

**RANCHO PALOS VERDES CITY COUNCIL
AGENDA REPORT**

MEETING DATE: 08/02/2016
AGENDA HEADING: Consent Calendar

AGENDA DESCRIPTION:

Consideration and possible action to review the status of Border Issues

RECOMMENDED COUNCIL ACTION:

- (1) Receive and file the current report on the status of Border Issues.

FISCAL IMPACT: None

Amount Budgeted:	N/A
Additional Appropriation:	N/A
Account Number(s):	N/A

ORIGINATED BY: Kit Fox, AICP, Senior Administrative Analyst 

REVIEWED BY: Gabriella Yap, Deputy City Manager 

APPROVED BY: Doug Willmore, City Manager 

ATTACHED SUPPORTING DOCUMENTS:

- A. July 12th and July 26th RHE City Council Staff reports for *Peninsula Pointe* project (page A-1)
- B. Initial Study for *The Village/Merrill Gardens* project (page B-1)
- C. July 21st Staff comments on *The Village/Merrill Gardens* MND (page C-1)

EXECUTIVE SUMMARY:

This month's report includes:

- An update on the proposed project at 5883 Crest Road in Rolling Hills Estates;
- An update on the proposed conversion of the *Peninsula Pointe* office building at 27520 Hawthorne Boulevard in Rolling Hills Estates into a 102-bed residential care facility for the elderly; and,
- A report on the proposed *The Village/Merrill Gardens* retail center and residential care facility for the elderly at 601 Silver Spur Road/600 Deep Valley Drive in Rolling Hills Estates.

BACKGROUND AND DISCUSSION:

The following is the regular bi-monthly report to the City Council on various "Border Issues" potentially affecting the residents of Rancho Palos Verdes. The complete text of the current status report is available for review on the City's website at:

Current Border Issues

5883 Crest Road Project, Rolling Hills Estates

On August 1, 2016, the Rolling Hills Estates (RHE) Planning Commission was scheduled to review the revised site plan for a lot split and two (2) detached homes on the vacant property at 5883 Crest Road (northeast corner at Highridge Road). If the RHE Planning Commission is supportive of the new site plan, the revised project and environmental analysis will be presented to the RHE Planning Commission and City Council later this year. Staff will continue to monitor this project in future Border Issues reports.

Peninsula Pointe Project, Rolling Hills Estates

On July 12, 2016, the Rolling Hills Estates (RHE) City Council considered the RHE Planning Commission's recommendation to approve the proposed conversion of the *Peninsula Pointe* office building at 27520 Hawthorne Boulevard into a 102-bed residential care facility for the elderly (RCFE) (Attachment A). At this hearing, the RHE City Council received additional public input on the project. As a part of its discussions, the RHE City Council asked for conditions related to the parking management plan for the project to be amended to provide for periodic review to ensure compliance. On July 26, 2016, the RHE City Council was expected to approve the project. Therefore, Staff will remove this project from future Border Issues reports.

New Border Issues

The Village/Merrill Gardens Project, Rolling Hills Estates

On July 6, 2016, Staff received the Notice of Intent (NOI) and Initial Study (IS) for the proposed *The Village/Merrill Gardens* project in Rolling Hills Estates (Attachment B). The proposed project would convert a portion of the existing *The Village* shopping center at 601 Silver Spur Road/600 Deep Valley Drive into an 89-unit residential care facility for the elderly (RCFE) called *Merrill Gardens*. Two of the existing shopping center buildings would be retained, and one of the future tenants is expected to be Peninsula Seniors. The right-of-way of Silver Spur Road northwest of Drybank Drive is in Rancho Palos Verdes, as is the office building diagonally across the street at 580 Silver Spur Road. There are also Rancho Palos Verdes residents overlooking this site from homes on Longhill Drive. The IS is available on-line at <http://www.ci.rolling-hills-estates.ca.us/Modules/ShowDocument.aspx?documentid=15196>.

Comments on the IS were due by July 21, 2016 (Attachment C) and the Rolling Hills Estates Planning Commission was scheduled to review the project at its meeting on August 1, 2016. Staff will continue to monitor this project in future Border Issues reports.



Staff Report

City of Rolling Hills Estates

DATE: JULY 12, 2016

TO: MAYOR AND CITY COUNCIL

FROM: JEANNIE NAUGHTON, SENIOR PLANNER

SUBJECT: PLANNING APPLICATION 18-15 (PENINSULA POINTE)
APPLICANT: SCOTT DARNELL ON BEHALF OF SRE DCM PV, LLC
LOCATION: 27520 HAWTHORNE BOULEVARD

OVERVIEW

The following is a request for approval of a series of entitlements to allow the conversion of an existing office building into an 89-unit Residential Care Facility for the Elderly (RCFE). The proposed project will require the following entitlements: General Plan Amendment to change the land use designation from Commercial Office (C-O) to Commercial General (C-G); Zone Change from C-O to C-G; Conditional Use Permit for RCFE use within the C-G zone; Variances for existing surface parking stalls in the side yard setback, and nonconforming aisle width and stall dimension in the parking structure; Precise Plan of Design for the exterior façade improvements and related site improvements; and certification of a Mitigated Negative Declaration, finding that the project, with mitigation measures, will not have a significant impact on the environment.

BACKGROUND

Public Notices Mailed, Posted and Published: 06.30.16

On September 23, 2014, the City Council adopted Ordinance 694, to allow a variety of senior-type housing needs to locate within the Mixed-Use Overlay District of the C-G zone. New development standards were adopted for independent senior housing, assisted living, memory care, and skilled nursing; all of which are intended to provide for a complete continuum of care.

On May 26, 2015, a joint City Council and Planning Commission meeting was held to conduct a "First Look" at the proposed project at 27520 Hawthorne Blvd. The proposal has been further refined but not substantially changed, since the joint session was held. The minutes of that meeting have been attached for Council review (Attachment 1). The Council and Commission members present at that meeting were generally supportive of the proposal, as the discussion focused on whether to process a Zone Text Amendment to add the newly adopted RCFE standards into the C-O zoning or if the applicant should request to rezone the property from C-O to C-G. The consensus at that meeting was for the applicant to move forward with a zone change request, as the rezoning of the site from C-O to C-G would provide greater consistency in both zoning and General Plan land use designations.

On June 6, 2016, the Planning Commission reviewed the proposed project and adopted Resolution No. PA-18-15, recommending approval to the City Council, by unanimous vote of 5-0 (Conway and Medawar absent).

The applicable Rolling Hills Estates Municipal Code Sections are Chapter 17.26 (C-O District), Chapter 17.30 (C-G District), Chapter 17.37 (Mixed Use Overlay District), Chapter 17.58 (Precise Plan of Design), Chapter 17.66 (Variances), and Chapter 17.68 (Conditional Use Permits).

The 2.6 acre subject property is located in Planning Area No. 6, zoned C-O, has a General Plan Land Use designation of C-O, and is located in Hazards Management Overlay.

The adjacent properties are located in the City stated and have the following designations:

North: City of Rancho Palos Verdes; Residential Single Lot - >8000 SF (rs-5)

South: City of Rolling Hills Estates; Residential Planned Development and Institutional

East: City of Rolling Hills Estates; Commercial General

West: City of Rancho Palos Verdes; Residential Multiple - >2000 SF/UNIT (rm-22)

The following is a list of past discretionary permits for the subject property that are relevant to the subject request:

- PPD 100-77: Precise Plan of Design for a proposed office building on the northeast corner of Hawthorne Blvd. and Ravenspur Drive.
- Tentative Parcel Map TPM 13977 and Lot Split LS 106-80: Approval of a Tentative Parcel Map and a lot split to permit conversion of an office building under construction for condominium purposes. The Final Map was approved on March 9, 1982.
- Planning Application 12-12- (CUP, V, PPD): Conditional Use Permit to allow medical office uses; Variance to permit fewer parking spaces than required by Code; Precise Plan of Design for a new monument sign. Medical office use was restricted to 9,000 SF. As of 10/16/12, there existed a balance of 7,990 SF available for medical office use.

Acting as lead agency, in accordance with the California Environmental Quality Act (Public Resources Code § 21000 et seq.: "CEQA"), an Initial Study was prepared by Dudek, to identify any potentially significant impacts associated with the proposed project and incorporate mitigation measures into the project as necessary, to eliminate the potentially significant effects of the project or to reduce the effects to a level of insignificance. Based on the Initial Study (IS) prepared for the proposed project, the City has prepared a Mitigated Negative Declaration (MND), in conformance with Section 15080(b) of the State CEQA guidelines.

Outside Agencies Consultation and Review

The City conducted early consultation with the City of Rancho Palos Verdes because the project site maintains vehicular access from Ravenspur Drive within the City of Rancho Palos Verdes, and contains project frontage along a portion of Hawthorne Boulevard, under jurisdiction of the City of Rancho Palos Verdes. Staff received comments from the City of Rancho Palos Verdes regarding the IS/MND that was prepared; their comments have been addressed and their recommendations folded into the final IS/MND and conditions for the project. The Development Review Division of the County of Los Angeles Fire Department conducted access review and approved the project for this purpose on May 10, 2016. Detailed plan check will be required by the Engineering Division of the County of Los Angeles Fire Department. Staff also conducted

preliminary review with the County of Los Angeles Building and Safety Division and received no conditions of approval for this project, but it will be subject to all Building Code requirements. The County Sanitation Districts of Los Angeles provided a comment letter outlining standard requirements for compliance during the permitting process, but no specific conditions of approval outside standard requirements. In compliance with Assembly Bill (AB) 52 and Senate Bill (SB) 18 and Section 21080.3.1 of CEQA, the City of Rolling Hills Estates conducted early consultation with the Gabrieleño Band of Mission Indians – Kizh Nation and agreed upon four mitigation measures to be implemented during ground disturbance and construction activities. A more detailed discussion may be found in the Cultural Resources section of the Initial Study, with mitigation measures found in the conditions of approval as well as in the Mitigation Monitoring and Reporting Program.

DISCUSSION

Project Overview

The subject property is currently improved with a two-story, 46,260 SF office building, over a 34,312 SF parking structure, built in 1982. The site is accessed via a singular driveway off Ravenspur Drive (City of Rancho Palos Verdes). The proposed project consists of converting the existing structure into an 89-unit Residential Care Facility for the Elderly (RCFE). Related site improvements include the replacement of existing surface parking stalls with outdoor recreation area and landscaping, decorative, stamped concrete, and a new porte cochere.

As defined by the State of California Health and Human Services Agency, Department of Social Services, "Residential Care Facility for the Elderly" means a housing arrangement chosen voluntarily by the resident, the resident's guardian, conservator or other responsible person; where 75 percent of the residents are sixty years of age or older and where varying levels of care and supervision are provided, as agreed to at time of admission or as determined necessary at subsequent times of reappraisal. Any younger residents must have needs compatible with other residents. "Memory care" is a specific type of facility for persons with a mental impairment such as dementia or Alzheimer's disease. RCFE typically provides both assisted living and memory care units in each facility.

Approximately 16,700 SF of the existing 34,312 SF parking structure will be converted into conditioned living space (referred to as the terrace level on the plans). This level will include 19 assisted living units, two lounges, laundry room, theater, art studio/computer lab, salon, fitness room, office, and secondary entry lobby, accessed from the structured parking. The parking structure is partially underground, but due to the easterly descending slope, the eastern façade fully daylight above grade. The remaining 17,602 SF of the terrace level will provide 38 parking stalls, 2 of which will be accessible parking spaces (ADA compliant).

A new +/- 900 SF porte cochere (covered entry) will be added at the first floor level, accessed from the surface parking lot and will function as the main project entry. The first floor will contain the reception and lobby area, and will be divided into two wings—assisted living and memory care. Both wings will provide dining and living areas, with one kitchen serving both wings; there will be an additional lounge and life skills area for the memory care wing. The first floor will contain 17 assisted living units and 13 memory care units. The second floor level will contain the remaining 59 assisted living units and a +/- 700 SF activity room. The project will provide a total of 102 licensed beds—all 76 assisted living units will be single occupancy, while all 13 of the memory care units will be double occupancy.

Zone Change and General Plan Amendment

27520 Hawthorne Boulevard is located in Planning Area 6, where the greatest concentration of commercial development in the City is located. The Mixed-Use Development Overlay applies to all properties zoned C-G in this Planning Area, and the Hazards Management Overlay applies to all of the properties within the central portion of the Planning Area, which is traversed by the Cabrillo Fault. The project site has operated as an office building since 1982, yet struggled to maintain 100% occupancy; in 2012, the previous owners of the property secured a Conditional Use Permit to allow 9,000 SF of medical office use within the building, along with a Variance for providing less than required number of parking stalls (medical office use requires more parking than professional office). The parking Variance was justified based on current demand, since the building was not fully occupied, and allowing medical office, it was thought, would improve the viability of the office use at this location. It is unclear if the 9,000 SF of medical office ever achieved full occupancy. At the time of the joint Council and Commission session in May, 2015, the project applicant was in escrow to purchase the property and stated that at that time, there was 60% occupancy of the entire building, with very few long-term leases, resulting in +/- 18,504 SF of vacant office space.

RCFE use is conditionally permitted in the C-G zoning/Mixed-Use Overlay District, but not currently permitted in the C-O District. Therefore, a zone change to C-G is required, along with a general plan amendment to change the land use designation from C-O to C-G, to provide consistency with the zoning designation. The Mixed-Use Overlay District covers the entire C-G zoning district and the extension of the Overlay is implied, when a property is re-zoned to C-G, unless expressly excluded. There are no other properties in the vicinity that have the C-O zoning designation; adjacent properties within the City of Rolling Hills Estates are zoned C-G, so a zone change and general plan amendment to the C-G designation would be appropriate and consistent with surrounding designations. At the joint Council and Commission meeting in 2015, direction was given to staff and the applicant that a rezone and re-designation would be appropriate and provide greater consistency with the Zoning and General Plan Land Use maps, respectively.

If current occupants of 27520 Hawthorne Blvd. wish to re-locate their businesses within the City of Rolling Hills Estates, there are several properties which allow professional and medical office uses, including: the Promenade is currently permitted to accommodate 50,000 SF of medical office use on the upper levels of the development; 501 Deep Valley Drive, 827 Deep Valley Drive, 680 Silver Spur Road, and 955 Indian Peak allow professional and medical office uses; and professional office uses are allowed at 655 Deep Valley Drive and 734 Silver Spur Road.

Conditional Use Permit

RCFE use is conditionally permitted with the C-G/Mixed-Use Overlay District, with specific development standards outlined in RHEMC Section 17.37.040. The development standards include provisions for spacing, open space, parking, and minimum room size requirements.

The proposed project meets the spacing requirements, as there are no RCFE facilities within 1,500 FT of the proposed project site. City staff from the City of Rancho Palos Verdes gave testimony at the Planning Commission meeting of June 6, 2016, stating that there were 4 RCFE facilities within the City of Rancho Palos Verdes within 1,500 FT of the subject property. The 1,500 FT separation requirement was added by the Council in 2014 to limit the number of "large" facilities within the City and specifically, in this zoning district (the only one where these facilities are conditionally permitted). The City cannot regulate with respect to facilities outside its jurisdiction. The "six pack" facilities referenced by the City of Rancho Palos Verdes, are governed much the same way as Small vs. Large Family Daycare centers, in that they are preempted by State law with respect to local discretionary review as long as they have 8 or

fewer residents/clients (previously capped at 6). They function much differently than the larger facilities, like the one proposed at 27520 Hawthorne Blvd. (Peninsula Pointe), which is one reason why they are regulated exclusively by the State, as opposed to requiring local discretionary review.

The open space requirements are 200 SF per licensed bed, resulting in a total requirement of 20,400 SF for the proposed project, where up to 50% of this requirement may be provided as indoor common recreational and social area (10,200 SF). The proposed project will exceed the minimum requirements by 509 SF; this will be accomplished by providing 12,136 SF of outdoor open space, and the remaining 8,773 SF of common open space indoors, through various activity rooms, dining, and common lounge areas.

Staff received six letters of concern regarding the proposed project and one letter/petition was submitted to the Planning Commission, at their meeting on June 6, 2016. The correspondence consisted of one letter submitted by an existing office tenant of 27520 Hawthorne Boulevard, while the remaining correspondence were from residents on Ravenspur Drive in the City of Rancho Palos Verdes (Attachment 3). The correspondence raised concerns about the adequacy of required parking, the impact of parking and traffic on Ravenspur Drive, and the potential increase in noise. The correspondence from the existing office tenant, George A. Walker, additionally states that residents on Ravenspur Drive utilize the surface parking lot at 27520 Hawthorne Blvd. as overnight parking. There were several speakers at the Planning Commission meeting that reiterated the concerns outlined in the correspondence, as detailed in the draft Planning Commission minutes (Attachment 5).

In regards to the increased noise related to sirens and ambulances arriving/leaving the site, it is important to note that these units are distinct from a skilled nursing facility, which provides skilled nursing and supportive care to persons who need this type of care on an extended basis. Assisted living facilities provide housing with services, including assistance with activities of daily living (e.g. bathing and dressing) and medication administration, if need be (but this may also be controlled and self-administered by the resident); while the memory care wings provide more specialized care for people with Alzheimer's disease or other dementias. They provide a long term care option preferred by many individuals and their families because of its emphasis on resident choice, dignity, and privacy. Staff was unable to find any studies with data regarding ambulance visits to RCFE facilities.

Staff conducted early consultation with the City of Rancho Palos Verdes, because the project site maintains access from Public Right-of-Way (PROW) off Ravenspur Drive, within the City of Rancho Palos Verdes. City of Rancho Palos Verdes staff indicated that parking on Ravenspur Drive is highly impacted due to the multi-family residential developments along that street, but indicated that Ravenspur Drive is not a permit-restricted parking street.

RCFE use requires one parking space per 2 licensed beds, plus one space per 2 employees on the largest shift, resulting in a total parking requirement of 48 parking stalls for the proposed project. A total of 48 parking stalls will be provided on-site, including 44 standard parking stalls, and 4 accessible spaces (ADA-compliant). Based on information from the applicant, and the experience of other assisted living/memory care operators, the majority of the residents do not own/operate personal vehicles. It is anticipated that only 10-15% of the residents are anticipated to own/park vehicles on-site. At the time of adoption of the development standards for RCFE uses in 2014, staff, in conjunction with consultants and direction from the City Council, did substantial research to develop the existing standards as being in line with industry standards. The parking standards that were ultimately adopted into the RHEMC are conservative, in comparison to surrounding jurisdictions. For example, the City of Torrance requires 1 space/3 beds, which would result in a parking requirement of 34 parking spaces for this project; the City

of Rancho Palos Verdes requires 1 space/4 beds, which would result in a parking requirement of 26 spaces for this project.

Additionally, Linscott Law & Greenspan prepared a parking analysis which reviewed: the potential parking demand using published parking demand ratios for assisted living facilities; a review of weekday and weekend day parking demand at other assisted living facilities; a forecast of peak parking demand utilizing the appropriate parking demand ratios for the project site; and provided a conclusion that the parking provided for this project was sufficient to meet the project peak parking demand. This memorandum was included in the analysis of Section 3.16 Transportation and Traffic in the project Initial Study/Mitigated Negative Declaration (IS/MND), and included in full, in Appendix F of the project IS/MND. Because parking has been raised as a major concern to the surrounding neighborhood, the memorandum has been attached to this staff report (Attachment 2).

Additionally, per RHEMC Section 17.37.040.M.4, a parking management plan is required, that demonstrates how peak period demand (holidays) will be accommodated, as well as a plan for shuttle transportation to local shopping services. Linscott, Law & Grennsplan prepared a Traffic Impact Analysis for the proposed project and included a parking management plan, which outlines a dedicated excursion shuttle service, with carrying capacity of 16-20 passengers, which will be provided to residents during the weekdays (Monday through Friday) for medical, dental, beauty, and other appointments as well as shopping trips. During the weekend (Saturday and Sunday), the excursion shuttle service will provide service to religious facilities, shopping centers, scenic drives, museums, movies, and other field trips. All transportation reservations will be arranged through the concierge and will be demand-based (i.e. the demand-responsive service will be provided when a request is received by and managed through the Concierge). Alternate modes of transportation, such as Cityride, Access Paratransit, City Cab Taxi Service, private companion/escort service and private limousine (town car), as well as emergency transportation services could also be arranged through the Concierge. It is important to ensure that the parking management plan includes education for residents, staff and visitors that parking along Ravenspur Drive should be highly discouraged; and there should be provisions in place to address overnight parking on-site by residents of the surrounding development on Ravenspur Drive. The Planning Commission modified the language of this condition to make parking strictly prohibited on Ravenspur Drive. The condition of approval addressing both of these issues has been modified to reflect the Planning Commission's direction.

State law does not define minimum room size for RCFE use; as a result, jurisdictions have varying room size limitations, if at all, for assisted living units and memory care units. During the development of the standards adopted in the RHEMC in 2014, staff focused their research on the correlation between room size and parking requirements. RHEMC Section 17.37.040.M.2.b requires a minimum room size of 400 SF per licensed bed for assisted living rooms, and 300 SF per licensed bed for memory care facilities. The proposed project exceeds the minimum room size per licensed bed for the assisted living rooms, with room sizes ranging between 406-650 SF. However, the 13 memory care units will be double occupancy and have room sizes ranging between 419-489 SF. A strict interpretation of the Code would require a minimum room size of 600 SF for a double occupancy, memory care unit. RHEMC Section 17.37.040.M.5 allows deviations from the development standards for unit size to be approved through the conditional use permit process based on a site-specific analysis. Based on research into the various iterations of the Ordinance during development, and review of minutes from both Planning Commission and City Council discussions, the term "licensed bed" was included in the Code toward the final adoption of the standards, and was inserted as a way to distinguish residents of the RCFE facilities, from residents in a residential development, because RCFE and similar uses are not treated the same in the Code as other residential uses, in regards to parking, density, etc. It is staff's view that the insertion of this term had the unintended consequence of

affecting minimum room size to require a size that is somewhat out of line with industry standards. The applicant's architect, Douglas Pancake Architects, provided the following list of projects they designed and built with their corresponding memory care room sizes:

- Artesia Christian Home, Artesia, CA—Average two bed unit: 393 SF
- Sierra View Homes, Reedley, CA—Average two bed unit: 382 SF
- Silverado The Huntington, Alhambra, CA—Average two bed unit: 394 SF
- Felicita Vida, Escondido, CA—Average two bed unit: 384 SF
- The Pointe at Summit Hills, Bakersfield, CA—Average two bed unit: 435 SF

Additionally, two similar projects within close proximity of the City of Rolling Hills Estates that were designed and built by other architects/developers:

- Sunrise at Palos Verdes, Torrance, CA—Average two bed unit: 480 SF
- Belmont Village of Rancho Palos Verdes, Rancho Palos Verdes, CA—Average two bed unit: 370 SF

The layout of the memory care wing for the proposed project encourages residents to spend a majority of their time outside the bedroom—through utilization of the more than 2,000 SF of indoor common lounge/life skills and dining areas, as well as the dedicated outdoor memory care garden. The success of the proposed double occupancy memory care units will ultimately rest with market forces; based on similar projects in the nearby vicinity and projects highlighted above, the size of the proposed memory care units are appropriate for the project and the Planning Commission can support the room sizes as proposed.

Staff and the City Council received additional correspondence (Attachment 3) from the RCOA HOA on July 1, 2016 detailing additional concerns not outlined in the previous correspondence sent to the Planning Commission. The HOA requested that the City require background checks on all employees of the proposed facility. RCFE facilities are regulated by the State of California Health and Human Services Agency, Department of Social Services, Community Care Licensing Division; administrators, personnel, and volunteers of RCFE facilities are required to have proper training and education, and obtain either a criminal record clearance or criminal record exemption from the State Department of Social Services before obtaining licensure and/or before his or her initial presence in a RCFE (CA Health and Safety Code §1569.17 through §1569.172).

According to the *City of Rolling Hills Estates Housing Element 2013-2021*, the City's population is significantly older than Los Angeles County as a whole, and over the next 40 years the City's senior population is projected to grow by 174% compared to just 30% for the County's total population. The provision of the RCFE facility in the City of Rolling Hills Estates, contributes to a continuum of care, allowing people to age in place, in their home community or near family that lives in this community, when they are no longer able to age in place in their own home.

Traffic Impact Analysis

Linscott Law & Greenspan prepared, *Traffic Impact Analysis Peninsula Pointe Assisted Living Project*, to identify and evaluate the potential traffic impacts of the proposed project on the surrounding street system. Upon coordination with City staff, and direction given by the City Council, 8 study intersections were identified for evaluation during the weekday morning and afternoon peak hours. The 8 study intersections included:

- Granvia Altamira-Ridgegate Drive/Hawthorne Boulevard
- Grayslake Road-Highridge Road/Hawthorne Boulevard

- Ravenspur Drive/Hawthorne Boulevard
- Indian Peak Road/Hawthorne Boulevard
- Silver Spur Road/Hawthorne Boulevard
- Palos Verdes Drive North/Hawthorne Boulevard
- Silver Spur Road/Crenshaw Boulevard
- Palos Verdes Drive North/Crenshaw Boulevard

All of the study intersections except Ravenspur Drive/Hawthorne Boulevard are signal-controlled. *Traffic Impact Analysis Peninsula Pointe Assisted Living Project* states that based on application of the City's threshold criteria to the "With Proposed Project" scenario, the data indicates that the proposed project is not expected to create significant impacts at the 8 study intersections. Incremental, but not significant, impacts are noted at the study intersections. Because there are no significant impacts, no traffic mitigation measures are required or recommended for the study intersections under the "Future with Project" conditions. Based on existing trip generation rates for the 46,260 SF office use (9,000 SF of medical office use permitted within this square footage), and the trip generation rates for the proposed assisted living use, the proposed project is expected to result in a net decrease of 62 vehicle trips (56 fewer inbound trips and 6 fewer outbound trips) during the AM peak hour, when compared with the existing site use trip generation, based on full occupancy, and a net decrease of 58 vehicle trips (4 inbound trips and 54 fewer outbound trips) during the PM peak hour, when compared to the existing uses, based on full occupancy. Over a 24-hour period, the proposed project is forecast to result in a net decrease of 457 daily trip ends during a typical weekday (approximately 228 fewer inbound trips and 228 fewer outbound trips) as compared to existing uses, if fully occupied. The results of the Los Angeles County Congestion Management Program (CMP) traffic assessment indicated that the proposed project will not adversely affect any CMP freeway monitoring locations or arterial monitoring intersections. Therefore, no improvements/mitigation measures are required of this project for the CMP facilities.

Precise Plan of Design

Approval of a Precise Plan of Design (PPD) is required under RHEMC Section 17.58.020 prior to the issuance of a building permit for exterior façade improvements and the corresponding exterior improvements. The purpose of the Precise Plan of Design is to ensure that the proposed site improvements on commercially-zoned properties do not result in any detrimental impacts to the surrounding community and to protect the public peace, health, safety, and welfare.

The exterior improvements include the addition of a +/- 900 SF porte cochere (covered entry), which will act as the focal entry point to the project. Enhanced, colored concrete will replace black asphalt paving, 19 existing surface parking stalls will be replaced with outdoor recreation area, to include a dedicated garden for the memory care wing, decorative outdoor benches, raised planters, trellises and outdoor seating, and a gate, to separate the remaining surface parking area from the outdoor garden areas. Existing landscaping and trees will be retained, where possible, and enhancements made to existing landscaping areas, most significantly at the project entry.

Exterior façade improvements will include new window designs, articulation to break up the large expanse of flat walls that currently exist on the building, by providing vertical elements of varying heights. The addition of stone veneer, and variations of painted wood siding and stucco, will add visual interest to the building façade. The porte cochere will provide a focal point to the project entry and west elevation, and along with the additional design enhancements, will substantially improve the aesthetic of the building and site, creating more of a residential look to the project.

RHEMC Chapter 17.58 indicates that the purpose of a PPD is to ensure that the following are designed and/or arranged so that traffic congestion is avoided, pedestrian and vehicular safety and welfare are provided, and no adverse effect on surrounding property will result:

1. Buildings, structures, and improvements;
2. Vehicular ingress, egress and internal circulation;
3. Setbacks;
4. Height of buildings;
5. Location of services;
6. Walls and fences;
7. Landscaping;
8. Lighting; and
9. Signing.

The existing building will be repurposed—achieved through extensive interior remodeling—and exterior façade and site improvements will significantly improve the aesthetic appeal of the site, while maintaining vehicular ingress, egress, and internal circulation. There will be no grading into the hillside slopes; significant additional landscaping and outdoor space will further enhance the aesthetic appeal of the site. The project meets all of the above criteria and therefore, the Planning Commission is able to support the PPD as proposed.

Staff and the City Council received additional correspondence from the RCOA HOA on July 1, 2016 (Attachment 3) detailing additional concerns not outlined in the previous correspondence sent to the Planning Commission. One of the new concerns focuses on requiring a security gate at the entrance to the project. General Plan Policy 1.2 of the *City of Rolling Hills Estates Housing Element 2013-2021* discourages gated neighborhoods, going on to say that gates or other structures which restrict access on public or private streets, alleys or easements will generally not be permitted. While RCFE use is considered to be more of a commercial use in the Rolling Hills Estates Municipal Code, it will function as a residential community, and as such, it is appropriate for Policy 1.2 to apply in this case.

Variance Findings

The applicant is requesting approval of two Variances for retention of the existing 10 surface parking stalls located in the required side yard setback, and for existing, nonconforming aisle width and stall dimension in the parking structure. The surface parking stalls are permitted to be located in setback areas in the C-O zoning; however, because the project requires a zone change to C-G, and RHEMC Section 17.30.050.D specifically prohibits parking stalls within the setback areas, when a property abuts a residentially zoned property, a Variance is required to address the existing nonconforming location of the parking stalls. As these stalls are required to be provided as part of the proposed use, the site is severely constricted by slopes elsewhere on the site, and location of the stalls would require extensive grading into hillside slopes and installation of retaining walls, it is appropriate to support a Variance for the subject surface parking stalls. Similarly, the existing parking structure, located partially underground, was part of the original construction in 1982. The existing aisle widths and stall dimensions are constrained by the existing structural pillars within the structure. While the project will be converting a portion of the parking structure into living area, the stall dimensions and aisle width remain constrained by the existing structure of the parking area. Stall dimensions are required to be 9' by 20', with 25' wide aisles for 90 degree parking configurations. The RHEMC parking section has not been updated to adjust for current industry standards, and there are no provisions in the Code for compact stalls. The proposed stall dimensions are 9' by 19'-10", with aisle widths ranging from 20'-7" at the narrowest portion (constrained by two columns), to 25' (Code complying). Because these dimensions for both stalls and aisles are an existing configuration, code complying when built, and not made worse by the proposal, granting a Variance for this configuration, rather than

requiring demolition of the building and reconstruction to achieve minor improvements, is appropriate.

The Planning Commission is able to make the findings for the Variances, as stated below:

1. That there are exceptional or extraordinary circumstances or conditions applicable to the property involved, or to its intended use, which do not apply generally to other properties in the same zoning district and neighborhood.

This finding has been met for the Variances because the subject property is currently conforming under the current C-O zoning for location of surface parking stalls within the setback area, yet will become non-conforming upon rezoning to C-G; the relocation of these stalls elsewhere on the site would encroach into a required outdoor open space requirement for the intended use, thus requiring a different Variance request, or require substantial grading into hillside slopes to achieve relocation of the stalls elsewhere on the site. The aisle width and stall dimensions in the parking structure are existing, were Code-compliant when built, are constrained by existing structural elements of the building and would either require demolition of the existing building in order to provide Code-compliant parking stall and aisle width dimensions. Adjacent properties include Multi-Family Residential zoning within the City of Rancho Palos Verdes, Institutionally-zoned property, and C-G zoned property. This property is unique in that it previously complied with development standards when built, and under the C-O zoning designation is conforming in terms of location of the existing surface parking stalls.

2. That such a Variance is necessary for the preservation and enjoyment of a substantial property right of the applicant, which right is possessed by other property owners under like conditions in the same zoning district and neighborhood.

This finding has been met for the Variances because the provision of Code-complying surface parking stalls, and Code-complying stall and aisle width dimensions could not be accomplished elsewhere on the property without granting a different Variance or requiring demolition of the existing building. The adjacent properties within the C-G zoning designation also provide surface parking stalls within the setback areas but are not adjacent to residentially-zoned properties. There is a significant amount of landscaping and trees along the side property line, abutting the residentially-zoned property in the City of Rancho Palos Verdes, adjacent to the location of the parking stalls. The surface parking stalls could not be accomplished elsewhere on the property, nor could stall or aisle width dimensions be accomplished without demolition of the existing building. The granting of the Variances for the existing encroachment into the setback and the continued provision of structure parking that contains nonconforming stall and aisle width dimensions is necessary for the enjoyment of a substantial property right, possessed by other property owners under like conditions in the same zoning district.

3. That the granting of this Variance will not be materially detrimental to the public welfare or injurious to property improvements in the zoning district and neighborhood in which the property is located.

This finding has been met for the Variances because the proposed improvements would meet PPD criteria, provide the required parking for the intended use, and the proposed improvements would require all necessary Building and Safety permits to be constructed, thereby not being detrimental to the public welfare and neighborhood.

4. That the granting of such Variances will not be contrary to the objectives of the General Plan.

This finding has been met for the Variance because Goal 2 of the Housing Element of the General Plan states that the City will promote new housing opportunities to meet the needs of existing and future residents while preserving the City's rural character. The City's population is significantly older than Los Angeles County as a whole, and over the next 40 years the City's senior population is projected to grow by 174% compared to just 30% for the County's total population. The City has little vacant land for development, and by repurposing existing development to meet the needs of existing and future residents, the existing rural character will be further preserved, while providing a significant benefit to the community.

5. That the granting of the Variances will not authorize a use or activity which is not otherwise expressly authorized by the zoning regulations governing the parcel of the property.

This finding has been met because a Residential Care Facility for the Elderly is a conditionally permitted use in the C-G zoning/Mixed-Use Overlay district and the granting of the Variances would result in providing the Code-complying number of parking stalls (48) for the intended use, without requiring substantial grading into hillside slopes or the demolition of the existing office building and parking structure.

CONCLUSION

Staff has worked closely with the applicant to address the requirements of the Municipal Code, including the Variance requests. The Planning Commission, at their meeting of June 6, 2016, voted unanimously 5-0 (Conway and Medawar absent) to recommend approval of the project to the City Council, through adoption of Resolution No. PA-18-15 (Attachment 4). As summarized in the staff report, the Planning Commission was able to support the series of entitlements required to allow the conversion of an existing office building into an 89-unit Residential Care Facility for the Elderly (RCFE) at 27520 Hawthorne Boulevard.

