (SR-84). According to the Department of Transportation's California Scenic Highway Mapping System, I-880 and SR-84 are not designated scenic highways in the vicinity of the project site. The nearest "Officially Designated" scenic highway is Interstate 680, which is approximately 5 miles from the project site. No impact would occur.

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

Less Than Significant Impact. The project site is surrounded by single-family residential uses consisting of a mixture of one and two story buildings. The onsite school exhibits an unremarkable visual appearance, with unmaintained playing fields and deteriorating infrastructure. Exhibit 4 provides photographs of the existing site conditions.

Residences proposed along the outside of the private loop road would be one story in height and would be located on approximately 4,950-square-foot lots, with backyards adjoining the existing surrounding residences. Residences inside the private loop road would be two stories in height and would be located on lots ranging from 2,400 to 3,480 square feet. The lot sizes and building heights have been specifically designed to be consistent with Newark Code of Ordinances Section 17.16.220, Design Guidelines, as well as the surrounding existing residential uses. Traditional architecture would be implemented consisting of predominantly stucco exterior with accent siding and composite shingle roofing, also consistent with surrounding existing residential uses. Landscaping would be provided in front yards. Furthermore, consistent with Newark Code of Ordinances Section 17.16.206, the project will undergo an architectural and site plan review. As such, the project would be consistent with the existing visual character of the surrounding residential area and would not substantially degrade the visual character of the project site or it surroundings. Impacts would be less than significant.

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

Less Than Significant Impact. The project would include exterior lighting consistent with single-family residential land use. Such lighting typically has low light intensity and would be similar in nature existing residential lighting in the area. The project would comply with all applicable City regulations and design review procedures to reduce light and glare impacts. Therefore, impacts associated with light or glare would be less than significant.

Photograph 1: View of front of existing school looking northwest from Ruschin Drive.

Photograph 2: View of unmaintained playing field and back of existing school looking southwest.

Photograph 3: View of surrounding residential area looking east from northeast corner of project site.

Photograph 4: View of existing school and mobile home looking northwest from southeast corner of project site.

Source: FirstCarbon Solutions, 2013.

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Exhibit 4
Site Photographs

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. Agriculture and Forestry 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, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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 or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Evaluation

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

forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

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

No Impact. The Farmland Mapping and Monitoring Program (FMMP) has designated the project site as "Urban and Built Up Land." Therefore, the project site is not classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. No impacts would occur.

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

No Impact. The project site is zoned as Residential (R-6000) and would be rezoned to LDR-FBC (Low Density Residential – Form Based Code). These zoning designations are non-agricultural in nature, and the project site is not encumbered by a Williamson Act contract. No impacts would occur.

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))?

No Impact. The project site is zoned as Residential (R-6000) and would be rezoned to LDR-FBC (Low Density Residential – Form Based Code), both of which are a non-forest land zoning district. This condition precludes the possibility of a conflict with a forest zoning designation. No impacts would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The project site is located in an already developed urban area with residential uses surrounding all sides. This condition precludes the possibility of the project resulting in the loss of forest land or converting forest land to non-forest use. No impacts would occur.

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 or conversion of forest land to non-forest use?

No Impact. The project site is surrounded by developed land; no agricultural uses are located in the project vicinity. This condition precludes the possibility of the project creating pressures to convert farmland to non-agricultural use. No impacts would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. Air Quality *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:*				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
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)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Environmental Evaluation

The project site is located in Alameda County, which is part of the Air Basin. The area is designated as non-attainment for state standards for 1-hour and 8-hour ozone, 24-hour and annual respirable particulate matter (PM_{10}), and annual fine particulate matter ($PM_{2.5}$). The area is also designated non-attainment for federal standards for 8-hour ozone and 24-hour $PM_{2.5}$. The regional air quality regulatory agency is the Bay Area Air Quality Management District (BAAQMD)

On June 2, 2010, BAAQMD adopted their 2010 CEQA Air Quality Guidelines (2010 Air Quality Guidelines) with associated 2010 Thresholds of Significance (2010 Thresholds). The 2010 Air Quality Guidelines were updated with minor edits in May 2011; however, for the purposes of clarity, the updated 2011 Air Quality Guidelines are referred to in this document by the 2010 adoption date (2010 Air Quality Guidelines).

On January 4, 2012, the Alameda County Superior Court issued a judgment, in *California Building Industry Association v. Bay Area Air Quality Management District*, finding that the BAAQMD had failed to comply with CEQA when it adopted its 2010 Air Quality Guidelines. On March 5, 2012, the Court ruled that the adoption of new thresholds (including new thresholds for construction exhaust, operational regional pollutants, toxic air contaminants, and $PM_{2.5}$) is considered a "project" under CEQA, and, thus, the BAAQMD should have prepared the required CEQA review and documentation

for the 2010 Air Quality Guidelines, which provided the 2010 Thresholds. The Court issued a writ of mandate ordering the BAAQMD to set aside the 2010 Thresholds and cease dissemination of them until the BAAQMD had complied with CEQA. As such, this ruling effectively nullified the BAAQMD's adoption of the 2010 Thresholds, and the BAAQMD ceased recommending them for use in evaluating significance of projects.

The BAAQMD appealed the Alameda County Superior Court's decision and the case went to the Court of Appeal, First Appellate District. The Court of Appeals has ruled that the BAAQMD's adoption of new or revised thresholds of significance are not a "project" under CEQA and, therefore, are not required to comply with CEQA requirements. However, the Court of Appeal's decision does not provide the means by which the BAAQMD may ultimately reinstate the greenhouse gas emissions and toxic air contaminant thresholds. The Court of Appeal's decision was appealed to the California Supreme Court, which granted limited review, and the matter is currently pending there. Therefore, the BAAQMD still cannot legally recommend the 2010 Thresholds.

In view of the legal uncertainty regarding the 2010 Thresholds, the BAAQMD released a new version of the Air Quality Guidelines in May 2012 removing the 2010 Thresholds. The BAAQMD recommends that lead agencies determine appropriate air quality thresholds of significance based on substantial evidence in the record. BAAQMD states that lead agencies may continue to rely on the BAAQMD's 1999 Thresholds of Significance, and they may continue to make determinations regarding the significance of an individual project's air quality impacts based on the substantial evidence in the record for that project.

Currently, common and accepted practice in the Bay Area is to use the 2010 Thresholds in light of the substantial evidence supporting those thresholds. Therefore, the City of Newark, the lead agency, has determined that the 2010 Air Quality Guidelines and 2010 Thresholds are appropriate for the analysis of this project.

Supporting air quality data is provided in Appendix A.

Would the project:

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

Less Than Significant Impact With Mitigation Incorporated. The BAAQMD's 2010 Clean Air Plan (2010 CAP) is the regional air quality plan (AQP) for the Air Basin. The 2010 CAP accounts for projections of population growth provided by Association of Bay Area Governments and vehicle miles traveled provided by the Metropolitan Transportation Commission, and it identifies strategies to bring regional emissions into compliance with federal and state air quality standards. The BAAQMD's guidance provides three criteria for determining if a plan-level project is consistent with the current AQP control measures. However, the BAAQMD does not provide criteria or a threshold of significance for project-level consistency analysis. Therefore, the following plan-level criteria are be used for determining a project's consistency with the AQP.

- Criterion 1: Does the project support the primary goals of the AQP?
- Criterion 2: Does the project include applicable control measures from the AQP?
- Criterion 3: Does the project disrupt or hinder implementation of any AQP control measures?

Criterion 1

The primary goals of the 2010 Plan and the current AQP to date are to:

- Attain air quality standards;
- Reduce population exposure to unhealthy air and protect public health in the Bay area; and
- Reduce greenhouse gas emissions and protect the climate.

As discussed in impact discussions b), c), d), and e), the project would not create a localized violation of state or federal air quality standards, significantly contribute to cumulative nonattainment pollutant violations, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors affecting a substantial number of people after incorporation of mitigation measures. Specifically, Mitigation Measure AIR-1 reduces the project's potential to generate a significant localized dust impact during project construction to less than significant. Therefore, the proposed project is consistent with criterion 1 with incorporation of Mitigation Measure AIR-1.

Criterion 2

The 2010 Plan contains 55 control measures aimed at reducing air pollution in the Bay Area. Along with the traditional stationary, area, mobile source, and transportation control measures, the 2010 Plan contains a number of new control measures designed to protect the climate and promote mixed use, compact development to reduce vehicle emissions and exposure to pollutants from stationary and mobile sources (Bay Area Air Quality Management District 2010).

None of the 18 stationary source control measures are applicable to the project. In addition, none of the 10 mobile source measures or six land use and local impact measures apply to the project. Of the transportation control measures, TCM-D (Support Focused Growth), measures D-2 and D-3, apply to the project. The project complies with these measures through its inclusion of sidewalks, sufficient circulation within the project site, and connection to existing roadways.

Relative to the energy and climate measures contained in the 2010 Plan, the project would be consistent with all applicable measures:

- Energy Efficiency: The project applicant would be required to conform to the energy efficiency requirements of the California Building Standards Code, also known as Title 24. Specifically, the project must implement the requirements of the most recent Building Energy Efficiency Standards, which is the current version of Title 24. The 2013 Building Efficiency Standards were adopted, in part, to meet an Executive order in the Green Building Initiative to improve the energy efficiency of buildings through aggressive standards. The 2013 Building Efficiency Standards are estimated to be 25 percent more energy efficient than the 2008 Building Efficiency Standards for residential development.

- Renewable Energy. Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to the City. PG&E facilities include nuclear, natural gas, and hydroelectric facilities. PG&E's 2012 power mix consisted of nuclear generation (21.0 percent), large hydroelectric facilities (11.0 percent), and renewable resources (19.0 percent), such as wind, geothermal, biomass, and small hydro. The remaining portion came from natural gas (27.0 percent), and unspecified sources (21.0 percent).
- Urban Heat Island Mitigation and Shade Tree Planting. The project would implement landscaping including trees onsite.

In summary, the project would comply with all applicable rules and regulations. Additionally, the project would not impede attainment because its emissions do not exceed the BAAQMD regional significance thresholds after incorporation of Mitigation Measure AIR-1, as discussed in Section 2.3 c).

Criterion 3

The project would not preclude extension of a transit line or bike path, propose excessive parking beyond parking requirements, or otherwise create an impediment or disruption to implementation of any AQP control measures.

Conclusion

The project would be consistent with the criteria of the AQP with incorporation of Mitigation Measure AIR-1. As such, this impact would be less than significant with mitigation.

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

Less Than Significant Impact With Mitigation Incorporated. This impact relates to localized criteria pollutant impacts. Potential localized impacts would be exceedances of state or federal standards for particulate matter (PM_{10}) or carbon monoxide (CO) emissions. PM_{10} is of concern during construction because of the potential to emit fugitive dust during earth-disturbing activities. CO emissions are of concern during project operation because operational CO hotspots are related to increases in on-road vehicle congestion. Each impact topic is discussed separately below.

Construction Fugitive Dust (PM_{10})

Activities associated with site preparation and construction would generate short-term emissions of fugitive dust resulting in locally elevated levels of PM_{10}. Construction dust has the potential for creating a nuisance at nearby properties. Therefore, the BAAQMD recommends inclusion of the fugitive dust control measures identified in its 2010 Air Quality Guidelines. These measures are required through implementation of Mitigation Measure AIR-1. With implementation of MM AIR-1, localized impacts related to construction-generated PM_{10} emissions would be less than significant and the project would not generate a localized exceedance of the PM_{10} standards.

Operational CO Hotspot

CO emissions from traffic generated by the project would be of concern at the local level, since congested intersections with a large volume of traffic have the potential to have high-localized concentrations of CO.

The BAAQMD recommends a screening analysis to determine if a project has the potential to significantly contribute to a CO hotspot. The screening criteria identifies when site-specific CO dispersion modeling is necessary. The project would result in a less than significant impact to air quality for local CO if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans; or
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; or
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

As indicated in Section 2.16, Transportation/Traffic, the project is found to be consistent with the Alameda County Congestion Management Plan, thereby satisfying the first screening criteria. As identified in the Traffic Impact Analysis prepared by Hexagon Transportation Consultants, the anticipated cumulative plus project peak-hour traffic volumes at the most impacted intersection of Jarvis Avenue and Newark Boulevard, are estimated to be 5,343 AM peak hour trips and 5,418 PM peak hour trips. This is well below the screening criteria of 44,000 vehicles per hour as identified above. Furthermore, the adjacent roadways are not located in an area where vertical or horizontal mixing is substantially limited. Therefore, the project would not significantly contribute to an existing or projected CO hotspot.

Conclusion

In summary, the project would not generate a localized exceedance of the PM_{10} standard from project construction after the implementation of mitigation, and would not generate a localized exceedance of the CO standard from project operation; therefore, the project would not substantially contribute to an existing or projected localized air quality violation. Impacts would be less than significant with the implementation of mitigation.

Mitigation Measure

MM AIR-1 The applicant shall require all construction contractors to implement the basic construction mitigation measures recommended by the BAAQMD to reduce fugitive dust emissions. Emission reduction measures will include, at a minimum, the following measures. Additional measures may be identified by the BAAQMD or contractor as appropriate:

(a) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day;

(b) All haul trucks transporting soil, sand, or other loose material off-site will be covered;

(c) All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited;

(d) All vehicle speeds on unpaved roads will be limited to 15 mph;

(e) All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used; and

(f) Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. The BAAQMD's phone number will also be visible to ensure compliance with applicable regulations.

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)?