The Planning Commission recommends that the City Council:

1. Open the Public Hearing on the Project approvals (Ordinance and Resolutions);
2. Take public testimony;
3. Discuss the issues;
4. Approve for introduction Ordinance No. 706, amending the zoning designation of 27520 Hawthorne Blvd. from Commercial Office (C-O) to Commercial General (C-G)/Mixed-Use Overlay District of the City's Zoning;
5. Continue the Public Hearing to the City Council meeting of July 26, 2016.

EXHIBITS

Attached

1. Minutes from Joint City Council and Planning Commission Meeting, May 26, 2015
2. *Peninsula Pointe Assisted Living Project—Parking Analysis*, Linscott Law & Greenspan engineers, March 31, 2016
3. Correspondence
4. Resolution No. PA-18-15
5. Draft Planning Commission Minutes Excerpt June 6, 2016

Separate

1. Plans
2. Final Initial Study/Mitigated Negative Declaration, Peninsula Pointe (PA-18-15)
3. Ordinance No. 706
4. Resolution No. 2372
5. Resolution No. 2373
6. Resolution No. 2374

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MINUTES

ADJOURNED

JOINT

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MEETING

MAY 26, 2015

A joint adjourned meeting of the City Council and the Planning Commission of the City of Rolling Hills Estates was called to order at 5:47 p.m. in the City Council Chambers, 4045 Palos Verdes Drive North, by MAYOR ADDLEMAN.

2. ROLL CALL

City Council Members Present: Addleman, Huff, Mitchell, Zuckerman*

*MAYOR PRO TEM ZUCKERMAN arrived at 5:49 p.m.

City Council Member Absent: Zerunyan

Commissioners Present: Medawar, Schmitz, Schachter, Southwell

Commissioners Absent: Conway, Scott, Yoo

City Staff Present: City Manager Doug Prichard
City Attorney Don Davis
Assistant City Manager Greg Grammer
Planning Director David Wahba

3. PUBLIC COMMENT

NONE

4. ITEM FOR DISCUSSION

- A. FIRST LOOK MEETING TO CONSIDER CHANGE OF USE FROM OFFICE TO ASSISTED LIVING; APPLICANT: DARNELL CAPITAL MANAGEMENT; LOCATION: PENINSULA POINTE OFFICE BUILDING – 27520 HAWTHORNE BOULEVARD

Recommendation: That the City Council and Planning Commission conduct a “First Look” workshop for a proposed assisted living use for a residential care facility for the elderly (RCFE) to locate at Peninsula Pointe, and direct staff accordingly.

Scott Darnell, Darnell Capital Management, introduced Steve Blake, CEQA Counsel, Kiley Stephenson, Singerman Real Estate, and Douglas Pancake, Architect.

Mr. Pancake provided an extensive background of his expertise in the senior living and health care fields. He commended the Planning Staff for their professionalism and thanked the COUNCIL for being so gracious to meet with their team.

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Mr. Pancake then provided a PowerPoint presentation, detailing their service philosophy and the renovations that would be required to convert the existing office building to assisted living.

COUNCILWOMAN MITCHELL inquired if all the memory care units are double occupancy. Mr. Pancake responded that there are two residents to a room and that this type of arrangement has had significant positive impacts on residents.

COUNCILWOMAN MITCHELL inquired as to the size of the kitchen. Mr. Pancake noted that this is a commercial kitchen and would be approximately 1,000 square feet. She noted that this area may be too small for the amount of residents. Mr. Pancake stated that more study is needed, and that they will take this into consideration.

Commissioner Southwell inquired about the open space component on the second floor. Mr. Pancake noted that he created an area of "synergy" for those active residents.

MAYOR PRO TEM ZUCKERMAN inquired if there are public access restrooms on each level. Mr. Pancake noted that there will be, but reiterated that further detailed development is needed to determine location for such amenities.

In response to MAYOR PRO TEM ZUCKERMAN, Mr. Pancake noted that the corridors will be open and will form a natural circulation pattern. He further noted that natural light is very important which is why they designed additional windows.

MAYOR ADDLEMAN inquired as to where the administration staff would be located. Mr. Pancake indicated that they would be located on the first and second floors. He further noted that the terrace level will overlook the hillside and commercial area, but there will be access to the garden from only the first floor.

In response to MAYOR PRO TEM ZUCKERMAN, Mr. Pancake noted that shade will be provided in various areas outside.

In response to COUNCILWOMAN MITCHELL, Mr. Pancake responded that there will be large windows on the east elevation.

In response to Commissioner Medawar, Planning Director Wahba noted that the existing Walton's Automotive building is for auto repair only, not a gas station. Mr. Darnell noted that they are currently undertaking a Phase One environmental assessment of the office property.

In response to Commissioner Schachter regarding long-term office tenants, Mr. Darnell noted that they are currently at 60% occupancy, with few, if any, long-term leases.

MAYOR PRO TEM ZUCKERMAN noted that there is a question of whether or not it is desired to change the zone from Commercial-Office (CO) to the Commercial-General (CG) Zone. He further noted that an assisted living project at this location does limit future options for similar developments elsewhere in the commercial district.

MAYOR PRO TEM ZUCKERMAN noted that this site is not a good location for retail.

City Attorney Davis noted that the zoning change would be processed concurrently with the development application.

COUNCILWOMAN MITCHELL noted her preference to change the zone due to the fact that this site is contiguous to the CG Zone with Mixed-Use Overlay.

MAYOR PRO TEM ZUCKERMAN noted that the zone change would make the General Plan more uniform.

COUNCILWOMAN MITCHELL commented that the proposed use fits well at that location.

Commissioner Medawar noted that he would like to make sure the existing tenants are able to find other locations in the City.

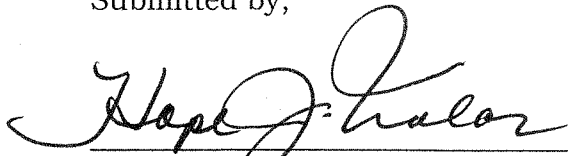
Planning Director Wahba noted that this project still needs some fine-tuning, but does appear to meet the parking requirements. He further noted that no variances appear to be needed and that a Conditional Use Permit (CUP) and Precise Plan of Design (PPD) for all the site improvements and elevations would be required.

MAYOR PRO TEM ZUCKERMAN commended Planning Director Wahba and the Planning staff for the time and effort they put into this report.

5. ADJOURNMENT

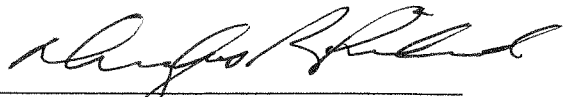
At 6:40 p.m., MAYOR ADDLEMAN formally adjourned the City Council meeting to the regular meeting of May 26, 2015.

Submitted by,



Hope J. Nolan
Deputy City Clerk

Approved by,



Douglas R. Prichard
City Clerk

MEMORANDUM

To: Scott Darnell
SRE DCM PV, LLC

Date: March 31, 2016

From: Clare M. Look-Jaeger, P.E. *CL-Jaeger* LLG Ref: 1-15-4149-1
Francesca S. Bravo *FSB*
LLG Engineers

Subject: Peninsula Pointe Assisted Living Project – Parking Analysis

This memorandum has been prepared to summarize the parking analysis associated with the proposed Peninsula Pointe Assisted Living project located in the City of Rolling Hills Estates. LLG Engineers has prepared this parking analysis as part of the entitlement process for the proposed project. We understand that comments pertaining to the proposed parking supply were included in the Status of Application Information letter dated October 28, 2015 issued by the City of Rolling Hills Estates. This analysis was prepared so that a determination could be made as to the adequacy of the future planned parking supply to meet the anticipated peak parking demand following development of the proposed project. The memorandum provides a review of the following:

- A description of the proposed site conditions, including a review of the proposed parking supply;
- Off-street parking requirements applicable to the project site pursuant to the City of Rolling Hills Estates Municipal Code;
- A review of the potential parking demand using published parking demand ratios for assisted living facilities (e.g., as summarized in the Institute of Transportation Engineers [ITE] *Parking Generation* publication¹);
- A review of weekday and weekend day parking demand at other assisted living and memory care facilities;
- A forecast of peak parking demand utilizing the appropriate parking demand ratios for the project site;
- A conclusion regarding adequacy of the proposed parking supply to accommodate the forecast future peak parking demand.

¹ Institute of Transportation Engineers *Parking Generation* manual, 4th Edition, Washington D.C., 2010.

PROJECT DESCRIPTION

The 2.6 acre project site is located at 27520 Hawthorne Boulevard. The project site is situated on the south side of Hawthorne Boulevard between Ravenspur Drive and Indian Peak Road. The proposed project site and general vicinity is illustrated in **Figure 1**.

The existing project site is currently occupied by a 46,260-square foot (SF) office building, a 34,312 square-foot parking garage with 95 parking spaces, and a 29 space surface parking lot. Of the existing 46,260 SF office building, 9,000 SF is permitted for medical office use. The proposed project consists of the conversion of the existing office building to an assisted living facility with 76 Assisted Living units and 13 Memory Care units. As part of the proposed project, approximately 4,520 square feet of the existing 2nd Floor and 1,560 square feet of the existing loft area will be enclosed and converted to conditioned space. In addition, approximately 16,710 square feet of the existing parking garage would be converted to conditioned space to be included as part of the facility. As such, a total of 69,050 square feet of floor area will be provided for the assisted living facility, as shown below:

Existing Building	46,260 SF
New Enclosed Space – 2 nd Floor	4,519 SF
New Enclosed Space – Loft	1,561 SF
<u>Terrace New Conditioned Space</u>	<u>16, 710 SF</u>
Total :	69,050 SF

Based on information provided by the project applicant team, each assisted living dwelling unit will consist of 1 licensed bed while each memory care dwelling unit will consist of 2 licensed beds. A total of 20 employees are anticipated to be on-site during the largest daily shift. Vehicular access to the project site will be provided via the existing driveway on Ravenspur Drive. The proposed project site plan is shown in **Figure 2**.

A total of 48 parking spaces will be provided on-site, including 44 standard parking spaces and 4 accessible spaces. Of the 48 parking spaces, ten spaces will be provided within the surface parking lot while the remaining 38 spaces will be provided within the subterranean parking garage. For parking facilities that range between 26 and 50 total spaces, the American with Disabilities Act (ADA) requirement is a minimum of two handicap accessible spaces. The project will provide a total of four handicap accessible spaces (one of which is a van accessible space) which more than satisfies the ADA requirement.

Based on information provided by the Project Applicant and the experience of other assisted living/memory care operators, the majority of the residents do not

own/operate personal vehicles. The Project Applicant has noted that approximately 10-15 percent of the residents are anticipated to own/park their personal vehicle on-site. Any off-site trips and the subsequent need for a personal vehicle will be minimized through a dedicated excursion shuttle service, which will be provided for residents during the weekdays (Monday through Friday) for medical, dental, beauty and other appointments as well as shopping trips. This service will consist of one shuttle with a carrying capacity of between 16 – 20 passengers. During the weekends (Saturday and Sunday), the excursion shuttle service will provide service to temples, churches, shopping centers, scenic drives, museums, movies, and other field trips. All transportation reservations will be arranged through the Concierge and will be demand-based (i.e., the demand-responsive service will be provided when a request is received by and managed through the Concierge). Alternate modes of transportation, such as Cityride, Access Paratransit, City Cab Taxi Service, private companion/escort service and private limousine town car), as well as emergency transportation services could also be arranged through the Concierge. A detailed description of the planned transportation services provided for the residents is provided in the **Appendix**.

In addition, based on discussions with the Project Applicant, if deemed necessary, a valet service system could be employed at the site during atypical conditions such as holidays and special events.

CITY OF ROLLING HILLS ESTATES PARKING REQUIREMENTS

The City of Rolling Hills Estates off-street parking regulations are set forth in Section 17.37.040(M)(4) of the Municipal Code. In accordance with the Municipal Code parking regulations, the following parking requirements have been identified for the proposed project:

- Residential Care Facilities for the Elderly:
 - o 1.0 space per 2 licensed beds, and
 - o 1.0 space per 2 employees on the largest shift
- Skilled Nursing Facilities and Memory Care/Dementia Beds:
 - o 1.0 space per 2 employees on the largest shift

Based on the project description provided by the project team and strict application of the Code parking requirements, a total of 48 spaces would be required for the project as summarized below:

- Assisted Living: 76 Beds x 1.0 space per 2 licensed beds= 38 spaces
 - Assisted Living/Memory Care: 20 Employees x 1.0 sp./2 employees = 10 sp.
- Total City Code Required Project Parking = 48 spaces

Direct application of the Code parking rates to the project yields a total Code parking requirement of 48 parking spaces. A total of 48 parking spaces will be provided on-site, including 44 standard parking spaces and 4 accessible spaces. Thus, the proposed project parking supply of 48 spaces would satisfy the parking requirements pursuant to the Code.

COMPARISON OF PARKING STANDARDS

ITE Parking Demand Ratios for Assisted Living Facilities

In addition to reviewing Code parking requirements, the parking demand for assisted living facilities is often estimated using ratios published in the ITE *Parking Generation* publication. When utilizing the ITE publication, the parking demand for the proposed project can be calculated based upon ratios per dwelling unit. More specifically, the ITE Land Use Code 254 (Assisted Living) average peak parking demand ratio was used to forecast the parking demand for the proposed project. It is noted that the ITE assisted living database consists of a total of 27 urban and suburban sites throughout the United States. Parking demand rates at the urban sites were similar to those of the suburban sites and, therefore, the data were combined and analyzed together. For the surveyed sites, the number of dwelling units was the same as the number of bedrooms and therefore, the parking demand results were the same for the two variables. The ITE parking demand ratios are summarized below:

- Weekday Average Peak Parking demand: 0.41 spaces/dwelling unit[bed]
- Weekend Average Peak Parking demand: 0.40 spaces/dwelling unit[bed]

By comparison, the proposed project will provide parking at a rate of 0.47 spaces per bed. Application of the ITE peak parking demand ratio to the proposed project would yield a total weekday peak parking demand of 43 spaces as shown below, which is five spaces fewer than what would be required through strict application of the City's Code.

- Assisted Living: $76 \text{ Beds} \times 0.41 \text{ space/bed} = 32 \text{ spaces}$
- Memory Loss/Special Needs: $26 \text{ Beds} \times 0.41 \text{ space/bed} = 11 \text{ spaces}$

ITE Weekday Project Parking Demand = 43 spaces

Application of the ITE peak parking demand ratio to the proposed project would yield a total weekend peak parking demand of 41 spaces as shown below, which is seven spaces fewer than what would be required through strict application of the City's Code.

- Assisted Living: $76 \text{ Beds} \times 0.40 \text{ space/bed} = 31 \text{ spaces}$

- Memory Loss/Special Needs: 26 Beds x 0.40 space/bed = 10 spaces

ITE Weekend Project Parking Demand = 41 spaces

Empirical Parking Demand Ratios for Assisted Living Facilities

Surveys of actual parking demand data have been conducted for other existing assisted living and memory loss/special needs facilities that are similar in nature to the proposed project. Parking demand data for other existing assisted living and memory loss/special needs facilities are based on the empirical parking demand studies conducted in June 2015 at the following two existing assisted living and memory care/special needs facilities:

- Sunrise Senior Living Center located at 8332 Huntington Drive, City of San Gabriel (34 assisted living beds and 40 memory care beds, 32 parking spaces)
- The Terraces at Park Marino located at 2587 East Washington Boulevard, City of Pasadena (80 assisted living beds and 13 memory care beds, 28 parking spaces)

The actual weekday and weekend peak parking demand ratios for each of the sites (i.e., based on the empirical parking demand survey data and the number of occupied beds) were calculated as shown below:

- Sunrise Senior Living Center
Weekday: 25 spaces/74 beds = 0.34 spaces/bed
Weekend: 16 spaces/74 beds = 0.22 spaces/bed
- The Terraces at Park Marino
Weekday: 21 spaces/93 beds = 0.23 spaces/bed
Weekend: 22 spaces/93 beds = 0.24 spaces/bed

The range of the weekday peak parking demand ratios for these facilities was between 0.23 spaces/bed and 0.34 spaces/bed. The derived average weekday peak parking demand ratio for the surveyed facilities is 0.28 spaces/bed (i.e., [25 spaces + 21 spaces] / [74 beds + 93 beds]) = 46 spaces/167 beds = 0.28 spaces/bed).

The range of the weekend (Saturday) peak parking demand ratios for these facilities was between 0.22 spaces/bed and 0.24 spaces/bed. The derived average weekend (Saturday) peak parking demand ratio for the surveyed facilities is 0.23 spaces/bed (i.e., [16 spaces + 22 spaces] / [74 beds + 93 beds]) = 38 spaces/167 beds = 0.23 spaces/bed).

It is noted that the average peak parking demand ratios derived from the above empirical parking demand studies is lower than the published assisted living facilities ratio contained in the ITE manual (i.e., the weekday average peak parking ratio of 0.41 spaces/dwelling unit [bed] and weekend average peak parking ratio of 0.40

spaces/dwelling unit [bed] as contained in the ITE manual). The parking demand survey data for the two existing assisted living and memory care/special needs facilities is also provided in the *Appendix*.

Application of the higher average peak parking demand ratio to the proposed project would yield a peak parking demand of 30 spaces as shown below.

- Assisted Living: $76 \text{ Beds} \times 0.28 \text{ space/bed} = 22 \text{ spaces}$
 - Memory Loss/Special Needs: $26 \text{ Beds} \times 0.28 \text{ space/bed} = 8 \text{ spaces}$
- Empirical Project Parking Demand = 30 spaces

The empirical parking demand of 30 spaces would result in a parking surplus of 18 spaces when compared to the planned parking supply of 48 spaces.

CONCLUSIONS

This parking analysis was conducted for the proposed Peninsula Pointe Assisted Living project so that a determination could be made as to the adequacy of the future planned parking supply to meet the anticipated peak parking demand following development and occupancy of the proposed project. A review of off-street parking requirements applicable to the project site pursuant to the City of Rolling Hills Estates Municipal Code was conducted as well as other published parking ratios and empirical parking demand data for other comparable sites. Based on the parking analysis, the following conclusions are made:

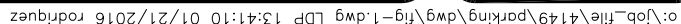
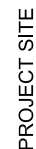
- A total of 48 parking spaces is planned to be provided for the proposed project. Of the 48 parking spaces, ten spaces will be provided within the surface parking lot while the remaining 38 spaces will be provided within the subterranean parking garage.
- Direct application of the City of Rolling Hills Estates Municipal Code would yield a total parking requirement of 48 parking spaces. Thus, the proposed parking supply of 48 spaces for the project would satisfy the parking requirements pursuant to the Code.
- Based on the ITE *Parking Generation* publication, the average peak period parking demand ratio for assisted living facilities is 0.41 spaces per bed during weekdays and 0.40 spaces per bed during the weekend. Application of the higher ITE peak parking demand ratio to the proposed project would yield a future peak parking demand of 43 spaces, which would result in a parking surplus of five (5) spaces when compared to the planned parking supply of 48 spaces.

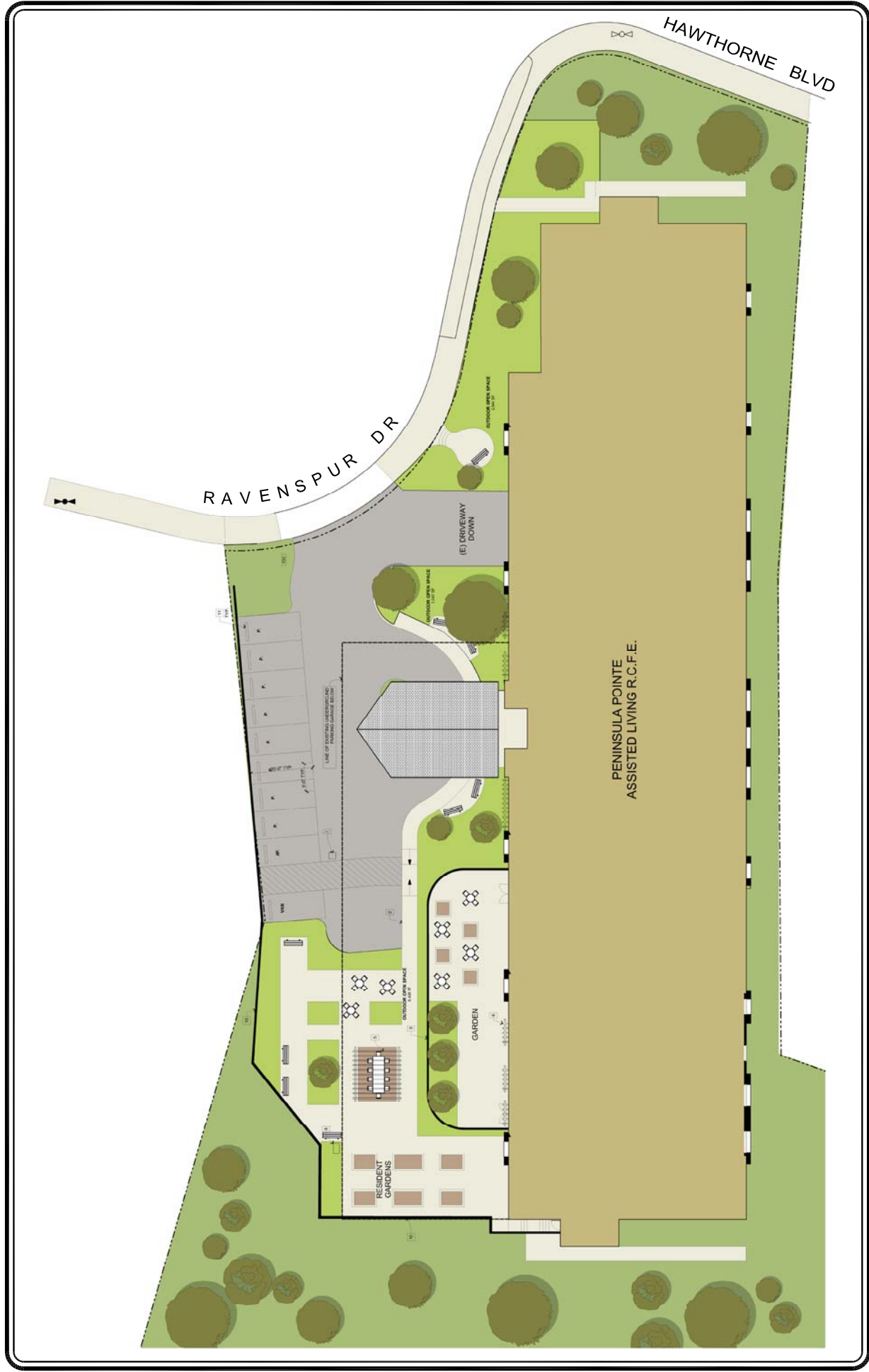
- Based on a review of empirical parking demand data of two existing assisted living/memory loss facilities that are similar in nature to the proposed project, the average peak parking demand ratio was determined to be 0.28 and 0.23 spaces per bed during the weekday and weekend conditions, respectively. Application of the average peak parking demand ratio to the proposed project would yield a peak parking demand of 30 spaces, which would result in a parking surplus of 18 spaces when compared to the planned parking supply of 48 spaces.
- Based on the above, and with only 10-15 percent of the residents anticipated to park their vehicles on-site, it is concluded that the proposed parking supply of 48 spaces is sufficient to meet the project peak parking demand. In addition, based on discussions with the Project Applicant, if deemed necessary, a valet service system could be employed at the site during atypical conditions such as holidays and special events.

Please feel free to contact us at 626.796.2322 if you have any questions regarding this parking analysis.

c: File

MAP SOURCE: RAND MCNALLY & COMPANY





SOURCE: DOUGLAS PANCAKE ARCHITECTS



NOT TO SCALE

FIGURE 2 SITE PLAN

LINSCOTT, LAW & GREENSPAN, engineers

PENINSULA POINTE ASSISTED LIVING PROJECT

APPENDIX

Scheduled Transportation Services

All transportation reservations are to be arranged with the Concierge at least 48 hours in advance. Transportation is available on a **first come, first serve basis**. The Concierge will confirm all transportation reservations. Emergency transportation will be arranged through our Concierge Director, Concierge Manager, or Executive Director.

We offer a dedicated Excursion Bus service to the following areas Monday through Friday for medical, dental, beauty, and all other appointments, as well as shopping. Outings and trips may be scheduled during the week after scheduled appointments.

On Saturday and Sunday we offer dedicated Excursion Bus service to our scheduled outings, temples, churches, shopping, scenic drives, museums, movies, and other field trips, generally these are within a 25 mile zone.

Day	8:00 AM to 11:30 AM	12:30 AM to 3:00 PM
Monday	Eastern and Northern Areas	Eastern and Northern Areas, Outings and Excursions
Tuesday	Western and Southern Areas	Western and Southern Areas, Outings and Excursions
Wednesday	Eastern and Northern Areas	Eastern and Northern Areas, Outings and Excursions
Thursday	Western and Southern Areas	Western and Southern Areas, Outings and Excursions
Friday	Eastern and Northern Areas	Eastern and Northern Areas, Outings and Excursions
Saturday	All	Faith Services, Scheduled Outings and Shopping
Sunday	All	Faith Services, Scheduled Outings and Shopping

When making a reservation with the Concierge, please provide as much detailed information as possible including doctor's name, address, phone number, and approximate pick-up time if known, as well as other requests such as a preferred entrance or wake-up/reminder calls. With at least 24 hours advance notice, a private companion/escort can be arranged. The cost of the private companion or escort will be communicated at the time of the reservation and billed either on your monthly billing statement or directly by the provider.

Residents will call the Concierge 20 minutes before they are ready for pick-up. The Concierge will notify the resident if the driver will not be able to accommodate their requested pick-up time. If they are not able to accommodate the requested pick-up time, they will suggest an alternative pick-up time or an alternative transportation option. When calling for pick-ups, residents are advised never to call the drivers directly, but to contact the Concierge Desk so that communication is maintained among all parties concerned.

If a resident has an appointment that falls outside the schedule, or if the schedule is full, the concierge can arrange several options and alternatives including an approved taxi service, chauffeur service, public transportation, or private driver/companion in your own vehicle. The cost of these options and alternatives will be presented to a resident for approval prior to booking, and will be added to the resident's monthly

bill or billed directly to the resident by the service provider. Our concierge team has a relationship with preferred outside transportation providers to control quality and offer the best value to our residents.

Our Town Car will be utilized for emergency doctor and medical appointments at the discretion of the Executive Director.

The Concierge Director/Manager will be more than happy to assist Residents with the following alternate modes of transportation.

Cityride

This is a transportation assistance program for individuals age 65 and older and qualified disabled persons in the City of Los Angeles and select areas of Los Angeles County. One need only send \$15 + postage to receive an electronic card with an \$84 fare value for each quarter (three-month period). The fare value may be used for taxi and City Dial-A-Ride trips or for the purchase of Metro Senior/Disabled monthly passes. Participant must call a day in advance to make a general reservation, and two days in advance for transportation to doctor's appointment.

General info: 818-808-7433 or <http://www.ladottransit.com/other/cityride>

Access Paratransit

This is an Americans with Disabilities Act (ADA) mandated transportation service for people unable to independently use the bus or light rail services in Los Angeles County. It is a shared ride service that is curb-to-curb and utilizes a fleet of small buses, mini-vans and taxis. Fares are distance-based and range from \$2.75 to \$3.50 for each one-way trip. Eligibility for Access Paratransit is determined through an in-person Transit Evaluation. Participant must call at least a day in advance to book transportation.

General info: 800-827-0829 or http://www.asila.org/riding_access

City Cab Taxi Service

When transportation is unavailable through Peninsula Point, the Concierge can arrange for taxi pick-ups and also provide taxi vouchers issued by City Cab. The cost will be included on resident's monthly billing statement.

Private Companion/Escort

With at least 24 hours advance notice, a private companion/escort can be arranged. The cost of the private companion or escort will be communicated at the time of the reservation and billed either on your monthly billing statement or directly by the provider.

Private Limousine

With sufficient advanced notice, the Concierge Director/Manager can arrange for private limousine or town car service for a resident.

WEEKDAY AND WEEKEND PARKING ACCUMULATION SURVEYS [1]
SURVEY DATES: WEDNESDAY, JUNE 3, 2015 AND SATURDAY, JUNE 6, 2015
PARKING OCCUPANCY FOR OTHER COMPARABLE SITES

PARKING LOCATION	[2] NO. OF SPACES	TIME OF DAY [3]											
		8:00 AM		9:00 AM		10:00 AM		11:00 AM		12:00 PM		6:00 PM	
		OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT
Wednesday, June 3, 2015													
<i>Sunrise Senior Living Center</i>													
Standard Spaces	13	8	61.5%	10	76.9%	11	84.6%	12	92.3%	12	92.3%	6	46.2%
Compact Spaces	8	4	50.0%	5	62.5%	6	75.0%	6	75.0%	5	62.5%	2	25.0%
Visitor/Guest Spaces	7	0	0.0%	1	14.3%	2	28.6%	1	14.3%	3	42.9%	3	42.9%
Reserved Spaces	2	1	50.0%	2	100.0%	2	100.0%	2	100.0%	2	100.0%	2	100.0%
Handicap Accessible Spaces	2	1	50.0%	1	50.0%	1	50.0%	1	50.0%	2	100.0%	0	0.0%
On-Street Spaces	8	0	0.0%	0	0.0%	2	25.0%	2	25.0%	1	12.5%	4	50.0%
Total for Sunrise Senior Living Center	32	14	43.8%	19	59.4%	24	75.0%	24	75.0%	25	78.1%	17	53.1%
<i>The Terraces at Park Marino</i>													
Standard Spaces	24	14	58.3%	19	79.2%	19	79.2%	19	79.2%	20	83.3%	15	62.5%
Reserved Management Spaces	2	1	50.0%	1	50.0%	1	50.0%	1	50.0%	1	50.0%	2	100.0%
Handicap Accessible Spaces	2	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	50.0%
Total for The Terraces at Park Marino	28	15	53.6%	20	71.4%	20	71.4%	20	71.4%	21	75.0%	18	64.3%

PARKING LOCATION	[2] NO. OF SPACES	TIME OF DAY [3]											
		10:00 AM		11:00 AM		12:00 PM		1:00 PM		2:00 PM		6:00 PM	
		OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT	OCC.	PERCENT
Saturday, June 6, 2015													
<i>Sunrise Senior Living Center</i>													
Standard Spaces	13	4	30.8%	4	30.8%	4	30.8%	6	46.2%	5	38.5%	7	53.8%
Compact Spaces	8	0	0.0%	0	0.0%	1	12.5%	2	25.0%	2	25.0%	3	37.5%
Visitor/Guest Spaces	7	0	0.0%	2	28.6%	3	42.9%	2	28.6%	4	57.1%	1	14.3%
Reserved Spaces	2	2	100.0%	2	100.0%	2	100.0%	2	100.0%	2	100.0%	2	100.0%
Handicap Accessible Spaces	2	1	50.0%	0	0.0%	0	0.0%	1	50.0%	1	50.0%	1	50.0%
On-Street Spaces	8	1	12.5%	1	12.5%	1	12.5%	2	25.0%	2	25.0%	2	25.0%
Total for Sunrise Senior Living Center	32	8	25.0%	9	28.1%	11	34.4%	15	46.9%	16	50.0%	16	50.0%
<i>The Terraces at Park Marino</i>													
Standard Spaces	24	20	83.3%	19	79.2%	18	75.0%	18	75.0%	18	75.0%	16	66.7%
Reserved Management Spaces	2	1	50.0%	2	100.0%	2	100.0%	2	100.0%	2	100.0%	0	0.0%
Handicap Accessible Spaces	2	1	50.0%	1	50.0%	2	100.0%	2	100.0%	2	100.0%	2	100.0%
Total for The Terraces at Park Marino	28	22	78.6%	22	78.6%	22	78.6%	22	78.6%	22	78.6%	18	64.3%

[1] The parking survey and parking inventory were conducted by The Traffic Solution in June 2015.

[2] Parking supply does not include on-street parking spaces along the property frontage for the Sunrise Senior Living Center site.

[3] Parking demand includes vehicles parked on-street along the property frontage for the Sunrise Senior Living Center site.

From: [George Walker](#)
To: [Jeannie Naughton](#)
Cc: [George Walker](#)
Subject: Peninsula Pointe Project (PA-18-15)
Date: Wednesday, May 25, 2016 10:50:33 AM

Ms Naughton

I lease an office in the building at 27520 Hawthorne. I am not a resident of RHE.

I object to the variances being considered. The existing rules and guidelines are in place for a reason.

The only reason to grant the proposed variances is to allow the owners to make more money by converting a property that is serving a purpose into one that serves a different purpose. If they want to make that change, then they should live by the rules.

I noticed that parking is one issue. As you may know, parking is an issue in the neighborhood now. Local residents clearly park in the office building parking lot at night. I see their cars covered with dew when I arrive early in the morning. They have clearly been there overnight. You also mention changing the width of the parking spaces so there can be more spaces. I am almost 70 and I have a hard time getting out of my car when the spaces are narrow. You should not grant this variance.

I don't know much about the room size for the elderly, but I can only conclude that those standards are in place to protect the old people from being housed like animals in small spaces. Don't give in to a change just to satisfy the greed of the property owners.

Thanks for considering my input.

George

George A. Walker
President
George Walker & Associates, Inc.
george@walker-g.com
Cell = 310-990-9003

Palos Verdes Villas #1 HOA
C/O Bali Management
385 Van Ness Avenue, #105 Torrance, CA 90501
(310) 294-5370 (310) 294-5389 fax

May 25, 2016

Jeannie Naughton, AICP
City of Rolling Hills Estates
4045 Palos Verdes Drive North
Rolling Hills Estates, CA 90274

Re: PENINSULA POINTE PROJECT (PA-18-15)

Dear Ms. Naughton,

The Board of Directors of the Palos Verdes Villas #1 HOA, located at 5630 Ravenspur Drive, Rancho Palos Verdes 90275, requested that I correspond to you on their behalf regarding the above referenced project. The project location, according to the letter they received is at 27520 Hawthorne Blvd., right next door to their homeowner's association of 27 units. And as you may or may not know, the entire street of Ravenspur Drive is lined with other HOAs and residential apartment buildings, with a very limited amount of available parking spaces.

Many of the owners and residents of our building have great concerns regarding the proposed 89 unit residential care facility being planned at the above mentioned location. The main reason being, there is just not enough parking now to accommodate the owners and residents on Ravenspur. And although we understand that there is underground parking at the proposed site, and an additional lot at the side of the property, we do not believe that it will not be enough to accommodate the residents there, along with their guests, family members and not to mention the personnel and staff that will be needed.

Another concern is the potential increase in noise and disturbance to the residents at our property, due to emergency vehicles, sirens and personnel in and out during all hours of the day and night.

While we understand and appreciate the need for these types of facilities, we strongly believe this already overcrowded residential street is not a good choice and would hugely inconvenience and disturb the hundreds of already established residents, especially our property right next door. As the Board of Directors of Palos Verdes Villas #1 HOA, it is our duty to look out for the best interest of our owners and residents. We hope that you will take our concerns into consideration and reconsider the location of your planned care facility.

Please see attached the signed petition from our residents that are against your proposed project.

Should you have any questions, comments, reply or concerns regarding this matter, please feel free to contact me at 310-294-5377 or via email at renee@balingmt.com.

Respectfully,
For the Board of Directors
Palos Verdes Villas #1 HOA

Renee Espinoza
Association Manager

Sent via First Class Mail, Faxed to 310-377-4468 and emailed to jeannien@rollinghillsestatesca.gov

PETITION AGAINST PENINSULA POINTE PROJECT (PA-18-16)

By signing below, I confirm that I am against the residential care facility at the proposed location of 27520 Hawthorne Blvd and ask that the City of Rolling Hills Estates turn down approval and search for a more suitable location. I feel having this type of facility located right next door to me would severely impact my ability to park, have a place for my guests to park and potentially lessen the peaceful enjoyment of my home. I sincerely hope you will take our needs and comments into consideration.

Name	Address: 5630 Ravenspur Unit #	Phone #	Signature
Linda Edwards	106	310-953-7788	<i>Linda Edwards</i>
Helen Tsou	309	310-265-5945	<i>Helen Tsou</i>
USA ILBEGI	301	310-989-4495	<i>USA ILBEGI</i>
R. Andrew Ilbegi	301	310-480-4512	<i>R. Andrew Ilbegi</i>
Evelyn Davis	205	206-2602	<i>Evelyn Davis</i>
Yuhannet Siyula	208	562-941-7393	<i>Yuhannet Siyula</i>
URANIA L. YUAN	209	310-544-0415	<i>Urania L. Yuan</i>
Shahana Ali	308	310-541-1492	<i>Shahana Ali</i>
John J Schimmert	303	310-874-4801	<i>John J Schimmert</i>
Mary E Schimmert	303	310-541-4906	<i>Mary E Schimmert</i>
Michael S WARREN	204	310-480-3998	<i>Michael S. Warren</i>
Euna Chung	306	310-373-1771	<i>Euna Chung</i>
Martene Masania	307	310-377-1373	<i>Martene Masania</i>
Andy MATSUDA	109	310-377-1355	<i>Andy Matsuda</i>
Setzu Matsuda	109	310-377-1355	<i>Setzu Matsuda</i>
JACK PHARRE	207	310-971-7036	<i>Jack Pharr</i>
Hengameh Rahmandad	104	310-541-8195	<i>Hengameh Rahmandad</i>

From: susanlynnmills@cox.net
To: [Jeannie Naughton](#)
Subject: Proposed Ravenspur Drive Alzheimer's unit.
Date: Wednesday, June 01, 2016 10:16:55 PM

6-1-16

Dear Ms. Naughton:

I am writing to let you know that I am VERY MUCH against the proposed senior living facility that could be built at the bottom of Ravenspur Drive. I live on Ravenspur Drive at 5718 Ravenspur, Unit 106, Rancho Palos Verdes, CA.

There are apparently only 48 parking places planned. This is not adequate for the staff and visitors! Our street already has a HUGE parking problem and we cannot entertain our own family members on holidays due to the current congestion on the street. This facility would make it exponentially worse!

Additionally, this hill is VERY dangerous to walk, and it would be a matter of time until one of the seniors fell, and then the city and facility would likely both be sued by the family of the senior citizen! This poses a needless liability issue!

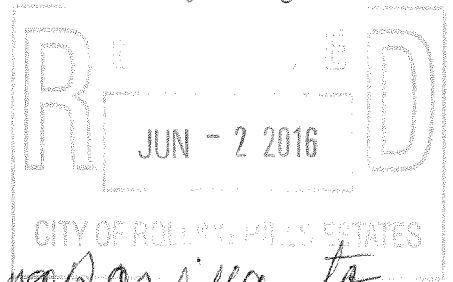
The seniors driving also poses a serious safety risk to all of the high school kids that walk to and from school on the morning and afternoon to nearby Penn. High School.

This is not an appropriate location for such a facility; this is a residential neighborhood! I work in healthcare and am very aware of the problems that this facility could pose the the residents living on Ravenspur Dr.; it would very certainly lower our property values due to the enormous amount of congestion, and noise. I would urge the city of Rolling Hills Estates to reconsider building this facility!

Sincerely, Susan Mills, MPH, RD, CHES

June 2nd 2016

Jeannie Naughton, Senior Planner
City of Rolling Hills Ets, Ca. 90274



The City of Rolling Hills Ets. is proposing to build a Senior Care Center at the bottom of Ravenspur Dr at the location of the small office complex with a zone change from C0 to G6. We are a Residential street and our building at 5718 Ravenspur Dr. was never notified.

Peninsula Point Project PA is not a suitable location for a Residential Facility for the elderly of this size: with 102 Beds 76 assisted living units, 13 double occupancy memory care units and all the help and caregivers they need, like cooks, cleaners Van Drivers etc. it is a nightmare!

Our Street does not have enough parking now. We are a Residential area

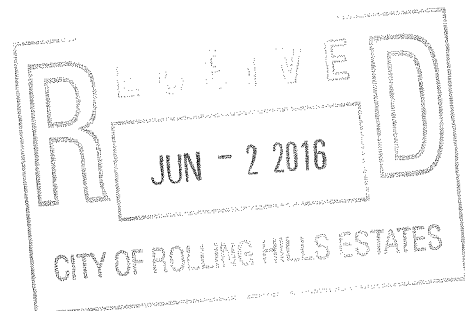
I, as the Vice President of our Home Owners Association and the owner of my unit are terrified by this proposal and in the manner is was done.

Nadia Richardson
5718 Ravenspur Dr. Unit 301
Rancho Palos Verdes, Ca. 90275

Jeannie Naughton (Senior Planner)
City of Rolling Hills Estd., Ca 90274

I am a resident at 5718 Ravenspur Dr. I am completely against the proposed building of the Nursing Facility at the end of Ravenspur Dr. As a Home Owner in a residential area, I feel a commercial building of this size would influence Home Owners property value (as far as bringing the value down). We have very little parking space on our street at present. To have a Nursing Home with several people residing including employees would almost be impossible. Where would people park their cars. Already it's almost impossible for Homeowners guests to find parking on this street. Also it could possibly be unsafe for all included (Residents & people occupying rooms at the Facility that are still able to drive). Accidents could happen, considering it's a quite busy street. Hopefully the Planning Committee will reconsider on the building of this Facility.

Donna York
5718 Ravenspur Unit 207
Rancho Palos Verdes
90275



From: [Joe Stables](#)
To: [Jeannie Naughton](#)
Cc: [raiderjeff1@cs.com](#); [chuchinying@hotmail.com](#); [christopher_hand@hotmail.com](#)
Subject: FW: Peninsula Pointe Project (PA-18-15)
Date: Thursday, June 02, 2016 4:08:28 PM

From: jstables@be.ucla.edu
To: joestables@hotmail.com
Subject: FW: Peninsula Pointe Project (PA-18-15)
Date: Thu, 2 Jun 2016 22:48:47 +0000

Dear Ms. Naughton,

Thank you for forwarding the link to us. Claims on pages 112 and 113 of the report that the project will not have a significant effect on the supply of parking spaces are false. For at least the last ten years, the parking on the entire length of Ravenspur Drive has been saturated. Every parking space on Ravenspur Drive is occupied every day by 5:30 PM. Every evening some residents of Ravenspur are forced to park in the neighborhood on the other side of Hawthorne Boulevard. They must then cross Hawthorne Boulevard on foot without the benefit of a stoplight or crosswalk.

I didn't have time to read all of the report but I found no mention of parking mitigation during construction. Will all construction vehicles be required to park on the property during construction? If not, the residents of Ravenspur will be adversely affected.

I would encourage the City of RHE to more closely examine the effects of this project on parking. Any actions that would increase the demand for parking or reduce its supply will have harmful effects on the residents of Ravenspur Drive.

Best Regards,

Joe Stables

Begin forwarded message:

From: Jeff <raiderjeff1@cs.com>
Date: June 1, 2016 at 5:53:29 PM PDT
To: nancy chu <chuchinying@hotmail.com>
Subject: Fwd: Peninsula Pointe Project (PA-18-15)

Sent from my iPhone

Begin forwarded message:

From: raiderjeff1@cs.com

Date: June 1, 2016 at 4:27:31 PM PDT

To: christopher_hand@hotmail.com, boborona@cox.net

Subject: Fwd: Peninsula Pointe Project (PA-18-15)

The City of Rolling Hills Estates is proposing to build a Senior Living Care Center at the bottom of Ravenspur Drive where the old office complex was at. We were not notified because we are just outside the 500 foot required notification zone. However several homeowners have addressed serious concerns to me. Obviously the parking issue. The consensus is that there is not ample parking on Ravenspur Drive as it is now and this will only add to an ongoing problem and make it far worse. The possible adverse effect this project will have on our individual property value. The safety concerns being that a number of those living at this facility will still have vehicles and are allowed to drive. Etc..

The entire study by the City of Rolling Hills Estates is available on their website, but is over 600 pages long. A scaled down version is also available, but is 35 pages long. Both obviously too long to print out or even read or absorb before the cut-off date for concerns and comments that are to be addressed at a Planning Commission meeting next Monday June 6th 2016. A copy of the one page link has been printed out and posted below. I would encourage all homeowners with computers to open the link and follow instructions to read more about the proposed project. Then either call or e-mail the Senior Planner, Jeannie Naughton, who's phone number and e-mail address are attached at the bottom of the page ASAP. Because technically the deadline for concerns or complaints to be presented to the Planning Commission is Thursday June 2nd, but will be still considered if received before the actual meeting on Monday evening June 6th 2016.

Sincerely, Jeff McElhaney-President RCOA HOA

Hi Jeff,

Here is the link where you can find the public hearing notice, as well as the CEQA document, which contains detailed descriptions of the impacts the project will have on the environment: <http://www.ci.rolling-hills-estates.ca.us/index.aspx?page=404>

Attached, as discussed, is the notification list and radius maps. There are two parcels that are part of this site, so we had to prepare a 500 ft. radius

map for both, so you will see one map labeled “Large” and the other “Small”. Please let me know if you have any questions.

Best Regards,
Jeannie

Jeannie Naughton, AICP
Senior Planner
City of Rolling Hills Estates
p. 310.377.1577 ext.115
e. jeannien@rollinghillsestatesca.gov

From: raiderjeff1@cs.com [<mailto:raiderjeff1@cs.com>]

Sent: Friday, July 01, 2016 6:08 AM

To: Steve Zuckerman <stevez@ci.rolling-hills-estates.ca.us>; Frank Zerunyan <frankz@ci.rolling-hills-estates.ca.us>; Britt Huff <britth@ci.rolling-hills-estates.ca.us>; Judy Mitchell <judym@ci.rolling-hills-estates.ca.us>; Velveth Schmitz <velveths@ci.rolling-hills-estates.ca.us>

Subject: RCOA Petition Presented At Planning Commission Meeting Regarding Peninsula Pointe Project

Let me preface the following that although I was not informed about this project until 5 days before the Planning Commission Meeting on June 6th 2016, I was able to write the following petition and get 90% of the residents in the Complex where I am the HOA President of to sign and agree. If given more time I guarantee that if I had presented it to all residents living on Ravenspur Drive I could have, and now will after amending, get at least 1000 signatures of those living in the immediate area who also agree. I strongly recommend the Council review this project in detail before making any final decisions. Our concerns are legitimate and need to be addressed. I was unable to attend the Planning Commission Meeting due to medical conditions, but will certainly be there for this meeting if necessary, conveniently scheduled the same night as the MLB All-Star game, that I feel was not a coincidence and that had intended to bring my son to in San Diego.

My obligation as an elected official and Executive Officer is to those I represent and although much can be documented be reading the attached petition, after speaking with many homeowners in our Complex and those adjacent, not to mention the renters across the street, believe a compromise could be sufficient. Otherwise I attend the meeting with no intention of a filibuster, but will be asking each Council Member some poignant important questions and I have already contacted several Media outlets inviting those to attend. By no means a threat, just reaching out and voicing our concerns. Nothing written in the original petition below is not true and hasn't been expressed to me.

Off the record, the City Council is going to approve this project. we all realize this. The tax revenue dictates that. But if anything like what's happened at the "Avenue Of The Peninsula" or the debacle taking place at the Peninsula Center, there is a serious problem.

These are a few of the residents concerns.

1. The parking on Ravenspur Drive. It's already congested and cannot accommodate any more. We would like all employees of the Peninsula Pointe Project to have identifying stickers on their vehicles and not be allowed to park on Ravenspur Drive. A suggestion would be to have overflow parking at the Avenue Of The Peninsula parking structure and be shuttled to the facility. Or petition the City of RPV to allow permanent parking on the Hawthorne Blvd from both Ravenspur Ave entrances. I personally have been able to do so when they were resurfacing the street, albeit on a temporary basis. But I am not a City Council. And any Holiday, birthday etc. poses a real potential problem with the addition of relatives coming to visit. Not to even mention that the current parking space structure for employees and number of spaces allocated is a joke.

2. Background checks on all employees working there. We do not want derelicts wandering our street at all hours of the night.

3. A wrought iron security gate at the driveway entrance point. This will prevent any catastrophes being that the project allows 15-20% of those living there to still drive and operate motor vehicles although they are already at the point where they can no longer live without assistance. This is perplexing. Too many children and others walk past that driveway either going to school or to the Peninsula Center daily. Very important and a potential life saving measure. We would all rather have a slow, key or remote control operated gate opening to warn and allow pedestrians to avoid walking in front of than have a tragedy happen.

I appreciate your consideration and implore any Council Member to contact me directly. I also do not believe these requests to be unreasonable. Otherwise I will see you at the approval meeting.

Sincerely, Jeff McElhaney-President RCOA HOA 5718 Ravenspur Drive, RPV CA 90275 310-871-8156

Signed list by residents from RCOA to be presented at meeting Monday June 6th 2016. Copy of document attached. Refer to Senior Planner Jeannie Naughton

Attention RCOA Homeowner's Association, I don't know if you are aware of the plans by Rolling Hills Estates to re-zone an area of the City to allow the construction of a Senior Assisted Living Care Center in an area on the corner of Hawthorne Blvd and Ravenspur Drive that is adjacent to The City Of Rancho Palos Verdes CA and 100% residential otherwise. Notices were supposedly sent out on May 12th 2016 to all residents living within a 500 foot radius of the proposed project as required by law. Our particular Complex-Ravenspur Condominium Owners Association located at 5718 Ravenspur Drive, RPV, CA 90275 was not notified being we are just beyond the required notification zone, although we will be directly effected by this proposed project like every other resident or homeowner living on Ravenspur Drive. After contacting several other residents and HOA Board members technically living within the required notification zone it has been determined that many of these residents were not informed either.

We would strongly encourage any homeowner who opposes this project to sign the list attached and try to attend the initial RHE Planning Commission Meeting to be held Monday June 6th 2016 at RHE City Hall. This is a project that could potentially adversely effect literally thousands of residents living in the immediate area. There will definitely be many other local residents, Management Companies and HOA Board Members attending who are opposed and intend to voice their opinions.

I have yet to speak with or be contacted by one resident or homeowner who supports this project. And almost everyone feels that the inadequate notification process obviously does not provide enough time for anyone to accurately assess a 600 page Environmental Study. Especially one conducted and submitted without a single resident in or around the required notification zone being consulted or asked to contribute. Several residents have already expressed their concerns via letter, e-mail or phone conversation to the RHE City Planner, Jeannie Naughton (310-377-1577 Ext 115 jeannien@rollinghillsestates.ca.gov), but still feel that this project will be approved for financial gains despite the protests, concerns and effect on the surrounding community.

A few of the concerns that have been expressed to me:

1. The parking. Ravenspur Drive is notorious for not having enough parking for residents currently. People sometimes wait hours in their cars during evening hours to secure a parking space when one becomes available. Sometimes being forced to park across Hawthorne Blvd and illegally cross back over to Ravenspur Drive, causing several accidents and fatalities over the last few decades. The assumption that a total of 48 parking spaces for a 102 bed care facility does not make sense. 15%-20% of the patients living there will still have vehicles and be allowed to drive. Parking will also need to be provided for the doctors, nurses and care givers, cooks and kitchen staff, janitors, cleaning and laundry staff. Not to mention any visitors, especially on certain holidays. In our opinion there is not nearly enough parking on Ravenspur Drive or the immediate area to accommodate the residents as it is now and the added overflow parking from this facility will just compound the problem.

2. Safety issues. Many residents have expressed their opposition that Senior Citizens already living in an Assisted Living Care Facility will still be allowed to drive in the area. Many have children and teenagers who walk past the project site daily to go to school and back etc.. and are concerned that this could be a tragedy waiting to happen with an errant push of the wrong pedal of a vehicle being driven by one of the patients. It happens far too often. There is also concern that cars parked on the street could possibly be accidentally damaged. And merging onto a busy Hawthorne Blvd from Ravenspur Drive is complicated as it is now with cars sometimes backing up. We only see this problem getting worse.

3. The adverse effect this could potentially have on individual homeowner's property value. With diminished parking available and a 24/7 Senior Care Facility on our residential street creating possible safety issues many homeowners have expressed the concern that this will have a negative effect on property values in the immediate area making the property less attractive to potential buyers and lowering the worth of their condominiums. We see no upside for the residents living on Ravenspur Drive and certainly nothing that will increase property values by the construction of this project.

These are just a few of the concerns that have been mentioned to me personally and other RCOA HOA Board Members. At this point we would compel the RHE Planning Commission to at least postpone making a final decision approving the proposed Peninsula Pointe project until a more comprehensive analysis of the actual impact it will have on the local surrounding area, in particular the entire street of Ravenspur Drive and the residents who reside there.

After speaking with several Board Members of other Condominium Complexes on Ravenspur Drive, the consensus is that the project has not been properly thought or planned out and if approved as currently proposed that we may have to unite and consider obtaining legal council to explore our options.

Sincerely, Jeff McElhaney-President RCOA HOA 5718 Ravenspur Drive, Rancho Palos Verdes, CA 90275

PLANNING COMMISSION
CITY OF ROLLING HILLS ESTATES
LOS ANGELES COUNTY, CALIFORNIA
RESOLUTION NO. PA-18-15

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF ROLLING HILLS ESTATES, RECOMMENDING APPROVAL TO THE CITY COUNCIL OF A GENERAL PLAN AMENDMENT TO CHANGE THE LAND USE DESIGNATION FROM COMMERCIAL OFFICE TO COMMERCIAL GENERAL, A ZONE CHANGE FROM COMMERCIAL OFFICE TO COMMERCIAL GENERAL/MIXED-USE DEVELOPMENT OVERLAY, A CONDITIONAL USE PERMIT, A PRECISE PLAN OF DESIGN, A VARIANCE APPLICATION TO RETAIN SURFACE PARKING STALLS IN THE SETBACK AREA, A VARIANCE APPLICATION TO RETAIN EXISTING, NONCONFORMING PARKING STALL AND AISLE WIDTH DIMENSIONS IN THE PARKING STRUCTURE, AND A MITIGATED NEGATIVE DECLARATION FOR THE CONVERSION OF AN EXISTING OFFICE BUILDING TO RESIDENTIAL CARE FACILITY FOR THE ELDERLY (RCFE) APPLICANT: SCOTT DARNELL, SRE DCM PV, LLC; LOCATION: 27520 HAWTHORNE BOULEVARD.

WHEREAS, Mr. Scott Darnell, on behalf of SRE DCM PV, LLC, filed an application with the Planning Department requesting permission to convert an existing office building into a Residential Care Facility for the Elderly (RCFE) on a 2.6-acre site; such an application as required by Chapters 17.26, 17.30, 17.37, 17.58, 17.66, and 17.68 of the Rolling Hills Estates Municipal Code; and

WHEREAS, Section 17.30.020(D)(30) of the Rolling Hills Estates Municipal Code requires approval of a Conditional Use Permit for a Residential Care Facility for the Elderly (RCFE) to locate within the C-G Zone; and

WHEREAS, an Initial Study was prepared by the City in conformance with the requirements of the California Environmental Quality Act (CEQA). It was found that the project would not have a significant impact on the environment with proper mitigation. As such, a Mitigated Negative Declaration was prepared; and

WHEREAS, in accordance with Section 65033 of the Government Code, the public, abutting cities, affected agencies and districts were notified of the availability of the Initial Study and Mitigated Negative Declaration and were given an opportunity to review and comment; and

WHEREAS, upon giving the required notice the Planning Commission conducted a Public Hearing on the 6th day of June, 2016. All interested parties were given full opportunity to be heard and to present evidence; and

WHEREAS, as a result of studies and investigations made by the Planning Commission and on its behalf, revealed that the facts as set forth in the Initial Study and Mitigated Negative Declaration, and those discussed during the public hearing show the following:

That the granting of this application will not be materially detrimental to the public welfare or injurious to property and improvements in the Zoning District and neighborhood in which the property is located because the proposed improvements will be regulated via a Conditional Use Permit (Section 17.30.020.D.30) of the Rolling Hills Estates Municipal Code) and a Precise Plan of Design (Section 17.37.020.C), to mitigate project impacts.

That the granting of this application will not be contrary to the objectives of the General Plan because, with the General Plan Amendment, the development is consistent with the General Plan's Goals and Policies and the Mixed-Use overlay zone.

That the granting of this application will not constitute the granting of a use variance within the meaning of the California State Government Code, Section 65906 because a Residential Care Facility for the Elderly (RCFE) project is a use conditionally permitted by Rolling Hills Estates Municipal Code Chapters 17.30 and 17.37.

Mitigated Negative Declaration Findings

Based upon its consideration of the Initial Study and Mitigated Negative Declaration and all public testimony, the Planning Commission finds that there is no substantial evidence

that the project as described herein will have a significant effect on the environment subject to the incorporation of mitigation measures described in the Mitigation Monitoring Program attached hereto as Exhibit B.

Variance Findings

That there are exceptional or extraordinary circumstances or conditions applicable to the property involved, or to its intended use which do not apply generally to other property in the same zoning district and neighborhood because the subject property is currently conforming under the current C-O zoning for location of surface parking stalls within the setback area, yet will become non-conforming upon rezoning to C-G; the relocation of these stalls elsewhere on the site would encroach into a required outdoor open space requirement for the intended use, thus requiring a different Variance request, or require substantial grading into hillside slopes to achieve relocation of the stalls elsewhere on the site. The aisle width and stall dimensions in the parking structure are existing, were Code-compliant when built, are constrained by existing structural elements of the building and would require demolition of the existing building in order to provide Code-compliant parking stall and aisle width dimensions. Adjacent properties include Multi-Family Residential zoning within the City of Rancho Palos Verdes, Institutionally-zoned property, and C-G zoned property. This property is unique in that it previously complied with development standards when built, and under the C-O zoning designation is conforming in terms of location of the existing surface parking stalls.

That such Variance is necessary for the preservation and enjoyment of a substantial property right of the applicant, which right is possessed by other property owners under like conditions in the same zoning district and neighborhood because the provision of Code-complying surface parking stalls, and Code-complying stall and aisle width dimensions could not be accomplished elsewhere on the property without granting a different Variance or requiring demolition of the existing building. The adjacent properties within the C-G zoning designation also provide surface parking stalls within the setback areas but are not adjacent to residentially-zoned properties. There is a significant amount of landscaping and trees along the side property line, abutting the residentially-zoned property in the City of Rancho Palos Verdes, adjacent to the location of the parking stalls. The surface parking stalls could not be accomplished elsewhere on the property, nor could stall or aisle width dimensions be accomplished without demolition of the existing building. The granting of the Variances for the existing encroachment into the setback and the continued provision of structure parking that contains nonconforming stall and aisle width dimensions is necessary for the enjoyment of a substantial property right, possessed by other property owners under like conditions in the same zoning district.

That the granting of the Variance will not be materially detrimental to the public welfare of injurious to property and improvements in the zoning district and neighborhood in which the property is located because the proposed improvements would meet PPD criteria, provide the required parking for the intended use, and the proposed improvements would require all necessary Building and Safety permits to be constructed, thereby not being detrimental to the public welfare and neighborhood.

That the granting of the Variance will not be contrary to the objectives of the General Plan because Goal 2 of the Housing Element of the General Plan states that the City shall promote new housing opportunities to meet the needs of existing and future residents while preserving the City's rural character. The City's population is significantly older than Los Angeles County as a whole, and over the next 40 years the City's senior population is projected to grow by 174% compared to just 30% for the County's total population. The City has little vacant land for development, and by repurposing existing development to meet the needs of existing and future residents, the existing rural character will be further preserved, while providing a significant benefit to the community.

That the granting of the Variance will not authorize a use or activity which is not otherwise expressly authorized by the zone regulations governing the parcel of property because the use and activities of the proposed building are provided for in the C-G and Mixed-Use Zones.

That the granting of the Variances will not authorize a use or activity which is not otherwise expressly authorized by the zoning regulations governing the parcel of the property because a Residential Care Facility for the Elderly is a conditionally permitted use in the C-G zoning/Mixed-Use Overlay district and the granting of the Variances would result in providing the Code-complying number of parking stalls (48) for the intended use, without requiring substantial grading into hillside slopes or the demolition of the existing office building and parking structure.

WHEREAS, amendments to General Plan and Zoning Map require approval of the City Council; and

NOW, THEREFORE, the Planning Commission of the City of Rolling Hills Estates does hereby resolve as follows:

SECTION 1. That the foregoing facts constitute conditions necessary to recommend approval of a General Plan Amendment, a Zone Change, a Conditional Use Permit, a Precise Plan of Design, and Variances; and to adopt the Mitigated Negative Declaration for the conversion of an existing office building into a Residential Care Facility for the Elderly (RCFE) on a 2.6-acre site; such an application as required by Chapters, 17.26, 17.30, 17.37, 17.58, 17.66, and 17.68 of the Rolling Hills Estates Municipal Code, and that said Permits be granted subject to the following conditions which are recommended by the Planning Commission, which must be met at all times by the applicant, unless otherwise stated, in order to enjoy the use of the subject property for any and all uses permitted by the granting of the subject permits.

General Conditions

1. That all improvements hereafter constructed or installed on land which is the subject of this approval shall be located substantially as shown on Exhibit A and constructed of materials indicated on the materials and color board, and/or as required under the Municipal Code and/or as required in these conditions.
2. The conditional use permit is being granted for an 89-unit Residential Care Facility for the Elderly (RCFE), with a total of 102 beds, in the following configuration: (13) double occupancy Memory Care Units and (76) single occupancy Assisted Living Units. The project requires 48 parking spaces, with a maximum of 20 employees on the greatest shift. Any minor changes in the operational characteristics, including e.g., a change in occupancy configuration that does not increase the total number of licensed beds, may be approved by the Planning Director, while major modifications will require review and approval by the Planning Commission.
3. That all applicable requirements of the State, County, City, and other governmental entities shall be met, and that prior to commencing any work and prior to applying for a building or grading permit, a zone clearance shall be obtained from the Planning Department.
4. That any substantial modification including, but not limited to, exterior building elevations, site plan design, and landscaping, shall receive prior approval of the Planning Commission; minor modifications may be approved by the Planning Director.
5. That in the event of one or more violations of these conditions, the City Manager shall have enforcement capability to remedy such violations and/or revoke said approvals.
6. That the applicant shall submit plans for approval by the City Manager for all improvements required herein.
7. That, unless the use is inaugurated or construction of the project is commenced and being diligently pursued not later than one year after the date that all required approvals are granted by the City Council, and subject to extension for any legal challenges to the approvals initiated by third parties, the approvals will automatically expire on that date. However, if there have been no changes in the proposed plans or adjacent areas, the Planning Commission may grant a time extension for use inauguration up to an additional one year period.
8. The applicant shall defend, hold harmless and indemnify at his own expense the City, its agents, officers and employees, from any claim, action, or proceeding, to attack, set aside, void or annul the approval granted in this resolution and shall reimburse the City, its agents, officers and employees for any damages, court costs and attorney's fees incurred as a result of such action. The City at its sole discretion may participate in the defense of any such action but such participation shall not relieve applicant of his obligation under this condition.

Planning

9. The applicant shall submit a more detailed parking management plan to include, but not limited to: provisions for educating staff, residents, and visitors to the facility, that parking on Ravenspur Drive shall be strictly prohibited; that provisions be made to erect signage in the surface stall parking area that parking is for residents, staff, and visitors only, and

that unauthorized vehicles may be towed, per applicable RHEMC and California Vehicle Code Sections; expanded provisions for off-site parking arrangements, should the site parking be full and must be accommodated by the shuttle service; that a dedicated shuttle service vehicle remain on-site and available for on-demand services, as detailed in the existing parking management plan. The applicant shall work with the City to determine appropriate parking stalls to be designated as "Visitor Only". The parking management plan shall include a maximum number of parking stalls available for resident use; a corresponding procedure for implementation of a waiting list shall be provided, should the maximum number of resident vehicles be reached. The parking management plan shall be subject to approval by the Planning Director prior to issuance of building permit.

10. Prior to issuance of building permits, the project applicant shall provide a final landscape plan that illustrates compliance with RHEMC Chapter 17.59 Water Efficient Landscapes. The landscape plan shall be subject to third party review and approval, and an installation inspection shall be conducted to ensure the landscaping areas have been installed according to plan, prior to issuance of Certificate of Occupancy.
11. A maintenance plan for on-site litter control shall be submitted by the applicant and approved by the Planning Director prior to issuance of Certificate of Occupancy. The litter control maintenance plan shall include provision for on-going maintenance required by the project use. The maintenance plan shall include the following standards: the entire development area shall be maintained in a neat, safe, and healthful condition. The applicant shall prepare an agreement to implement a weekly litter cleanup plan for all open areas, planters, and public sidewalks adjacent to site. This plan shall include the coordination of disposal of waste and recycling in receptacles to be located in common open space areas. All waste materials generated by the development, such as cardboard, skids, garbage, litter, etc., must be stored in private receptacles for disposal. No waste material shall be visible at any time. All common area receptacles shall be kept clean and free of odors at all times.
12. A detailed site lighting plan shall be submitted for review and approval by the Planning Director, and shall meet City standards. Site lighting shall be directed downward to protect adjacent residential neighborhoods from glare, yet provide safety for residents utilizing common walkways and open space areas.
13. The applicant shall propose a complementary color palette for all site retaining walls, fences, gates, and trellis structures, that is compatible with the natural topography of the site, as well as the proposed façade improvements, subject to review and approval by the Planning Director.
14. Prior to any renovation, remodeling or demolition of areas considered to be suspect asbestos containing materials (ACM), per the EPA's definition, limited testing shall be performed to determine if asbestos is present on the subject site. Confirmation of testing must be provided to the Building and Safety Department prior to issuance of demolition permits. If ACM is found to be present on the subject site, the applicant shall work with the South Coast Air Quality Management District Compliance Division, and be subject to AQMD Rule 1403.
15. Any work within the Public Right of Way along Ravenspur Drive shall be subject to an encroachment permit issued by the City of Rancho Palos Verdes.
16. The applicant shall be subject to full compliance with Order No. R4-2012-0175, Municipal Separate Storm Sewer System (MS4) NPDES Permit for Coastal Watershed of Los Angeles County.
17. Any site signage shall be reviewed and approved by the Planning Director prior to issuance of a building permit. The signage shall be minimal and compatible with the colors and materials proposed for the project.
18. That all roof-mounted equipment shall be screened from view to the satisfaction of the Planning Director.
19. During construction activities, all construction-related vehicles shall be parked on-site at 27520 Hawthorne Boulevard; parking on Ravenspur Drive shall be prohibited.
20. All deliveries of commercial goods and supplies; trash pick-up (including the use of parking lot trash sweepers); and the operation of machinery or mechanical equipment that emits noise levels in excess of 65dBA shall only be allowed between the hours of 7:00 AM and 7:00 PM daily.

Fire

21. Fire Protection facilities; including access must be provided prior to and during construction.
22. The required fire flow for public fire hydrants at this location is 3500 gallons per minute at 20 psi for a duration of 3 hours, over and above maximum daily domestic demand. Two hydrants flowing simultaneously may be used to achieve the required fire flow.

County Sanitation Districts of Los Angeles County

23. The applicant shall obtain a Will Serve letter from the County Sanitation Districts of Los Angeles County prior to issuance of building permits.
24. A sewer connection fee will be required prior to issuance of a permit to connect to the sewer, by the County Sanitation Districts of Los Angeles County.

Biological Resources

25. Removal of vegetation on the project site shall be conducted outside the migratory bird nesting season (i.e., between September 1 and February 28). If vegetation removal and/or outdoor construction activities will occur during the migratory bird nesting season (i.e., between March 1 and August 31), preconstruction surveys for nesting migratory birds shall be conducted by a qualified biologist, up to 14 days before initiation of construction activities. The qualified biologist shall survey the construction zone and a 250-foot radius surrounding the construction zone to determine whether the activities taking place have the potential to disturb or otherwise harm nesting birds. If active nest(s) are identified during the preconstruction survey, a qualified biologist shall monitor the nest to determine when the young have fledged. The biological monitor shall have the authority to cease construction if there is any sign of distress to a raptor or migratory bird.

Cultural Resources

26. A qualified archaeologist and Native American monitor shall be present for all initial ground disturbing activities associated with the project. The archaeological monitor shall be responsible for the identification of cultural resources that may be impacted by project activities. The monitor may stop ground disturbing activities in order to assess any discoveries in the field. Archaeological monitoring may be discontinued when the depth of grading and soil conditions no longer retain the potential to contain cultural deposits. The project archaeologist shall be responsible for determining the duration and frequency of monitoring.
27. In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the proposed project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under CEQA (14 CCR 15064.5(f); PRC Section 21082), the archaeologist may exhaust the data potential of the find through the process of field-level recordation and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.
28. If any paleontological resources are found during future development of the project site, all work in the immediate vicinity of the find must stop and the Rolling Hills Estates Planning Department shall be immediately notified. A qualified paleontologist shall be retained to evaluate the finds and recommend appropriate handling and recovery methods. Construction in the vicinity of the find(s) shall not resume until deemed appropriate by the qualified site paleontologist.
29. In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendent (MLD) from

the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

30. That all project Mitigation Measures, as identified in the attached Mitigation Monitoring Program (Exhibit B), shall be completed to the satisfaction of the responsible Department/agency.

SECTION 2. That the Planning Commission hereby recommends that the City Council find that the Initial Study and Mitigated Negative Declaration have been completed in compliance with CEQA and the State Guidelines, and recommends approval of the Mitigated Negative Declaration.

SECTION 3. That the Planning Commission recommends approval to the City Council of all project entitlements (General Plan Amendment, Zone Change, Conditional Use Permit, Precise Plan of Design, and Variances to retain existing surface parking stalls in the required setback and to retain existing, nonconforming stall and aisle width dimensions in the parking structure).