Less Than Significant Impact With Mitigation Incorporated. Non-attainment pollutants of concern for this impact are ozone, PM_{10} and $PM_{2.5}$. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Project construction and operational impacts are assessed separately below.

Construction Emissions

Emissions from construction-related activities are generally short-term in duration but may still cause adverse air quality impacts. The project would generate emissions from construction equipment exhaust, worker travel, and fugitive dust. These construction emissions include criteria air pollutants from the operation of heavy construction equipment.

The California Emissions Estimator Model (CalEEMod) estimates construction would last approximately 19-months in duration, with construction starting March 2015 and completing October 2016. The estimate was based on the project type and size. The project would implement MM AIR-1 as recommended by the BAAQMD.

A preliminary screening method is provided in the BAAQMD's 2010 Air Quality Guidelines for construction-related impacts associated with criteria air pollutants and precursors. The preliminary screening is used to indicate whether a project's construction-related air pollutants or precursors

could potentially exceed the BAAQMD's thresholds of significance. The construction of the project would result in a less than significant impact to air quality if the following screening criteria are met:

1. The project is below the applicable screening level (see Table 1).
2. All Basic Construction Standard Conditions would be included in the project design and implemented during construction.
3. Construction-related activities would not include any of the following:
    a) Demolition activities inconsistent with BAAQMD Regulation 11, Rule 2: Asbestos Demolition, Renovation, and Manufacturing;
    b) Simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously);
    c) Simultaneous construction of more than one land use type (e.g., project would develop residential and commercial uses on the same site) (not applicable to high density infill development);
    d) Extensive site preparation (i.e., greater than default assumptions used by the Urban Land Use Emissions Model [URBEMIS] for grading, cut/fill, or earth movement); or
    e) Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity.

Table 1: Criteria Air Pollutant and Precursors Screening for Construction Emissions

Land Use	Screening Size	Project Size
Single-Family	114 DU	85 DU
Note: DU = dwelling units Source: BAAQMD 2011.		

The proposed project is a single-family development with 85 dwelling units and, therefore, would be less than the 114 dwelling unit screening level shown in Table 1. In addition, demolition activities would be required to comply with BAAQMD Regulation 11, Rule 2: Asbestos Demolition, Renovation, and Manufacturing. All Basic Construction Standard Conditions would be incorporated into the project construction through implementation of Mitigation Measure AIR-1. The project would not involve simultaneous occurrences of more than two construction phases or more than one land use type. Extensive site preparation or material transport would not be required for this project. Since the proposed project meets the BAAQMD screening criteria with incorporation of Mitigation Measure AIR-1, construction impacts would be less than significant.

Operational Emissions

In general, long-term air quality emissions related to the project could result from the operation of vehicles and stationary sources (such as heating and cooling devices and generators).

As discussed above, the 2010 Air Quality Guidelines provide screening criteria developed for criteria pollutants and precursors. As stated by the 2010 Guidelines:

> If the project meets the screening criteria, the project would not result in the generation of operational-related criteria air pollutants and/or precursors that exceed the thresholds of significance shown in Table 2-2. Operation of the proposed project would result in a less-than-significant cumulative impact to air quality from criteria air pollutant and precursor emissions.

The BAAQMD's applicable operational screening level from the BAAQMD's 2010 Air Quality Guidelines is provided in Table 2. As shown in Table 2, the project's proposed land use is less than the BAAQMD's screening size for operational criteria air pollutants and precursors. Therefore, the project would have a less than significant impact with respect to criteria pollutants and ozone precursors.

Table 2: Criteria Air Pollutant and Precursors Screening for Operational Emissions

Land Use	Screening Size	Project Size
Single-Family	325 DU	85 DU
Note: DU = dwelling units Source: BAAQMD 2011.		

Conclusion

In summary, construction and operational emissions would not result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment after incorporation of Mitigation Measure AIR-1. As such, impacts would be less than significant with the incorporation of mitigation.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact With Mitigation Incorporated. BAAQMD defines a sensitive receptor as the following: "Facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, and residential areas." There are residential buildings directly adjacent to the project site.

This impact assessment analyzes health risks from construction-generated fugitive dust and operational CO hotspots. In addition, this impact assessment includes analysis for construction-generated health risks and operational health risks from toxic air contaminants (TACs) and particulate matter 2.5 microns in diameter ($PM_{2.5}$). A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. A variety of air pollutants are listed as TACs by the California Air Resources Board (ARB). This analysis focuses on the TACs of concern for the project, which are diesel particulate matter (DPM)

and the constituent pollutants of reactive organic gasses (ROGs) (such as benzene and acrolein). Health risk thresholds identified by the BAAQMD are provided in Table 3.

Table 3: Project-Level Health Risk Thresholds

Health Risk Parameter	Project-Generated Threshold	Cumulative Threshold
Increased Cancer Risk	>10.0 Risks in a Million	>100 Risks in a Million (from all local sources)
Increased Non-Cancer Risk	>1.0 Hazard Index (Chronic or Acute)	>10.0 Hazard Index (Chronic from all local sources)
Increased $PM_{2.5}$ Concentrations	>0.3 µg/m^3 annual average	>0.8 µg/m^3 annual average

Notes:
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter.
The zone of influence analyzed is 1,000 feet from project boundary.
Source: BAAQMD 2011.

Construction Generated Fugitive Dust

Activities associated with site preparation and construction would generate short-term emissions of fugitive dust, resulting in increased dustfall and locally elevated levels of PM_{10} downwind of construction activity. Construction dust has the potential for creating a nuisance at nearby properties. Consistent with BAAQMD's 2010 Air Quality Guidelines, MM AIR-1 requires that the current best management practices (BMPs) be implemented to reduce fugitive dust emissions from construction activities and would ensure impacts would be less than significant.

Operational CO Hotspot

Traffic congestion and idling or slow-moving vehicles could create a potential CO hotspot. As discussed in Section 2.3 b), the project would generate a less than significant impact for operational CO. Therefore, the project would not expose receptors to substantial CO concentrations.

Construction Generated Health Risk

As discussed in the BAAQMD's 2010 Air Quality Guidelines, construction activity using diesel-powered equipment emits DPM, a known carcinogen. DPM includes exhaust $PM_{2.5}$. A 10-year research program (ARB 1998) demonstrated that DPM (exhaust $PM_{2.5}$) from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. The current methodological protocols required by the ARB when studying the health risk posed by DPM assume the following: (1) 24-hour constant exposure; (2) 350 days a year; (3) for a continuous period lasting 70 years.

In addition to DPM, project construction would emit ROGs. ROGs are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Constituents of ROGs include a number of TACs. The TAC constituents of ROGs that are included in the risk analysis are provided in Appendix A. Risks from ROGs are categorized as an acute non-cancer hazard.

The majority of heavy diesel equipment usage would occur during the building construction phase, which would occur over a brief duration (estimated to require approximately 300 working days). In addition, the project would remove onsite buildings and pavement, which would require 344 hauling trips. The number of hauling trips is based on the size of buildings to be removed and CalEEMod defaults assumptions for demolition.

Construction equipment DPM (exhaust $PM_{2.5}$) and construction-generated ROG emissions were estimated using CalEEMod. The emissions were then used to estimate potential health risks for adjacent sensitive receptors. The nearest locations of sensitive receptors are residential homes located less than 25 feet from the project site boundary.

FirstCarbon Solutions' Construction Health Risk Assessment Screening Tool (version 1.2, June 5, 2014) was used in order to estimate health risk impacts associated with the $PM_{2.5}$ and ROG emissions from project construction. The tool was developed using the recommended health risk guidance from BAAQMD and by running an air dispersion model for several different combinations of the size of the construction area and the distance to the receptor of interest. Specifically, the air dispersion model was run for construction areas ranging from 0.5 acre to 20 acres and receptor distances from the project fence line to 984 feet (300 meters) from the boundary of the construction area. The meteorological data used in the dispersion model runs is from the BAAQMD and is specific to Newark, CA. The model was run for a construction area of 10 acres with a receptor within 25 meters (82 feet) of the project boundary. All receptor location quadrants were analyzed and the highest impacts were found in the southeastern (SE) quadrant due to dominant wind direction. Table 4 below gives a summary of the construction health risk assessment for the southeastern quadrant. The model output from the Construction Health Risk Assessment Screening Tool is also included in Appendix A. As shown in Table 4, the project exceeds the thresholds for the $PM_{2.5}$ concentration and the increased cancer risk for a child. The project's ROG emissions would result in a risk that is less than the BAAQMD's thresholds for acute non-cancer hazard index.

Table 4: Construction Health Risk Assessment Summary for the SE Receptor Quadrant

Pollutant or Type of Cancer Risk	Project Result	BAAQMD Significance Threshold	Project Exceeds Threshold?
Maximum Annual $PM_{2.5}$ Concentration	0.32 µg/m^3	0.3 µg/m^3	Yes
Total Increased Cancer Risk for a Child	46.8 risk per million	10 risk per million	Yes
Total Increased Cancer risk for an Adult	2.4 risk per million	10 risk per million	No
Chronic Non-Cancer Hazard Index	0.06	1	No
Acute Non-Cancer Hazard Index	0.62	1	No
Source of project result: FirstCarbon Solutions, June 2014 (Construction Health Risk Assessment Screening Tool) Source of BAAQMD Significance Threshold: Bay Area Air Quality Management District, 2011. CEQA Guidelines, "Local Community Risk and Hazard Impacts – Project Level".			

Since the project would exceed the BAAQMD Significance Threshold for Maximum Annual $PM_{2.5}$ Concentration and Total Increased Cancer Risk for a Child, Mitigation Measure AIR-2 would need to be implemented in order to reduce the cancer risk created by the project. MM AIR-2 would require the applicant to use Tier 4 Engines for all construction equipment used during the duration of construction. Table 5 below gives a summary of the construction health risk assessment for the southeast receptor quadrant with the implementation of MM AIR-2. As shown, with the incorporation of MM AIR-2, the project's construction health risk is below the BAAQMD's threshold. As such, impacts from construction are less than significant with mitigation incorporated.

Table 5: Construction Health Risk Assessment Summary for the SE Receptor Quadrant with Mitigation

Pollutant or Type of Cancer Risk	Project Result	BAAQMD Significance Threshold	Project Exceeds Threshold?
Maximum Annual $PM_{2.5}$ Concentration	0.01 µg/m^3	0.3 µg/m^3	No
Total Increased Cancer Risk for a Child	1.5 risk per million	10 risk per million	No
Total Increased Cancer risk for an Adult	0.1 risk per million	10 risk per million	No
Chronic Non-Cancer Hazard Index	0.00	1	No
Acute Non-Cancer Hazard Index	0.50	1	No
Source of project result: FirstCarbon Solutions, June 2014 (Construction Health Risk Assessment Screening Tool) Source of BAAQMD Significance Threshold: Bay Area Air Quality Management District. 2011. CEQA Guidelines. "Local Community Risk and Hazard Impacts – Project Level".			

Operational Health Risk

There are two levels of analysis required in assessing potential health risks and hazards: project-level and cumulative. As identified in the BAAQMD's guidance, exposure of receptors to substantial health risk could occur from the following situations:

1. Siting a new toxic air contaminant and/or $PM_{2.5}$ source (e.g., diesel generator, truck distribution center, freeway) near existing or planned receptors; and
2. Siting a new receptor near existing toxic air contaminants and/or $PM_{2.5}$ emissions.

BAAQMD specifies the pollutants of concern for health risk as TACs and $PM_{2.5}$. The project includes siting of a new receptor through the development of the 85 single-family residences. Residential land uses do not generate TACs or $PM_{2.5}$ in substantial quantities; therefore, risks to adjacent receptors from the project would be less than significant. This impact analysis focuses on the potential impacts to onsite residents from nearby sources of TACs and $PM_{2.5}$. The BAAQMD provides three tools for use in screening potential sources of TACs and $PM_{2.5}$. These tools are:

- Surface Street Screening Tables. The BAAQMD pre-calculated potential cancer risk and $PM_{2.5}$ concentration increases for each county within their jurisdiction. The look-up tables are used

for roadways that meet the BAAQMD's 'major roadway' criteria of 10,000 vehicles or 1,000 trucks per day. Risks are assessed by roadway volume, roadway direction, and distance to the sensitive receptor.

- Freeway Screening Analysis Tool. The BAAQMD prepared a Google Earth file that contains pre-estimated cancer risk, hazard index, and $PM_{2.5}$ concentration increases for highways within the Bay Area. Risks are provided by roadway link and are estimated based on elevation and distance to the sensitive receptor.
- Stationary Source Risk and Hazard Screening Tool. The BAAQMD prepared a Google Earth file that contains the locations of all stationary sources within the Bay Area that have BAAQMD permits. For each emissions source, the BAAQMD provides conservative cancer risk and $PM_{2.5}$ concentration increase values.

The BAAQMD recommends the use of these three tools in a screening process to identify whether further environmental review of potential TAC or $PM_{2.5}$ concentration risk for a project is warranted. Specifically, emissions sources within 1,000 feet of the project boundary should be evaluated. Therefore, the area within 1,000 feet of the project boundary is the study area.

For project-level analysis, BAAQMD specifies both individual and cumulative-level thresholds of significance for risks and hazards. The BAAQMD's individual cancer risk threshold of significance is 10-in-a-million, and the cumulative risk threshold is 100-in-a-million. For projects that are considered new sources of TACs or $PM_{2.5}$ (such as stationary sources, industrial sources, or roadway projects), it is generally appropriate to use both the project-level and cumulative-level thresholds because the project-level threshold identifies said project's individual contribution to risk, while the cumulative threshold assesses said project's cumulative contribution to risk. However, for projects that consist of new receptors, it is generally appropriate to use only the cumulative-level threshold because the project itself is not a source of TACS and, thus, the individual project-level threshold is not relevant. The cumulative risk threshold accounts for all potential sources of TACs and $PM_{2.5}$ in proximity to the new receptors on the project site. Because the impact being assessed is to the residential development on the project site, this analysis is focused on the cumulative impact of nearby sources of TACs and $PM_{2.5}$ to the project.

There are no highways within the 1,000-foot study area. No stationary sources were identified within the 1,000-foot study area. However, Newark Boulevard is approximately 792 feet from the project site and has a traffic volume of 37,000 AADT (CEHTP 2014). As such, Newark Boulevard meets the BAAQMD's 'major roadway' criteria of 10,000 average annual daily trips (AADT) or 1,000 trucks per day. The BAAQMD $PM_{2.5}$ Concentrations and Cancer Risk Generated from Surface Streets screening tables provide lifetime cancer risk estimates and $PM_{2.5}$ concentrations at roadways over 700 feet from the project site and with over 30,000 AADT in Alameda County, as shown in Table 6.

Table 6: Mobile Risk Hazard Analysis

Source	Lifetime Excess Cancer Risk (in a million)	Chronic Hazard Index	$PM_{2.5}$ Concentration ($\mu g/m^2$)
Mobile Sources			
Newark Boulevard	1.12	<0.03[1]	0.045
Total Risk from All Local Sources	1.12	<0.03[1]	0.045
Cumulative Risk Threshold	100	10	0.8
Exceeds Threshold?	No	No	No

Note:
[1] The Maximum acute and chronic hazard index for distances and AADT will be less than 0.03.
Source: FirstCarbon Solutions 2014, BAAQMD 2012.

As shown in Table 6, the maximum estimated total cancer risk for project site residents from major surface streets within 1,000 feet of the project boundary is 1.12 in a million. The project's cumulative cancer risk does not exceed the cumulative significance threshold of 100 in a million. Similarly, the estimated chronic hazard index and the annual average $PM_{2.5}$ concentrations fall below the corresponding cumulative significance thresholds. Therefore, the project would result in less than significant impacts for exposing onsite sensitive receptors to substantial pollutants from nearby sources of air-pollutant generated health risks.

Conclusion

The project would result in a less than significant impact for exposing sensitive receptors to substantial concentrations of construction-generated dust after incorporation of Mitigation Measure AIR-1. The project would result in a less than significant impact for exposing sensitive receptors to operational CO hotspots. In addition, the project would result in a less than significant impact for exposing onsite sensitive receptors to substantial health risks from adjacent sources of air pollutants during project operations.

The project's construction would result in a less than significant impact for total increased cancer risk for an adult, chronic non-cancer hazards, and acute non-cancer hazards. However, the project construction emissions would exceed the BAAQMD's threshold of significance for maximum annual PM2.5 concentrations and total increased cancer risks for a child. Incorporation of Mitigation Measure AIR-2 would reduce this impact to less than significant.

Mitigation Measure

MM AIR-2 Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. A copy of each unit's certified tier specification shall be provided to the City of Newark at the time of mobilization of each applicable unit of equipment. During all construction activities, off-road diesel-powered equipment may be in the

"on" position not more than 8 hours per day. There are no time restrictions for non-diesel equipment.

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

Less Than Significant Impact. As stated in the BAAQMD 2010 Air Quality Guidelines, odors are generally regarded as an annoyance rather than a health hazard and the ability to detect odors varies considerably among the populations and overall is subjective.

The BAAQMD does not have a recommended odor threshold for construction activities. However, BAAQMD recommends operational screening criteria, as shown in Table 7, that are based on distance between types of sources known to generate odor and the receptor. Projects that would site an odor source or a receptor farther than the applicable screening distance, shown in Table 6 below, would not result in a significant odor impact.

Table 7: Odor Screening Distances

Land Use/Type of Operation	Project Screening Distance
Wastewater Treatment Plant	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	2 miles
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Rendering Plant	2 miles
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Confined Animal Facility/Feed Lot/Dairy	1 mile
Green Waste and Recycling Operations	1 mile
Metal Smelting Plants	2 mile
Source: BAAQMD 2011	

Project Construction

Diesel exhaust and ROG would be emitted during construction of the project, the odors of which are objectionable to some; however, emissions would disperse rapidly from the project site and,

therefore, would not create objectionable odors affecting a substantial number of people. Therefore, odor impacts would be less than significant during project construction.

Project Operation

Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The project does not contain any of these land uses or other land uses typically associated with emitting objectionable odors.

The project site is not located within the recommended screening distances (as shown in Table 7) of any typical sources of objectionable odors, which typically include agricultural operations (e.g., dairies, feedlots, etc.), landfills, wastewater treatment plants, refineries, and other types of industrial land uses. Therefore, odor impacts would be less than significant during project operations.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. Biological Resources *Would the project:*				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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 wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

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

Less Than Significant Impact With Mitigation Incorporated. Although the project site is located with an already developed residential area, special-status species have the potential to occur. Special-status species are those species listed as threatened or endangered by the federal or state Endangered Species Acts. In addition, CEQA requires that impacts to "locally rare" species also be addressed. For the purposes of this analysis, a list of species of special concern with the potential to occur in the project area was identified based on listing in the following information resources:

- California Natural Diversity DataBase (CNDDB) (CDFG 2014a; CDFG 2014b)
- United States Fish and Wildlife Service (USFWS) online database (USFWS 2014a)
- USFWS Critical Habitat Mapper (USFWS 2014b)
- California Native Plant Society (CNPS) online database (CNPS 2014)

The literature search identified special-status plant and wildlife species that have been previously documented within the project region. However, habitat for special-status species was absent from the project site.

Plants

The project site supports one habitat type, consisting of ruderal/disturbed dominated by non-native grasses and ornamental vegetation. Weedy grasses and forbs species such as Bermuda grass (*Cynodon dactylon*) characterize the ruderal habitat. The entirety of the ruderal habitat onsite is maintained (mowed) on a regular basis. Because of the highly disturbed nature and lack of suitable habitat, no special-status plant species have the potential to occur within the project site; therefore, no special-status plant species would be impacted by the project.

Wildlife

The project site generally lacks vegetation or prey opportunities for special-status wildlife species. Common mammals that might be expected to occur in this habitat include California ground squirrel (*Spermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), and opossum (*Didelphis virginiana*). Reptiles such as the gopher snake (*Pituophis catenifer catenifer*) and western fence lizard (*Sceloporus occidentalis*) may be present.

With respect to special-status wildlife, review of the CNDDB databases (CDFW 2014a and CDFW 2014b) revealed special-status species that have been previously documented within the project vicinity, such as vernal pool fairy shrimp (*Branchinecta lynchi*), California tiger salamander (*Ambystoma californiense*), salt marsh harvest mouse (*Reithrodontomys raviventris*), burrowing owl (*Athena cunicularia*), vernal pool tadpole shrimp (*Lepidurus packardi*), Alameda whipsnake (*Masticophis lateralis euryxanthus*), California red-legged frog (*Rana draytonii*), longfin smelt (*Spirinchus thaleichthys*), green sturgeon (*Acipenser medirostris*), delta smelt (*Hypomesus transpacificus*), coho salmon (*Oncorhynchus kisutch*), Central Valley steelhead (*Oncorhynchus mykiss*), and Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*). Despite occurrences of these species within the vicinity of the project site, suitable habitat does not occur within the project site to support these species. Based on this information and the highly urbanized nature of the project site, no special-status wildlife species have the potential to occur within the project site; therefore, no special-status wildlife species would be impacted by the project. A review

of the U.S. Fish and Wildlife Service's Critical Habitat designations for Threatened & Endangered Species across the United States indicated that the project study area is not located within an area designated as critical habitat by USFWS.

The project site contains a large open field formerly supporting ball fields; as a consequence, the field is highly compacted and generally lacks significant vegetation. Although burrowing owl occur within the project region, the project site completely lacks burrows and burrowing mammals, particularly California ground squirrel (*Otospermophilus beecheyi*), and no burrowing owl signs (such as whitewash, pellets, feathers, bone fragments) were observed within the project site. Therefore, burrowing owl are absent from the project site. Although the site does not provide foraging opportunities for birds (lack of vegetation and prey items), several trees occur within and adjacent to the project site that could provide nesting habitat for birds protected by the Migratory Bird Treaty Act (MBTA). Proposed grading and construction activities on the project site may result in the removal of vegetation (including trees) that can serve as nesting habitat for birds such as migrating songbirds. Removal of vegetation could also directly destroy nests, eggs, and immature birds, if present. Adverse impacts to nesting bird habitat and nesting birds are a potentially significant impact. However, implementation of Mitigation Measure BIO-1 would reduce impacts to less than significant.

Mitigation Measure

MM BIO-1 Pre-Construction Nesting Bird Surveys

1. To prevent impacts to Migratory Bird Treaty Act-protected birds and their nests, removal of trees will be limited to only those necessary to construct the project.
2. For trees that must be removed to construct the project, the applicant will target the removal of trees to occur outside the nesting season between September 1st and February 28th. If trees cannot be removed outside the nesting season, pre-construction surveys will be conducted prior to tree removal to verify the absence of active raptor nests within 250 feet (76 meters) of construction activities.
3. If construction or tree removal is proposed during the breeding/nesting season for local avian species (typically March 1st through August 31st), a focused survey for active nests of raptors and migratory birds within and in the vicinity of (no less than 250 feet [76 meters] outside the project boundaries, where possible) the project site shall be conducted by a qualified biologist. Two surveys will be conducted, at least 1 week apart, with the second survey occurring no more than 2 days prior to tree removal. If no active nests are found, tree removal or construction activities may proceed.
4. If an active nest is located during pre-construction surveys, United States Fish and Wildlife Service and/or California Department of Fish and Wildlife (as appropriate) shall be notified regarding the status of the nest. Furthermore, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or the biologist deems disturbance potential to be

minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100 feet [30 meters] around an active raptor nest and a 50-foot [15-meter] radius around an active migratory bird nest) or alteration of the construction schedule.

No action is necessary if no active nests are found or if construction will occur during the non-breeding season (generally September 1st through February 28th).

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

No Impact. The project site is located on land that is disturbed and highly urbanized, and does not constitute a riparian forest. Because the project lacks riparian habitat, the project would not result in adverse effects on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS. No impact would occur.

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

No Impact. Wetlands or jurisdictional waters do not exist on the project site. Therefore, the project would not remove, fill, or hydrologically interrupt federally protected wetlands. No impact would occur.

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 wildlife nursery sites?

Less Than Significant Impact With Mitigation Incorporated. The project site is situated in a residential area and is surrounded by residential development. Urban and wild, native and non-native wildlife, such as California ground squirrel, black-tailed jackrabbit, and opossum may be expected to range through the region. As discussed above, the project may have adverse effects on nesting birds (Impact BIO-1); however, MM BIO-1 reduces these potential impacts to less than significant and no additional mitigation is warranted.

With the exception of trees that are located within and adjacent to the project site, the site would not be considered an optimal corridor for wildlife movement. There is limited potential for the project to interfere with wildlife species movement or with established wildlife corridors; therefore, with the implementation of MM BIO-1, impacts would be less than significant.

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

Less Than Significant Impact. Chapter 8.16 of the City of Newark's Code of Ordinances, entitled Preservation of Trees on Private Property states: No person shall cut down, destroy, remove or move

any tree, which shall include any live woody plant having one or more well defined perennial stems with a trunk diameter of six inches or greater measured at four feet above ground level, growing within the city limits on any parcels of land except developed residential parcels of land ten thousand square feet or less in area, unless a permit to do so has been obtained from the public works director (Ordinance 63 §2 (part), 1979). An Evaluation of the Existing Trees occurring on the project site was conducted by Barrie D. Coate and Associates in January 2014 (Appendix B). All trees within the project site were examined to determine if they had one or more trunks with a diameter at breast height (measured at four feet above ground level; diameter at breast height [dbh]) of six inches or greater. The location of each tree meeting the City of Newark's definition of a protected tree was recorded, and each tree was evaluated for health, height, structural integrity, and other growth characteristics.

As indicated in Table 8, a total of twenty-four trees meeting the criteria for protection under the City of Newark's Code of Ordinances were identified on the project site, as well as one additional tree located on an adjacent property that may be impacted by proposed construction. Refer to Appendix B of this IS/MND for An Evaluation of the Existing Trees, including a Tree Map documenting the location of each tree in the project site, and the Field Data Sheet containing the data associated with each tree inventoried.

Table 8: Protected Trees Occurring within or Adjacent to the Project Site

Common Name	Scientific Name	Quantity
shamel or evergreen ash	*Fraxinus uhdei*	3
fruitless mulberry	*Morus alba*	4
Modesto ash	*Fraxinus velutina* 'Modesto'	4
carob	*Ceratonia siliqua*	1
edible plum	*Prunus cultivar*	1
wild plum	*Prunus cerasifera*	2
cypress	*Cupressus species*	1
Hollywood juniper	*Juniperus chinensis* 'Kaizuka'	1
Japanese privet	*Ligustrum japonicum*	4
blackwood acacia	*Acacia melanoxylon*	1
silk oak	*Grevillea robusta*	2
Raywood ash	*Fraxinus oxycarpa* 'Raywood'	1
Source: Barrie D. Coate and Associates, 2014.		