SECTION 4. If any portion of this approval is violated or held to be invalid or if any law, statute, or ordinance is violated by the issuance of this approval or by any one or more of the requirements thereof, said use shall be void and privileges herewith shall lapse and such use shall thereupon cease.

SECTION 5. That the City Clerk shall certify to the adoption of this Resolution and shall keep a copy of same to be submitted to the City Council with such other documents and records of proceedings as may be designated by the Chairman and Planning Commission.

ADOPTED this 6th day of June, 2016.


ROBERT SCHACHTER, CHAIRMAN

ATTEST:


DOUGLAS R. PRICHARD, CITY CLERK

I HEREBY CERTIFY that the foregoing Resolution No. PA-18-15 was adopted by the Planning Commission of the City of Rolling Hills Estates at a regular meeting held thereof on the 6th day of June, 2016, by the following vote:

AYES: Zigrang, Yoo, Thomas, Scott, Chairman Schachter

NOES:

ABSENT: Conway, Medawar

ABSTAIN:


DOUGLAS R. PRICHARD, CITY CLERK

MINUTES

REGULAR PLANNING COMMISSION MEETING

JUNE 6, 2016

A regular meeting of the Planning Commission of the City of Rolling Hills Estates was called to order at 7:04 p.m. in the City Hall Council Chambers, 4045 Palos Verdes Drive North, by CHAIRMAN SCHACHTER.

2. PLEDGE OF ALLEGIANCE

CHAIRMAN SCHACHTER led the assembly in the Pledge of Allegiance to the Flag.

3. ROLL CALL

Commissioners Present: Thomas, Schachter, Zigrang, Yoo, Scott *

Commissioners Absent: Conway, Medawar

Staff Present: Planning Director Wahba, Senior Planner Naughton, Associate Planner Thom

* COMMISSIONER SCOTT arrived at 7:08 p.m.

4. APPROVAL OF MINUTES

CHAIRMAN SCHACHTER had a correction to the Draft Minutes at the top of page 4,

...A Variance would be ~~defensive as being unique~~ supportable due to the unique limitations of this property, but this design maximizes the amount of driveway, commitment to parking and impacts.

COMMISSIONER YOO moved, seconded by COMMISSIONER ZIGRANG,

TO APPROVE THE MINUTES OF THE SPECIAL PLANNING COMMISSION MEETING OF MAY 9, 2016, AS AMENDED.

There being no objection, CHAIRMAN SCHACHTER so ordered.

5. AUDIENCE ITEMS

None.

6. CONSENT CALENDAR

- A. WAIVE READING IN FULL ALL RESOLUTION THAT ARE PRESENTED FOR THE PLANNING COMMISSION CONSIDERATION ON TONIGHT'S AGENDA AND ALL SUCH RESOLUTIONS SHALL BE READ BY TITLE ONLY.

COMMISSIONER THOMAS moved, seconded by COMMISSIONER YOO

TO APPROVE THE CONSENT CALENDAR AS READ.

There being no objection, CHAIRMAN SCHACHTER so ordered.

7. BUSINESS ITEMS

- A. PLANNING APPLICATION NO. 10-16; APPLICANT: Ms. Nadine Jett; LOCATION: 2267 Carriage Drive. A Neighborhood Compatibility Determination for construction of retaining walls in the side and rear yards and a Grading application

Associate Planner Thom summarized the Staff Report (as per written material).

As there were no Planning Commission questions to staff, CHAIRMAN SCHACHTER asked if there was anyone in the audience who wished to speak.

Kyle Tourje (Engineer and Contractor from Alpha Structural) came forward representing the applicant, and asked the Commission if they had any questions as to the scope of work and future of the project.

In answer to questions from COMMISSIONERS ZIGRANG and THOMAS, Mr. Tourje said that construction would take approximately three months, but that last year's approval would have taken five months, but he was not on the job then.

COMMISSIONER SCOTT pointed out the recommendation in the report that stated:

- 1. That within ten (10) days from the project approval date, all dead vegetation be cleared, the existing construction fence and all construction material removed from the property, and that slope stabilization measures are in place to protect the unsupported slopes;*

COMMISSIONER SCOTT stated that due to the fact that all of the debris and construction material has been there for months and months and with the history of prosecution and noncompliance, why should the Commission approve PA-10-16 before they clean up the problems that they have refused to clean up in the past. Director Wahba replied that there is a new Engineer onboard that has been working with staff, although the materials have been there since last year, there has been limited compliance, and yes there were citations issued and the fines have been paid but this has been a very difficult case. He said a revised plan was at the point where it could be submitted to Building & Safety and the City is showing good faith that this will move things forward, but in the event that it doesn't, they will get the City Prosecutor involved.

In response to questions from Commission, Director Wahba stated that everything should be done by October 15, 2016, depending on the plan check process and how quickly that gets done. Director Wahba said that he could ask Building & Safety to expedite this project.

COMMISSIONER SCOTT moved, seconded by COMMISSIONER YOO,

THAT WITHIN 10 DAYS THE PROPERTY CLEAN-UP MUST OCCUR, AND IF NOT THEN CITATIONS WILL BE ISSUED STARTING AT \$100/DAY; THAT THE PROJECT MUST BE COMPLETED AS EXPEDITIOUSLY AS POSSIBLE AND IF NOT COMPLETED BY THREE MONTHS FROM THE TIME BUILDING & SAFETY IS PREPARED TO ISSUE A BUILDING PERMIT, THEN THIS APPROVAL EXPIRES.

AYES: Zigrang, Yoo, Thomas, Scott, Chairman Schachter
NOES:
ABSTAIN:
ABSENT: Conway, Medawar

Director Wahba explained the 20-day appeal period for item 7-A.

- B. PLANNING APPLICATION NO. 11-16; APPLICANT: Rolling Hills Covenant Church; LOCATION: 2221 & 2222 Palos Verdes Drive North. Precise Plan of Design for installation of signage within the public right-of-way including a license agreement.

Director Wahba summarized the Staff Report (as per written material) and asked the Commission if they had any questions for him.

In response to a question from COMMISSIONER SCOTT, Director Wahba clarified that the reason the main entrance sign was set back 15' from the Drive and 24' from the driveway, but the east entrance sign was only set back 10' by 10' for visibility purposes because the sign was much smaller.

In response to questions from COMMISSIONER SCOTT and CHAIRMAN SCHACHTER, Director Wahba explained details of the sign illumination, and in regards to whether there were any other lighted signs in the scenic corridor, he stated that the neighborhood entrance signs were lit, but there were no internally lit signs.

COMMISSIONER ZIGRANG asked if the City had any liability within the right-of-way, and Director Wahba explained that with the license agreement the liability transfers to the church and they would be responsible for indemnifying the City and paying for any repairs

Susan Johnson (Director Ministry Services, Rolling Hills Covenant Church), came forward and explained to the Commission that the lighting of the main sign is called "Halo Lighting" which softly lights each letter and added that the main sign along with the north campus sign are up lit presently but there is no power in the east driveways so there is no lighting.

In response to a question from CHAIRMAN SCHACHTER, Ms. Johnson stated that the lighting was on a timer, and when asked by COMMISSIONER YOO how bright the lights were (lumens) she said she didn't know. Director Wahba looked on the plans and stated that the lights were LED but no further details were given.

COMMISSIONER SCOTT asked Ms. Johnson why they were getting a new sign, and she said the old one was eaten by termites. COMMISSIONER SCOTT said the changes to the signs were dramatic and seemed to him to be similar to advertising than merely an identity sign, and that the location on the City's scenic corridor is an area in the City that they have worked hard to protect, to which Ms. Johnson stated that many people miss the church and they would like their signage to be more visible. COMMISSIONER SCOTT asked if the listing of the hours of service were really necessary, to which Ms. Johnson replied that listing of the service hours was really important to them, but that they would be willing to adjust other information such as the email address. Director Wahba stated that the code allows them to have the hours listed.

Christina Cline, 5718 Ravenspur Drive, Rancho Palos Verdes, came forward and told the Commission that the church was very easy to pass by at night, and that the lights would be helpful and safer.

COMMISSIONER SCOTT said that he categorically opposed to the application, that he did not approve of the perpendicular placement of the sign, the internal lighting, the color scheme, the email and phone number, and wanted the east driveway sign set back further from the street and driveway.

COMMISSIONER ZIGRANG stated that he cannot support the signs either, that the internal lights were not necessary and although the color of the signs went with the building they should be green and white because the right-of-way had green and white signs, and felt they should be pushed back as well.

CHAIRMAN SCHACHTER said that he also opposed the internal light and supported the up or down lighting. He didn't support the phone number.

COMMISSIONER YOO said that he would like to see a sample of the sign, and he agreed with the comments about the telephone number.

CHAIRMAN SCHACHTER stated that it would be better if the east driveway sign was moved further away from the street, and it was way too big. Director Wahba said if the phone number and website were removed that the sign could be made smaller.

COMMISSIONER SCOTT moved, seconded by COMMISSIONER ZIGRANG,

THAT THEY CONTINUE THE HEARING TO A DATE UNCERTAIN AND HAVE THE APPLICANT WORK WITH STAFF TO COME UP WITH SOME SOLUTIONS TO THE CONCERNS RAISED BY THE COMMISSION.

AYES: Zigrang, Yoo, Thomas, Scott, Chairman Schachter
NOES:
ABSTAIN:
ABSENT: Conway, Medawar

8. PUBLIC HEARINGS

- A. PLANNING APPLICATION NO. 25-14; APPLICANT: Ms. Judy Chai; LOCATION: 5338 Crest Road. A continued Public Hearing from the Planning Commission meeting of 5/9/16 for the following: A request for a Grading Application, Zone Text Amendment, Tentative Parcel Map, Conditional Use Permit, General Plan Amendment, Zone Change, and a Neighborhood Compatibility Determination for the construction of four single-family patio homes on a .51-acre parcel. Approval of a Mitigated Negative Declaration has also been prepared under the California Environmental Quality Act (CEQA).

Associate Planner Thom summarized the Staff Report (as per written material).

COMMISSIONER SCOTT mentioned that the entrance to one of the driveways would be about 25' from the corner and asked if the City had standards because it was very tight and seemed unsafe. Director Wahba answered that this was provided to him at short notice and he didn't have time to go over it with the City's Traffic Engineer, but that staff didn't support it and the applicant needed to move the driveway back.

Director Wahba added that the intent of this night's meeting was to get a sense from the Commission whether this would be something worth pursuing in this fashion and if they were to pursue this they needed to have a shared driveway and push it far back from the corner.

CHAIRMAN SCHACHTER asked if there was a possibility of putting a driveway on Crest Road, to which Director Wahba replied that it is preferable to place a the driveway on a secondary arterial rather than on a major arterial.

CHAIRMAN SCHACHTER'S asked if there was an issue with the storm drain if the driveway goes into that area, and Director Wahba stated that the architect had mentioned it but it would involve quite a bit of cost, and it would be a lot less expensive to move the driveway north of the storm drain and come in that way. Director Wahba stated that another design would be to actually split the lot the other direction and to push the homes back from Crest Road to open up the corner and have a more aggressive setback.

CHAIRMAN SCHACHTER asked if there was a minimum requirement for a shared driveway width, to which Director Wahba replied he was not aware of a minimum width, but separate driveways would be preferable to the homeowners but given the unique corner and to improve the vehicular access it really should be served with one driveway.

COMMISSIONER THOMAS asked the Commissioners that before they discuss a detailed design of the driveway and storm drains, do they conceptually believe going from four units to two units has any merit at all.

COMMISSIONER SCOTT said that two units was an improvement and shared the concern of the driveway. He also said that if they had a small second story on House #1 it would open up the mass of the building and increase the rear yard setback.

Director Wahba discussed ideas of having two-car garages rather than three-car garages to help with the massing.

CHAIRMAN SCHACHTER said that the submittal was an improvement, and he preferred the one-story house closer to the street and having the larger house in the back of the lot because it would blend in with the trees and not be as close to the street frontage.

COMMISSIONER ZIGRANG said that they are headed in the right direction it just needed to be reoriented a bit so that they could have a shared driveway on Highridge. He felt that they should leave it to staff to work with the applicant and come in with an alternative.

COMMISSIONER SCOTT asked if a second story feature in House #2 was acceptable to the

Commission and they discussed briefly that it was a good idea.

COMMISSIONER YOO asked Director Wahba if there was a restriction on where you can have a driveway after the corner, to which Director Wahba replied that he will speak with the Traffic Engineer and discuss the options, seeing as there is a storm drain there as well.

Gary Maxwell (Architect, Maxwell & Associates, Huntington Beach) said that they were trying to preserve the existing driveways and not mess with the Los Angeles County Flood Control District. He said he understood the concern of the proximity of the driveway to the corner, and he wanted the orientation of the homes to stay because that's where the view was. He said it would free them to do a limited second story on House #2 so they could shorten the home and still keep a back yard. He said if they did have a shared driveway he wanted to rotate the garage on House #2 so that it wasn't facing Highridge Road. He suggested a two-car garage plus a small area where they could put bikes and things. He would like to open out the front but not to the detriment of having a back yard. He said that a sound wall would obstruct views and he preferred to soften the noise with triple glazed windows, and other materials.

COMMISSIONER SCOTT felt that it shouldn't be a three-car garage, but a two-plus garage.

Doug Maupin (Developer/Broker, 27591 Palos Verdes Drive East, Rancho Palos Verdes), said the value of two separate lots will help to make a profit on this lot, but he felt that the driveway issue was overstated because single family homes have only seven trips a day, and that this particular intersection didn't ever get crowded. He added that the drains are huge, with 24" wide pipes and felt that those drains handled the entire top of the hill. It would be preferable not to touch those drain pipes because it will become very expensive. The two-story idea is a good one and shrinking the footprint would give more open space.

COMMISSIONER THOMAS moved, seconded by COMMISSIONER YOO,

TO CLOSE THE PUBLIC HEARING AND CONTINUE TO A DATE UNCERTAIN.

AYES: Zigrang, Yoo, Thomas, Scott, Chairman Schachter

NOES:

ABSTAIN:

ABSENT: Conway, Medawar

Director Wahba stated that the public would be renotified prior to the project coming back to the Commission.

- B. PLANNING APPLICATION 18-15; APPLICANT: Peninsula Pointe (Scott Darnell, SRE DCM PV, LLC); LOCATION: 27520 Hawthorne Blvd. Conversion of an existing office building into an 89-unit Residential Care Facility for the Elderly (RCFE) with the following entitlements: General Plan Amendment to change the land use designation from Commercial Office (C-O) to Commercial General (C-G); Zone Change from C-O to C-G; Conditional Use Permit for RCFE use within the C-G zone; Precise Plan of Design for exterior façade work; Variances for 1) existing surface parking spaces extending into the setback; and 2) parking stall dimension and aisle width.

Senior Planner Naughton summarized the Staff Report with a PowerPoint Presentation (as per written material) and introduced Scott Darnell (Darnell Capital Management, Applicant on behalf of the property owner) and Emily Tragish (Architectural Team Project Lead for Douglas Pancake Architects, Irvine). She asked if the Commission had any questions of staff.

COMMISSIONER SCOTT stated that the Commission had spent a lot of time when they adopted the standards for Elderly Care Units in 2014, on interior size, parking, code provisions and was not lightly undertaken and represented months of diligence.

CHAIRMAN SCHACHTER said Senior Planner Naughton's presentation was very well done and he wanted to let the new members know that the Commission spent a lot of time, a lot of reading, and a lot of discussion on definitions until they came up with a pretty good scheme of what would be acceptable.

COMMISSIONER SCOTT said that Senior Planner Naughton's presentation was excellent, and

wanted to add that even though there is not a single extra parking space on Ravenspur Drive, this applicant was not responsible for the parking for the residential properties on Ravenspur Drive. He asked staff for a census of the employees and who many residents typically have cars.

Director Wahba said that statistically a lot of the residents there don't drive. Sometimes they want to have their car there and never drive it. Visitors typically come during the day and weekends so they came up with a parking management plan for holidays that the Conditional Use Permit addresses to notify visitors that they're not going to be able to park there and will have to make arrangements off-site and have people walk up or be shuttled in from the Peninsula Center. They looked at employees and came up with very conservative numbers. They looked at projects all over California and the United States to get a handle on the parking and to make sure that they will provide plenty of parking onsite.

Senior Planner Naughton added that the City has very conservative parking requirements. If we were to apply the parking standards of the City of Rancho Palos Verdes, only 26 parking spaces would be required; if we were to apply the parking standards of the City of Torrance, 34 parking spaces would be required; and the City of Rolling Hills Estates requires 48 parking spaces for this project.

In response to a question from CHAIRMAN SCHACHTER, Senior Planner Naughton said that 102 beds would equate to 51 parking spaces, but memory care patients required less parking so the total is 48 parking spaces.

In response to a question from COMMISSIONER YOO, Senior Planner Naughton said Rolling Hills Estates requires one parking space per two beds and one parking space per two employees on the largest shift; Torrance requires one parking space per three beds; and Rancho Palos Verdes requires one parking space per four beds with no mention of employee parking.

COMMISSIONER SCOTT clarified for the audience the differences in the multiple classes of residential facilities for the elderly, such as Independent Living, Assisted Living, and Skilled Nursing Facilities.

CHAIRMAN SCHACHTER added that in the Initial Study and Mitigated Negative Declaration, the Traffic Study found that the use of the site would decrease traffic by 187 daily trips.

COMMISSIONER SCOTT moved, seconded by COMMISSIONER ZIGRANG,

TO OPEN THE PUBLIC HEARING.

There being no objection, CHAIRMAN SCHACHTER so ordered.

Emily Tragish (Project Lead for the Douglas Pancake Architect Team) gave a PowerPoint presentation that included a project overview, the qualifications of the team, and project facts.

In response to questions from COMMISSIONER SCOTT, Ms. Tragish stated that she has been involved in over 30 RCFEs (Residential Care Facility for the Elderly), and in regards to the amount of cars belonging to the residents, it averaged 10%-15% and the cars are usually not used, as residents can use the shuttle buses for excursions.

COMMISSIONER SCOTT commented that in this case, even if 20% of the residents had cars, it would take up roughly 15-16 spaces, leaving another 32 spaces. Ms. Tragish agreed.

In response to a question from COMMISSIONER SCHACHTER, Ms. Tragish said construction would take approximately one year.

COMMISSIONER SCOTT asked whether there are still tenants in place in the building and if so, what would happen to them when construction begins, and also asked whether the owner intended to entitle this and sell to an RCFE developer, or to hire an RCFE developer as manager? He also asked how long they have owned the building and if they operate any other RCFE facilities.

Scott Darnell (Applicant on behalf of the property owner, Darnell Capital Management) stated that there were still tenants there but only had one tenant that had a long-term lease in the building and they hope to offer him space in an office building that they already have. He added that their business plan was to own and operate the building for a number of years. He said they have owned it for a year and they operate another RCFE in San Diego. Kiley Stevenson (Representative from SRE DCM PV, LLC.) added that her firm is a partial owner and operates over 2,000 units throughout the country.

In response to questions from CHAIRMAN SCHACHTER, Ms. Tragish said that there is plenty of parking, and in regards to ambulance noise, people are usually concerned before the RCFE is built but once it operates they never receive ambulance noise complaints, as ambulances usually turn off the sirens once they enter residential neighborhoods. She added that during construction, all vehicles and materials would be kept on-site and there would be no parking on the street.

There being no further questions, CHAIRMAN SCHACHTER asked if there was anyone there opposed to the project that would like to speak to the Commission.

Mary E. Schimmenti (Resident and owner of several units in 5630 Ravenspur Drive and previously owned several “six-pack” facilities with beds in single family homes for the elderly) had the following complaints: 1) Her building was not properly notified and other units were not notified at all; 2) there is already too much traffic and not enough parking spaces; 3) sirens will go on constantly; 4) units who face the new building will have no privacy; 5) the hillside isn’t stable enough; 6) the building was huge and would block light; 7) was concerned whether the “memory unit” tenants would be in lockdown and even so, they often get out so would they wear ID bracelets; 8) this use would lower resale values; 9) how are those patients that cannot walk going to be able to move up and down the floors; and 10) this project doesn’t belong in the neighborhood.

Naola Richardson (5718 Ravenspur #301) had the following complaints: 1) She didn’t receive notification until June 1st; 2) because the facility is open after 5:00 p.m. and on weekends there will be more people, noise and traffic; 3) parking will be impacted; and 4) didn’t like the entrance to be on Ravenspur Drive when they could enter on Hawthorne Blvd.

Kit Fox (City Manager’s Office for City of Rancho Palos Verdes) said he had submitted a letter last week and was pleased to see that many of the items were addressed, including notification of surrounding neighbors upon commencement of construction and was pleased that the parking was addressed. He was interested in how the Commission would minimize the impacts of emergency and ambulatory vehicles in and out of the site. He would like the City to include in the conditions of approval some of the Rancho Palos Verdes noise restrictions such as trash pick-up and parking lot sweeping, deliveries, operation of equipment to not happen between the hours of 7:00 p.m. to 7:00 a.m. when adjacent to residential uses. He pointed out that in the development standards for this use there was a spacing requirement of 1,500 feet of RCFE facilities from one another to prevent overconcentration of these uses but that there were a number of the small, “six-pack” facilities in Rancho Palos Verdes within 1,500 of the project.

In response to questions from CHAIRMAN SCHACHTER, Mr. Fox stated that the parking requirements were accurately stated by Senior Planner Naughton; that local jurisdictions are unable to regulate “six-packs” according to State law so cities are unable to apply additional parking; and that all of the Ravenspur Drive residential units were grossly under parked compared to current standards because they were approved prior to Rancho’s incorporation.

CHAIRMAN SCHACHTER asked for a show of hands of all those against the project that were not going to speak, and seven or eight people raised their hands. When he asked for a show of hands for those in favor no one raised their hands.

Ms. Tragish came forward in response to audience concerns. She said that the facility was the same height and footprint of the office building but just the façade was changing. She said that the memory care facility was safe, and uses a GPS to track where they are, there are alarms which are not loud but are heard by the care staff, who will be with them 24 hours so there is not a lot of “elopement.” Elevators will be able to move the non-ambulatory patients, and an RCFE is one of the quietest uses – there will be no wild parties, residents go to bed early and ambient noise will not be an issue.

In response to questions from COMMISSIONER SCOTT, Ms. Tragish stated that there was overlap of the shifts, which went on 24/7, and perhaps 20 staff would be onsite during the largest shift. Staff would never use street parking but would park onsite.

Fernando Harriague (current tenant at the existing commercial building) stated that the building is 2/3 filled and has been like that for the last 20 years. In response to a question from CHAIRMAN SCHACHTER, Mr. Harriague said that Ravenspur Drive residents often park overnight in the commercial building and completely fill it up on the weekends.

COMMISSIONER SCOTT moved, seconded by COMMISSIONER YOO,

TO CLOSE THE PUBLIC HEARING.

There being no objection, CHAIRMAN SCHACHTER so ordered.

COMMISSIONER ZIGRANG stated that he used to have an office at Peninsula Pointe and also briefly lived on Ravenspur Drive when he was remodeling one of his homes, and having seen everything from the perspective of both a tenant and resident he felt that this facility would be an improvement. He said there were a fair number of sirens visiting the apartment buildings but that they were shut off when they went into residential neighborhoods. He said he was concerned about the notification complaints. Senior Planner Naughton said that both property owners and tenants within 500' were notified of the hearing, and though State law requires 300', the City of Rolling Hills Estates notifies in a 500' radius.

COMMISSIONER ZIGRANG suggested that we add the list of the objectors to the 500' radius list and Director Wahba said that they would add an address list of interested parties to future mailings.

In response to a questions from COMMISSIONERS YOO and THOMAS, Planning Director Wahba stated that there was a 1,500 foot distance requirement between RCFEs. There is another pending application on Silver Spur and assuming it was approved, this would only allow one more RCFE in the City. The City did a survey approximately seven years ago and we showed eight or nine of the "six-pack" homes, but the State doesn't notify us – we find out if there are complaints or if an applicant comes in for permits and discloses it to us. Director Wahba clarified that the Mixed-Use projects previously approved were not categorized the same way because there was no staff and the age 55+ are condominiums.

CHAIRMAN SCHACHTER said we have spent a lot of time on this, that there were strict guidelines for the building, and studies indicate 45% less trips per day. Any noise issues would be attributable to Hawthorne Blvd. and not this project, and he felt that all requirements were met.

COMMISSIONER SCOTT stated that in regards to the draft Resolution, Condition No. 7, he wanted to extend the commencement of the project from 180 days to one year. Condition No. 9 he wanted to change as follows: "...*parking on Ravenspur Drive be ~~highly discouraged~~ strictly prohibited for employees and residents*". In regards to the number of cars per residents, no resident can bring a car in if they are already at their parking maximum (one car per two residents). In regards to Condition No. 20, Senior Planner Naughton said that Rancho Palos Verdes conditions of deliveries, etc. were already incorporated into the resolution.

CHAIRMAN SCHACHTER asked about Condition No. 18 whether there could be restrictions on cell towers mounted on the building, and Planning Director Wahba stated that current restrictions are already adequate to prevent these, such as a Conditional Use Permit, and that the location of the building was not ideal for cell towers.

COMMISSIONER SCOTT moved, seconded by COMMISSIONER ZIGRANG,

TO ADOPT RESOLUTION NO. PA-18-15 AS MODIFIED.

AYES: Zigrang, Yoo, Thomas, Scott, Chairman Schachter
NOES:
ABSTAIN:
ABSENT: Conway, Medawar

Planning Director Wahba said that this item would now be going to the City Council and would be renoticed using the 500' radius and also to those who wish to be notified and those who spoke tonight.

9. COMMISSION ITEMS

In response to a question from COMMISSIONER ZIGRANG, Planning Director Wahba said that they are still working on the Rolling Hills Country Club signs.

10. DIRECTOR'S ITEMS

Planning Director Wahba said that the Special Planning Commission meeting on June 27th would include Ordinance revisions on short term rentals and mobile food trucks. COMMISSIONERS SCOTT and THOMAS said that they cannot attend.

In regards to the electronic paperless agendas, COMMISSIONER THOMAS no longer wishes to receive the paper agenda and really likes the electronic one. COMMISSIONER ZIGRANG had difficulty with the login, so that will be resolved. Planning Director Wahba mentioned that the Council Chambers is going to be remodeled and everything will be going electronic, so the City Council may be considering giving the Planning Commission iPads so that they could go paperless.

11. MATTERS OF INFORMATION

- A. PARK AND ACTIVITIES MINUTES, (05 16 16).
- B. CITY COUNCIL ACTIONS, (05 10 16).
- C. CITY COUNCIL ACTIONS (05 24 16).

COMMISSIONER ZIGRANG moved, seconded by COMMISSIONER YOO,

TO RECEIVE AND FILE ITEMS 11.A, B AND C.

There being no objection, CHAIRMAN SCHACHTER SO ORDERED.

13. ADJOURNMENT

At 10:12 p.m. CHAIRMAN SCHACHTER adjourned the Planning Commission meeting to an Adjourned Planning Commission meeting on Monday June 27, 2016, at 7:00 p.m.

Hollis Jackson
Minutes Secretary

Douglas R. Prichard
City Clerk



Staff Report

City of Rolling Hills Estates

DATE: JULY 26, 2016

TO: MAYOR AND CITY COUNCIL

FROM: JEANNIE NAUGHTON, SENIOR PLANNER

SUBJECT: PLANNING APPLICATION 18-15 (PENINSULA POINTE)
APPLICANT: SCOTT DARNELL ON BEHALF OF SRE DCM PV, LLC
LOCATION: 27520 HAWTHORNE BOULEVARD

OVERVIEW

The following is a request for approval of a series of entitlements to allow the conversion of an existing office building into an 89-unit Residential Care Facility for the Elderly (RCFE). The proposed project will require the following entitlements: General Plan Amendment to change the land use designation from Commercial Office (C-O) to Commercial General (C-G); Zone Change from C-O to C-G; Conditional Use Permit for RCFE use within the C-G zone; Variances for existing surface parking stalls in the side yard setback, and nonconforming aisle width and stall dimension in the parking structure; Precise Plan of Design for the exterior façade improvements and related site improvements; and certification of a Mitigated Negative Declaration, finding that the project, with mitigation measures, will not have a significant impact on the environment.

BACKGROUND

On July 12, 2016, the City Council reviewed the proposed project, opened the public hearing and took public testimony; the Council recommended expanded provisions for Condition of Approval #9 in Resolution No. 2374, requiring periodic review of the approved parking management plan to ensure compliance with the parameters of the Conditional Use Permit. Language has been added to the respective Condition of Approval to address this recommendation. The City Council then approved for introduction Ordinance No. 706, amending the zoning designation of 27520 Hawthorne Blvd. from Commercial Office (C-O) to Commercial General (C-G)/Mixed Use Overlay District) and continued the public hearing to the July 26, 2016 City Council meeting.

Staff recommends that the City Council:

1. Close the Public Hearing on the Project approvals (Ordinance and Resolutions);
2. Approve for Second Reading and adopt Ordinance No. 706, amending the zoning designation of 27520 Hawthorne Blvd. from Commercial Office (C-O) to Commercial General (C-G)/Mixed-Use Overlay District;

4. Adopt Resolution No. 2372, adopting a Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the Project;
5. Adopt Resolution No. 2373, amending the General Plan Land Use Designation of 27520 Hawthorne Blvd. from Commercial Office to Commercial General (Mixed Use); and
6. Adopt Resolution No. 2374, approving Variances, Conditional Use Permit, and a Precise Plan of Design for the Project.

EXHIBITS

Separate

1. Ordinance No. 706
2. Resolution No. 2372
3. Resolution No. 2373
4. Resolution No. 2374

CITY OF ROLLING HILLS
ESTATES
THE VILLAGE/MERRILL GARDENS
PROJECT

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Prepared for:

CITY OF ROLLING HILLS ESTATES
4045 PALOS VERDES DRIVE NORTH
ROLLING HILLS ESTATES, CA 90274

Prepared by:

Michael Baker

INTERNATIONAL

3900 KILROY AIRPORT WAY, SUITE 120
LONG BEACH, CA 90806

JULY 2016

CITY OF ROLLING HILLS ESTATES

THE VILLAGE/MERRILL GARDENS PROJECT DRAFT INITIAL STUD/MITIGATED NEGATIVE DECLARATION

Prepared for:

CITY OF ROLLING HILLS ESTATES
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JULY 2016

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CITY OF ROLLING HILLS ESTATES INITIAL STUDY, ENVIRONMENTAL CHECKLIST

1. Project Title: The Village/Merrill Gardens at Rolling Hills Estates Project (PA-05-16)
2. Lead Agency Name and Address: City of Rolling Hills Estates
4045 Palos Verdes Drive North
Rolling Hills Estates, CA 90274
3. Contact Person and Phone Number: Jeannie Naughton, AICP, Senior Planner
(310) 377-1577
4. Project Location: 601 Silver Spur Road and 600 Deep Valley Drive
Assessor's Parcel Nos. 7589-002-010, -011, -012
Rolling Hills Estates, Los Angeles County, CA
(See Figures 1, 2, and 3: Regional Vicinity, Project Location, and Aerial Photograph of the Site, as well as Section 8, Description of Project, for additional details.)
5. Project Sponsor's Name and Address: Continental Development Corporation
Toni Reina
2041 Rosecrans Avenue, Suite 200
El Segundo, CA 90245
6. General Plan Designation: Commercial General – Mixed Use (Planning Area 6) and in the Hazards Management Overlay
7. Zoning: Commercial General
8. Description of Project:

Project Location

The project site is located at 601 Silver Spur Road and 600 Deep Valley Drive in Rolling Hills Estates, Los Angeles County, California. The project site comprises three parcels measuring a total of 3.13 acres in area, located at the southeast corner of Silver Spur Road and Drybank Drive. Specifically, the site is bounded by Silver Spur Road along the north, Drybank Drive along the west, Deep Valley Drive to the south, and the Peninsula Center Library to the east. The project site is located on the Torrance, California, 7.5-minute US Geological Survey (USGS) topographic quadrangle. See Figures 1 and 2, which illustrate the regional orientation of Rolling Hills Estates and the project location, respectively. Figure 3 depicts an aerial photograph of the project site.

The project site is in a suburban area of the city and is currently developed with The Village shopping center, which consists of four multitenant buildings. The buildings range in size from 4,200 to 20,800 square feet, resulting in a cumulative total of 46,230 square feet of retail and office space. The existing buildings are identified as follows:

Building A – Located at 601 Silver Spur Road, this is a 4,200-square-foot, one-story building at the northwest corner of the project site. The building is currently vacant and will be demolished as part of the project. Building A was not part of the original Village Shopping Center and does not function as part of the existing development. The applicant has acquired the property, and the existing building would be demolished to accommodate the proposed project.

Building B – Located at 627 Silver Spur Road, this is a two-story building located in the western portion of the project site. The building contains spaces for a variety of commercial and office uses; however, Yummy Yogurt is the only current tenant. Building B contains approximately 10,000 square feet of retail space on the upper level with storefronts that face south toward Deep Valley Drive. Additionally, a 1,075-square-foot retail space occupies a portion of the lower level, which faces west toward Drybank Drive. This building also contains parking on the lower level, which is accessed via Drybank Drive. The proposed project would maintain this building.

Building C – Located at 600 Deep Valley Drive, this is a 9,600-square-foot, single-story building occupied by a commercial real estate brokerage firm and a dry cleaning drop-off/pick-up business. The building is located at the corner of Deep Valley Drive and Drybank Drive, in the southwest corner of the project site. The proposed project would maintain this building.

Building D – Located at 627 Silver Spur Road, this is a two-story, split-level building located on the eastern side of the project site, adjacent to the existing library. The building contains approximately 10,400 square feet of floor space on each level. The lower-level retail is at grade facing north toward the existing parking lot along Silver Spur Road, while the upper-level retail is at grade facing south toward the existing parking lot along Deep Valley Drive. This building would be demolished to accommodate the proposed project.

Access to the site is currently provided via a number of driveways along Silver Spur Road, Drybank Drive, and Deep Valley Drive. The Village and the Palos Verdes Library District have reciprocal ingress, egress, and parking rights on/over each owner's property by virtue of a 1978 Construction, Operation, and Reciprocal Easement Agreement between The Village, the Palos Verdes Library District, and the City of Rolling Hills Estates. The property at 601 Silver Spur Road (at the northwest corner of the project site) is not a party to this agreement. Associated parking lots occupy the site, including 24 spaces on the property of Building A, 188 spaces in the surface parking lots in the remaining shopping center, and 26 parking spaces under Building B.

Project Characteristics

The proposed project involves subdividing the 3.13-acre site into two parcels: a 1.48-acre parcel (Parcel 1) to accommodate a residential care facility for the elderly (RCFE) and a 1.65-acre parcel (Parcel 2) that would maintain a portion of the existing commercial development as commercial condominiums and a new parking structure. Figure 4 presents the proposed parcel map.