Removal of trees protected under the code would result in a significant impact. However, pursuant to the provisions of the tree preservation ordinance, the project applicant is required to obtain a tree permit from the Public Works Director prior to the removal of any tree protected by the ordinance. Mandatory compliance with this ordinance ensures impacts would be less than significant.

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?

No Impact. No Habitat Conservation Plans, Natural Community Conservation Plans, or other local, regional, or state habitat conservation plans apply to the project site. Therefore, the project would not result in any conflicts with adopted plans.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Cultural Resources *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Environmental Evaluation

Record Searches

Northwest Information Center

To determine the presence of cultural and historical resources within the project area and a 0.50-mile radius, an FCS Project Archaeologist conducted a record search at the Northwest Information Center (NWIC) on June 3, 2014, that included a review of the National Register of Historic Places (NRHP), the California Register of Historic Resources (CR), the California Inventory of Historic Resources (CIHR), the California Historical Landmarks, the California Points of Historical Interest Listing, the Directory of Properties in the Historic Property Data File, the Archaeological Determinations of Eligibility, and other pertinent historic map data available at the NWIC.

The NWIC results indicate that no prehistoric or historic resources have been recorded within the project area or a 0.50-mile radius. Eight previous investigations have been conducted within the 0.50-mile radius of the project area, although none of the reports included the project area (Table 9).

Table 9: Previously Recorded Reports

Report Number/Year	Author	Title
S-010070/1988	John Holson	Archaeological Survey Report, proposed soundwalls along I-880 between the Thornton Ave. and Decoto Rd. interchanges
S-10465/1988	Miley Paul Holman	Archaeological Field Inspection Thornton Ave. interchange at I-880, Alameda County, CA

Table 9 (cont.): Previously Recorded Reports

Report Number/Year	Author	Title
S-011233/1989	Janet L. Pape	Archaeological Survey Report Proposed Road Widening I-880.
S-033545/1994	National Park Service	Draft Comprehensive Management and Use Plan and Environmental Impact Statement, Juan Bautista de Anza National Historic Trail, Arizona and California
S-028620/2004	Historic Resource Associates	Cultural Resources Study of Proposed AT&T Wireless Project Site No. 96000611A Cherry & Mayhews Landing 3670 Newark Blvd, Newark CA
S-029317/2004	Scott Billat	Newark 84/CA-2984A, 6201 Lafayette Ave., Newark, CA
S-031391/2006	Scott Billat	Collocation Submission Packet FCC Form 621, DSA Newark, SF-15910B
S-039384/2008	Archeo-Tec Inc.	Archival Literature Review and Surface Survey for the Cedar Boulevard Sanitary Sewer Rehabilitation Project, Newark, Alameda County
Source: Northwest Information Center 2014		

Native American Heritage Commission (NAHC)

A request was sent on June 3, 2014 to the NAHC requesting a search of their Sacred Lands File and a list of interested Native American tribal members who may have additional information about the project area. A response was received from the NAHC on June 13, 2014, noting that the record search of the Sacred Land File failed to indicate the presence of Native American cultural resources in the immediate project area. A list of 10 Native American tribal members who may have additional knowledge of the project area was included with the results. These tribal members were sent letters on June 16, 2014, asking for any additional information they might have concerning the project area. No response has been received at this time.

Pedestrian Survey

On June 4, 2014, an FCS Senior Project Archaeologist conducted a pedestrian survey of the project area. The survey consisted of 10- to 15-meter transects walked in the open field area north and east of the existing school. Ground surface visibility was fair to poor as the majority of the area was covered with short, dry grass. No prehistoric resources or historic resources were discovered during the course of the survey.

Would the project:

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

Less than significant with mitigation incorporated. There is one standing structure within the project area; the Ruschin Elementary School which closed its doors in June 1989. The school was constructed in or around 1962, and therefore, meets the minimum age requirement for eligibility for listing on the CR. However, the school does not meet any of the four criteria for listing on the CR; see below.

CR Criterion 1: Event

The Ruschin Elementary School was evaluated under CR Criterion 1 for its potential significance as part of any historic trends or events that may have made a significant contribution to the broad patterns of history. The structure was constructed as part of the general growth of this portion of Newark and there is no significant trend or event associated with the school and therefore, it does not appear to meet the criteria for significance under Criterion 1: Event.

CR Criterion 2: Person

The school was assessed under CR Criterion 2 for its potential significance and association with a person of importance in California history. Although the school is named after Louis Ruschin who was a prominent citizen in Newark, and he may be considered important at the local level, the importance does not rise to the State level of significance. There is no evidence to suggest that any of the persons associated with the construction or development of the school were considered important in the history of California. Therefore, the school does not appear to meet the criteria for significance under Criterion 2: Person.

CR Criterion 3: Architecture

The school was assessed under CR Criterion 3 for its potential significance as a structure which embodies the distinctive characteristics of a type, period, method of construction or style of architecture, represents the work of a master architect, builder, or craftsman, possesses high artistic values, or represents a significant or distinguishable entity whose components exhibit individual distinction. The school's roofline has an uncharacteristic style; however, it does not rise to a level of significance to qualify for the CR. The remainder of the school is a typical, standard, 1960s-era design with no distinguishing characteristics or features. Therefore, the school is not considered to represent the work of a master architect, builder, or craftsman and does not appear to meet the criteria for significance under Criterion 3: Architecture, as a good example of a school structure.

CR Criterion 4: Information Potential

The School was assessed under CR Criterion 4 for its potential significance and its ability to convey information. The School does not yield, or may not be likely to yield, information important in prehistory or history. In order for buildings, structures, or objects to be significant under Criterion D, they need to "be, or must have been, the principal source of information." This is not the case with

the school; therefore, it does not appear to meet the criteria for significance under Criterion D: Information Potential.

Summary

The school at the project site does not appear to qualify for the CR under any of the four CR criteria, and therefore, the structure is not considered a historic resource for the purposes listed on the CR.

Although there were no indications of historic resources being present within the project area, except for the age of the school, there is always the possibility that previously unknown historic resources exist below the ground surface. Therefore, implementation of standard cultural resource construction mitigation (Mitigation Measure CUL-1) would ensure that this impact is less than significant.

Mitigation Measure

MM CUL-1 It is always possible that ground-disturbing activities during construction may uncover previously unknown, buried historic resources. In the event that buried historic resources are discovered during construction, operations shall stop within 50 feet of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Historic resources could consist of, but are not limited to, stone, wood, or shell artifacts, structural remains, privies, or historic dumpsites. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated for significance in terms of CEQA criteria.

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

Less than significant with mitigation incorporated. The project area does not contain any watercourses such as springs, ponds, creeks or rivers, nor is it located on elevated ground such as a ridge or a knoll that are typically considered archaeologically sensitive areas. Therefore, the project area is not considered sensitive for prehistoric resources.

No known prehistoric archaeological resources exist within the project area, therefore, no archaeological resources would be expected to be encountered during construction activities associated with the project. However, it is possible that subsurface earthwork activities may encounter previously undiscovered archaeological resources. The implementation of standard cultural resource construction mitigation (Mitigation Measure CUL-2) would ensure that this impact is less than significant.

Mitigation Measure

MM CUL-2 It is always possible that ground-disturbing activities during construction may uncover previously unknown, archaeological resources. In the event that archaeological resources are discovered during construction, operations shall stop within 50 feet of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to, excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Cultural resources could consist of, but are not limited to, stone, bone, wood, or shell artifacts or features, including hearths. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms, and evaluated for significance in terms of CEQA criteria.)

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

Less than significant with mitigation incorporated. The project area is not located in an area that is considered likely to have paleontological resources present. Fossils of plants, animals, or other organisms of paleontological significance have not been discovered at the project site, nor has the site been identified to be within an area where such discoveries are likely. The type of depositional environment at the project area typically does not present favorable conditions for the discovery of paleontological resources. In this context, the project would not result in impacts to paleontological resources or unique geologic features. However, if significant paleontological resources are discovered, implementation of mitigation measure (Mitigation Measures CUL-3) would reduce this potential impact to a less than significant level.

Mitigation Measure

MM CUL-3 In the event a fossil is discovered during construction for the project, excavations within 50 feet of the find shall be temporarily halted or delayed until the discovery is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. If the find is determined to be significant and if avoidance is not feasible, the paleontologist shall design and carry out a data recovery plan consistent with the Society of Vertebrate Paleontology standards.

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

Less than significant with mitigation incorporated. No human remains are known to exist within the project area. However, there is always the possibility that subsurface construction activities associated with the project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. Accordingly, this is a potentially significant impact.

However, if human remains are discovered, implementation of mitigation measure (MM CUL-4) would reduce this potential impact to a less than significant level.

Mitigation Measure

MM CUL-4 In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines § 15064.5; Health and Safety Code § 7050.5; Public Resources Code § 5097.94 and § 5097.98 must be followed. If during the course of project development there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.

2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance:

   - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission.
   - The descendant identified fails to make a recommendation.
   - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6. Geology and Soils *Would the project:*				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

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

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

No Impact. The project site is not located in an earthquake fault zone as delineated by the Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist. The closest active faults are the Hayward Fault, which is located approximately 3.5 miles east of the project site; the Calaveras Fault, which is located approximately 10 miles east of the project site; and the San Andreas Fault, which is located approximately 16.5 miles west of the project site. No impact would occur.

ii) Strong seismic ground shaking?

Less Than Significant Impact. The project site is situated within a region traditionally characterized by a number of active faults and fault zones. Strong ground shaking would likely occur at the project site during an earthquake, due to the proximity of active faults in the region. Seismic hazards cannot be completely eliminated, but site-specific geotechnical investigation and proper building and structural design pursuant to the latest adopted edition of the California Building Standards Code would minimize potential impacts from a seismic hazard to a level of less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. The 2003 Seismic Hazard Zones Map for the Newark quadrangle shows the entire City of Newark as a liquefaction hazard zone, including the project site. The City of Newark General Plan also acknowledges the possibility of liquefaction and recommends site-specific geotechnical studies to assess the risk of liquefaction.

A Preliminary Liquefaction Analysis was undertaken on the project site on March 4, 2013, by the Cornerstone Earth Group (Appendix C). The analysis concluded that onsite soils could potentially experience liquefaction, which could result in onsite soil settlement ranging from 0.5 to 1 inch. The report indicated that post-tensioned mat foundations can be designed for settlements of this magnitude, thereby reducing the potential for liquefaction hazards. Furthermore, in accordance with Newark Code of Ordinances Section 15.50.022 and 15.50.024, a design-level soils and geotechnical engineering report would be prepared for the project and the recommendations therein, including recommendations for onsite liquefaction hazards, would be incorporated into the final grading and building plans as reviewed and approved by the City. As such, liquefaction hazards would be less than significant.

iv) Landslides?

No Impact. The project area is a previously graded, flat site, which precludes the possibility of landslides. No impact would occur.

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

Less Than Significant Impact. Soil exposed by construction activities during demolition and redevelopment of the project could be subject to erosion if exposed to heavy rain, winds, or other storm events. The project would adhere to standard Newark Engineering Division conditions that require conformance with Municipal Regional Stormwater National Discharge Elimination System (NPDES) permit and standards, enforced by the City of Newark, which mandates reduction of erosion off of all project sites. Adherence to NPDES requirements during construction and post construction periods would reduce the potential for soil erosion to a less that significant impact.

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

Less Than Significant Impact. As previously indicated, there is a potential for liquefaction on the project site and design recommendations to alleviate related risks have been identified by the Preliminary Liquefaction Analysis. Furthermore, in accordance with Newark Code of Ordinances Section 15.50.022 and 15.50.024, a design-level soils and geotechnical engineering report would be prepared for the project and the recommendations therein, including recommendations for onsite liquefaction hazards and any other geologic hazards onsite, would be incorporated into the final grading and building plans as reviewed and approved by the City. As such, unstable soil hazards would be less than significant.

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

Less Than Significant Impact. Expansive soils have a high clay content and shrink and swell as a result of seasonal fluctuation in moisture content. As indicated in the Preliminary Liquefaction Analysis, clay content has been identified in onsite soils. The Natural Resource Conservation Service's Web Soil Survey identifies onsite soils as Danville silty clay loam with a clay content of approximately 37 percent. However, in accordance with Newark Code of Ordinances Section 15.50.022 and 15.50.024, a design-level soils and geotechnical engineering report would be prepared for the project and the recommendations therein, including recommendations for any onsite expansive soil hazards, would be incorporated into the final grading and building plans as reviewed and approved by the City. As such, expansive soil hazards would be less than significant.

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

No Impact. The project site is currently served with sanitary sewer service provided by the Union Sanitary District, a condition that would be maintained by the project. This condition precludes the possibility of related impacts. No impacts would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
7. Greenhouse Gas Emissions *Would the project:*				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Evaluation

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. The project is located in Alameda County, which is part of the Air Basin. The Air Basin is regulated by the BAAQMD. The project consists of demolishing a former school and constructing 85 single-family residences. Greenhouse gas emissions were estimated for project construction and operation using the California Emissions Estimator model version 2013.2.2 (CalEEMod). The emissions modeling output is available in Appendix A.

Project Construction

The project would generate greenhouse gas emissions during construction activities. Specifically, greenhouse gases would be emitted from onsite heavy-duty construction vehicle exhaust, exhaust from vehicles hauling materials to and from the project site, and vehicle exhaust from construction worker trips. These activities are considered temporary or short-term. The BAAQMD does not have an adopted threshold of significance for construction-related greenhouse gas emissions. However, the BAAQMD does recommend that lead agencies quantify and disclose construction-related greenhouse gas emissions, and make a significance determination for those emissions. For the purposes of this analysis, the construction emissions are annualized over 30 years and added to the operational emissions to determine project significance. The 30-year timeframe is the project's assumed operational lifespan. The significance determination for construction emissions, in combination with operational emissions, is provided in Table 12. This approach is consistent with the South Coast Air Quality Management District's draft recommended greenhouse gas thresholds.

Based on CalEEMod defaults, the construction period would be approximately 19 months in duration. The CalEEMod estimate was based on the project type and size. The construction phases included demolition of buildings and pavement, site preparation, grading, building construction,

paving, and architectural coating. Detailed construction assumptions and parameters are provided in Appendix A. Greenhouse gas emissions during project construction are presented in Table 10 below.

Table 10: Construction Greenhouse Gas Emissions

Year	$MTCO_2e$
2015	464.00
2016	196.70
Total	660.70
Annualized over 30 Years	**20.02**
Source: FirstCarbon Solutions 2014; CalEEMod 2013.2.2.	

Construction of the project is estimated to generate approximately 660.70 metric tons of carbon dioxide equivalent ($MTCO_2e$). When annualized over the assumed 30-year project lifespan, project construction would generate 20.02 $MTCO_2e$ per year. As shown in Table 12, the project's construction emissions, when combined with operational emissions, are less than the BAAQMD's threshold of significance. Therefore, project construction emissions would result in a less than significant impact.

Project Operations

Operational or long-term emissions occur over the life of the project. Sources for operational emissions include:

- Motor Vehicles: Exhaust from the cars and trucks that would travel to and from the project site.
- Natural Gas: Emissions from natural gas burned on the project site. Natural gas uses include heating water, space heating, dryers, stoves, or other uses.
- Indirect Electricity: Offsite emission from power plants to supply electricity required for the project.
- Water Transport: Exhaust from electricity generation that is required to transport and treat the water to be used on the project site.
- Waste: Emissions from decomposing waste generated by the project.

The BAAQMD's 2010 Air Quality Guidelines provide screening criteria developed for a greenhouse gases emissions assessment. Projects below the 2010 Air Quality Guidelines applicable screening size would not exceed the 1,100 $MTCO_2e$ greenhouse gas threshold of significance. However, as shown in Table 11, the project's proposed land use is more than the BAAQMD's applicable screening size for operational greenhouse gas emissions. Therefore, the operational greenhouse gas emissions for the project were estimated.

Table 11: Greenhouse Gas Screening for Operational Emissions

Land Use	Screening Size	Project Size
Single-Family	56 DU	85 DU
Note: DU = dwelling units Source: BAAQMD 2011.		

Operational greenhouse gas emissions were estimate for the year 2020 because 2020 is the target year for AB 32's emission reduction goals. CalEEMod assumes compliance with some, but not all applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other greenhouse gas reduction policies, as described in the CalEEMod User's Guide (ENVIRON 2011). The default CalEEMod emission intensity factors for energy consumption were modified to reflect the Renewable Portfolio Standards. Specifically, the Renewable Portfolio Standards require electricity providers to include a minimum of 33 percent renewable energy in their portfolios by year 2020. Modifications to energy intensity factors are provided in Appendix A.

In addition to these rules and regulations, the project would incorporate the following design features that would further reduce greenhouse gas emissions:

- Destination Accessibility – The project is located within a mile of a job center.
- Transit Accessibility – The project is located within 2 miles of a train station.
- Electrical Outlets for Landscaping Equipment - Outlets would be provided to power electric landscaping equipment.
- Pedestrian Connections – The project is located adjacent to existing pedestrian infrastructure.

Greenhouse gas reductions from these design features were included in the emissions analysis. CalEEMod is designed to include these design elements and conditions as "mitigation measures", despite their inclusion in the project description or as existing conditions. Therefore, the 'mitigated' output from the CalEEMod model represents the unmitigated project conditions. Full assumptions and model outputs are provided in Appendix A.

The BAAQMD provides multiple threshold options for project-level greenhouse gas impact analysis. A significant impact would occur if the project would exceed all of the significance thresholds. Accordingly, the impact would be less than significant if the project was below any of the thresholds. The BAAQMD's 2010 Thresholds for operational greenhouse gas emissions are:

- Compliance with Qualified GHG Reduction Strategy, or
- 1,100 $MTCO_2e$ annually, or
- 4.6 $MTCO_2e$/Service Population/Year

The last option listed above is considered the 'efficiency metric' and is scalable to the project based on the project's service population and, therefore, is used in this analysis. The service population (SP) consists of residents and employees. According to the Newark General Plan, the average

number of persons per household in Newark at the time of the 2010 Census was 3.27. As such, the project's 85 residences could result in a population increase of approximately 300 people. Therefore, the project's service population is 300.

The project's operational emissions are shown in Table 12. As shown, annual emissions are estimated to be 3.68 $MTCO_2e$/SP/year after inclusion of the annualized project construction emissions. The project's emissions are less than the BAAQMD's threshold of 4.6 MTCO2e/SP/year. Therefore, impacts from operational greenhouse gas emissions are less than significant.

Table 12: Greenhouse Gas Construction and Operational Emissions

Source	Annual Emissions ($MTCO_2e$)
Area Sources	16.83
Energy	312.86
Mobile (Vehicles)	690.25
Waste	46.43
Water	16.14
Annualized Construction Emissions	20.02
Total Emissions*	**1,102.54**
Project Service Population	**300 SP**
Emissions/Service Population	**3.68**
Significance Threshold	**4.6**
Does project exceed threshold?	**No**

Notes:
* Based on non-rounded emissions output
$MTCO_2e$ = metric tons of carbon dioxide equivalent
SP = Service Population
Source: FirstCarbon Solutions 2014, Appendix A.

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The City of Newark adopted a Climate Action Plan (CAP) on January 28, 2010, which is the applicable greenhouse gas reduction plan for the project. The CAP presents a summary of actions the City has already taken, summarizes the 2005 emissions inventory, presents actions the City, residents, and businesses can take to further reduce emissions, sets reductions goals, and describes a monitoring plan.

There are three greenhouse gas emission reduction targets in the City's CAP:

1) A 5 percent reduction from 2005 Municipal emissions levels by July 2012;
2) A 5 percent reduction in City and Community emissions by July 2015; and
3) A community-wide target of 15 percent decrease from 2005 levels by 2020.

Achieving goal number three would enable the City to match the State of California's goal of 1990 emission levels by the year 2020 (City of Newark 2010). The 15 percent emission reductions goal is applicable to the project.

As shown in Table 13, operation of the project would generate approximately 1,082.52 $MTCO_2e$ per year in 2020. This represents a 26 percent reduction from emissions that would occur using 2005 emission factors. Year 2005 emission factors represent emission rates prior to implementation of AB 32 and subsequent regulation that further reduce greenhouse gas emissions.

Table 13: Greenhouse Gas Operational Emissions Reduction

Emission Source	$MTCO_2e$ per year		Percent Reduction[1]
	2005 Emissions	2020 Emissions	
Area Sources	16.85	16.83	0.0 %
Energy	429.99	312.86	27.2 %
Mobile (Vehicles)	963.26	690.25	28.3 %
Waste	46.43	46.43	0.0%
Water	19.19	16.14	15.9 %
Total Emissions	**1,475.72**	**1,082.52**	**26.6 %**
		CAP Reduction Goal	**15%**
		Does the Project Meet CCAP Reduction Goal?	**Yes**

Notes:
1. Total emissions based on non-rounded emissions output.
$MTCO_2e$ = metric tons of carbon dioxide equivalent.
Source: CalEEMod output (Appendix A).

Operational emissions would surpass the emission reduction goal of the CAP. In addition, the proposed project's greenhouse gas emissions would be less than the BAAQMD's threshold for project-level greenhouse gas generation as discussed in Section 7 a) above. Therefore, the project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gas.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
8. Hazards and Hazardous Materials *Would the project:*				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
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 within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

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

Less Than Significant Impact. Construction of the project would involve the transport and handling of hazardous substances such as diesel fuels, lubricants, solvents, asphalt, and waste. Handling and transport of these materials could result in the exposure of workers to hazardous materials. However, the project would not create a significant hazard to the public or the environment, because project construction would comply with applicable federal, state, and local laws pertaining to the safe handling and transport of hazardous materials.

As a residential project, the proposed development would not involve the regular use, storage, transport, or disposal of significant amounts of hazardous materials. Future residents would be expected use to small quantities of common household cleaners, lubricants, and similar products. Such usage would not have the potential to create significant public safety hazards due to the localized nature of such activities, and the low toxicity of these substances. As such, impacts would be less than significant.

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

Less Than Significant Impact. Based on the nature of the hazardous materials that would be used, stored, and/or disposed of during construction (e.g., diesel-fueled equipment, asphalt) and operation (e.g., household cleaners) of the project, it is unlikely that upset and accident conditions involving the release of hazardous materials into the environment would occur. As indicated in discussion 8 a) above, all hazardous materials would be handled in accordance with applicable laws.

However, because the existing school was constructed in the early 1960's, it is likely that building materials contain hazardous substances, such as asbestos, lead-based paint, polychlorinated biphenyls (PCBs), and others that were commonly used in building construction during that time. The project would be required to remove and dispose of all asbestos, lead-based paint, and PCB-containing materials according to the state Toxic Substances Control Act (TSCA) regulations and comply with the Occupational Safety and Health Administration (OSHA) guidelines for worker safety during removal. In addition, BAAQMD Regulation 11, Rule 2 would require implementation of preventative measures during demolition and removal of all ACMs to prevent emissions of asbestos into the air. Compliance with applicable rules and regulations would result in a less-than-significant impact from the project related to accidental release of hazards into the environment and exposure of construction workers.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. The project site is located approximately .1 miles from Crossroads High School/MacGregor Alternative Education, .15 miles northeast of Newark Junior High School, and .25 miles north west of E.L. Musick Elementary School. As explained in impacts 7a and 7b, the project would not involve the use of significant quantities of hazardous materials and therefore would not have the potential to expose the school to such substances. Impacts would be less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact. According to the State Water Resource Control Board "Geotracker," an online hazardous materials database, the project site is not listed as a hazardous material site. A Phase I Environmental Site Assessment (ESA) prepared for the project (Appendix D) indicates that the site is listed on HAZNET, a database that tracks disposal of hazardous materials. The HAZNET listing is dated 2001 and indicates the disposal of 0.2 tons of "other organic solids." This record of off-site disposal of hazardous materials is likely related to the removal and disposal of asbestos-containing building materials from the existing school, but does not indicate that significant hazards are present onsite. The Phase I ESA also found record of two leaking UST sites within a ¼ and ½ mile of the project site, but concluded that neither UST sites were expected to impact the project site. Overall, the Phase I ESA found no evidence of Recognized Environmental Conditions in connection with the project site. As such, impact would be less than significant.

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?

No Impact. The closest airport in absolute distance is the Palo Alto Airport of Santa Clara County, which is over 7.5 miles away. This distance precludes the possibility of the project creating safety hazards for persons residing or working in the project area. No impacts would occur.

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

No Impact. The project is not within the vicinity of a private airstrip. No impacts would occur.

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

No Impact. The project would not modify any roadways in such a way that would impede emergency access or evacuation. This precludes the project from interfering with emergency response or evacuation plans. Onsite access and circulation would provide for sufficient emergency access and evacuation routes. No impacts would occur.

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?

No Impact. The project would not modify any roadways in such a way that would impede emergency access or evacuation. This precludes the project from interfering with emergency response or evacuation plans. Onsite access and circulation would provide for sufficient emergency access and evacuation routes. No impacts would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
9. Hydrology and Water Quality *Would the project:*				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Environmental Evaluation

Would the project:

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

Less Than Significant Impact. The City of Newark is a participant in the Alameda Countywide Clean Water Program. The City enforces the most recent C.3 and C.6 requirements set forth in the Municipal Regional Stormwater Nation Pollutant Discharge Elimination System (NPDES) permit issued to the City by the San Francisco Bay Regional Water Quality Control Board. The C.3 and C.6 requirements state that development projects are to provide site design measures, source controls, Low Impact Development (LID) treatment measures, hydromodification management, and construction best management practices that are appropriate for the type and size of the project to control stormwater pollution. Treatment measures could include biotreatment systems that are designed subject to established numeric sizing criteria. The project is required to complete a Stormwater Requirements Checklist and prepare Stormwater Treatment Design Plans and a Stormwater Pollution Prevention Plan that collectively establish how the projects will satisfy NPDES water quality standards. Upon completion, the project site would be served with sanitary sewer service provided by the Union Sanitary District (USD), which treats effluent at its Alvarado Wastewater Treatment Plant in Union City and operates according to applicable water quality and waste discharge regulations. As such, the project's potential impacts on stormwater quality and waste discharge during and after construction would be less than significant.

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

Less Than Significant Impact. Water for the project would be provided by the Alameda County Water District, which relies on a combination of imported water and locally pumped groundwater. Development of the project would result in an increased demand for potable water on the project site. Residences would be developed in accordance with water efficiency measures as required by ACWD and Title 24. According to ACWD's Urban Water Management Plan, adequate supplies are available through 2035 during normal and multiple dry years. Therefore, the project would not result in the substantial depletion of groundwater supplies. The project would increase the area of impervious surface on the project site, thereby redirecting any current groundwater infiltration to existing stormwater infrastructure. However, the site is located in an urban area and is not identified as a groundwater recharge location. As such, impacts to groundwater resources would be less than significant.