Parcel 1

Parcel 1 would be developed with an assisted living facility (i.e., a residential care facility for the elderly), known as Merrill Gardens. To accommodate the assisted living facility, two existing commercial buildings measuring a total of 25,155 square feet will be demolished. One of the two buildings that will be demolished is located in the northwest portion of the site (at Drybank Drive

and Silver Spur Road) and the other is located in the eastern portion of the site adjacent to the library.

The proposed facility would consist of one four-story building measuring approximately 135,852 square feet in floor area, containing 94 assisted living units, 20 memory care units, approximately 16,255 square feet of indoor common amenity space, approximately 16,740 square feet of outdoor landscaped courtyards, and a partially subterranean parking facility under the building. Figures 5 through 7 depict the proposed site plan, floor plans, and elevations for the Merrill Gardens portion of the project. As illustrated in Table 1, the proposed 94 assisted living units would consist of a mixture of studios and one- and two-bedroom units distributed throughout the upper three levels, would measure between approximately 440 square feet and 1,240 square feet in size, and would each contain a kitchen. The proposed 20 memory care units would all be located on the first floor and would each measure approximately 360–390 square feet (with one semiprivate unit of approximately 745 square feet), but no cooking facility would be provided. Additional proposed on-site features and amenities include laundry facilities, activities and wellness centers, dining rooms, gathering rooms, a massage room and a salon, and a bistro.

Table 1
Proposed RCFE Unit Mix

Level	Memory Care (approximately 360–390 sf units*)	Studio (approximately 440–465 sf units)	1br/1ba (approximately 638–740 sf units)	2br/2ba (approximately 1,000–1,240 sf units)	Total
P1 (Parking Level)	—	—	—	—	—
L1	20	0	8	4	32
L2	0	14	23	4	41
L3	0	14	24	3	41
Total	20	28	55	11	114

* One semiprivate memory care unit is proposed of approximately 745 square feet.

Architecturally, the proposed project would utilize details of a residential craftsman style with articulated façades that would be enhanced with balconies and patios. Façade treatments and materials would include stacked stone, stucco, fiber cement roof shingles, and a hip-pitched roof design. The maximum height of the proposed building would measure 56 feet (top of stairwell) with the ridge of the roofline measuring 52 feet 1.5 inches.

Vehicular access would be provided from Silver Spur Road via two new curb cuts, an ingress-only driveway near the center of the project site leading to a resident loading/unloading area, the garage entry, and service access. Another egress-only driveway would be located near the northeast corner of the project site. The existing driveways along Silver Spur Road and Drybank Drive would be closed. The proposed project includes 63 on-site parking spaces in a partially subterranean parking facility located under the building footprint.

Parcel 2

Parcel 2 would maintain the remaining two multitenant buildings, one along the west side of the site and the other in the southwest portion. A modified version of The Village shopping center would continue to operate and occupy this portion of the site. The two remaining commercial buildings, measuring a total of 21,075 square feet, are anticipated to be occupied by a variety of

commercial, medical/dental, and office uses, including the Palos Verdes Peninsula Seniors organization.

The project also includes a 169-space parking structure, with one partially subterranean level and one aboveground level. Figures 8 through 9 depict the proposed site plan and elevations for The Village portion of the project. To accommodate the parking structure, 90 of the existing 116 parking stalls in the surface parking lot adjacent to the library would be removed. The project would also retain 26 existing parking spaces located under Building B. The redevelopment of Parcel 2 would result in a total of 221 parking stalls that would serve the commercial buildings on Parcel 2 and the abutting library. Direct access to the upper level of the proposed parking structure would be available via a reconstructed driveway along Deep Valley Drive, near the southeast corner of the project site. Access to the parking structure's lower level would also be provided from Deep Valley Drive via a new driveway. Internal circulation between parking levels is not proposed.

Construction

Construction of the proposed project involves demolition of Buildings A and D, grading for site preparation and to accommodate the proposed partially subterranean parking level, construction of the proposed RCFE building and parking deck, paving, painting/architectural coating, and landscaping. In total, construction of the project (considering both the RCFE and Village components) is anticipated to begin in late 2016/early 2017 and last for approximately two years.

A total of approximately 23,770 cubic yards of grading is proposed to accommodate the proposed project. The proposed grading activity involves cut and export of earth material, whereby approximately 15,550 cubic yards of grading would be conducted on Parcel 1 to accommodate the assisted living facility and approximately 8,220 cubic yards would be conducted on Parcel 2 to accommodate the new parking structure.

Requested Discretionary Approvals

The project includes the following entitlements: (1) Precise Plan of Design (PPD) to allow the proposed site and building improvements and the proposed signage along Silver Spur Road, (2) Conditional Use Permit (CUP) for the RCFE/assisted living use, (3) Master Conditional Use Permit to allow approximately 7,745 square feet of medical/dental use, (4) Tentative Parcel Map No. 72398 (2-lot subdivision) with condominium purposes on Parcel 2, (5) Grading Permit, and (6) variances for lot coverage, height, parking space dimensions and aisle width, landscaping, and setbacks. In addition, the applicant and the Palos Verdes Library District have agreed to terminate the existing reciprocal access easement agreement on Parcel 1 and create new reciprocal access and parking easement agreements between The Village and the Library District for Parcel 2.

The proposed project requires the following City discretionary actions:

Decision-Making Body	Action Required
Planning Commission	• Precise Plan of Design (PPD) • Conditional Use Permit (for RCFE/assisted living use) • Master Conditional Use Permit (for medical/dental use) • Tentative Parcel Map with condominium purposes on Parcel 2 • Grading Permit • Variances (lot coverage, height, parking space dimensions and aisle width, landscaping, and setbacks)

9. Surrounding land uses and setting:

Rolling Hills Estates is in the southwest portion of Los Angeles County on the Palos Verdes Peninsula. The peninsula consists of rolling hills surrounded by the Pacific Ocean on three sides (the south, east, and west) and by the Los Angeles Basin to the north. The project site is in the southern portion of the city, in General Plan Planning Area 6.

The surrounding area is currently fully developed. Figure 3 is an aerial photograph of the project site. The surrounding land uses include commercial and office buildings. To the west, across Drybank Drive, is the Peninsula Shopping Center and Promenade on the Peninsula. To the south, across Deep Valley Drive, is a four-story office building adjacent to a vacant parcel. Across Silver Spur Road to the north is a three-story office building, and the Peninsula Center Library abuts the site to the east. There are no residential uses in the immediate surrounding area. However, a mixed-use building with multi-family residential units atop ground-floor commercial space is currently under construction south of the project site across Deep Valley Drive.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

This document covers all approvals by government agencies that may be needed to construct, implement, or operate the project. At this time, no discretionary approvals are known to be required for the project by any public agencies other than the City of Rolling Hills Estates (the lead agency).

11. References

The documents listed below are incorporated into this document by reference and are available for review in the Planning Department of the City of Rolling Hills Estates, which is located in City Hall, 4045 Palos Verdes Drive North, Rolling Hills Estates, CA 90274, or as shown in the reference.

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- . 2012. *655–683 Deep Valley Drive and 924–950 Indian Peak Road Mixed Use Residential Project Draft Environmental Impact Report*.
- . 2014. *City Parks, Facilities, & Trails*. Accessed August 25, 2014. <http://www.ci.rolling-hills-estates.ca.us/index.aspx?page=109>.
- . n.d. *Rolling Hills Estates Municipal Code*. <https://library.municode.com/index.aspx?clientId=16587>.
- SCAG (Southern California Association of Governments). 2016. 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy.
- SCAQMD (South Coast Air Quality Management District). 1993. *CEQA Air Quality Handbook*.
- . 2008. Final Localized Significance Threshold Methodology. <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds#appc>.
- . 2009. Localized Significance Threshold Appendix C – Mass Rate LST Look-Up Tables. <http://www.aqmd.gov/ceqa/handbook/LST/LST.html>.
- . 2012. *2012 Air Quality Management Plan*. <http://www.aqmd.gov/aqmp/2012aqmp/index.htm>.
- SWRCB (State Water Resources Control Board). 2014. GeoTracker. Accessed May 16, 2016. <http://geotracker.waterboards.ca.gov/>.

12. Appendices

A. Traffic Impact Analysis and Parking Study

B. Air Quality and Greenhouse Gas Model Output

C. Noise Worksheets

D. Hazardous Material Documents

REPORT PREPARERS

The following consulting firm assisted the City of Rolling Hills Estates in the preparation of this Initial Study:

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Long Beach, CA 90806

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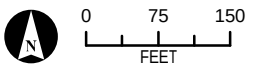


FIGURE 2
Project Location

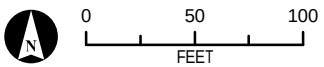
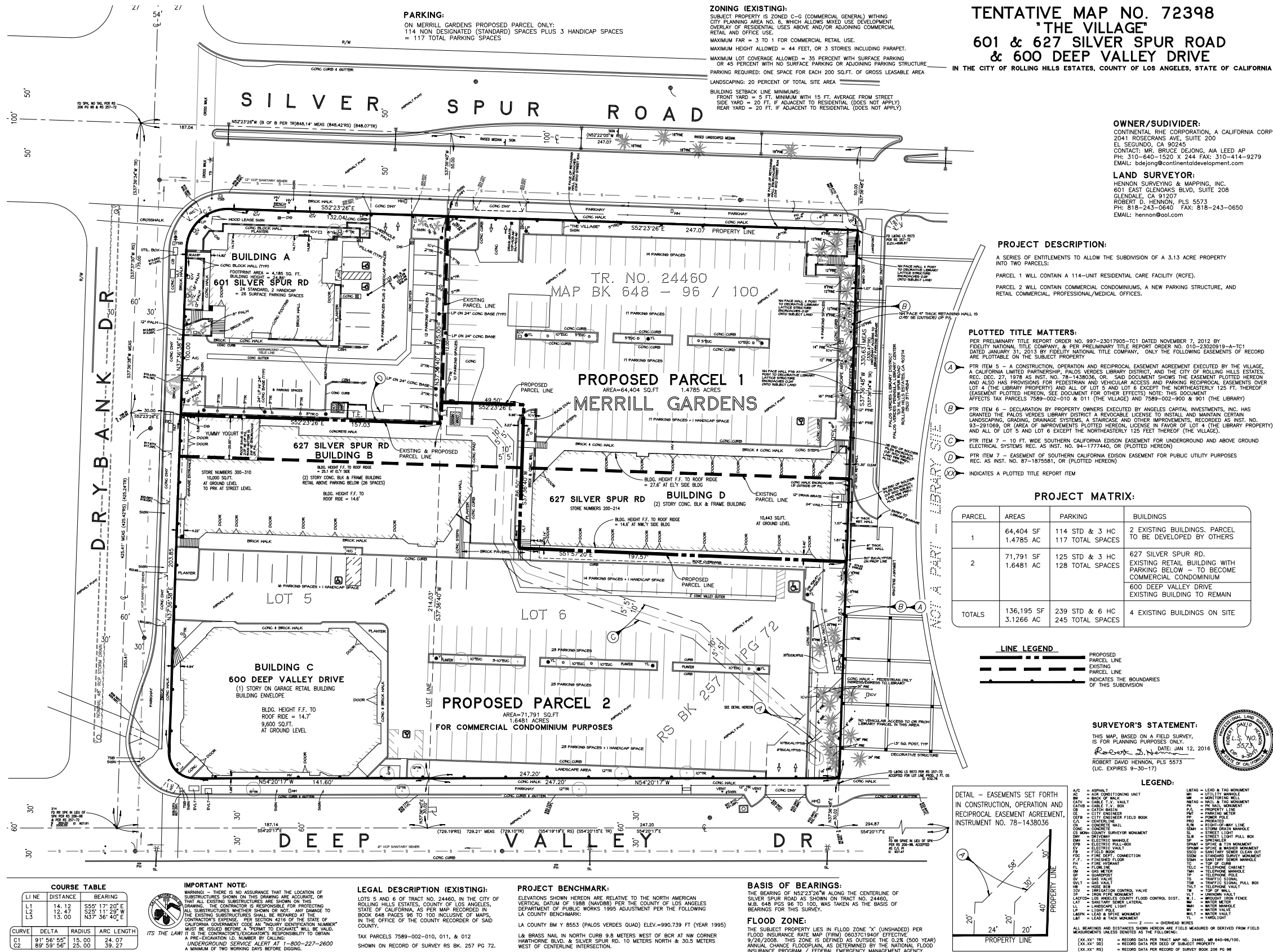


FIGURE 3
Aerial Photograph



Source: Hennon Surveying & Mapping, Inc.



FIGURE 4
Proposed Parcel Map
Michael Baker
INTERNATIONAL
B-16

Michael Baker
INTERNATIONAL
B-17

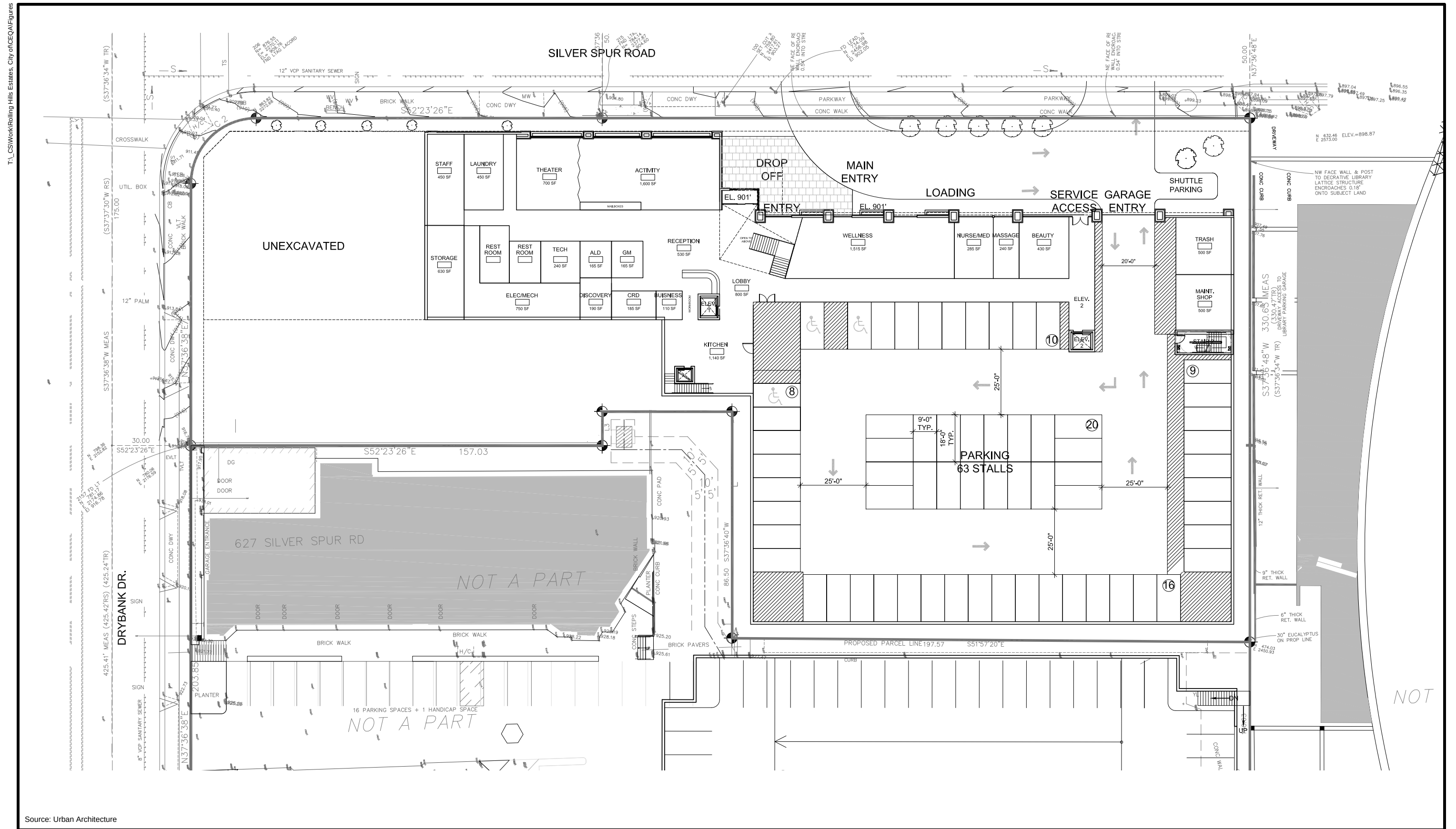
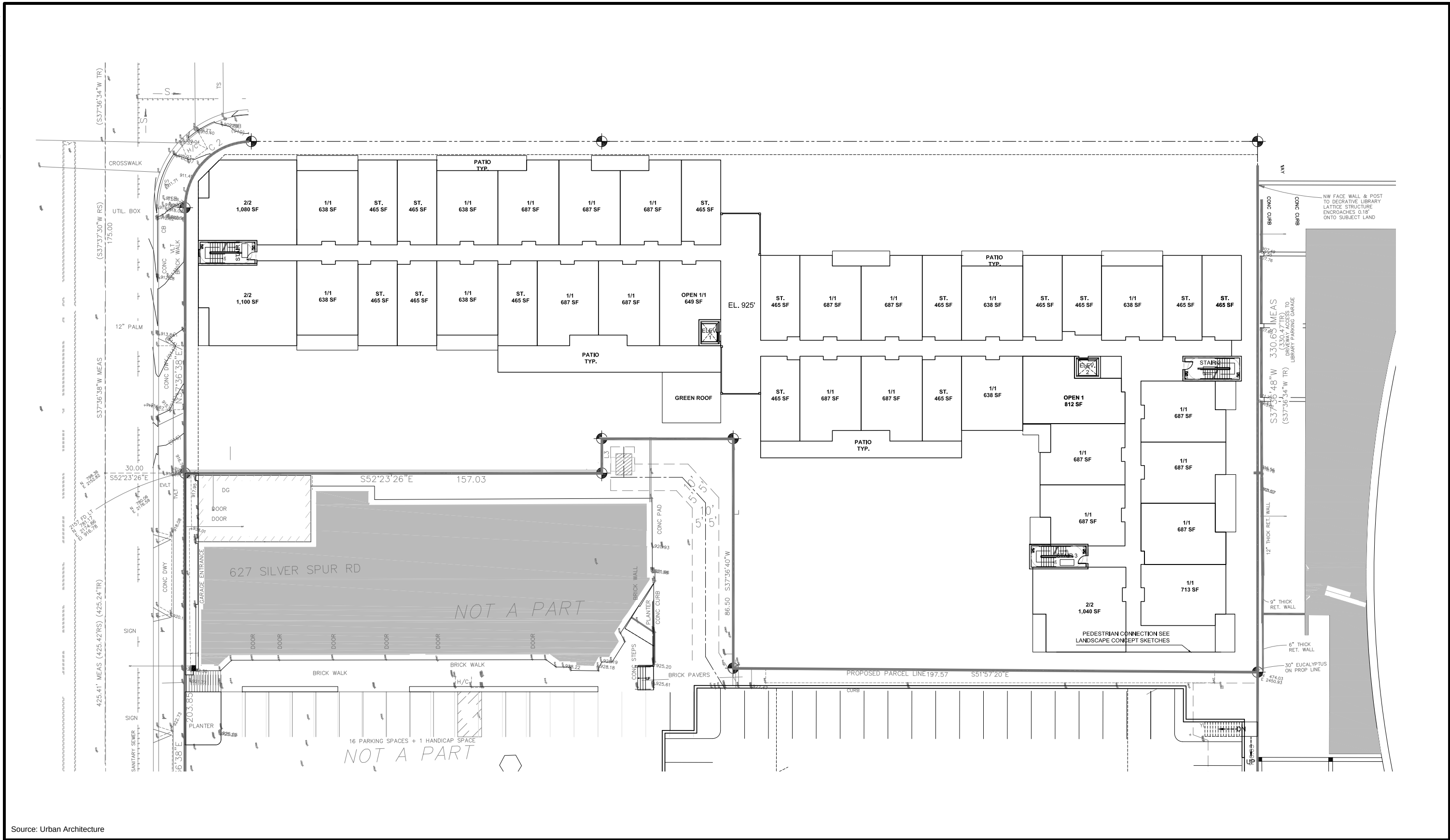


FIGURE 6A
Proposed First Floor Plan

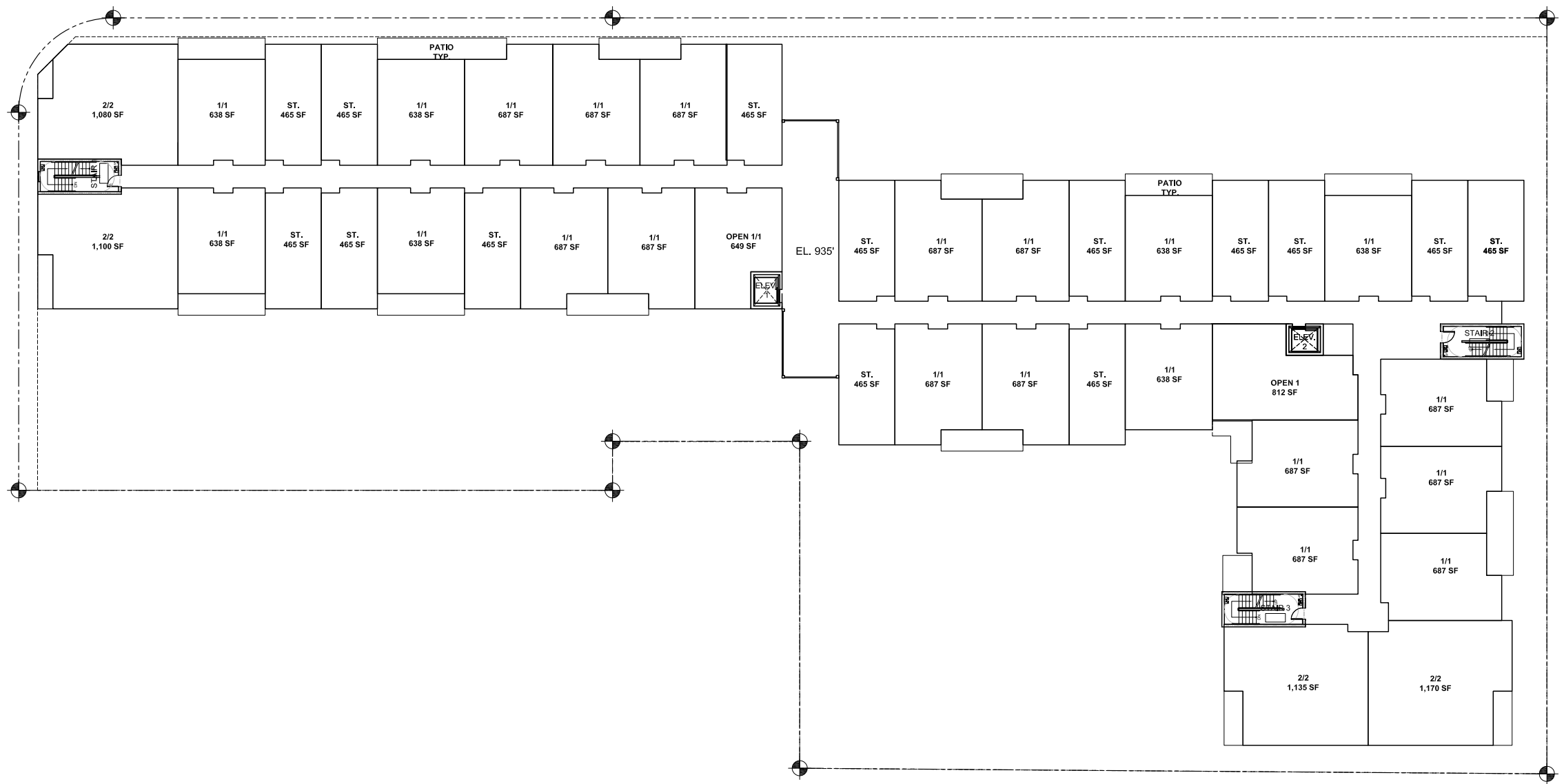


Source: Urban Architecture



Not To Scale

FIGURE 6B
Proposed Second Floor Plan

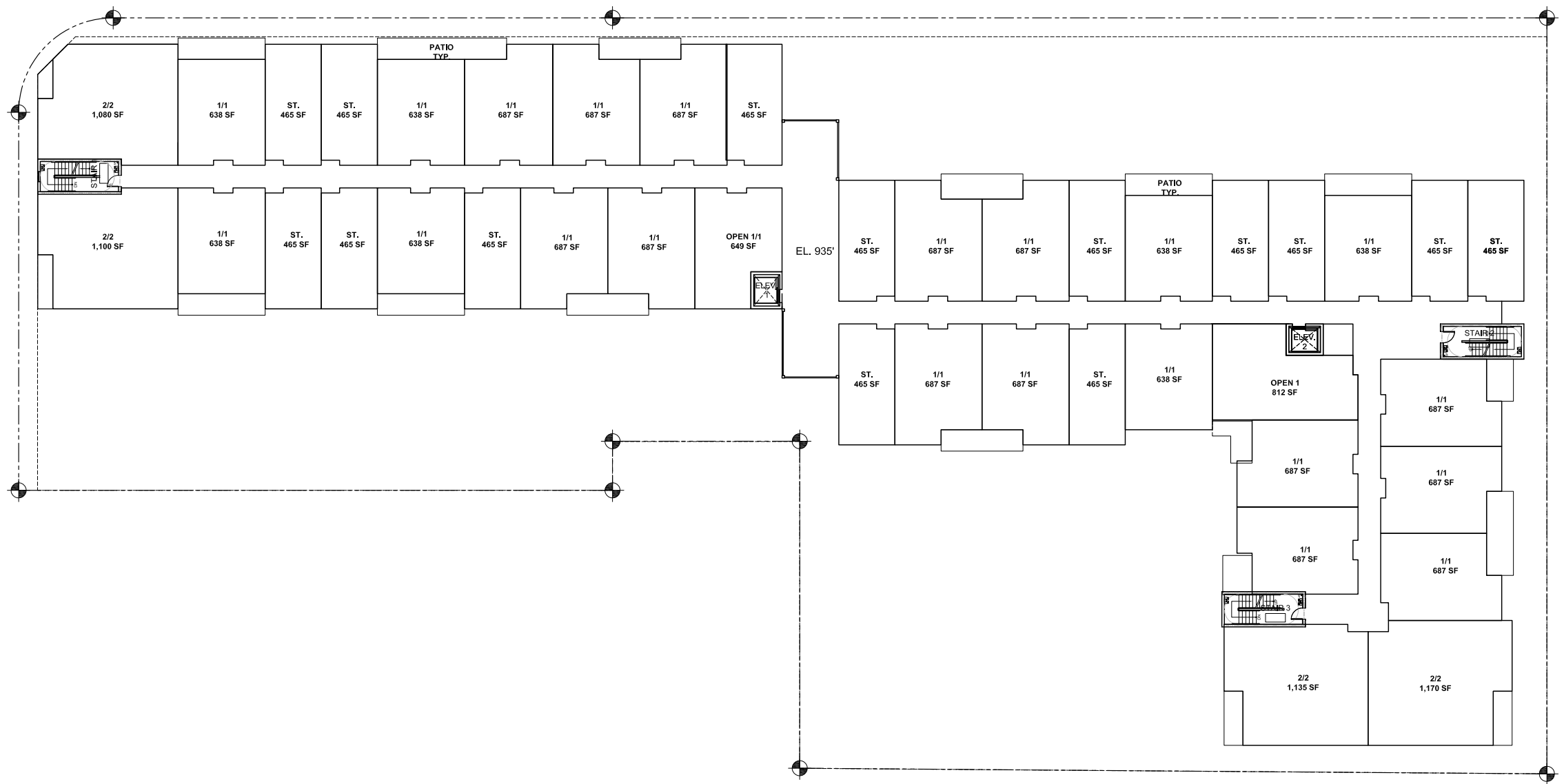


Source: Urban Architecture



Not To Scale

FIGURE 6C
Proposed Third Floor Plan

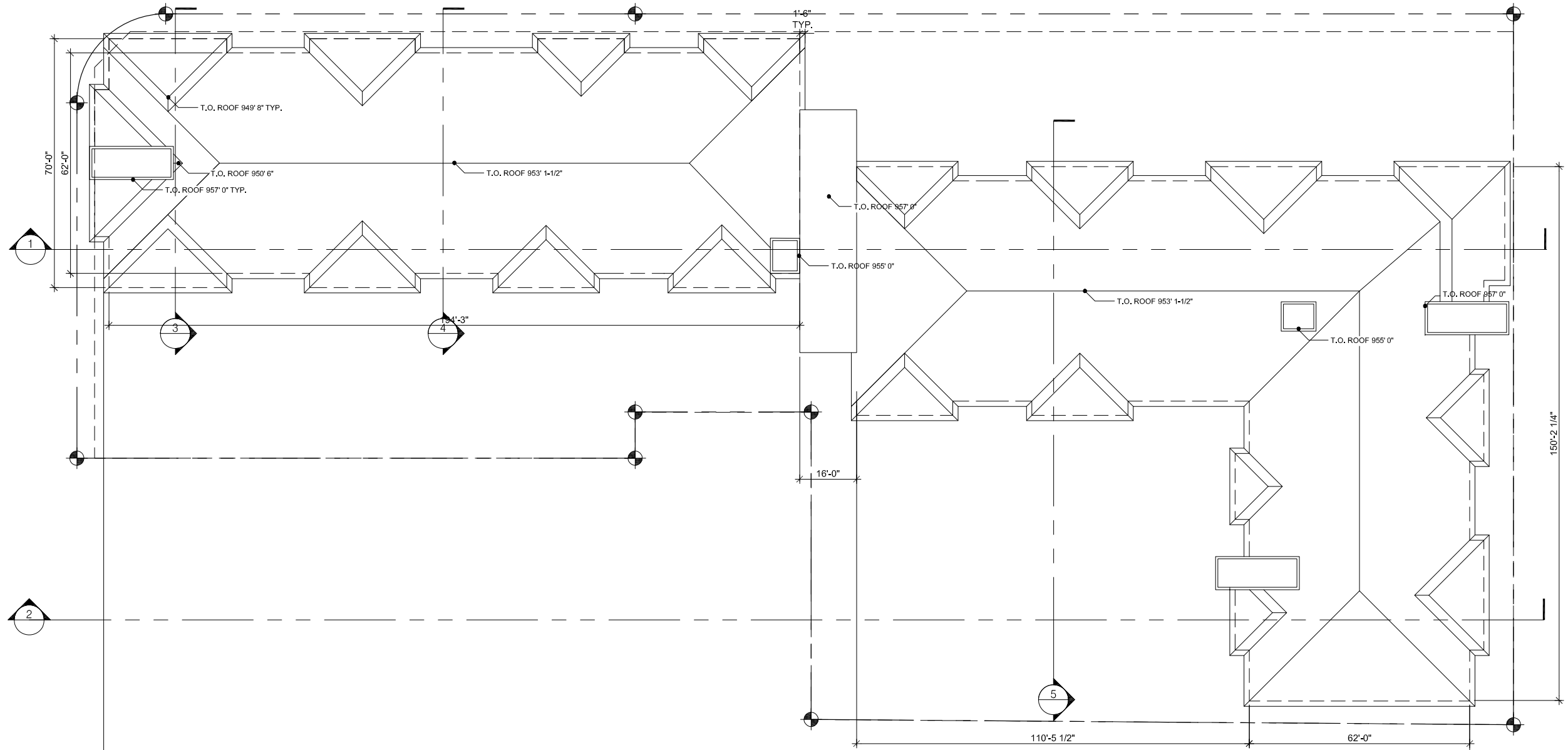


Source: Urban Architecture



Not To Scale

FIGURE 6D
Proposed Fourth Floor Plan



Source: Urban Architecture



Not To Scale

FIGURE 6E
Roof Plan



NORTH ELEVATION

FIBER CEMENT

FIBER CEMENT
COLUMNS

COMPOSITION
SHINGLES

FIBER CEMENT
SHINGLES

STOREFRONT

STACKED STONE

STUCCO

VINYL WINDOWS

DECORATIVE
LIGHTING

Source: Urban Architecture



Not To Scale

FIGURE 7A
Proposed Elevations



WEST ELEVATION

VINYL WINDOWS
COMPOSITION
SHINGLES
FIBER CEMENT
SHINGLES
STACKED STONE
STUCCO
FIBER CEMENT
FIBER CEMENT
COLUMNS



EAST ELEVATION

FIBER CEMENT
COLUMNS
VINYL WINDOWS
COMPOSITION
SHINGLES
FIBER CEMENT
STUCCO
STACKED STONE
FIBER CEMENT
SHINGLES

Source: Urban Architecture

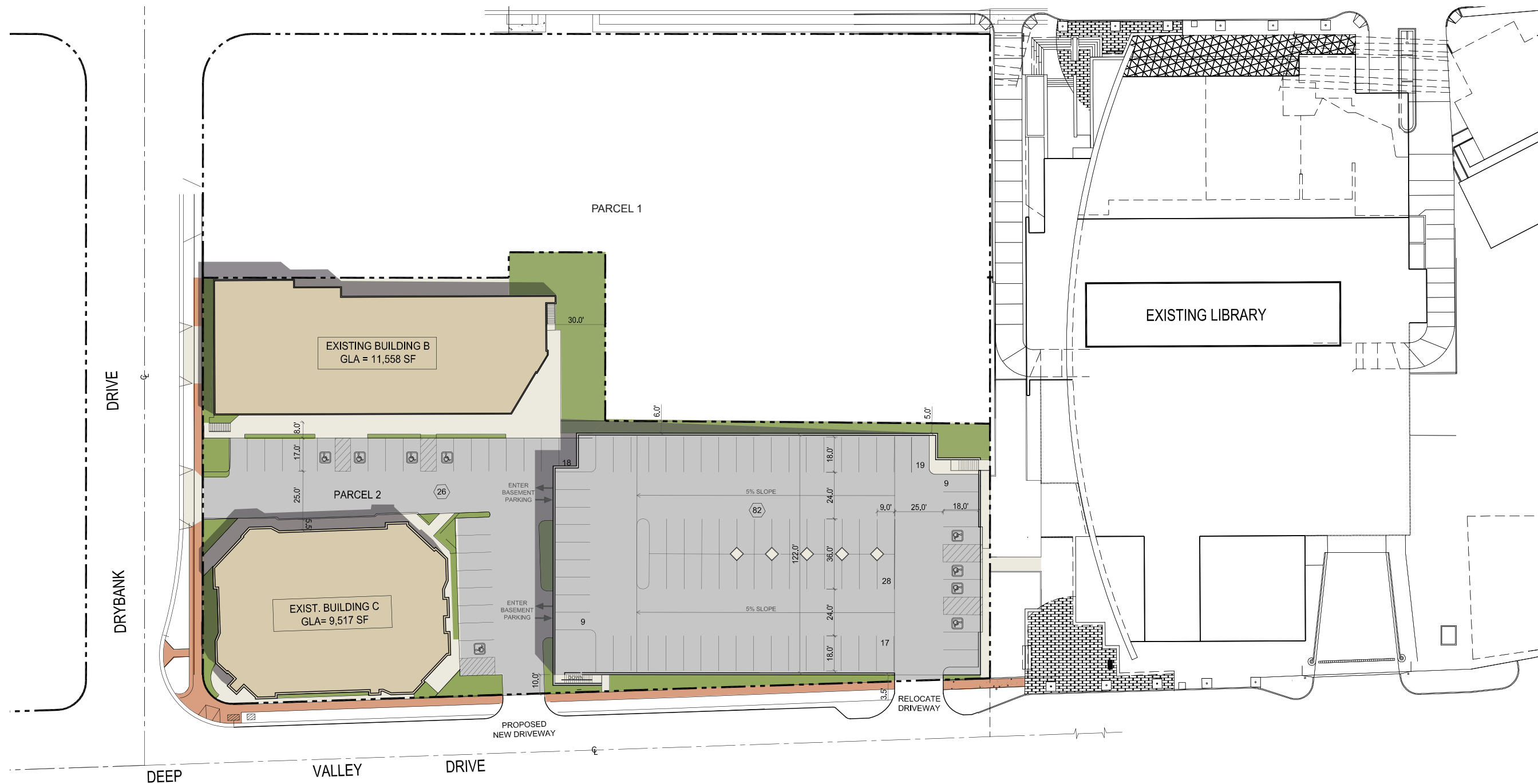
Not To Scale

FIGURE 7B
Proposed Elevations



Not To Scale

FIGURE 7C
Proposed Elevations



PROJECT SUMMARY

BUILDING NAME	ROLLING HILLS ESTATES, THE VILLAGE PARKING STRUCTURE	BUILDING B - BASEMENT Yummy Yogurt	GLA 1,035 SF	PARKING REQUIRED* 5 stalls
OWNER	CONTINENTAL RHE CORPORATION	BUILDING B - GRADE	10,523 SF	53 stalls
ADDRESS	627 SILVER SPUR RD, ROLLING HILLS ESTATES, CA	BUILDING C	9,517 SF	47 stalls
ZONE	COMMERCIAL GENERAL (CG) MIXED USE OVERLAY	BUILDING AREA TOTAL	21,075 SF	105 stalls required
		*1 stall per 200 SF of gross leasable area		
		9 ADA STALLS REQUIRED AND PROVIDED. EACH ADA STALL INCLUDES 108" WIDE ACCESS AISLE TO ACCOMMODATE VAN ACCESSIBLE PARKING SPACES.		