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

Less Than Significant Impact. Existing drainage on the project site consists of stormwater drains within the developed area of the school. The project would significantly increase the amount of

impervious cover and increase stormwater runoff. However, the project is required to complete a Stormwater Requirements Checklist and prepare Stormwater Treatment Design Plans and a SWPPP that collectively establish how the projects will satisfy NPDES water quality standards. The plans would ensure substantial on- or off-site erosion and siltation would not occur. As such, impacts would be less than significant.

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

Less Than Significant Impact. The development of the project would increase onsite impervious surfaces from 140,000 square feet to 305,010 square feet. The existing stormwater volume for a 10-year, 10-minute rainfall event is 6.1 cubic feet per second (cfs) and the proposed stormwater volume for a similar rainfall event is 7.6 (cfs). As such, the project would increase the existing stormwater volume by 1.5 cfs (a 25-percent increase). However, the project includes the construction of new onsite stormwater drainage facilities, including 7,770 square feet of bioretention area and restrictor plates in manholes at the most downstream point, designed to accommodate expected stormwater flows, ensure no net increase, and avoid flooding downstream. Therefore, the project would not alter the existing drainage pattern of the site or the area such that there would be a substantial increase in the risk of flooding on- or offsite. Impacts would be less than significant.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. The project would be served by the City's stormwater drainage system. Construction activities such as demolition, grading, and paving could introduce additional pollutants and sediment into water runoff and flow into nearby storm drains. The project is required to complete a Stormwater Requirements Checklist, prepare Stormwater Treatment Design Plans, and an SWPPP that collectively establishes how the project will satisfy NPDES water quality standards, as discussed previously. Projects that comply with NPDES requirements would not result in a significant impact related to changes in the quantity, rate, or quality of stormwater runoff from the site. Finally, continuous use and operation of the site would not create or contribute runoff water that would exceed the capacity of existing stormwater drains on the project site. Therefore, impacts would be less than significant.

f) Otherwise substantially degrade water quality?

Less Than Significant Impact. Construction activities related to the project could introduce pollutants and sediment into water runoff from the site. Runoff from the site flows through storm drains to nearby water bodies and eventually into the San Francisco Bay. As previously discussed, the project would be required to fulfill C.3 and C.6 requirements regarding the provision of site design measures, source controls, Low Impact Development (LID) treatment measures, hydromodification management, and construction best management practices that are appropriate for the type and size of the project to control stormwater pollution. Implementation of these requirements in coordination with the project's Stormwater Requirements Checklist, Stormwater

Treatment Design Plans, and SWPP would ensure water quality impacts would be less than significant.

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

No Impact. The project site is not located within a 100-Year flood hazard zone as mapped by the Federal Emergency Management Agency. No impacts would occur.

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

No Impact. The project site is not located within a 100-Year flood hazard zone as mapped by the Federal Emergency Management Agency. No impacts would occur.

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

Less Than Significant Impact. The project site is not located within a 100-Year flood hazard zone as mapped by the Federal Emergency Management Agency. According to the Association of Bay Area Governments (ABAG), the City of Newark is located within the inundation area of three dams: Del Valle, Turner, and Calaveras. According to the EIR for the City of Newark General Plan, inundation resulting from dam failure could damage property and structures within the City and pose a severe hazard to public safety. However, as stated in the EIR, the California Division of Safety of Dams inspects each dam on an annual basis to ensure the dam is safe, performing as intended, and is not developing problems, thereby ensuring the risk of dam failure is extremely low. As such, impacts would be less than significant.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. The Newark General Plan states that, while the San Francisco Bay could be impacted by a Pacific Ocean tsunami, the effects would dissipate by the time they reached Newark and the temporary rise in sea level triggered by a tsunami would be comparable to an ordinary high tide. Regarding seiches, the Newark General Plan states the configuration of the shoreline and depth of water offshore is such that, seiche hazard is not judged to be significant in Newark. Similarly, the small ornamental lakes and ponds in the City are not considered to constitute a seiche hazard. Finally, the EIR for the City of Newark General Plan stated that the City is relatively flat and is outside of the impacted zones for earthquake-induced landslides or rainfall-induced landslides. As such, no impacts would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
10. Land Use and Planning *Would the project:*				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

a) Physically divide an established community?

No Impact. The project would demolish the existing school and redevelop the site with residential uses that would be consistent with the adjacent residential uses and would not physically divide an existing community. No impacts would occur.

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?

Less Than Significant Impact. The project site is designated as Low Density Residential by the Newark General Plan and Residential (R-6000) by the Zoning Ordinance. The applicant is seeking approval of a Rezone for the project site.

The project is consent with the General Plan Designation of Low Density Residential. The site would be rezoned from R-6000 to Low Density Residential – Form Based Code. The Rezone, in combination with the Planned Unit Development, is necessary to facilitate the development of the proposed residential lot size, and would ensure consistency with the Zoning Ordinance. Development onsite would be required to comply with all applicable General Plan policies and Code of Ordinance regulations, and would be reviewed for compliance by the City prior to approval of the necessary permits. As such, impacts would be less than significant.

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

No Impact. There are no habitat conservation or natural communities conservation plans applicable to the project site. No impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
11. Mineral Resources *Would the project:*				
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

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?

No Impact. The project site is not located within a State-designated Mineral Resource Zone. In addition, the project site is developed and does not support mineral extraction operations. These conditions preclude the possibility of related impacts. No impact would occur.

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

No Impact. The Newark California General Plan 2013 stated that there are no mining operations in the City of Newark. In addition, the project site is developed with education uses and does not support mineral extraction operations. These conditions preclude the possibility of related impacts. No impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
12. Noise *Would the project result in:*				
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?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Evaluation

Noise is defined as unwanted sound. Noise is typically generated by transportation, specific land uses, and ongoing human activity. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. Most of the sounds that we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound.

The standard unit of measurement of the loudness of sound is the dB. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. A change of 3 dB is the lowest change that can be perceptible to the human ear in indoor environments, while a change of 5 dBA is considered to be the minimum readily perceptible change to the human ear in outdoor environments.

Since the human ear is not equally sensitive to sound at all frequencies, the A-weighted decibel scale (dBA) was derived to relate noise to the sensitivity of humans, it gives greater weight to the frequencies of sound to which the human ear is most sensitive. The "A" weighted sound level is the basis for a number of various sound level metrics, including the day/night sound level (L_{dn}) and the Community Noise Equivalent Level (CNEL), both of which represent how humans are more sensitive to sound at night.[1] In addition, the equivalent continuous sound level (L_{eq}) is the average sound energy of time-varying noise over a sample period, and the L_{max} is the maximum instantaneous noise level occurring over a sample period.

Existing Conditions

Noise monitoring was performed using an Extech Model 407780 Type 2 integrating sound level meter. The Extech meter was programmed in "slow" mode to record the sound pressure level at one second intervals in "A" weighted form. The sound level meter and microphone was mounted approximately five feet above the ground and was equipped with a windscreen during all measurements. The sound level meter was calibrated before monitoring using an Extech calibrator, Model 407766. The noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

The noise monitoring locations were selected in order to document existing daytime ambient noise levels on the project site and to determine compatibility of the proposed residential land use development with the City's land use compatibility standards. The results of the noise level measurements are provided below in Table 14. The noise monitoring locations are shown in Exhibit 5.

The noise measurements were recorded for 15-minute durations, between 1:00 p.m. and 3:00 p.m., on Thursday, May 8, 2014. At the start of the noise monitoring, the sky was sunny with a few clouds, and calm winds from the west (about 2 mph). The temperature during the noise measurements ranged from 67 to 70 degrees Fahrenheit. The primary noise sources in the project vicinity were students yelling at a sporting event at a nearby school, traffic on local roadways, airplane flyovers, and nature noise sources such as birds chirping and dogs barking.

Table 14: Existing Noise Level Measurements

Site Location	Description	L_{eq}	L_{MAX}	L_{MIN}
Site 1	Northeast corner of project site, adjacent to residential homes.	45.5	60.0	38.0
Site 2	Center of project site, approximately 15 feet from northeast corner of existing rear parking lot.	46.3	76.5	45.8

[1] L_{dn} is the 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m. CNEL is the 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 decibels to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m. Source: Harris, Cyril M. 1998. *Handbook of Acoustical Measurement and Noise Control.*

Table 14 (cont.): Existing Noise Level Measurements

Site Location	Description	L_{eq}	L_{MAX}	L_{MIN}
Site 3	Approximately 600 feet from edge of Ruschin Drive, in driveway in front of abandoned residential structure.	47.0	79.3	42.8

Regulatory Framework

The City of Newark addresses noise in the Noise Element of the City's General Plan.[2] The Noise Element contains the City's land use compatibility standards for community noise environments. For example, the City considers environments with noise levels of up to 60 dBA CNEL to be normally acceptable for new residential development.

According to General Plan Policy EH-6.6, permissible hours of noise-producing construction activities are Monday through Friday from 7:00 a.m. to 7:00 p.m. Noise producing construction activities for the project are not permitted on Saturdays, Sundays, and State/federal holidays.

An analysis of potential noise impacts during construction and operation of the project is provided as follows.

Would the project result in:

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

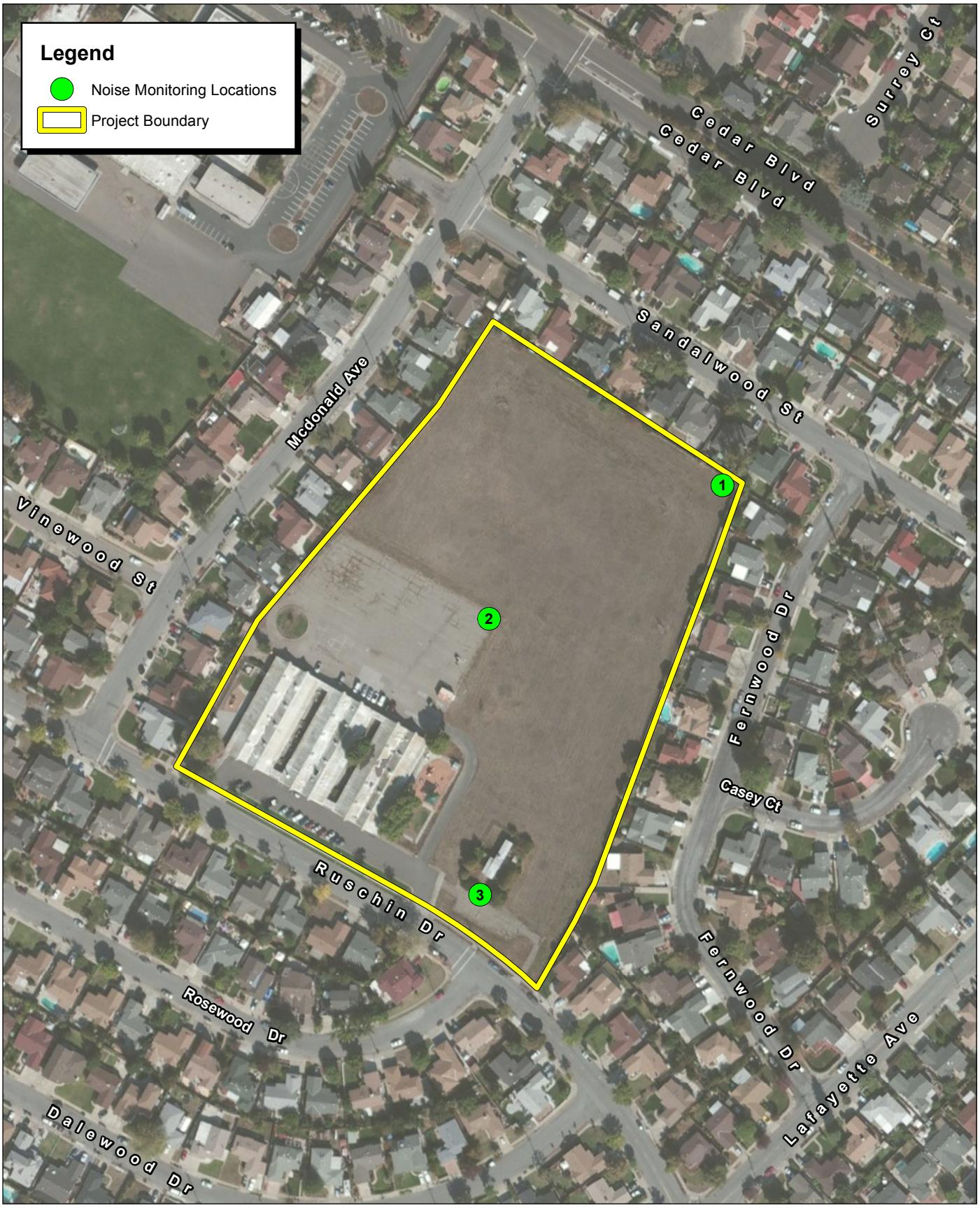
Less than Significant with Mitigation Incorporated. Noise levels in the project area would be influenced by construction activities and from the ongoing operation of the project.

Construction Noise Impacts

The following two types of short-term noise impacts could occur during the construction of the project. First, construction crew commutes, and the transport of construction equipment and materials to the project site would incrementally increase noise levels on roads leading to the project site. Although there would be a relatively high single event noise exposure potential causing intermittent noise nuisance, the effect on longer term (hourly or daily) ambient noise levels would be small. Therefore, short-term construction-related impacts associated with worker commute and equipment transport to the project site, would be less than significant.

The second type of short-term noise impact is related to noise generated during construction on the project site. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, noise levels would change as construction progresses.

[2] City of Newark, 2013. *Newark General Plan*. December.



Source: ESRI Imagery

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Exhibit 5
Noise Monitoring Locations

Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction related noise ranges to be categorized by work phase. Table 15 lists typical construction equipment noise levels, based on a distance of 50 feet between the equipment and a noise receptor. Because the noisiest construction equipment is earth moving equipment, the site preparation phase is expected to be the loudest phase of construction.

The site preparation construction phase is expected to require the use of front-end loaders, compactors, hydraulic backhoes, and haul trucks. Typical operating cycles for these types of construction equipment may involve one or two minutes of full-power operation, followed by three or four minutes at lower power settings. Impact equipment such as pile drivers are not expected to be used during construction of this project.

Table 15: Typical Construction Equipment Maximum Noise Levels, L_{max}

Type of Equipment	Impact Device? (Yes/No)	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)
Impact Pile Driver	Yes	95
Auger Drill Rig	No	85
Vibratory Pile Driver	No	95
Jackhammers	Yes	85
Pneumatic Tools	No	85
Pumps	No	77
Scrapers	No	85
Cranes	No	85
Portable Generators	No	82
Rollers	No	85
Dozers	No	85
Tractors	No	84
Front-End Loaders	No	80
Backhoe	No	80
Excavators	No	85
Graders	No	85
Air Compressors	No	80
Dump Truck	No	84
Concrete Mixer Truck	No	85
Pickup Truck	No	55
Source: FHWA, 2006. Highway Construction Noise Handbook, August.		

As shown in Table 15, the typical maximum noise level generated by backhoes and front-end loaders is assumed to be 80 dBA L_{max} at 50 feet from the operating equipment. The maximum noise level generated by compactors or rollers is approximately 85 dBA L_{max} at 50 feet. The maximum noise level generated by haul trucks is approximately 84 dBA L_{max} at 50 feet from these vehicles. Each doubling of the sound sources with equal strength would increase the noise level by 3 dBA. Assuming each piece of construction equipment operates at some distance apart from the other equipment, the worst-case combined noise level during this phase of construction would be 91 dBA L_{max} at a distance of 50 feet from multiple pieces of heavy construction equipment operating at full power simultaneously.

Residential land uses border the project site to the north, east, and west, and across Ruschin Drive to the south. The closest of these residential structures are located approximately 15 feet from the project property line, and approximately 30 feet from the construction areas of the proposed residential units. When heavy construction equipment operates near the project property line during the site preparation phase of construction, the closest offsite residential units would be exposed to construction noise levels of up to 100 dBA L_{max}. During the building construction phase of the proposed residential units, construction noise levels could range up to 99 dBA L_{max} at the closest off-site residential units.

Although there would be a relatively high single event noise exposure potential causing intermittent noise nuisance, the effect on longer term (hourly or daily) ambient noise levels would be small. Conscientious implementation of multi-part Mitigation Measure NOISE-1, outlining standard noise reduction measures (including required use of approved mufflers on equipment) and compliance with the City's General Plan policy establishing permissible hours of noise-producing construction activity, would reduce short-term construction impacts to a less-than-significant level.

Mitigation Measure

MM NOISE-1: Implementation of the following multi-part mitigation measure for project construction activities would reduce the potential construction period noise impact to a less-than-significant level:

- The construction contractor shall ensure that all noise producing construction activities, including warming-up or servicing equipment and any preparation for construction, shall be limited to the hours between 7:00 a.m. to 7:00 p.m. on weekdays, with no noise-generating construction on Saturdays, Sundays, or state/federal holidays.
- The construction contractor shall ensure that all internal combustion engine-driven equipment are equipped with mufflers which are in good condition and appropriate for the equipment.
- The construction contractor shall utilize quiet models of air compressors and other stationary noise sources where such technology exists.

- The construction contractor shall locate onsite equipment staging areas to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during construction.
- Where feasible, the project contractor shall place all stationary construction equipment so that emitted noise is directed away from the closest offsite sensitive receptors.
- The construction contractor shall prohibit unnecessary idling of internal combustion engines.
- The construction contractor shall designate a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures warranted to correct the problem. The construction contractor shall conspicuously post a telephone number for the disturbance coordinator at the construction site.

Because construction noise is temporary and applicants would be required to implement the noise abatement measures listed above, construction noise would not expose persons to temporary increases in ambient noise levels.

Operational Noise Impacts

A project would result in a significant impact if it would expose persons to noise levels in excess of the City's land use compatibility standards for community noise environments.

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the project site. Traffic data used in the model was obtained from the traffic impact analysis prepared by Hexagon, dated June 2014. The resultant noise levels were weighed and summed over a 24-hour period in order to determine the CNEL values. The model inputs and outputs, including the 60 dBA, 65 dBA, and 70 dBA CNEL noise contour distances for existing and existing-plus-project traffic conditions, are provided in Appendix E.

The results of the FHWA highway traffic noise prediction model indicate that the addition of project-related traffic would result in a less-than-significant increase in ambient noise levels on roadway segments in the project vicinity. Increases in traffic noise levels range from 0.2 dBA to 3.4 dBA along modeled roadway segments in the project vicinity compared to traffic noise levels under existing conditions without the project. This is well below a 5 dBA increase that is considered to be the minimum readily perceptible change to the human ear in outdoor environments. Therefore, off-site traffic noise impacts related to the project would be less-than-significant.

The City's "normally acceptable" threshold for new residential land use development is 60 dBA CNEL. The modeling results show that traffic noise levels along Ruschin Drive, adjacent to the project site, would range up to 51.1 dBA CNEL under existing and cumulative plus project conditions as measured at 50 feet from the centerline of the outermost travel lane. These noise levels are within the City's

"normally acceptable" range for new residential land use development. Therefore, traffic noise impacts would be considered less-than-significant for proposed on-site land uses.

In conclusion, operational noise impacts associated with implementation of the project would not expose persons to noise levels in excess of standards established in the General Plan for the proposed land use and would be considered less-than-significant.

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

Less than Significant with Mitigation Incorporated. No permanent noise sources that would expose persons to excessive groundborne vibration or noise levels would be located within the project site.

During development of the project, heavy construction equipment such as graders, loaders, backhoes, and bulldozers may be used as close as 30 feet from the closest off-site sensitive receptors. As shown in Table 16**,** the construction equipment that would be used during project development would generate vibration levels between 0.001 and 0.101 PPV as measured at a distance of 25 feet from the operating machinery. When the heaviest construction equipment operates at the proposed building construction limits, the nearest offsite residential structures may be exposed to groundborne vibration levels ranging up to 0.077 PPV. These groundborne vibration levels are well below the Federal Transit Administration (FTA) vibration damage impact criteria of 0.2 PPV for buildings of non-engineered timber or masonry construction. Furthermore, implementation of Mitigation Measure NOISE-1, which includes required compliance with the City's General Plan policy establishing permissible hours of noise-producing construction activity, would ensure that groundborne vibration levels from the operation of construction equipment would also not result in nighttime sleep disturbance of adjacent noise sensitive receptors. Therefore, implementation of the project would not expose persons within or around the project site to excessive groundborne vibration or noise. Impacts would be less than significant with the incorporation of mitigation.

Table 16: Vibration Levels of Construction Equipment

Construction Equipment	PPV at 25 Feet (inches/second)	RMS Velocity in Decibels (VdB) at 25 Feet
Water Trucks	0.001	57
Scraper	0.002	58
Bulldozer – small	0.003	58
Jackhammer	0.035	79
Concrete Mixer	0.046	81
Concrete Pump	0.046	81
Paver	0.046	81
Pickup Truck	0.046	81
Auger Drill Rig	0.051	82
Backhoe	0.051	82

Table 16 (cont.): Vibration Levels of Construction Equipment

Construction Equipment	PPV at 25 Feet (inches/second)	RMS Velocity in Decibels (VdB) at 25 Feet
Crane (Mobile)	0.051	82
Excavator	0.051	82
Grader	0.051	82
Loader	0.051	82
Loaded Trucks	0.076	86
Bulldozer - Large	0.089	87
Caisson drilling	0.089	87
Vibratory Roller (small)	0.101	88
Compactor	0.138	90
Clam shovel drop	0.202	94
Vibratory Roller (large)	0.210	94
Pile Driver (impact-typical)	0.644	104
Pile Driver (impact-upper range)	1.518	112

Note:
Equipment in Bold are expected to be operate on-site during project construction.
Source: Compilation of scientific and academic literature, generated by FTA and FHWA.

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

Less Than Significant Impact. Implementation of the project is not anticipated to result in a significant increase in vehicle trips, and therefore, would not result in any permanent increase in traffic noise levels on local roadways in the project vicinity. Additionally, the project would not include any stationary noise sources that would result in permanent increases in ambient noise levels in the project vicinity above levels existing without the project. Periodic noise increases associated with construction of the project are discussed in Section 12.a. and 12.d.

In addition, as previously described in Section 12.a., traffic noise associated with implementation of the project would not result in a substantial increase in ambient noise levels along any of the modeled roadway segments in the project vicinity. Therefore, project-related traffic noise level increases would be considered less than significant.

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

Less than Significant with Mitigation Incorporated. As discussed in Section 12.a, project-related construction activities could result in high intermittent noise levels of up to 100 dBA L_{max} at the closest noise sensitive land uses. This noise would result from the temporary use of heavy

construction equipment. Implementation of multi-part Mitigation Measure NOISE-1, including permissible hours of construction, would reduce potential temporary construction-related noise impacts to a less than significant level.

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

Less Than Significant Impact. The project site is located approximately 7 miles northwest of Palo Alto Airport (the nearest airport); approximately 8 miles north of Moffet Federal Airfield; approximately 13 miles north of San Jose Mineta International Airport; approximately 14.5 miles southeast of Oakland International Airport; and approximately 18 miles southeast of San Francisco International Airport. While aircraft noise is occasionally audible on the project site, due to the distance from the airports and the orientation of runways and flight patterns, the project site does not lie within the 55 dBA CNEL noise contours of any airport. Therefore, the impact of noise levels from aviation sources would be less than significant.

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

No Impact. The project site is not located in the vicinity of a private airstrip. Therefore, implementation of the project would not expose people to excessive noise levels, and no impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
13. Population and Housing *Would the project:*				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

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

Less Than Significant Impact. According to the Newark General Plan, the average number of persons per household in Newark at the time of the 2010 Census was 3.27. As such, the project's 85 residences could result in a population increase of approximately 300 people. This increase would not be considered significant. Moreover, the project site is located within a residentially developed area of Newark and is currently contemplated for residential redevelopment. Finally, the project site is currently served by urban infrastructure and utilities, and the development of the project would not remove a physical barrier to growth. As such, impacts would be less than significant.

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

No Impact. The project site contains a single mobile home that formerly housed a "Vandal Watch" program associated with the school. The mobile home was occupied from at least 1981 through 1991, but is now vacant. The removal of the vacant mobile home would not be considered a substantial displacement of housing and would not necessitate the construction of replacement housing elsewhere. No impact would occur.

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

No Impact. As previously indicated the single mobile home on the project site is vacant and its removal would not displace any residences nor necessitate the construction of replacement housing elsewhere. No impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
14. Public Services *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☒	☐
e) Other public facilities?	☐	☐	☒	☐

Environmental Evaluation

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

a) Fire protection?

Less Than Significant Impact. Implementation of the project could result in the addition of as many as 300 persons to the City of Newark, and therefore, increase demand for fire protection services. The project site already supports urban development and is located within the service area of the Alameda County Fire Department. Furthermore, the site is already designated for residential redevelopment. As indicated in the Newark General Plan EIR, the Fire Department does not anticipate that buildout of the General Plan would require the construction or expansion of facilities and additional staffing, and that sufficient equipment exists at existing stations to accommodate the increase in service population. Payment of the City's Capital Facilities Fee would offset the project's increased need for fire services. As such, the project is not anticipated to result in a significant increase in demand for service that cannot be met by existing facilities and staffing levels and impacts would be less than significant.

b) Police protection?

Less Than Significant Impact. Implementation of the project could result in the addition of as many as 300 persons to the City of Newark, and therefore, increase demand for police protection services. The project site already supports urban development and is located within the service area of the Newark Police Department. As indicated in the Newark General Plan EIR, Newark's projected

increase in service population would require the eventual construction of new police facilities. However, payment of the City's Capital Facilities Fee would offset the project's increased need for police services and would provide funding for eventual construction or expansion of police facilities. As such, the project is not anticipated to result in an immediate significant increase in demand for service that cannot be met by existing facilities and staffing levels. Impacts would be less than significant.

c) Schools?

Less Than Significant Impact. The project would involve demolition of the onsite surplus school facility, and redevelopment of the site with 85 single-family residences that would increase the demand for school services. The existing onsite school was closed in 1989 and has been declared surplus property by the Newark Unified School District (NUSD). Therefore, demolition of the school would not impact the provision of school services. Based on a student generation rate of 0.416 students per single-family residence (as used by the General Plan EIR), the project could generate as many as 36 new students.