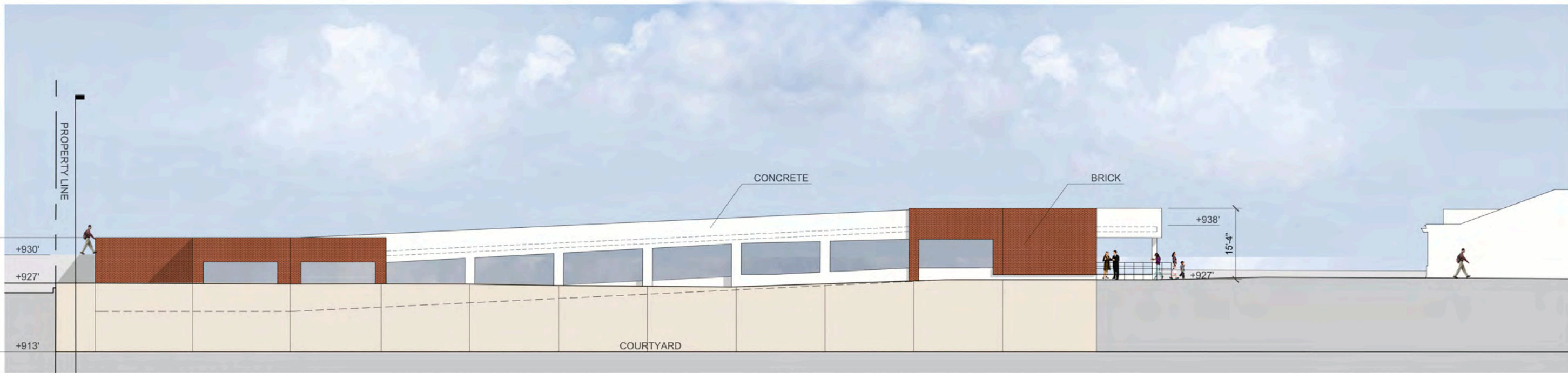
RETAIL PARKING SUMMARY	
BUILDING B BASEMENT	26 EXISTING STALLS
BUILDING B, C (SURFACE LOT)	26 EXISTING STALLS
PARKING LOWER DECK	87 STALLS
SUBTOTAL PARKING PROVIDED	139 STALLS (5 H.C. STALLS)
UPPER PARKING DECK	82 STALLS (4 H.C. STALLS)
TOTAL PARKING PROVIDED	221 STALLS (9 H.C. STALLS)
165 ADDITIONAL PARKING STALLS AT THE LIBRARY ARE AVAILABLE FOR THE RETAIL CENTER'S USE PER THE EXISTING RECIPROCAL PARKING EASEMENT BETWEEN THE TWO PROPERTIES	

PARCEL 1 AREA		74,754 SF
LANDSCAPE AREA	8,673 SF	12%
BUILDING COVERAGE RATIO	21,075 SF	29%
PARKING STRUCTURE	25,125 SF	35%

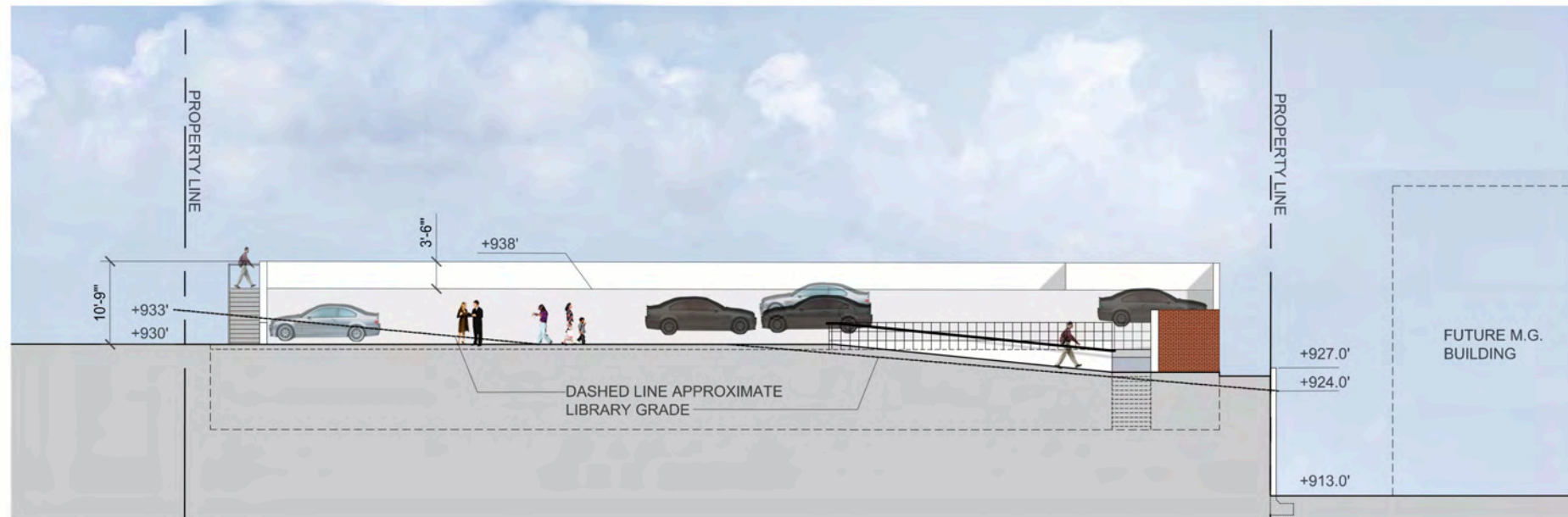
Source: Perkowitz + Ruth Architects



FIGURE 8
Proposed Site Plan – The Village



1 PARKING DECK NORTH ELEVATION
NOT TO SCALE



2 PARKING DECK EAST ELEVATION
NOT TO SCALE

Source: Perkowitz + Ruth Architects

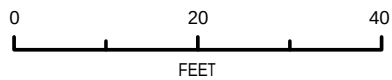
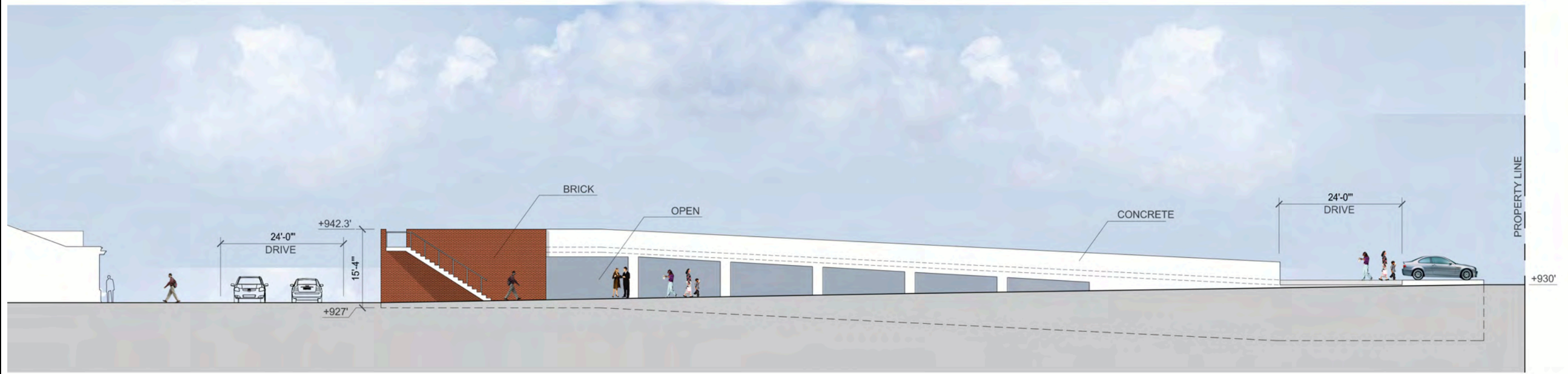
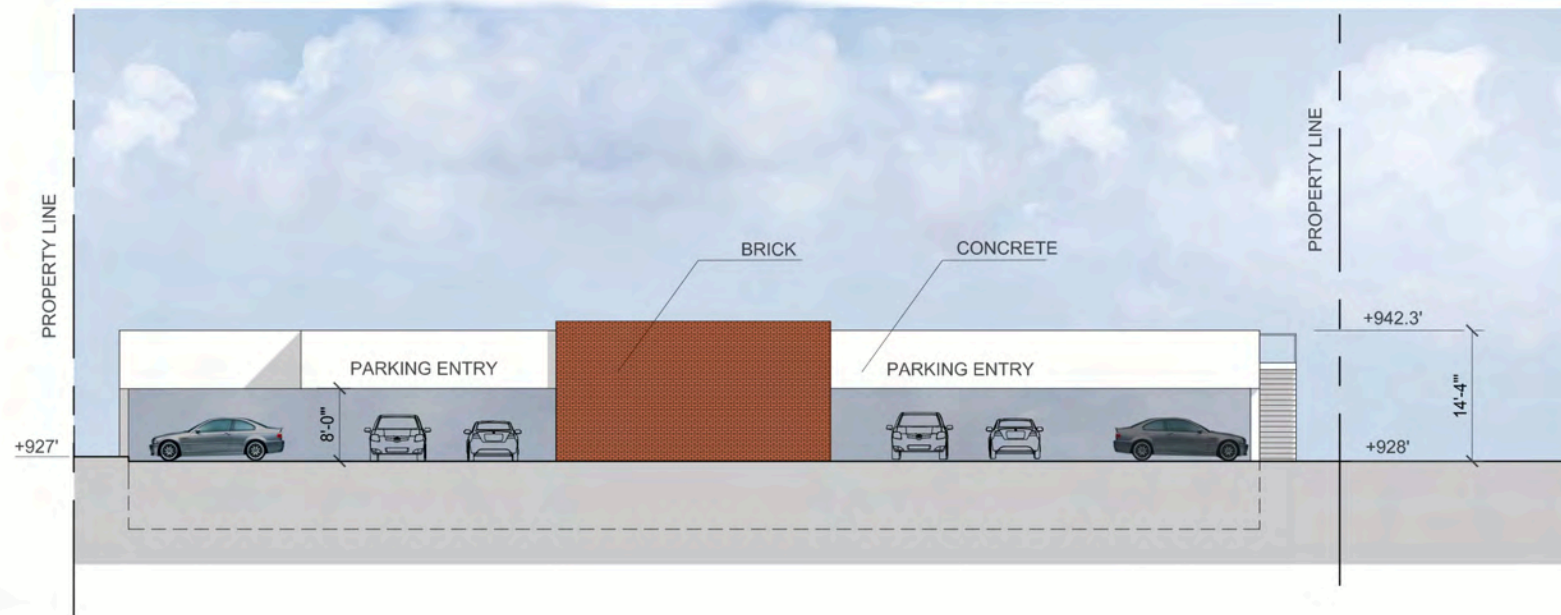


FIGURE 9A
Proposed Elevations – The Village Parking Structure



1 PARKING DECK SOUTH ELEVATION
NOT TO SCALE



2 PARKING DECK WEST ELEVATION
NOT TO SCALE

Source: Perkowitz + Ruth Architects

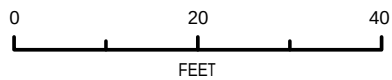
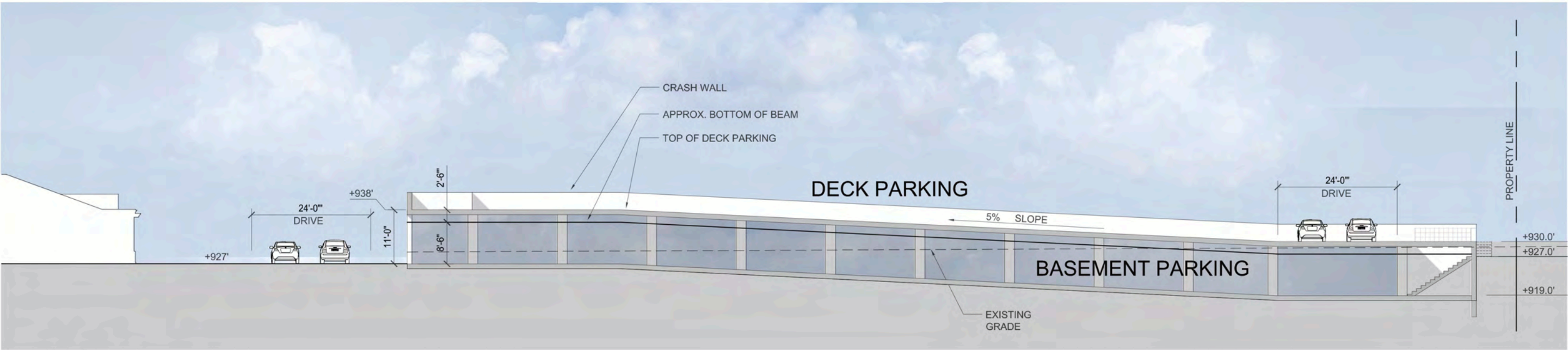


FIGURE 9B
Proposed Elevations – The Village Parking Structure



1 SECTION AA
NOT TO SCALE

Source: Perkowitz + Ruth Architects



FIGURE 9C
Proposed Elevations – The Village Parking Structure

INITIAL STUDY CHECKLIST

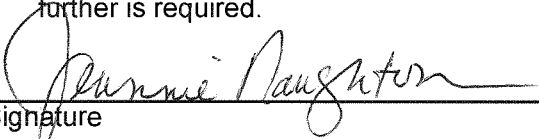
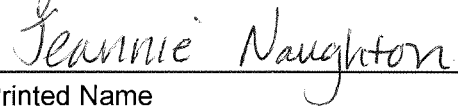
ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

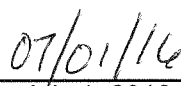
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages:

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

DETERMINATION: (To be completed by the lead agency) On the basis of this initial evaluation:

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


 Signature

 Printed Name


 Date: July 1, 2016
 City of Rolling Hills Estates
 For

EVALUATION OF ENVIRONMENTAL IMPACTS

- 1) A brief explanation is required for all answers, except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factor as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis.)
- 2) All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less Than Significant With Mitigation Incorporated,” describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should formally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) The significance criteria or threshold, if any, used to evaluate each question; and
 - b) The mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL CHECKLIST

I LAND USE AND PLANNING	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
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) Propose a use not currently permitted by the General Plan Use Map?	☐	☐	☐	☒
d) Propose a use not currently permitted by the Zoning Ordinance and Zoning Map?	☐	☐	☐	☒
e) Result in an increase in density beyond that permitted in the General Plan and Zoning Ordinance?	☐	☐	☒	☐
f) Have an architectural style or use building materials that are substantially inconsistent with neighborhood compatibility requirements?	☐	☐	☐	☒
g) Propose a use which is incompatible with surrounding land uses because of the difference in the physical scale of development, noise levels, light and glare, and traffic levels or hours of operation?	☐	☐	☒	☐
h) Detract substantially from the rural character, as defined in the Rolling Hills Estates General Plan?	☐	☐	☒	☐
i) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Explanation of Checklist Judgments

- I(a) No Impact. The project site is bounded by commercial, office, and institutional uses in a developed area of the city. In its existing condition, the 3.13-acre project site is developed with four multitenant commercial buildings and operates as The Village shopping center. The project site is currently designated and zoned as Commercial General in the City's General Plan and Zoning Ordinance, respectively, and no General Plan amendment or zone change is required for project implementation. Due to the built-out nature of the surrounding area and the project site, and since all proposed improvements would occur within the property limits, project implementation would not physically divide an established community and would cause no related impacts.
- I(b) Less Than Significant Impact. The project site is located in General Plan Planning Area 6 and is currently designated General Commercial-Mixed Use in the City's General Plan. The project site is also zoned Commercial General (C-G). Pursuant to Chapter 17.30 (C-G District) of the City's Municipal Code, senior independent living facilities and residential care facilities for the elderly are allowed in the C-G zone subject to approval of a Conditional Use Permit (CUP). The project would require variances from the standards in the City's Municipal Code for lot coverage, height,

parking space dimensions and aisle width, landscaping, and setbacks. In addition, the proposed PPD application includes both a freestanding sign and a wall-mounted sign along Silver Spur Road, which is a deviation from the limitations in Section 17.60.150(A) of the Rolling Hill Estates Municipal Code. However, the proposed deviations from the development standards and Code requirements would not result in any environmental impacts. See Response III(a, b) for an analysis of potential aesthetic impacts related to deviations from development standards and Response IV(h) for an analysis of potential parking impacts. In summary, the proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. Impacts in this regard would be less than significant.

- I(c, d) No Impact. As discussed in Response I(b), the project site is located in General Plan Planning Area 6 and is currently designated General Commercial-Mixed Use in the City's General Plan. The project site is also zoned Commercial General (C-G). Pursuant to Chapter 17.30 of the City's Municipal Code, senior independent living facilities and residential care facilities for the elderly are allowed uses in the CG zone subject to approval of a Conditional Use Permit (CUP). As such, the proposed project would cause no related impacts.
- I(e) Less Than Significant Impact. The project site is located in General Plan Planning Area 6. The project site is currently zoned General Commercial and the project proposes a residential care facility for the elderly. Although the proposed use is not a residential project, the proposed project could result in a nominal increase in the city's population. The city has a resident population of 8,223, based on California Department of Finance (DOF) data for the year 2015. Development of the project would increase the number of residents in the city by up to 208 (conservatively assuming 2 persons per assisted living unit, plus 1 person per memory care unit). Thus, based on the current population estimate in the city, the project would increase the number of residents to 8,431. However, the resulting density would not be beyond that which is permitted by the City's General Plan and Zoning Ordinance. Therefore, impacts relating to density would be less than significant.
- I(f) No Impact. Municipal Code Chapter 17.62 (Neighborhood Compatibility) lists standards and guidelines for neighborhood compatibility for new residential construction projects in the city. Since the proposed project does not include residential construction in a residential zoning district, Chapter 17.62 is not applicable to the project. As such, there would be no impacts.
- I(g) Less Than Significant Impact. The proposed project includes the demolition of two existing commercial buildings to accommodate a four-story (56 feet maximum height) residential care facility on the northern portion of the project site and a new two-level (15 feet 4 inches maximum height) parking structure on the southern portion. The proposed project would be similar in height and scale to the types of development found in the immediate area, as the surrounding area is developed with multistory structures. Specifically, the surrounding development pattern includes the Promenade on the Peninsula shopping center to the west, which is developed with multistory, multilevel commercial buildings, including a four-story parking structure. To the north and south of the site are three- and four-story office buildings with ground-floor and subterranean parking, while the multistory Peninsula Center Library abuts the site along the east. As viewed from Silver Spur Road, the roofline of the proposed Merrill Gardens building would be substantially similar to the roofline of the adjacent library to

the east and lower than the parking structure to the west (see Figure 7a). Further, the proposed use would not result in lighting, noise levels, traffic, or hours of operation that would be incompatible with the surrounding area. The proposed parking structure would provide a net increase in the number of parking spaces available in the area. Exterior lighting would be regulated by the City's development standards that require lighting to be appropriately located and designed so that light does not spill over onto adjacent properties or the public right-of-way. Thus, the proposed project would be compatible with the surrounding land uses and would not be out of scale with the surrounding development pattern. As such, impacts would be less than significant.

- I(h) Less Than Significant Impact. The project site is located in Planning Area 6, which is the primary commercial district in the city and the greater Palos Verdes Peninsula. The project site is in a developed area of the city that contains a variety of land uses and multistory buildings, and is currently developed with multitenant, multistory commercial buildings that function as a shopping center. The proposed project would complement the adjacent structures and uses in the area and would continue to be consistent with the area's development pattern. Thus, the proposed project would be consistent with the development type and scale in Planning Area 6 and in the immediate area, would complement adjacent structures, and would not substantially alter the character of the city. As such, the impacts would be less than significant.
- I(i) No Impact. There is presently no adopted habitat conservation plan (HCP), natural community conservation plan (NCCP), or other approved local, regional, or state habitat conservation plan on the site or in the surrounding area. Implementation of the proposed project would not interfere with any current local, regional, or state HCPs or NCCPs. As such, there would be no impacts.

II RECREATION & OPEN SPACE	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Result in the loss of any City-designated areas for hiking or horse or bicycle riding?	☐	☐	☒	☐
b) Reduce the ratio of parkland in the city to below 6.7 acres per 1,000 residents as designated in the General Plan?	☐	☐	☒	☐
c) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the open space would occur or be accelerated?	☐	☐	☒	☐
d) Individually or cumulatively considered result in a loss of any (i) existing parkland, (ii) open space, as defined by the Rolling Hills Estates General Plan, (iii) private or public recreational facilities as defined by the Rolling Hills Estates General Plan for recreational purposes and/or (iv) the replacement of privately owned public recreational facility as defined by the General Plan with non-recreational facilities as defined in the General Plan?	☐	☐	☒	☐

Explanation of Checklist Judgments

II(a–d) Less Than Significant Impact. The proposed project includes the development of an assisted living facility and a parking structure on a project site that is currently developed with commercial buildings and uses. The proposed project would not result in the removal or alteration of an existing recreational facility or substantially increase the demand for recreational facilities. Further, the proposed project would not result in the loss of any existing hiking trails, horse or bicycle riding facilities, parkland, open space, or other public or private recreational facilities.

The City of Rolling Hills Estates owns and operates eight public parks, the George F. Canyon Nature Preserve, equestrian and bicycle trails, and a community center. In addition, the City owns and operates the approximately 7-acre Peter Weber Equestrian Center, consisting of fee-based municipal stables and boarding facilities. The 28-acre Chandler Preserve is also located in the city and owned and operated by the Palos Verdes Land Conservancy. The city parks (improved and unimproved) and George F. Canyon Nature Preserve have a total area of 115.5 acres. The city has more than 20 miles of bridle trails and 10 miles of bicycle paths maintained for the recreational enjoyment of the community (Rolling Hills Estates 2014).

As indicated above, the city has a resident population of 8,223, based on California Department of Finance (DOF) data for the year 2015. This population is served by the 79.5 acres of existing parkland, which equates to a ratio of 9.6 acres of parkland per 1,000 residents. This figure meets and exceeds City policy to increase the ratio of open space in the city beyond 6.7 acres for every 1,000 residents. Development of the project would increase the number of residents in the city by up to 208 (2 persons per assisted living unit, plus 1 person per memory care unit). Based on the current population estimate in the city, the project would increase the number of residents to 8,431. This increase in population would not decrease the ratio of parks acreage per resident below the City standard, nor would the project increase the use of existing

neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the open space would occur or be accelerated. As such, impacts related to recreation would be less than significant.

III AESTHETICS	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Not meet the Rolling Hills Estates development standards or neighborhood compatibility standards in a substantial manner?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (i.e., development standards, design guidelines, etc.)?	☐	☐	☒	☐
c) Include new electrical service box and utilities lines above ground?	☐	☐	☐	☒
d) Be located within a view corridor and include unscreened outdoor uses or equipment inconsistent with the rural character, as defined by the City of Rolling Hills Estates General Plan?	☐	☐	☒	☐
e) Result in the loss of any (i) Environmentally Sensitive Area as defined by the City of Rolling Hills Estates, (ii) natural undeveloped canyon, or (iii) hillside area?	☐	☐	☐	☒
f) Obstruct the public's view of (i) scenic resources or (ii) a scenic corridor or (iii) vista as identified (on a case-by-case basis)?	☐	☐	☒	☐
g) Contrast with the surrounding development and/or scenic resources due to the project's height, mass, bulk, grading, signs, setback, color, or landscape?	☐	☐	☒	☐
h) Be located along a City-designated scenic or view corridor and contrast with the surrounding development and/or scenic resources due to the project's height, mass, bulk, grading, signs, setback, color, or landscape?	☐	☐	☒	☐
i) Substantially: (i) remove natural features, or (ii) add man-made features, or (iii) structures which degrade the visual intactness and unity of the scenic corridor or vista?	☐	☐	☒	☐
j) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area that will exceed the standards established in the Municipal Code, illuminate areas outside the project boundary, and use excessive reflective building material?	☐	☐	☒	☐
k) Include roadway improvements that will result in a substantial decrease of open space or trees?	☐	☐	☒	☐
l) Include roadway improvements that are not consistent with the surrounding landscape?	☐	☐	☒	☐
m) Result in the installation of a traffic signal that is not justified by signal warrants or documented roadway hazards?	☐	☐	☐	☒
n) Result in the installation of a traffic signal in a residential neighborhood?	☐	☐	☐	☒

Explanation of Checklist Judgments

- III(a, b) Less Than Significant Impact. As discussed in Response I(f), Municipal Code Chapter 17.62 (Neighborhood Compatibility) lists standards and guidelines for neighborhood compatibility for new residential construction projects in the city. However, since the proposed project does not include residential construction in a residential zoning district, the ordinance is not applicable to the project. Notwithstanding, the surrounding and nearby buildings include a variety of multistory buildings, including parking structures. The proposed project is designed to aesthetically blend with the surrounding area by incorporating similar heights and number of stories, exterior colors and materials that are found in the immediate area, and building massing and articulation. The proposed project, however, does not comply with Municipal Code standards that regulate lot coverage, landscaping, height, and setbacks, therefore requiring a variance application to deviate from the standards. The Code allows the submittal of a variance application to request deviations from development standards, provided certain findings are made that justify the requested deviation. In addition, the proposed PPD application includes both a freestanding sign and a wall-mounted sign along Silver Spur Road, which is a deviation from the limitations in Section 17.60.150(A) of the Rolling Hill Estates Municipal Code. The proposed deviations from development standards for lot coverage, landscaping, and setback standards and from signage limitations would not result in any environmental impacts, as the proposed density and site layout would be consistent with other properties in the vicinity. The project includes a maximum building height of 56 feet, which exceeds the maximum 44-foot height limit established by the underlying Commercial General (C-G) zone. The additional 12 feet of building height would not result in a significant aesthetic impact since the surrounding area is developed with multistory buildings of similar heights. Further, the overall height of the proposed project would be similar to other structures in the area and would not be out of scale with the existing development pattern. Likewise, the proposed sign plan is consistent with the signage of surrounding properties in terms of both the number and size of signs. Thus, with approval of the associated variance applications and PPD, the proposed project would not conflict with any applicant plan, policy, or adopted regulation, and the impacts would be less than significant.
- III(c) No Impact. The project site would be required to connect to existing utilities, which are currently in place since the project site is currently improved as a multitenant shopping center. In addition, according to the project plans, installation of new aboveground utility lines or service boxes is not proposed with the proposed project. Lastly, in accordance with the City's Municipal Code, electrical service boxes and new utility lines would be required to be underground. As such, there would be no impact.
- III(d, f-h) Less Than Significant Impact. The project site is located along Silver Spur Road, which is identified as a scenic corridor in Exhibit 5-2 of the City's General Plan Conservation Element. Because of the existing urban development on the project site and the urban development pattern in the area, including the height, bulk, and mass of existing buildings, development of the proposed project is not anticipated to result in a substantial change in views from Silver Spur Road. The project would not substantially obstruct or impair any distant views from along Silver Spur Road since the roadway is at a slightly lower grade elevation than the project site and the site is surrounded by existing buildings. Thus, there are no views through the project site from Silver Spur Road that would be blocked as a result of the project. The proposed project would not substantially obstruct views or vistas, would not install unscreened equipment, and

would not damage any scenic resources along Silver Spur Road. As further analyzed in Responses I(g), I(h), and III(a, b), the proposed project is consistent with surrounding development in terms of type, height, and mass. Therefore, the project's impacts on designated scenic corridors and views are less than significant.

III(e) No Impact. The proposed project would not result in the loss of any Environmentally Sensitive Areas, undeveloped canyons, or hillside areas. The project site is located in a fully developed area and is also a fully developed site. There are no natural features on the site that would be removed as a result of project. The project site is not identified as being in an Environmentally Sensitive Area. Therefore, the proposed project would have no impact related to the loss of an Environmentally Sensitive Area, natural undeveloped canyon, or hillside area.

III(i) Less Than Significant Impact. As discussed in Responses III(d, f–h) and III(e), the project site is currently developed and devoid of any natural features and is in an urbanized area of the city. The proposed project would be similar in type, height, and mass to other existing, multistory buildings in the area. The project would not introduce a new style or development pattern in the area and would not degrade the visual intactness and unity of the Silver Spur Road scenic corridor. As such, any impacts related to aesthetics would be less than significant.

III(j) Less Than Significant Impact. The project site is currently developed as a multitenant shopping center in a developed portion of the city. Current lighting on the site includes parking lot light standards, lighting in the interior tenant spaces, and lighting associated with signage throughout the property. The proposed project's lighting would be comparable to the existing lighting levels and consistent with the lighting levels of the adjacent commercial, office, and institutional uses. Further, the lighting associated with the proposed project would be required to comply with all Municipal Code standards and restrictions with regard to lighting. In accordance with these standards and restrictions, lighting would be designed to be contained within the project site, and light spillover and glare would be reduced by design features (e.g., light shielding). The City's Municipal Code restricts the maximum allowable wattage and lumens of individual light fixtures (Section 17.42.030). Thus, compliance with the code requirements ensures that any lighting impacts of the proposed project would be less than significant.

Lastly, the proposed buildings would not be constructed with reflective materials on the façades or roofs. The proposed exterior building materials include stucco on the walls and clay for the roof tiles, which are not reflective materials. Although other architectural materials may be used that could create glare (such as wrought iron), any associated glare is not anticipated to have an adverse effect. Thus, any related impacts are less than significant.

III(k, l) Less Than Significant Impact. Development of the RCFE would include closing existing ingress/egress driveways to the site and installing new driveways that would result in the removal of several trees along Silver Spur Road. Development of the parking structure includes modifications to the existing ingress/egress driveway at the southeast corner of the project site along Deep Valley Drive, which would result in the loss of trees. Although trees would be removed, the project proposes to plant new trees along the abutting property lines. As a result, there would be no net decrease in the number of trees on the site or in the public rights-of-way. The roadway improvements would not be inconsistent with the surrounding landscape and would include landscaping consistent with the surrounding areas. Therefore, the potential

aesthetic impacts of the project's circulation improvements would be less than significant.

- III(m, n) No Impact. The project does not include the installation of a traffic signal, and the proposed improvements to the site are not anticipated to trigger any traffic signal warrants. Therefore, no impact would occur.

IV TRANSPORTATION/TRAFFIC	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Itself, or when cumulatively considered result in a traffic impact. A change in level of service (LOS) from C to D or D to E is a traffic impact. Within LOS C or D, a change in ICU value greater than 0.02 is an impact and within LOS E or F a change in ICU greater than 0.01 is an impact. For unsignalized intersections, an impact occurs when the addition of project traffic increases the level of service to an unacceptable level (less than LOS C)?	☐	☐	☒	☐
b) Trigger one or more signal warrants?	☐	☐	☒	☐
c) Include design features, uses, or traffic volumes that may cause traffic hazards such as sharp curves, tight turning radii from streets, limited roadway visibility, short merging lanes, uneven road grades, pedestrian, bicycle or equestrian safety concerns, or any other conditions determined by the City Traffic Engineer to be a hazard?	☐	☐	☐	☒
d) Result in additional access points on arterial streets as defined by the General Plan?	☐	☐	☒	☐
e) Result in a residential project that will result in a secondary access point?	☐	☐	☐	☒
f) Create one or more access points on a roadway that is not the primary frontage?	☐	☐	☐	☒
g) Create a flag lot adjacent to an arterial street, as defined by the General Plan?	☐	☐	☐	☒
h) Result in inadequate parking capacity as determined by the City in evaluating the reasonably foreseeable demands of the specific project?	☐	☐	☒	☐
i) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☒	☐

The discussion and analysis in this section are based on the traffic impact analysis for the proposed project prepared by Fehr & Peers (May 2016; see Appendix A). Fehr & Peers estimated trip generation estimates for the project using a combination of (1) standard rates from *Trip Generation, 9th Edition* (Institute of Transportation Engineers [ITE] 2012) and (2) trip generation rates for similar sites from existing traffic impact analysis reports. For the project's senior center component (i.e., Palos Verdes Peninsula Seniors tenant space), Fehr & Peers utilized rates from the Huntington Beach Senior Center Final Subsequent Environmental Impact Report, which developed rates based on counts at senior centers in Newport Beach and Huntington Beach. Credits for transit, biking, and walking were considered but were not included in the trip generation because of the project site's location and existing travel behavior in the area. Credits for the existing land use, The Village shopping center, were also factored into the trip generation. Fehr & Peers consulted with Rolling Hills Estates city staff and determined that the number of occupied beds should be used in place of the total number of beds to calculate the trip generation for the RCFE units in order to produce a more conservative trip generation estimate. Trip generation for the midday peak period was assumed to be equal to trip generation

in the PM peak period because neither ITE nor empirical studies provide trip generation estimates for the midday peak period.

The project is forecast to generate a net decrease of 740 daily trips, including a decrease of 24 trips (12 inbound/12 outbound) during the midday peak hour and 24 trips (12 inbound/12 outbound) during the PM peak hour. However, during the AM peak hour, the project is forecast to generate a net increase of 32 trips (29 inbound/3 outbound).

The following eight key study intersections were selected for evaluating existing, existing plus project, and cumulative projects traffic conditions:

1. Hawthorne Boulevard at Palos Verdes Drive North
2. Crenshaw Boulevard at Palos Verdes Drive North
3. Hawthorne Boulevard at Silver Spur Road
4. Silver Arrow Drive at Silver Spur Road
5. Norris Center Drive at Silver Spur Road
6. Drybank Drive at Silver Spur Road
7. Beechgate Drive at Silver Spur Road
8. Crenshaw Boulevard at Silver Spur Road

Table IV-1 summarizes the existing 2016 levels of service, which illustrates that none of the eight intersections are currently operating at poor levels of service (i.e., LOS E or F) during any of the analyzed peak hours. The proposed project's forecast traffic volumes were added to the existing conditions and analyzed to determine potential operating conditions and traffic impacts with the addition of project-generated traffic. As illustrated in Table IV-1, it was determined that the proposed project would not result in significant impacts at any of the eight study intersections.

Table IV-1
Existing Conditions Intersection Level of Services and Significant Impact Analysis

ID	N/S Street Name	E/W Street Name [a]	Analyzed Period	Existing		Existing Project +		Project Increase in V/C	Significant Impact
				V/C or Delay	LOS	V/C or Delay	LOS		
1	Hawthorne Blvd	Palos Verdes Drive North	AM	0.839	D	0.839	D	0.000	NO
			MD	0.606	B	0.606	B	0.000	NO
			PM	0.631	B	0.630	B	-0.001	NO
2	Crenshaw Blvd	Palos Verdes Drive North	AM	0.812	D	0.813	D	0.001	NO
			MD	0.660	B	0.660	B	0.000	NO
			PM	0.727	C	0.725	C	-0.002	NO
3	Hawthorne Blvd	Silver Spur Road	AM	0.692	B	0.698	B	0.006	NO
			MD	0.657	B	0.657	B	0.000	NO
			PM	0.720	C	0.718	C	-0.002	NO
4	Silver Arrow Drive	Silver Spur Road	AM	0.490	A	0.494	A	0.004	NO
			MD	0.575	A	0.575	A	0.000	NO
			PM	0.468	A	0.466	A	-0.002	NO
5	Norris Center Drive	Silver Spur Road	AM	0.409	A	0.414	A	0.005	NO
			MD	0.469	A	0.469	A	0.000	NO

ID	N/S Street Name	E/W Street Name [a]	Analyzed Period	Existing		Existing + Project		Project Increase in V/C	Significant Impact
				V/C or Delay	LOS	V/C or Delay	LOS		
			PM	0.432	A	0.430	A	-0.002	NO
6	Drybank Drive	Silver Spur Road	AM	0.300	A	0.314	A	0.014	NO
			MD	0.478	A	0.478	A	0.000	NO
			PM	0.501	A	0.495	A	-0.006	NO
7	Beechgate Drive	Silver Spur Road	AM	0.454	A	0.460	A	0.006	NO
			MD	0.439	A	0.439	A	0.000	NO
			PM	0.451	A	0.447	A	-0.004	NO
8	Crenshaw Blvd	Silver Spur Road	AM	0.687	B	0.697	B	0.010	NO
			MD	0.680	B	0.680	B	0.000	NO
			PM	0.729	C	0.723	C	-0.006	NO

Source: Fehr & Peers 2015; see Appendix A

To account for other large development projects in the area and to analyze how traffic generation from those projects could impact the eight study intersections, a cumulative analysis was also conducted. Table IV-2 summarizes the peak-hour level of service results at the eight key study intersections for cumulative and cumulative plus project traffic conditions. As shown in Table IV-2, it was determined that the traffic resulting from the other projects plus the traffic generated from the proposed project would not result in significant cumulative impacts at any of the eight study intersections when compared to the City's level of service standards and significant traffic impact criteria.

Table IV-2
Cumulative Conditions Intersection Level of Service and Significant Impact Analysis

ID	N/S Street Name	E/W Street Name [a]	Analyzed Period	Cumulative		Cumulative + Project		Project Increase in V/C	Significant Impact
				V/C or Delay	LOS	V/C or Delay	LOS		
1	Hawthorne Blvd	Palos Verdes Drive North	AM	0.870	D	0.870	D	0.000	NO
			MD	0.633	B	0.633	B	0.000	NO
			PM	0.658	B	0.657	B	-0.001	NO
2	Crenshaw Blvd	Palos Verdes Drive North	AM	0.832	D	0.835	D	0.003	NO
			MD	0.687	B	0.685	B	-0.002	NO
			PM	0.765	C	0.763	C	-0.002	NO
3	Hawthorne Blvd	Silver Spur Road	AM	0.715	C	0.720	C	0.005	NO
			MD	0.681	B	0.679	B	-0.002	NO
			PM	0.742	C	0.742	C	0.000	NO
4	Silver Arrow Drive	Silver Spur Road	AM	0.501	A	0.505	A	0.004	NO
			MD	0.589	A	0.587	A	-0.002	NO
			PM	0.480	A	0.478	A	-0.002	NO
5	Norris Center Drive	Silver Spur Road	AM	0.419	A	0.423	A	0.004	NO
			MD	0.480	A	0.479	A	-0.001	NO
			PM	0.442	A	0.441	A	-0.001	NO
6	Drybank Drive	Silver Spur Road	AM	0.314	A	0.327	A	0.013	NO
			MD	0.496	A	0.491	A	-0.005	NO
			PM	0.519	A	0.513	A	-0.006	NO
7	Beechgate Drive	Silver Spur Road	AM	0.466	A	0.472	A	0.006	NO
			MD	0.452	A	0.450	A	-0.002	NO

			PM	0.463	A	0.459	A	-0.004	NO
8	Crenshaw Blvd	Silver Spur Road	AM	0.704	C	0.714	C	0.010	NO
			MD	0.703	C	0.697	B	-0.006	NO
			PM	0.753	C	0.747	C	-0.006	NO

Source: Fehr & Peers 2015; see Appendix A

Queuing Analysis

Although not required by CEQA and in addition to a traffic analysis, a queuing analysis was performed for westbound left turns at the intersection of Silver Spur Road and Drybank Drive. Because the only access to the project site for eastbound vehicles on Silver Spur Road is a right-in right-out driveway, project trips traveling westbound on Silver Spur Road would need to make a U-turn at the intersection of Drybank Drive in order to access the site; thus, the length of the existing turn pocket was assessed to determine whether the existing turn pocket is long enough to accommodate the expected trips associated with the project. Since the project is expected to generate a net increase in trips only in the AM peak hour, the analysis was conducted only for this time period.

The Synchro traffic analysis software was used to implement the Highway Capacity Manual (HCM) methodology to calculate the 95th percentile queue, which was compared with the available vehicle storage for the analyzed movement. Turn pocket lengths were coded based on available storage in the left turn pocket. Traffic signal-related information such as phasing and timing plans (minimum green, maximum green, gap, etc.) was obtained from the City and traffic volumes were taken from those developed in the project's traffic impact analysis. As a result, the project would not increase the queue for westbound left turns beyond the existing capacity of the left turn lane. It was determined that the existing storage space provided exceeds the queuing in all scenarios, as illustrated in Table IV-3.

Table IV-3
Morning Peak 95th Percentile Queues for Westbound Left Turns
at Silver Spur Road & Drybank Drive

Turn Length (ft)	Pocket	Queue Length (ft)				Queue Exceeds Storage
		Existing	Existing plus Project	Future	Future plus Project	
90		15	25	20	55	NO

a. Analysis conducted in Synchro using the HCM methodology.

Source: Fehr & Peers 2015; see Appendix A

Pedestrian Signal Crossing Times

Although not a CEQA requirement, an assessment of the current signal timing at the intersection of Silver Spur Road and Drybank Drive was conducted to determine whether there is adequate crossing time for pedestrians from the proposed project. Existing signal timing plans from the City show that the amount of time given to cross Drybank Drive is 19 seconds (7 seconds for walk, 12 seconds for do not walk) and the amount of time to cross Silver Spur Road is 23 seconds (7 seconds for walk, 16 seconds for do not walk). Drybank Drive is approximately 60 feet wide and Silver Spur Road is approximately 90 feet wide. There is not an established average walking speed, but the California Manual of Uniform Traffic Control Devices (MUTCD) allows a speed of 2.8 feet per second for locations routinely used by older or disabled pedestrians. Using a walking speed of 2.8 feet per second, Drybank Drive could be crossed in 21.4 seconds (60 feet/2.8 feet per second) and Silver Spur Road could be crossed in 32.1 seconds (90 feet/2.8 feet per second).

second). Based on these calculations, the existing signal timing plans do not provide adequate time to cross Drybank Drive or Silver Spur Road.

Thus, in order to accommodate the project's clientele of seniors, increasing the crossing time at the intersection of Silver Spur Road and Drybank Drive to provide adequate time for pedestrians to cross should be considered by City staff through the entitlement applications.

Roundabout Operation

An assessment was conducted regarding the safety and service of the roundabout at the intersection of Deep Valley Drive and Drybank Drive. The intersection is currently a three-legged roundabout, with the south leg serving as the entrance/exit to the parking structure for the Promenade on the Peninsula. The City expressed specific concern that vehicles exiting the parking structure do not currently yield appropriately.

An analysis of the roundabout intersection was conducted using SIDRA software. SIDRA allows the analyst to input the design of the roundabout, vehicle and pedestrian volumes, and driving parameters. Once these inputs are completed, the software produces a level of service for the intersection. The existing counts at the intersection were analyzed during the PM period, since this is the period when the street network near the project is the busiest. Existing volumes were grown using the same methodology as stated above to determine the cumulative traffic volumes, and no project trips were assigned through this intersection. In order to estimate pedestrian volumes once the project is completed, a conservative estimate was made and existing pedestrian volumes were doubled. Table IV-4 displays the results of this analysis.

Table IV-4
Evening Peak Hour Roundabout Analysis for Drybank Drive & Deep Valley Drive

Scenario	Time Period	Delay (seconds)	LOS
Existing	PM	3.2	A
Cumulative plus Project		3.3	A

a. Analysis conducted in Sidra using the HCM methodology.

b. Roundabout analyzed only during the PM period, when the street network near the project is busiest.

Source: Fehr & Peers 2015; see Appendix A

Roundabout operations at the intersection of Drybank Drive and Deep Valley Drive would remain largely unchanged.

Explanation of Checklist Judgments

- IV(a) Less Than Significant Impact. According to the traffic impact analysis prepared by Fehr & Peers (2016) and as described above, the project is forecast to generate a net decrease of 740 daily trips, including a decrease of 24 trips (12 inbound/12 outbound) during the midday and PM peak hours. However, it is anticipated that the proposed project would result in a net increase of 32 trips (29 inbound/3 outbound) during the AM peak hour. The level of service analysis for the existing plus project scenario and for the cumulative plus project scenario (using the City of Rolling Hills Estates' significance criteria) determined that the proposed project would not significantly impact traffic at any of the eight study intersections. As such, the project would result in a less than significant impact on traffic.

- IV(b) Less Than Significant Impact. The number of project-induced vehicle trips does not require a signal warrant analysis for any unsignalized intersections in the project impacted area.
- IV(c) No Impact. The proposed project does not include the development of streets. All surrounding roadways would remain in their current configuration. The two existing driveways providing access via Silver Spur Road would be closed, as would the existing driveway on Drybank Drive providing access to Building A. Site access for the RCFE would be via a new right-in ingress driveway on Silver Spur Road near the center of the site and a right-out egress driveway near the northeast corner of the site. Access to The Village portion of the project would be via two existing driveways on Drybank Drive, a new driveway on Deep Valley Drive, and a relocated driveway on Deep Valley Drive. The project's traffic impact analysis does not identify any impacts associated with the proposed and reconfigured driveways; rather, the driveways would be adequate in terms of site distance, grades, and other traffic safety considerations. Therefore, the proposed project would have no impact related to traffic hazards.
- IV(d) Less Than Significant Impact. Silver Spur Road is designated a Secondary Arterial street, as identified on Exhibit 3-1, Master Plan of Roads, in the City's General Plan. The project site currently has two ingress/egress driveways along Silver Spur Road. To accommodate the proposed RCFE, the proposal includes the relocation of the existing driveways farther east, away from the intersection of Silver Spur Road at Drybank Drive. The functions of each driveway would change, as the westernmost driveway would provide for ingress and the easternmost driveway would provide for egress, thereby facilitating on-site circulation and residents' drop-off/pick-up. Thus, since the project would only relocate existing driveways along Silver Spur Road, the proposed project would have a less than significant impact related to additional access points on arterial streets.
- IV(e) No Impact. As indicated above, access to the proposed residential care facility for the elderly would be provided via the two driveways along Silver Spur Road, which would be reconfigured from their current location to facilitate on-site circulation and to drop off/pick up residents of the facility. No other access points to the RCFE are proposed. As such, the proposed project would have no impact related to secondary access points.
- IV(f) No Impact. The project site currently has two dedicated access points along Silver Spur Road, three access points along Drybank Drive, and one access point along Deep Valley Drive. The project would result in one additional access point along Deep Valley Drive for access to the at-grade parking spaces on The Village site. Deep Valley Drive serves as a primary frontage for Building C of The Village. Therefore, the proposed project would not create one or more access points on a roadway that is not a primary frontage. The proposed project would have no impact in this regard.
- IV(g) No Impact. The proposed project does not result in or propose a flag lot.
- IV(h) Less Than Significant Impact. The redeveloped Village site (proposed Parcel 2) would include 221 parking stalls. The project proposes to retain 26 existing surface parking stalls and 26 existing covered parking stalls located at 627 Silver Spur Road (Building B basement level). Ninety surface stalls would be removed, and a new two-level 169-stall parking structure with one level of semi-subterranean parking and one level of above-grade parking would be constructed. Parcel 2 and the adjacent Palos Verdes Library District property would be subject to a reciprocal ingress/egress/parking

agreement acceptable to the Palos Verdes Library District, Continental Development Corporation and Continental RHE Corporation, and the City of Rolling Hills Estates.

As a result of a modified agreement, the Peninsula Center Library and The Village would be served by a total of 360 parking stalls—95 stalls on Parcel 2 and 165 stalls on the library property. The Village and the library would benefit from excess parking capacity with construction of the proposed parking structure as currently designed, as both properties would be served by a total of 360 parking stalls. Further, the RCFE would maintain a partially below-grade parking facility for 63 vehicles.

Thus, based on the project's parking study (see Appendix A), the project and the abutting library would have sufficient parking, and the proposed project would not result in inadequate parking capacity. As such, impacts would be less than significant.

- IV(i) Less Than Significant Impact. The proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities. The Palos Verdes Peninsula Transit Authority (PVPTA) serves the project site and currently maintains a transit stop in front of the project site that serves the Silver line and bus line 225. A second PVPTA transit stop is also located west of the site, across Drybank Road at Silver Spur Road, which serves the White line. These lines provide transit access throughout the Peninsula. PVPTA also offers a dial-a-ride service that serves the greater Palos Verdes Peninsula and extends beyond the Peninsula for medical purposes, with transportation to all hospitals, medical buildings, and doctors' offices in Torrance, Harbor City, San Pedro, and Redondo Beach (primarily the South Bay Medical Center on Prospect).

Sidewalks are also located along all key roadways in the project vicinity, and pedestrian crosswalks with walk lights are provided at signalized intersections in the project area. The project would have a less than significant impact on adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities and would not otherwise substantially decrease the performance or safety of such facilities.

V AIR QUALITY	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>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:</i>				
a) Fail to meet the applicable state and federal air quality plan (i) because the project may cause or contribute to emission of identified air pollutants in excess of levels stated in the plan or (ii) where it may fail to implement a remedial or mitigation measure required under the appropriate plan?	☐	☐	☒	☐
b) Results in emission of identified pollutants in excess of the pounds per day or tons per quarter standards established by SCAQMD?	☐	☐	☒	☐
c) Cause a cumulatively considerable net increase of any criteria pollutants for which the project region is nonattainment under an applicable federal or state ambient air quality regulations (including releasing emissions which exceed quantitative thresholds for ozone precursors) where the incremental effect of the project emissions, considered together with past, present, and reasonably anticipated future project emissions, increase the level of any criteria pollutant above the existing ambient levels?	☐	☐	☒	☐
d) Create objectionable odors affecting a substantial number of people because the project may cause an odiferous emission, including emissions resulting from vehicles, that is noxious, putrid, having an appreciable chemical smell, or having an appreciable smell of human or animal waste, rendering, or by-products?	☐	☐	☒	☐

Explanation of Checklist Judgments

V(a) Less Than Significant Impact. Rolling Hills Estates is in the South Coast Air Basin (SCAB), which is bounded by the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east and by the Pacific Ocean to the south and west. The South Coast Air Quality Management District (SCAQMD) has jurisdiction in the air basin. The SCAB has a history of recorded air quality violations and is an area where both state and federal ambient air quality standards are exceeded. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The air quality in the Los Angeles County portion of the SCAB does not meet the ambient air quality standards for ozone, coarse particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and lead and is therefore classified as a nonattainment area for these pollutants. The SCAQMD is required, pursuant to the federal Clean Air Act, to reduce emissions of the air pollutants for which the basin is in nonattainment.

In order to reduce emissions, the SCAQMD adopted the 2012 Air Quality Management Plan (AQMP), which establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards (the air district is currently developing the 2016 AQMP). The 2012

AQMP is a regional and multi-agency effort including the SCAQMD, the California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the US Environmental Protection Agency (EPA).

The 2012 AQMP pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. (SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The SCAQMD considers projects that are consistent with the AQMP, which is intended to bring the basin into attainment for all criteria pollutants, to also have less than significant cumulative impacts.)

Criteria for determining consistency with the AQMP are defined by the following indicators:

- Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.
- Consistency Criterion No. 2: The proposed project will not exceed the assumptions in the AQMP.

The violations to which Consistency Criterion No. 1 refers are the California ambient air quality standards (CAAQS) and the national ambient air quality standards (NAAQS). As evaluated in Response V(b) below, the project would not exceed the SCAQMD short-term construction thresholds or SCAQMD long-term operational thresholds. The project would not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards. Thus, a less than significant impact is expected, and the project would be consistent with the first criterion.

In regard to Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts. The proposed project is consistent with the land use designation and development density for the site as described in the City's General Plan and therefore would not exceed the population or job growth projections used by the SCAQMD to develop the Air Quality Management Plan (see subsection XIV, Population and Housing). Thus, no significant impact would occur, as the project is consistent with both criteria.

V(b) Less Than Significant Impact. As discussed above, the project site and the city are located in the SCAB, which is considered nonattainment for certain criteria pollutants. Because the project would involve grading and other construction activities, as well as result in long-term operations at the project site, it would contribute to regional and localized pollutant emissions during construction (short term) and project occupancy (long term). The project's potential impacts from construction and operation related to violation of an air quality standard or contribution to an existing or projected air quality violation are evaluated in the paragraphs below.

Construction Emissions

Construction associated with the proposed project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern in the project area include ozone-precursor pollutants (i.e., reactive organic gases [ROG] and nitrogen oxides [NO_x]) and PM₁₀ and PM_{2.5}. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Construction results in the temporary generation of emissions resulting from site grading and excavation, road paving, architectural coatings, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water.

The duration of construction activities associated with the proposed project, including the demolition of existing buildings, is estimated to last one year. Construction-generated emissions associated with the proposed project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Modeling was based primarily on the default settings in the computer program for projects in the South Coast Air Basin. All construction projects in the SCAB are subject to SCAQMD rules and regulations in effect at the time of construction. SCAQMD Rule 403 requires construction contractors to implement Best Available Control Measures during construction activities to ensure that visible particulate matter does not cross any property line. Rule 403 is intended to reduce PM₁₀ and PM_{2.5} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. Examples of some PM₁₀ suppression techniques are listed below.

- a. Portions of the construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized in a manner acceptable to the City.
- b. All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
- c. All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- d. The area disturbed by clearing, grading, earth moving, or excavation operations will be minimized at all times.
- e. Where vehicles leave the construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the work day to remove soil tracked onto the paved surface.
- f. A wheel washing system will be installed and used to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

- g. Water will be applied to active portions of the site, including unpaved roads, in sufficient quantity.

Predicted maximum daily construction-generated emissions for the proposed project are summarized in Table V-1. The construction emissions summarized in the table account for the quantifiable PM-reducing requirements of SCAQMD Rule 403.

Table V-1
Unmitigated Construction-Related Criteria Pollutant and Precursor Emissions –
Maximum Pounds per Day

Construction Activities	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO _x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO ₂)	Coarse Particulate Matter (PM ₁₀)	Fine Particulate Matter (PM _{2.5})
Maximum Pounds per Day						
Demolition, Remodel, and Construction of Proposed Project – Year One	3.82	51.05	24.90	0.08	2.55	1.71
Demolition, Remodel, and Construction of Proposed Project – Year Two	35.96	76.33	53.94	0.15	6.43	4.28
Demolition, Remodel, and Construction of Proposed Project – Year Three	16.04	45.11	27.34	0.10	2.25	1.61
SCAQMD Potentially Significant Impact Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2013.2.2. Projected emissions account for demolition activities associated with pulling down and disposing of existing building square footage, the export of 23,720 cubic yards of soil, and adherence to various components of SCAQMD Rule 403, including application of water on the project site, employment of wheel washing systems, sweeping adjacent streets daily, and reestablishing vegetation on inactive portions of the site. Construction timing per applicant. Refer to Appendix B for model data outputs.

As shown, all emissions types are projected to be generated below SCAQMD significance thresholds.

Localized Construction Significance Analysis

As part of the SCAQMD's environmental justice program, attention has been focused on localized effects of air quality from construction activities. SCAQMD staff has developed localized significance threshold (LST) methodology that can be used by public agencies to determine whether a project may generate significant adverse localized air quality impacts at the nearest residence or sensitive receptor during construction (SCAQMD 2008). LSTs are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA). The project site is located in SRA 4.

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of the project are above or below state standards. In the case of CO and NO₂, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these

standards. In the case of PM₁₀ and PM_{2.5}, project emissions are considered significant if they increase ambient concentrations by a measurable amount.

According to the LST methodology, only on-site emissions need to be analyzed. Emissions associated with hauling, vendor trips, and worker trips are mobile source emissions that occur off-site and need not be considered according to the LST methodology, since they do not contribute to isolated local concentrations of air pollution. The SCAQMD has provided LST lookup tables (i.e., screening thresholds) and sample construction scenarios to allow users to readily determine whether the daily emissions for proposed construction activities could result in significant localized air quality impacts. The LST screening thresholds are estimated for each source receptor area using the maximum daily disturbed area (in acres) and the distance of the project to the nearest sensitive receptors (in meters). The nearest air pollutant sensitive receptors in the project vicinity include the library located directly adjacent to the project site. The closest receptor distance on the LST look-up tables is 25 meters. According to the LST methodology, projects with boundaries closer than 25 meters to the nearest receptor should use screening thresholds for receptors located at 25 meters. LST screening thresholds were adjusted for a 3.13-acre site.

Table V-2 compares the project's on-site construction emissions to the applicable LST screening threshold. The emissions projections included in Table V-2 account for SCAQMD Rule 403.

Table V-2
Uncontrolled Construction Local Significance Threshold Impacts – Pounds per Day

Activity	Nitrogen Oxide	Carbon Monoxide	PM ₁₀	PM _{2.5}
Maximum Daily Emissions (on-site)- Year One Demolition & Site Preparation	27.98	9.76	1.43	1.10
Maximum Daily Emissions (on-site)- Year One Demolition & Grading	32.41	13.27	1.37	1.19
Maximum Daily Emissions (on-site)- Year Two Demolition	15.42	7.37	1.10	0.55
Maximum Daily Emissions (on-site)- Year Two Site Preparation	5.14	2.45	0.16	0.15
Maximum Daily Emissions (on-site)- Year Two Grading	26.83	13.69	3.77	2.59
SCAQMD Localized Threshold (adjusted for 3.13 acres of disturbance) for receptors within 25 meters	97.4	1,101.1	9.6	6.1
Significant Emissions?	No	No	No	No

Source: SCAQMD 2008; CalEEMod v.2013.2.2. Emissions projections account for adherence to various components of SCAQMD Rule 403, including application of water on the project site, employment of wheel washing systems, sweeping adjacent streets daily, and reestablishing vegetation on inactive portions of the site. Construction timing per applicant. See Appendix B for model data outputs.

As shown in Table V-2, air pollutant emissions resulting from project construction would not exceed the applicable localized significance thresholds.

Operational Emissions

Project operation-generated increases in emissions would be predominantly associated with motor vehicle use. To a lesser extent, area sources, such as the use of natural-gas-fired appliances, landscape maintenance equipment, and architectural coatings, would also contribute to overall increases in emissions.

Long-term operational emissions attributable to the proposed project, as estimated using CalEEMod software, are summarized in Table V-3.

Table V-3
Long-Term Operational Emissions – Pounds per Day

Source	Reactive Organic Gases (ROG)	Nitrogen Oxide (NOX)	Carbon Monoxide (CO)	Sulfur Dioxide (SO ₂)	Coarse Particulate Matter (PM ₁₀)	Fine Particulate Matter (PM _{2.5})
Proposed Project – Summer Emissions						
Area Source	3.95	0.10	9.43	0.00	0.05	0.05
Energy Use	0.05	0.45	0.19	0.00	0.03	0.03
Mobile Source	3.89	11.13	46.62	0.14	9.64	2.70
Total	7.90	11.69	55.27	0.14	9.73	2.79
Proposed Project – Winter Emissions						
Area Source	3.95	0.10	9.45	0.00	0.05	0.05
Energy Use	0.05	0.45	0.19	0.00	0.03	0.03
Mobile Source	3.89	11.13	45.62	0.14	9.64	2.70
Total	7.90	11.69	55.27	0.14	9.73	2.79
SCAQMD Potentially Significant Impact Threshold	55 pounds/day	55 pounds/day	550 pounds/day	150 pounds/day	150 pounds/day	55 pounds/day
Exceed SCAQMD Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2013.2.2. Refer to Appendix B for model data outputs.

As shown in Table V-3, the project's net emissions would not exceed SCAQMD thresholds for any criteria air pollutants. (Note that emissions rates differ from summer to winter. This is because weather factors are dependent on the season, and these factors affect pollutant mixing/dispersion, ozone formation, etc.) Therefore, operations emissions would not result in a significant long-term regional air quality impact.

Localized Operational Significance Analysis

According to SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project only if the project includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). The proposed project does not include such uses. Thus, due to the lack of stationary source emissions, no long-term localized significance threshold analysis is needed, as there would be no impact.

In summary, air quality impacts associated with project construction and operations would be considered less than significant, as SCAQMD significance thresholds for criteria emissions would not be surpassed (see Tables V-1, V-2, and V-3).

- V(c) Less Than Significant Impact. Rolling Hills Estates is in the South Coast Air Basin, which is an air basin that regularly exceeds ambient air quality standards, i.e., a nonattainment area.

The proposed project may contribute to the net increase of ozone precursors and other criteria pollutants. The SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and California Clean Air Acts. In other words, the SCAQMD considers projects that are consistent with the AQMP, which is intended to bring the basin into attainment for all criteria pollutants, to also have less than significant cumulative impacts.¹ The discussion under Response V(a) describes the SCAQMD criteria for determining consistency with the Air Quality Management Plan and further demonstrates that the proposed project would be consistent with the Plan. As such, cumulative impacts would be less than significant per the SCAQMD significance threshold.

- V(d) Less Than Significant Impact. The potential for the project to generate objectionable odors has been considered. Land uses generally associated with odor complaints include agricultural uses (livestock and farming), wastewater treatment plants, food processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities.

The project does not contain land uses typically associated with emissions of objectionable odors. Potential odor sources associated with the proposed project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities, and the temporary storage of typical solid waste (refuse) associated with the proposed project's (long-term operational) uses. Standard construction requirements would minimize odor impacts resulting from construction activity. It should be noted that any construction odor emissions generated would be temporary, short term, and intermittent in nature, would cease on completion of the respective phase of construction activity, and would not affect a substantial number of people, and odor emissions are thus considered less than significant. It is expected that project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations. The proposed project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odor impacts associated with the proposed project construction and operations would be less than significant.

Contribution to Greenhouse Gas Emissions

Less Than Significant Impact. Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHG). The main components of GHG include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Greenhouse gases are emitted by

¹ CEQA Guidelines Section 15064(h)(3) states, "A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency."

both natural processes and human activities. In response to growing scientific and political concern related to global climate change, the State of California has adopted a series of laws to reduce emissions of GHGs to the atmosphere from commercial and private activities in the state. Construction and operation of the proposed project would generate GHG emissions.

GHG emissions associated with the proposed project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with project-related new vehicular trips and stationary source emissions, such as natural gas used for heating and electricity usage for lighting. The calculation presented below includes construction as well as long-term operational emissions in terms of annual carbon dioxide equivalents (CO₂e) associated with the anticipated operations of the proposed project. The resultant emissions of these activities were calculated using CalEEMod (Appendix B). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for the use of government agencies, land use planners, and environmental professionals.

On September 28, 2010, the SCAQMD recommended an interim screening level numeric “bright-line” threshold of 3,000 metric tons of CO₂e annually and an efficiency-based threshold of 4.8 metric tons of CO₂e per service population (residents plus employees) per year in 2020 and 3.0 metric tons of CO₂e per service population per year in 2035. These thresholds were developed as part of the SCAQMD GHG CEQA Significance Threshold Working Group. The Working Group was formed to assist the SCAQMD’s efforts to develop a GHG significance threshold and comprises a wide variety of stakeholders including the California Office of Planning and Research (OPR), CARB, the Attorney General’s Office, a variety of city and county planning departments in the South Coast Air Basin, various utility purveyors such as sanitation and power companies throughout the SCAB, industry groups, and environmental and professional organizations. The numeric bright-line and efficiency-based thresholds were developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provide guidance to CEQA practitioners with regard to determining whether GHG emissions from a proposed project are significant. For the purposes of this evaluation, the proposed project is compared to the SCAQMD interim screening level numeric bright-line threshold of 3,000 metric tons of CO₂e annually.

Emissions resulting from implementation of the proposed project have been quantified and the quantified emissions are compared with the recommended SCAQMD GHG screening threshold. The anticipated GHG emissions during project construction and operation are shown in Table V-4. In accordance with the SCAQMD guidance, projected GHGs from construction have been quantified and amortized over 30 years, which is the number of years considered to represent the life of the project. The amortized construction emissions are added to the annual average operational emissions.

Table V-4
Construction-Related and Operational Greenhouse Gas Emissions
(Metric Tons per Year)

Emission Type	CO ₂ e
Construction (amortized over 30 years)	78
Indirect Emissions from Energy Consumption	299
Water Demand	43
Waste Generation	47
Area Source (hearth, landscaping)	2
Mobile Source (vehicles)	1,789
Operations Total	2,258
SCAQMD Greenhouse Gas Threshold	3,000
Threshold Exceeded?	No

Source: CalEEMod version 2013.2.2. Per SCAQMD guidance, construction emissions are amortized over 30 years, which is considered to represent the life span of residential development. Refer to Appendix B for model data outputs.

Per Table V-4, GHG emissions projected to result from both construction (amortized over 30 years) and operation of the proposed project would not exceed the SCAQMD greenhouse gas screening threshold of 3,000 metric tons of CO₂e per year. The impact is therefore considered less than significant.

Consistency with Greenhouse Gas and Climate Change Policy

Less Than Significant Impact. Assembly Bill (Ab) 32, the Global Warming Solutions Act, is the legal mandate requiring that statewide GHG emissions be reduced to 1990 levels by 2020. The SCAQMD interim screening level numeric bright-line threshold of 3,000 metric tons of CO₂e annually, described above, was established to achieve consistency with the statewide GHG reduction target of AB 32. In addition to AB 32, two Executive Orders—California Executive Order 5-03-05 (2005) and California Executive Order B-30-15 (2015)—highlight GHG emissions reduction targets beyond the year 2020, though such targets have not been adopted by the State and remain only a goal of the Executive Orders. Specifically, Executive Order 5-03-05 seeks to achieve a reduction of GHG emissions of 80 percent below 1990 levels by 2050 and Executive Order B-30-15 seeks to achieve a reduction of GHG emissions of 40 percent below 1990 levels by 2030. Technically, a governor's Executive Order does not have the effect of new law but can only reinforce existing laws. For instance, as a result of the AB 32 legislation, the State's 2020 reduction target is backed by the adopted AB 32 Scoping Plan, which provides a specific regulatory framework of requirements for achieving the 2020 reduction target. The State-led GHG reduction measures, such as the Low Carbon Fuel Standard and the Renewables Portfolio Standard, are largely driven by the AB 32 Scoping Plan. Executive Orders S-03-05 and B-30-15 do not have any such framework and therefore provide no emissions reduction mechanisms that can be applied to the analysis of land use projects for the purpose of meaningful emissions estimates. As a result of Executive Orders B-30-15 and 5-03-05, new legislation is proposed to establish post-2020 GHG reduction goals; however, no action on the legislation has been taken as of this writing (June 2016).

SCAG's 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), adopted April 7, 2016, is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders in Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. The RTP/SCS establishes greenhouse emissions goals for automobiles and light-duty trucks for 2020 and 2035, and establishes an overall GHG target for the region consistent with both the target date of AB 32 (2020) and the post-2020 GHG reduction goals of Executive Orders 5-03-05 and B-30-15. The 2016 RTP/SCS contains over 4,000 transportation projects, including highway improvements, railroad grade separations, bicycle lanes, new transit hubs, and replacement bridges. These future investments were included in county plans developed by the six county transportation commissions and seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices. The RTP/SCS is an important planning document for the region, allowing project sponsors to qualify for federal funding. In addition, the RTP/SCS is supported by a combination of transportation and land use strategies that help the region achieve state GHG emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support the vital goods movement industry, and utilize resources more efficiently. As shown in Table V-5, GHG emissions resulting from development-related mobile sources are the most potent source of emission. Therefore, project comparison to the RTP/SCS is an appropriate indicator of whether the proposed project would inhibit the post-2020 GHG reduction goals promulgated by the State.