According to the NUSD's Developer Fee Justification Study, the NUSD has capacity for 6,476 kindergarten through 12th grade students (NUSD 2012). The project's 36 potential new students represent a negligible 0.55-percent increase of the total capacity. Enrollment numbers have declined within NUSD since 2009 and are projected to continue an overall decline through 2019 (NUSD 2013). While declining enrollment is projected at both NUSD high schools, enrollment is forecast to increase at some NUSD elementary schools. As indicated by the General Plan, the NUSD's forecast indicates that with the construction of a new 600-student elementary school on Cherry Street, east of Ohlone College, there will be sufficient capacity to meet projected demand at the elementary-school level and sufficient capacity existing at the junior-high and high-school levels to meet the projected needs of new residential growth. School-age children residing at the project site would likely be served by Kennedy Elementary.

Furthermore, as indicated by General Plan Policy CSF-2.2 and in accordance with SB 50, the project is required to pay school impact fees to offset increases in service requirements. California Government Section 65996 provides for the collection of school impact fees to mitigate the impacts of new development on school districts, and prevents local cities and counties from imposing additional fees or requiring additional mitigation measures. Therefore, impacts would be less than significant.

d) Parks?

Less Than Significant Impact. The addition of single-family homes would increase the demand for park facilities in the area. The Newark General Plan sets a standard of 3.0 acres of parkland per 1,000 residents for planning purposes. According to the General Plan, the City was slightly above their standard ratio in 2010, with a ratio of 3.11 acres of parkland per 1,000 residents. To offset the impacts of development and to ensure the parkland standard is maintained, the City would require the project applicant to pay a Park Impact Fee. The project does not include recreational facilities

and would not require the construction or expansion of existing recreational facilities. With the payment of Park Impact Fee, impacts would be less than significant.

e) Other public facilities?

Less Than Significant Impact. The addition of single-family homes could increase the demand for library facilities and community centers. In accordance with California Development Code Section 53090, development impact fees would be paid to offset any additional service needs. With payment of applicable development fees, impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
15. Recreation				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Environmental Evaluation

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?

Less Than Significant Impact. The addition of single-family homes would increase the demand for park facilities in the area. The Newark General Plan sets a standard of 3.0 acres of parkland per 1,000 residents for planning purposes. According to the General Plan, the City was slightly above their standard ratio in 2010, with a ratio of 3.11 acres of parkland per 1,000 residents. To offset the impacts of development and to ensure the parkland standard is maintained, the City would require the project applicant to pay a Park Impact Fee. With the payment of in-lieu fees, impacts would be less than significant.

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

No Impact. The project does not include recreational facilities and would not require the construction or expansion of existing recreational facilities. No impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
16. Transportation/Traffic *Would the project:*				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less Than Significant Impact. Hexagon Transportation Consultants prepared a Traffic Impact Analysis to assess the project's impacts on traffic operations (Appendix F). The potential impacts of the project were evaluated in accordance with the standards set forth by the City of Newark. The study included the analysis of AM and PM peak hour traffic conditions for the following five signalized intersections and five unsignalized intersections.

- Newark Boulevard & Jarvis Avenue
- Newark Boulevard & Cedar Boulevard
- Newark Boulevard & Ruschin Drive (Unsignalized)
- Newark Boulevard & Lafayette Avenue
- Project Driveway (N) & Ruschin Drive (unsignalized, future intersection)*
- Rosewood Drive/Project Driveway(S) & Ruschin Drive (unsignalized)
- Lafayette Avenue & Ruschin Drive (unsignalized)
- McDonald Avenue & Cedar Boulevard (unsignalized)
- Lafayette Avenue & Cedar Boulevard
- Thornton Avenue & Cedar Boulevard

The Traffic Impact Analysis determined that the project would generate a total of 809 daily trips, with 64 trips occurring in the AM peak hour and 85 trips occurring in the PM peak hour. Hexagon found that measured against the City of Newark's level of service (LOS) impact criteria, none of the signalized study intersections would operate at an unacceptable LOS and, therefore, would not be significantly impacted. All of the unsignalized study intersections would also operate at an acceptable LOS on the worst approach of the minor street except for the intersection of Newark Boulevard/Ruschin Drive-Brittany Avenue.

The unsignalized intersection of Newark Boulevard/Ruschin Drive-Brittany Avenue would operate with unacceptable delays on the minor street approaches under cumulative conditions with or without the project. Although this intersection did not meet the peak hour volume warrant, Hexagon recommends that the City periodically monitor the traffic operations at this intersection to see if a traffic signal should be installed at this location. Furthermore, the City recently completed a detailed signal warrant analysis that looked at eight of the nine signal warrants in the 2006 California Manual on Uniform Traffic Control Devices, and found that this intersection did not fully meet any one of the eight signal volume warrants. It is also noted that alternative routes are available for vehicles on Brittany Drive and Ruschin Drive to access Newark Boulevard. Vehicles turning left from Brittany Drive onto northbound Newark Boulevard could alternatively use the signalized intersection of Cedar Boulevard/Newark Boulevard, and vehicles turning left from Ruschin Drive onto southbound Newark Boulevard could alternatively use the signalized intersection of Lafayette Avenue/Newark Boulevard to access Newark Boulevard. Therefore, the project's trip contribution to the Newark Boulevard/Ruschin Drive-Brittany Avenue intersection is considered less than significant.

An intersection operation analysis was performed to determine vehicle queuing lengths and available storage at selected intersections. As indicated by the Traffic Impact Analysis, the maximum vehicle queues for the southbound left-turn pocket at the Cedar Boulevard/Thornton Avenue intersection currently exceed the existing vehicle storage capacity during both the AM and PM peak hours of traffic, and that this condition would continue to occur under existing plus project,

background, and background plus project conditions. This is due to the close proximity to both SR 84 and I-880 freeways. The southbound left-turn pocket provides about 475 feet of vehicle storage for a capacity of up to 19 vehicles. The existing 95th percentile vehicle queue currently is 800 feet during the AM peak hour and 700 feet during the PM peak hour. The 95th percentile queue would remain the same during the AM peak hour with the addition of the project traffic under both existing and background conditions. A maximum queue of 725 feet would occur during the PM peak hour under existing and background conditions with the project traffic. It is not possible to provide additional left-turn pocket storage. However, the addition of 25 feet equates to only one additional vehicle and this increase is considered negligible. Therefore, impacts would be less than significant.

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?

Less Than Significant Impact. The project would not cause unacceptable LOS on any congestion management program designated roadway segment. As previously indicated, the project would not cause an intersection to operate below acceptable LOS. Therefore, the project would not conflict with an applicable congestion management program. Impacts would be less than significant.

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

No Impact. The closest airport in absolute distance is the Palo Alto Airport of Santa Clara County, which is over 7.5 miles away. The project site is not within a designated Airport Land Use Plan. Therefore, the project would not interfere with existing air traffic patterns. No impacts would occur.

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

No Impact. The project site would include two new intersections on Ruschin Drive. The intersections would be designed in accordance with City standards and provide adequate ingress and egress for the proposed residences. The project does not involve any changes that would create new potentially hazardous conditions (restricted turning movements, unusual design features, etc.). No impact would occur.

e) Result in inadequate emergency access?

No Impact. The project includes a private looped roadway and alleys to access the site and provide sufficient emergency access. In accordance with standard City practices, the Alameda County Fire Department would review project plans prior to the issuance of permits to ensure compliance with all applicable fire and building codes to ensure that adequate fire and life safety measures are incorporated into the project. As such, adequate emergency access would be provided and no impact would occur.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. The project would include sidewalks along the private loop road as well as along Ruschin Drive. The project's improvements along Ruschin drive would not interfere with the use or safety of Ruschin Drive as a Class III bike route. Alameda County Transit provides local bus services within walking distance of the project along Newark Boulevard and Cedar Boulevard. The existing transit and pedestrian facilities are anticipated to adequately accommodate the project-generated transit trips. Furthermore, the Traffic Impact Analysis prepared by Hexagon indicates that the project would not have an adverse effect on existing transit, bicycle, or pedestrian facilities in the project vicinity. As such, the project would not conflict with adopted policies, plans, or programs supporting alternative transportation or otherwise decrease the performance or safety of such facilities. No Impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
17. Utilities and Service Systems *Would the project:*				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
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?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

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

Less Than Significant Impact. The project's new residential uses would produce an increase in wastewater generation above existing uses and those accounted for in the General Plan. The project site would be served with sanitary sewer service provided by the Union Sanitary District (USD), which treats effluent at its Alvarado Wastewater Treatment Plant in Union City. The wastewater

treatment plant treats an average of 24 million gallons of wastewater per day with the capacity to treat an average dry weather flow of up to 33 million gallons per day. Therefore, sufficient capacity exists and the project would not be expected to cause the wastewater treatment plant to exceed applicable requirements set by the Regional Water Quality Control Board. Impacts would be less than significant.

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

Less Than Significant Impact. The existing school currently receives sanitary service provided by USD and its wastewater treatment plant, a condition that would be maintained by the project. The project would be accommodated by the existing water supply, sanitary sewer, and wastewater treatment infrastructure serving the project site. Existing water and wastewater conveyance facilities onsite would be replaced and reconfigured to serve the project. USD's wastewater treatment plant treats an average of 24 million gallons of wastewater per day with the capacity to treat an average dry weather flow of up to 33 million gallons per day. In addition, water demand associated with the project would be within the future water demand as outlined in the Urban Water Management Plan. Therefore, the project would not require offsite expansion of existing or construction of new water or wastewater treatment facilities. Impacts would be less than significant.

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

Less Than Significant Impact. The development of the project would increase onsite impervious surfaces from 140,000 square feet to 305,010 square feet. The existing stormwater volume for a 10-year, 10-minute rainfall event is 6.1 cubic feet per second (cfs) and the proposed stormwater volume for a similar rainfall event is 7.6 (cfs). As such, the project would increase the existing stormwater volume by 1.5 cfs (a 25-percent increase). To address the increase in stormwater flow, the project includes the construction of new onsite stormwater drainage facilities, including 7,770 square feet of bioretention area and restrictor plates in manholes at the most downstream point. These project components are designed to accommodate the expected stormwater flows, ensuring no net increase in offsite flows of stormwater, and avoiding flooding downstream. The project site is located within the urban service area of the City of Newark where such facilities exist, and have the capacity to serve the project. Therefore, the project would not require offsite construction or expansion of existing stormwater drains of facilities. Impacts would be less than significant.

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

Less Than Significant Impact. The existing school receives water supplies from the Alameda County Water District (ACWD), a condition that would be maintained with the redevelopment of the project site. Development of the project would result in an increased demand for potable water on the project site. Residences would be developed in accordance with water efficiency measures as

required by ACWD and Title 24. According to ACWD's Urban Water Management Plan, adequate supplies are available through 2035 during normal and multiple dry years. Therefore, sufficient water supplies are available to serve the project and impacts would be less than significant.

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

Less Than Significant Impact. The project's residential uses would increase existing wastewater production onsite. Wastewater effluent from the project site is treated at the Alvarado Wastewater Treatment Plant. The wastewater treatment plan treats an average of 24 million gallons of wastewater per day with the capacity to treat an average dry weather flow of up to 33 million gallons per day, therefore, sufficient capacity exists to adequately serve the project. Impacts would be less than significant.

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

Less Than Significant Impact. Construction and operation of the project would generate solid waste, which would be served by existing solid waste disposal services. The project site would be served by Allied Waste, which transports waste to the Fremont Recycling and Transfer Station, where recyclables are removed, and non-recyclables are then transported to the Altamont Landfill. The Fremont Recycling and Transfer Station is currently operating at approximately 50 percent capacity. The Altamont Landfill currently receives about 7,000 tons of waste per day and is permitted to receive up to 11,150 tons per day. Only two percent of the waste stream entering the landfill originates in Newark. Based on remaining capacity and projected volumes, the landfill operators estimate its closure date to be 2040 (City of Newark 2013). As such, sufficient transfer and landfill capacity exists to serve the project.

In addition, construction and demolition solid waste would be recycled and disposed of in compliance with the 2010 California Green Building Code Standards and Newark's Code of Ordinances Section 15.44.030 which requires at least 50 percent of construction and demolition debris to be diverted from the landfill. As such, the project would divert construction and demolition debris from landfills such that it would not have a significant impact on landfill capacity and would comply with regulations set by the City of Newark's Code of Ordinances. Impacts would be less than significant.

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

No Impact. Development of the project would ensure that all construction and demolition waste would adhere to the provisions stated in the 2013 California Building Code. Projects that comply with the 2013 California Building Code would comply with federal, state, and local statutes and regulations related to solid waste. As such, no impact would occur.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
18. Mandatory Findings of Significance				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
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)?	☐	☒	☐	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Environmental Evaluation

Would the project:

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

Less than significant with mitigation incorporated. As discussed in the preceding environmental checklist, with the implementation of mitigation measures included in this IS/MND, the project does not have the potential to significantly degrade the quality of the environment, including effects on animals or plants, or to eliminate historic or prehistoric resources. As such, impacts would be less than significant with the implementation of mitigation.

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

Less than significant with mitigation incorporated. As discussed in the previous environmental checklist, impacts resulting from construction or implementation of the project would be reduced to a less than significant level by project design characteristics or by implementing mitigation measures included in this IS/MND.

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

Less than significant with mitigation incorporated. As described throughout this environmental checklist, the project would not result in substantial environmental effects on human beings. Mitigation measures are identified in this IS/MND to reduce potential significant impacts related to air quality, biological resources, cultural resources, and noise. Implementation of these mitigation measures would ensure that the project would not result in impacts that would cause substantial adverse effects on human beings, either directly or indirectly.

SECTION 3: REFERENCES

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