The proposed project's consistency with the RTP/SCS goals is analyzed in detail in Table V-5.

Table V-5
Consistency with SCAG's Regional Transportation Plan/Sustainable
Communities Strategy Goals

SCAG Goal	Compliance with Goal
GOAL 1: Align the plan investments and policies with improving regional economic development and competitiveness.	Not Applicable: This is not a project-specific policy and is therefore not applicable.
GOAL 2: Maximize mobility and accessibility for all people and goods in the region.	Consistent: Improvements to the transportation network in Rolling Hills Estates are developed and maintained to meet the needs of local and regional transportation and to ensure efficient mobility. A number of regional and local plans and programs are used to guide development and maintenance of transportation networks, including but not limited to: • Congestion Management Program for Los Angeles County • Caltrans Traffic Impact Studies Guidelines • Caltrans Highway Capacity Manual • SCAG RTP/SCS

SCAG Goal	Compliance with Goal
GOAL 3: Ensure travel safety and reliability for all people and goods in the region.	Consistent: All modes of transit in Rolling Hills Estates are required to follow safety standards set by corresponding regulatory documents. Pedestrian walkways and bicycle routes must follow safety precautions and standards established by local (e.g., City of Rolling Hills Estates, County of Los Angeles) and regional (e.g., SCAG, Caltrans) agencies. Roadways for motorists must follow safety standards established for the local and regional plans.
GOAL 4: Preserve and ensure a sustainable regional transportation system.	Consistent: All new roadway developments and improvements to the existing transportation network must be assessed with some level of traffic analysis (e.g., traffic assessments, traffic impact studies) to determine how the developments would impact existing traffic capacities and to determine the needs for improving future traffic capacities.
GOAL 5: Maximize the productivity of our transportation system.	Consistent: The local and regional transportation system would be improved and maintained to encourage efficiency and productivity. The City's Public Works Department oversees the improvement and maintenance of all aspects of the public right-of-way on an as-needed basis. The City also strives to maximize productivity of the region's public transportation system for residents, visitors, and workers coming into and out of Rolling Hills Estates.
GOAL 6: Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).	Consistent: The reduction of energy use, improvement of air quality, and promotion of more environmentally sustainable development are encouraged through the development of alternative transportation methods, green design techniques for buildings, and other energy-reducing techniques. For example, development projects are required to comply with the provisions of the California Building and Energy Efficiency Standards and the Green Building Standards Code (CALGreen). The City also strives to maximize the protection of the environment and improvement of air quality by encouraging and improving the use of the region's public transportation system for residents, visitors, and workers coming into and out of Rolling Hills Estates.
GOAL 7: Actively encourage and create incentives for energy efficiency, where possible.	Not Applicable: This is not a project-specific policy and is therefore not applicable.
GOAL 8: Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	Consistent: See response to Goal 6.

SCAG Goal	Compliance with Goal
GOAL 9: Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	Consistent: The City of Rolling Hills Estates monitors existing and newly constructed roadways and transit routes to determine the adequacy and safety of these systems. Other local and regional agencies (i.e., Caltrans and SCAG) work with the City to manage these systems. Security situations involving roadways and evacuations would be addressed in the County of Los Angeles' emergency management plans (e.g., Los Angeles County Emergency Operations Plan) developed in accordance with the state and federal mandated emergency management regulations.

As shown in Table V-5, the proposed project does not conflict with the stated goals of the RTP/SCS. For these reasons, the proposed project would not interfere with SCAG's ability to achieve the region's post-2020 mobile source GHG reduction targets outlined in the 2016 RTP/SCS.

Therefore, impacts associated with the proposed project construction and operations would be less than significant.

VI NOISE	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project result in:</i>				
a) Exposure of persons to or generation of noise levels in excess of code requirements (Chapter 8.32)?	☐	☒	☐	☐

Noise Fundamentals

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include an overall frequency weighted sound level in decibels that approximates the frequency response of the human ear (A-weighted decibels or dBA).

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks, and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Mobile transportation sources, such as highways, and hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance from the source. Noise generated by stationary sources typically attenuates at a rate of approximately 6.0 to 7.5 dBA per doubling of distance from the source (EPA 1971). Construction noise levels is assumed to average 6 dB of attenuation per doubling of distance from the source.

Sound levels can be reduced by placing barriers between the noise source and the receiver. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver. Buildings, concrete walls, and berms can all act as effective noise barriers. Wooden fences or broad areas of dense foliage can also reduce noise but are less effective than solid barriers.

Explanation of Checklist Judgments

VI(a) Less Than Significant Impact With Mitigation Incorporated. The City's General Plan Noise Element and the Noise Ordinance contain the City's policies on noise. The Noise Element establishes guidelines for controlling noise in the city and identifies sensitive land uses and noise sources with the intent of separating these uses. Transportation noise from city roadways is identified as the primary noise source affecting Rolling Hills Estates. The conditionally acceptable exterior noise standard for nursing homes is 70 dBA over the day-night average (L_{dn}). Municipal Code Section 8.32.210 governs the time of day that construction work can be performed. The Municipal Code limits construction, grading, or demolition work between the hours of 7:00 a.m. and 5:00 p.m. from Monday through Friday and between the hours of 9:00 a.m. and 5:00 p.m. on Saturday. No construction is permitted on Sundays or federal holidays.

The project site is located approximately 650 feet from the nearest residences, which are considered sensitive receptors to noise. While the project site is located in an area surrounded by commercial properties, the Peninsula Center Library is located immediately east of the site and is more sensitive to noise than the other commercially zoned properties in the project vicinity. Municipal Code Section 8.32.210.B limits noise in residential areas to 55 dBA and noise levels in commercial properties to 65 dBA.

The proposed project would generate noise from temporary construction activities, from the addition of project-induced vehicle trips on surrounding roadways (long-term traffic noise), and from on-site activities (e.g., parking lot operations, voices). In addition, the proposed project would expose patrons to the existing noise environment and to noise sources in the project vicinity. The paragraphs below discuss the results of the project's noise assessment.

Existing Ambient Noise Levels

In order to quantify existing ambient noise levels in the project area (vicinity of the project site), four noise measurements were taken on April 26, 2016. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. Fifteen-minute measurements were taken between 11:00 a.m. and 12:30 p.m. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day. The average noise levels and sources of noise measured at each location are identified in Table VI-1. The existing daytime noise levels ranged from 59.6 to 70.9 dBA L_{eq} .

Table VI-1
Existing Noise Levels in the Project Vicinity

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Time
1	Along Silver Spur Road, approximately 70 feet southeast of Drybank Drive	66.5	48.2	78.6	10:59–11:14 a.m.
2	Along Silver Spur Road, near the library entrance	66.3	47.6	77.9	11:18–11:33 a.m.
3	On the project site, along Deep Valley Drive near the library	70.9	44.8	87.1	11:41–11:56 a.m.
4	Along Drybank Drive, approximately 145 feet northeast of Deep Valley Drive	59.6	45.0	78.8	12:03–12:18 p.m.

Source: Michael Baker International, April 26, 2016. See Appendix C.

Notes: L_{eq} (the equivalent energy noise level) is defined as the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

L_{max} and L_{min} are the maximum and minimum A-weighted noise level during the measurement period.

Construction Noise

Construction noise typically occurs intermittently and varies depending on the nature and/or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Noise levels associated with individual construction equipment are summarized in Table VI-2.

Table VI-2
Typical Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA L _{max}) 50 Feet from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Vibrator	76
Crane, Mobile	83
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jackhammer	88
Loader	85
Truck	88
Paver	89
Pneumatic Tool	85

Source: FTA 2006

As depicted in Table VI-2, noise levels generated by individual pieces of construction equipment typically range from approximately 74 dBA to 89 dBA L_{max} at 50 feet (FTA 2006). L_{max} is defined as the maximum A-weighted noise level during the measurement period. Operating cycles for the types of construction equipment shown in Table VI-2 typically involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Time-averaged noise levels (L₅₀) are typically 15 dB lower than the maximum peak noise levels. Therefore, the average noise levels (L₅₀) at 50 feet would range from 59 dBA through 74 dBA. Short-term increases in vehicle traffic, including worker commute trips and haul truck trips, may also result in temporary increases in ambient noise levels at nearby land uses. Some land uses are considered more sensitive to noise than others because of the types of activities involved. For instance, residential areas are considered to be sensitive receptors to noise because residents tend to be at home for extended periods of time, resulting in sustained exposure to any construction noise present. The nearest residences to the project site are located approximately 650 feet to the east. The project site is also adjacent to the Peninsula Center Library, which is more sensitive to noise than the other commercially zoned properties in the project vicinity.

Construction noise would be temporary, intermittent, short in duration, and would take place during daytime hours in accordance with the City's Municipal Code. This type of noise is generally expected and accepted in urban and built-up environments such as the project area. As previously described, construction noise levels average 6 dB of attenuation per doubling of distance from the source. Based on this attenuation rate, the nearest residential land uses to the project site (residences located 650 feet to the

east) would experience construction noise levels ranging from 37.2 dBA to 52.2 dBA. These noise levels are below the 55 dBA standard established for residential uses by the Municipal Code.

Given the distance to the nearest residences, construction of the proposed project would not cause any significant noise impacts on residential receptors. However, because of the proximity of the site adjacent to the Peninsula Center Library, the following mitigation measure is recommended to reduce the impacts of construction noise on library patrons:

Mitigation Measure NOISE-1: During construction activities, a temporary noise barrier (e.g., construction curtain) shall be installed along the eastern property line to screen the Peninsula Center Library from construction noise. The project applicant shall demonstrate that the temporary noise barrier/construction curtain will achieve a noise reduction of at least 10 decibels by specifying the exact STC (sound transmission class) rating that would achieve this reduction, as determined by an acoustical engineer.

Timing/Implementation: During construction

Monitoring/Enforcement: Rolling Hills Estates Planning Department

With the implementation of Mitigation Measure NOISE-1, impacts from construction-generated noise would be less than significant.

New Sensitive Receptors

The proposed project would construct an assisted living facility, a sensitive noise receptor, at the northern corner of the project site (at Drybank Drive and Silver Spur Road intersection). As previously stated, the conditionally acceptable exterior noise standard for such a land use is 70 dBA over the day-night average (L_{dn}).

In order to quantify existing ambient noise levels in the project area (in the vicinity of the project site), noise measurements were taken on April 26, 2016. The noise measurement sites are representative of typical existing noise exposure. The specific existing ambient noise level measurements conducted adjacent to the proposed assisted living facility location include the measurement along Silver Spur Road, approximately 70 feet southeast of Drybank Drive, and the measurement along Drybank Drive, approximately 145 feet northeast of Deep Valley Drive. As identified in Table VI-1, the existing ambient noise levels at these locations are 66.5 and 59.6 dBA L_{dn} , respectively. Therefore, the project would not be locating a sensitive land use in a location that already exceeds City noise standards for that use.

Furthermore, interior noise levels are about 12 to 17 dBA lower than exterior levels in residential units with the windows partially open and approximately 20 to 25 decibels lower than exterior noise levels with the windows closed, assuming typical California construction methods. Where exterior day-night average noise levels are 60 to 70 dBA L_{dn} , interior noise levels can typically be maintained below 45 dBA L_{dn} with the incorporation of an adequate forced air mechanical ventilation system in the residential units to allow residents the option of controlling noise by keeping the windows closed. (Standard office construction methods typically provide about 25 to 30 decibels of noise reduction in interior spaces.)

Traffic Noise

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted for understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10 dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Changes in traffic caused by the project would result in changes in noise levels along the roadways in the vicinity of the project. Using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) and traffic volumes from the project transportation impact analysis (see Appendix C), changes in traffic noise were calculated. The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions.

As described, a change in level of at least 3 dBA is required before any noticeable change in community response would be expected. Therefore, an increase of 3 dBA over the pre-project noise conditions is considered significant. Table VI-3 shows the existing traffic noise levels on adjacent roadways in comparison to the existing plus project traffic noise levels on adjacent roadways.

Table VI-3
Modeled Existing and Existing plus Project Traffic Noise Levels at 100 Feet

Roadway Segment	Existing	Existing plus Project	Change Due to Project	Exceeds 3 dBA Increase Threshold?
Hawthorne Blvd, Palos Verdes to Silver Spur	62.3	62.3	0.0	No
Hawthorne Blvd, Silver Spur to west	57.1	57.1	0.0	No
Crenshaw, Palos Verdes to Silver Spur	62.8	62.8	0.0	No
Crenshaw, Silver Spur to west	59.1	59.1	0.0	No
Silver Spur, Hawthorne to north	49.2	49.1	-0.1	No
Silver Spur, Hawthorne to Silver Arrow	57.4	57.4	0.0	No
Silver Spur, Silver Arrow to Norris	57.7	57.7	0.0	No
Silver Spur, Norris to Drybank	57.5	57.5	0.0	No
Silver Spur, Drybank to Beechgate	56.4	56.4	0.0	No
Silver Spur, Beechgate to Crenshaw	57.6	57.5	-0.1	No

Note: Traffic noise levels were calculated using the FHWA roadway noise prediction model based on data obtained from the traffic analysis prepared for this project (Fehr & Peers 2016).

Table VI-4 shows the traffic noise levels on adjacent roadways under cumulative conditions without the project in comparison to the cumulative plus project traffic noise levels on adjacent roadways.

Table VI-4
Modeled Cumulative and Cumulative plus Project Traffic Noise Levels at 100 Feet

Roadway Segment	Cumulative (no project)	Cumulative plus project	Change Due to Project	Exceeds 3 dBA Increase Threshold?
Hawthorne Blvd, Palos Verdes to Silver Spur	62.6	62.6	0.0	No
Hawthorne Blvd, Silver Spur to west	57.3	57.3	0.0	No
Crenshaw, Palos Verdes to Silver Spur	63.1	63.0	-0.1	No
Crenshaw, Silver Spur to west	59.3	59.3	0.0	No
Silver Spur, Hawthorne to north	49.3	49.2	-0.1	No
Silver Spur, Hawthorne to Silver Arrow	57.6	57.6	0.0	No
Silver Spur, Silver Arrow to Norris	57.9	57.9	0.0	No
Silver Spur, Norris to Drybank	57.7	57.7	0.0	No
Silver Spur, Drybank to Beechgate	56.6	56.6	0.0	No
Silver Spur, Beechgate to Crenshaw	57.7	57.7	0.0	No

Note: Traffic noise levels were calculated using the FHWA roadway noise prediction model based on data obtained from the traffic analysis prepared for this project (Fehr & Peers 2016).

As shown, predicted increases in traffic noise levels associated with the project would not increase level thresholds more than 3 dBA over pre-project noise conditions. Therefore, the project's contribution to traffic noise levels would be less than significant.

On-Site Activities

The proposed project would result in noise from sources other than traffic, such as landscaping equipment, HVAC equipment, and parking lot activities. However, long-term noise-related impacts associated with the proposed project would be similar to existing conditions, as the project site is currently occupied with commercial land uses. Since the project site is already developed with commercial uses, operation of the proposed project is not expected to result in any substantial changes in the noise environment. Therefore, the proposed project would not result in substantial permanent long-term operational increases in noise levels. This would be considered a less than significant impact.

VII BIOLOGICAL RESOURCES	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Be a project, other than a minor lot improvement undertaken by an individual homeowner, and be located in a high ecological sensitivity area as defined by the General Plan and not preserve ecological habitat that is found at the project site in accordance with the guidelines established by the General Plan Conservation Element?	☐	☐	☐	☒
b) Conflict with General Plan policies for protecting biological resources?	☐	☐	☐	☒
c) Result in the loss of any (i) Environmentally Sensitive Area as defined by the City of Rolling Hills Estates, (ii) natural undeveloped canyon, or (iii) hillside area?	☐	☐	☐	☒
d) 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 (now the California Department of Fish and Wildlife) or US Fish and Wildlife Service?	☐	☐	☐	☒
e) 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 (now the California Department of Fish and Wildlife), US Army Corps of Engineers, and/or US Fish and Wildlife Service?	☐	☐	☐	☒
f) Have a substantial adverse effect on 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?	☐	☐	☐	☒
g) Interfere substantially with (i) the movement of any native resident or (ii) migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or (iii) impede the use of native wildlife nursery sites?	☐	☐	☐	☒
h) Have the potential to degrade the quality of the environment, substantially reduce the habitat of 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?	☐	☐	☐	☒
i) Have biological resource impacts that are individually limited, but cumulatively considerable?	☐	☐	☐	☒

Explanation of Checklist Judgments

VII(a, c) No Impact. The project site is not located in an Ecological Resources Overlay zone identified on Exhibit 5-1 of the City's General Plan. Therefore, the proposed project would cause no impacts related to the City's Ecological Resources Overlay Zone.

Likewise, the project site has been developed with commercial uses and paved parking lots for over 20 years. The subject property contains a minimal amount of ornamental plantings and turf areas, and similar plantings are expected to be installed on the property with the proposed project. Further, the site does not contain any natural vegetation, canyons, or hillsides. Thus, the project would cause no related biological resource impacts.

- VII(b) No Impact. The proposed project would not conflict with General Plan policies for the protection of biological resources as identified in the Conservation Element. The project site is in a developed portion of the city and is surrounded by a variety of existing uses, including commercial, institutional, and office uses on sites that have been permanently altered with the construction of aboveground improvements such as buildings, parking lots, roads, and hardscapes. The site is not within the Ecological Resources Overlay Zone, which is identified as an area in the city that, in part, has been established for the protection of biological resources. Therefore, the project would not conflict with any General Plan policies for protecting biological resources.
- VII(d) No Impact. The project site is in a developed portion of the city and is not located in an area containing high ecological sensitivity as identified by the Ecological Resources Overlay Zone. As previously mentioned, the project site is developed with a multitenant commercial shopping center. The subject property contains ornamental plantings and turf areas, and similar plantings are expected to be installed on the property with the proposed project. Further, there are no natural vegetation, habitat, or plant communities present on the site. The property is not in an area designated as critical habitat for any sensitive wildlife species, nor is the area subject to any conservation plans, recovery plans, or similar policies and ordinances. The vegetation and animal species supported in the man-made habitat include species commonly found in urban environments. As a result, no adverse impacts on biological resources are anticipated.
- VII(e, f) No Impact. The project site is in an urban portion of the city and is built out with commercial buildings and surface parking lots. The site does not contain any natural vegetation or drainage courses. The project site is not located in an area with riparian habitat, wetlands, or any other identified sensitive natural communities. As such, there would be no impacts.
- VII(g) No Impact. The overall project site is a 3.13-acre site that has been permanently altered with the development of four multitenant commercial buildings, parking lots, drive aisles, and hardscapes. As a result, the project site does not contain sufficient vegetation to provide for the movement of wildlife species. Movement of wildlife species is further impeded by the developed nature of the surrounding area, which includes commercial office and institutional uses. As such, there would be no impacts.
- VII(h, i) No Impact. The project site is in a developed portion of the city, has been developed as a commercial center for over 20 years, and is not located in an area containing high ecological sensitivity as identified by the Ecological Resources Overlay Zone. The project site does not provide habitat for fish or wildlife species; therefore, development of the site would not substantially reduce fish or wildlife species. As such, the proposed project would not have a cumulative impact on biological species.

VIII CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Be located in high cultural sensitivity area as defined by the Rolling Hills Estates General Plan and result in grading in excess of 20 cubic yards of soil?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of a historical or archeological resource as defined in Section 15064.5 of the California Code of Regulations?	☐	☐	☐	☒
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?	☐	☒	☐	☐

Explanation of Checklist Judgments

The overall project site is a 3.13-acre site that has been permanently altered with the development of four multitenant commercial buildings, parking lots, roads, and hardscapes. The project site was previously graded to accommodate the existing structures and uses, and no historical, archaeological, or paleontological resources were identified when the site was initially developed or in the subsequent years of operation. Further, the northwest portion of the project site was previously developed with a gasoline/service station, which was demolished and redeveloped approximately 15 years ago to accommodate the existing commercial/office building. No historical, archaeological, or paleontological resources were identified when this portion of the project site was redeveloped.

VIII(a) Less Than Significant Impact With Mitigation Incorporated. The project would result in grading in excess of 20 cubic yards. However, the project site is not within a Cultural Resources Overlay area, but is located in an area of low sensitivity for cultural resources as shown in Exhibit 2-11 of the City's General Plan. The General Plan defines areas of low cultural resource sensitivity as "those lands which have been surveyed with the express purpose of identifying cultural resource sites but which provided negative results [and] ...areas ...where development or grading has resulted in the movement or relocation of massive amounts of earth."

Pursuant to California Assembly Bill 52 (AB 52), which became effective on July 1, 2015, the City undertook a formal notification process for California tribes as part of the CEQA process. AB 52 specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." According to the legislative intent for AB 52, "tribes may have knowledge about land and cultural resources that should be included in the environmental analysis for projects that may have a significant impact on those resources." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources," which are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and either listed on or eligible for the California Register of Historical Resources or a

local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource. The City of Rolling Hills Estates carried out the AB 52 consultation, which included mailing notification letters to the three tribes that had requested notification: the Soboba Band of Mission Indians, the Gabrieleño Band of Mission Indians-Kizh Nation, and the Torres Martinez Desert Cahuilla Indians. Subsequently, consultation with the Gabrieleño Band was conducted, which resulted in Mitigation Measures CULT-1 through CULT-4 detailed below as protective measures due to the overall sensitivity of the Palos Verdes Peninsula for archaeological resources. The Soboba Band deferred consultation to the Gabrieleño Band, and the Torres Martinez Desert Cahuilla Indians did not request consultation. With the incorporation of Mitigation Measures CULT-1 through CULT-4, the proposed project would not cause any significant impacts on archaeological resources or tribal cultural resources.

Mitigation Measure CULT-1: A qualified archaeologist approved by the Planning Director of the City of Rolling Hills Estates shall be present for all initial ground-disturbing activities associated with the project. The archaeological monitor shall be responsible for the identification of cultural resources that may be impacted by project activities. The monitor may stop ground-disturbing activities in order to assess any discoveries in the field. Archaeological monitoring may be discontinued when the depth of grading and soil conditions no longer retain the potential to contain cultural deposits or when the qualified project archaeologist determines that monitoring is no longer warranted. The project archaeologist shall be responsible for determining the duration and frequency of monitoring.

Timing/Implementation: During construction

Monitoring/Enforcement: Rolling Hills Estates Planning Department

Mitigation Measure CULT-2: In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the proposed project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending on the significance of the find under CEQA (14 CCR 15064.5(f); PRC Section 21082), the archaeologist may exhaust the data potential of the find through the process of field-level recordation and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.

Timing/Implementation: During construction

Monitoring/Enforcement: Rolling Hills Estates Planning Department

Mitigation Measure CULT-3: If any paleontological resources are found during future development of the project site, all work in the immediate vicinity of the find must stop and the Rolling Hills Estates Planning Department shall be immediately notified. A qualified paleontologist shall be retained to evaluate the finds and recommend appropriate handling and recovery methods. Construction in the vicinity of the find(s) shall not resume until deemed appropriate by the qualified site paleontologist.

Timing/Implementation: During construction

Monitoring/Enforcement: Rolling Hills Estates Planning Department

Mitigation Measure CULT-4: In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendent (MLD) from the deceased Native American. The MLD shall complete inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Timing/Implementation: During construction

Monitoring/Enforcement: Rolling Hills Estates Planning Department

- VIII(b) No Impact. The proposed project involves the demolition of two commercial structures—Building A and Building D. Neither of these buildings are historic resources. Building A is a single-story building constructed in 1993 in a Mediterranean architectural style with stucco walls and a red tile roof. Building D is a two-story, split-level building built in 1978 and also constructed in a Mediterranean architectural style with stucco walls and a red tile roof. The Los Angeles County Historical Directory does not record any historic sites in the vicinity of the project site. The project site does not contain any buildings that are more than 45 years old, and no existing structures on-site are identified as architecturally or historically significant by the City or any other group. As a result, the proposed project would have no impact on historical resources.
- VIII(c) Less Than Significant Impact With Mitigation Incorporated. The overall project site is a 3.13-acre site that has been permanently altered with the development of four multitenant commercial buildings, parking lots, roads, and hardscapes. The project site was previously graded to accommodate the existing structures and uses, and no paleontological resources were identified when the site was initially developed or in the subsequent years. Further, the project site slopes gently downward from south to north and does not contain any unique geologic features. Given the current developed nature of the site, the lack of any identified resources when the site was constructed, and in the subsequent years that followed, Mitigation Measure CULT-3, above, is recommended to protect paleontological resources in the unlikely event that such resources are discovered during project grading and construction. With the incorporation of this mitigation measure, project impacts would be less than significant.
- VIII(d) Less Than Significant Impact With Mitigation Incorporated. There are no known human remains on the site, and the likelihood of finding any human remains is low. The project site is not part of a formal cemetery and is not known to have been used for disposal of historic or prehistoric human remains. Thus, human remains are not

expected to be encountered during construction of the proposed project. In the unlikely event that human remains are encountered during project construction, Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the Public Resources Code, and Section 15064.5 of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed. In accordance with Health and Safety Code Section 7050.5, all construction or excavation must be stopped in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the County Coroner has made the necessary findings as to the origin and disposition of the remains pursuant to Public Resources Code Section 5097.98. With the required compliance with these codes, as further required by Mitigation Measure CULT-4, project impacts would be less than significant.

IX GEOLOGY AND SOILS	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Involve modifications on slopes greater than 2:1?	☐	☐	☐	☒
b) 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?	☐	☐	☒	☐
v) 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 risk 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?	☐	☐	☐	☒

Explanation of Checklist Judgments

IX(a) No Impact. The project site slopes down approximately 23 feet from north to south over a distance of approximately 400 feet (approximately 6 percent slope). As a result, the project site is relatively flat, and although there is a transitional slope at the existing buildings, no slopes greater than 2:1 exist on the site. Therefore, the project would have no impact.

IX(b[i, ii]) Less Than Significant Impact. The potential for fault rupture is addressed at the state level by the Alquist-Priolo Earthquake Fault Zoning Act. The legislation's intent is to provide a statewide seismic hazards mapping and technical advisory program to assist cities and counties in fulfilling their responsibilities for protecting the public health and safety from the effects of strong ground shaking, liquefaction, landslides, ground failure, and other seismic hazards caused by earthquakes.

According to the California Geological Survey (CGS) (1999), the site is located in the Torrance 7.5-minute quadrangle. The CGS surveyed the area to ascertain the seismic hazards in the area, including liquefaction, ground shaking, and landslides. The project site is not located in a currently mapped California Earthquake Fault Zone or an Alquist-Priolo Fault Rupture Zone. The closest such fault zone to the project site is the Palos Verdes Fault Zone, located approximately 2 miles to the northeast.

According to Exhibit 2-12 in the City's General Plan Land Use Element, the project site is located in a Hazards Management Overlay. The Land Use Element specifies, "This overlay designation applies to the central portion of the planning area [Planning Area 6] which is traversed by the Cabrillo Fault." Exhibit 8-4 of the General Plan Public Safety Element more specifically identifies Fault Caution Zones associated with inferred traces of the onshore segment of the Cabrillo Fault. The project site is not located within these Fault Caution Zones, which are more than 1,000 feet east and southeast of the site. Additionally, Exhibit 8-1 in the General Plan Public Safety Element "indicates those areas where...the Hazards Management Overlay designation applies." The project site is not in a risk area identified on Public Safety Element Exhibit 8-1. Therefore, the project site is not expected to be affected by rupture of the Cabrillo Fault.

According to the CGS (2008), the site is located in an area ascertained to be "distant from known, active faults and would experience lower levels of shaking less frequently." In most earthquakes, only weaker masonry buildings would be damaged. However, as with any site in Southern California, the site is susceptible to strong seismic ground shaking in the event of a major earthquake. Future on-site structures would need to be constructed to withstand potential peak accelerations as defined by the California Building Code (CBC). In addition, the design of individual structures would be subject to review by the City's Building and Safety Department, including review by the City Geologist and the City Engineer. With the required compliance with the CBC, the project is not expected to result in significant impacts related to rupture of a known earthquake fault or strong seismic ground shaking.

- IX(b)[iii]) Less Than Significant Impact. Liquefaction is a phenomenon in which saturated silt to cohesionless soil below the groundwater table are subject to a temporary loss of strength due to the buildup of excess pore pressure during cyclic stresses induced by an earthquake. These soils may acquire a high degree of mobility and lead to structurally damaging deformations. Liquefaction begins below the water table, but after liquefaction has developed, the groundwater table will rise and cause the overlying soil to mobilize. Liquefaction typically occurs in areas where groundwater is less than 30 feet from the surface and where the soils are composed of poorly consolidated fine- to medium-grained sand. In addition to the necessary soil conditions, the ground acceleration and duration of the earthquake must also be sufficient to initiate liquefaction. According to the CGS (2006), the project site is not in a liquefaction hazard zone as shown on the seismic hazard zone maps for the city. Therefore, the project is not anticipated to result in the exposure of people or structures to potential impacts related to seismic ground failure or liquefaction. Thus, impacts would be less than significant.
- IX(b)[iv]) Less Than Significant Impact. Associated with steep slopes is the propensity for unstable ground conditions and landslides. This geologic hazard exists in all steep slope areas in the city. Landslides are believed to result from the combined influence

of water-saturated soils and grading activities associated with development. Water saturation might result from rainfall, over-irrigation, and sewage effluent discharge. Rainfall could loosen soil cohesion or trigger soil erosion and result in hillside slope failure. Also, grading activities could result in uncompacted soils and the disruption of water drainage courses. The project site, however, is characterized by relatively flat topography. Further, according to the seismic hazard zone maps for the city (CGS 2006), the project site is not located in a landslide hazard area. Thus, project implementation would not expose people or structures to landslides, and impacts would be less than significant.

IX(b[v]) Less Than Significant Impact. Construction of the proposed project would involve limited grading operations associated with preparation of the site. With required compliance with existing regulations, these operations are not anticipated to leave soils uncovered or exposed for long periods and would not result in a significant loss of topsoil or erosion. The proposed project would be required to comply with SCAQMD Rule 403 regarding incorporation of measures to reduce fugitive dust, which would also help reduce the potential for construction-related erosion. SCAQMD Rule 403 includes measures for construction activities to reduce fugitive dust, including the application of water or stabilizing agents to prevent generation of dust plumes, pre-watering materials prior to use, use of tarps to enclose haul trucks, stabilizing sloping surfaces using soil binders until vegetation or ground cover effectively stabilize slopes, hydroseed prior to rain, and washing mud and soils from equipment at the conclusion of trenching activities. Given the project site's relatively flat topography and required compliance with SCAQMD Rule 403, the project would not result in substantial soil erosion or the loss of topsoil. Impacts in this regard would be less than significant.

IX(c) Less Than Significant Impact. As discussed in Responses IX(b[iii]) and (b[iv]) above, due to the absence of steep slopes and the depth of groundwater, the potential for landslides and liquefaction on the project site is considered low.

Lateral spreading is a phenomenon that is associated with liquefaction. Slopes may become unstable during liquefaction, and level areas near descending slopes may move laterally toward the slope as the slope becomes unstable. Since the potential for liquefaction on the project site is considered low, the potential for lateral spreading does not represent a geologic hazard to the proposed project. Lastly, hydroconsolidation, or collapse, is a geologic hazard where soil materials undergo settlement when they become saturated. The soils on the project site would be appropriately compacted in accordance with the project's geotechnical engineering requirements, as reviewed and approved by the Building and Safety Department. As such, impacts are considered less than significant.

IX(d) Less Than Significant Impact. Expansive soils primarily comprise clays, which swell when water is absorbed and shrink when dry. Expansive soils are of concern since building foundations may rise during the rainy season and fall during dry periods in response to the shrinking and swelling of the soil. If movement varies under different parts of the building, structural portions of the building may distort. Much of the Palos Verdes Peninsula is underlain by soils characterized as expansive; thus, appropriate construction plans would be reviewed by the City's Building and Safety Department for consistency with current building codes. Compliance with current codes and regulations would ensure that the project would be designed and engineered to withstand on-site soil conditions. Therefore, the impact would be less than significant.

- IX(e) No Impact. The project will be required to connect to the existing public sewer system. Therefore, soil suitability for septic tanks or alternative wastewater disposal systems is not applicable in this case, and the proposed project would have no associated impacts.

X HAZARDS AND HAZARDOUS MATERIALS	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Be located in the Hazard Management Overlay Zone?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
c) 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?	☐	☒	☐	☐
d) Emit hazardous emissions or handle petroleum, or petroleum byproducts, or hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
e) 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?	☐	☒	☐	☐
f) Be located (i) within an area covered by an airport land use plan or, where such a plan has not been adopted, (ii) within two miles of a public airport or public use airport, and (iii) will result in a safety hazard for people working in the project area.	☐	☐	☐	☒
g) 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?	☐	☐	☐	☒
h) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
i) 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?	☐	☐	☒	☐

Explanation of Checklist Judgments

- X(a) Less Than Significant Impact. According to Exhibit 2-12 in the City's General Plan Land Use Element, the project site is located in a Hazards Management Overlay. The Land Use Element specifies, "This overlay designation applies to the central portion of the planning area [Planning Area 6] which is traversed by the Cabrillo Fault." Exhibit 8-4 of the General Plan Public Safety Element more specifically identifies Fault Caution Zones associated with inferred traces of the onshore segment of the Cabrillo Fault. The project site is not located in these Fault Caution Zones, which lie more than 1,000 feet east and southeast of the site. Additionally, Exhibit 8-1 in the General Plan Public Safety Element "indicates those areas where...the Hazards Management Overlay designation applies." The project site is not in a risk area identified on Exhibit 8-1. Therefore, project impacts related to the Hazard Management Overlay zone are

considered less than significant. See also Response IX(b[i, ii]) in subsection IX, Geology and Soils.

- X(b) Less Than Significant Impact. Hazardous materials are chemicals that could potentially cause harm during an accidental release and are defined as being toxic, corrosive, flammable, reactive, an irritant, or a strong sensitizer. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment. The probable frequency and severity of consequences from the use, transport, or disposal of hazardous materials is affected by the type of substance, the quantity used or managed, and the nature of the activities and operations.

The proposed project involves the demolition of two buildings and the construction of a RCFE building, as well as remodeling activities to an existing structure. Construction and operation of the proposed project would require the routine transport, use, storage, and disposal of limited quantities of common hazardous materials such as gasoline, diesel fuel, oils, solvents, paint, fertilizers, pesticides, and other similar materials. However, the transport, use, storage, and disposal of such materials are strictly regulated by state and federal agencies to minimize adverse hazards from accidental release. In addition, the planned residential care facility for the elderly and the medical offices would likely involve the routine transport, use, storage, and disposal of potentially hazardous medical waste including pharmaceuticals, radiologicals, sterilants and disinfectants, cleaning chemicals, and laboratory chemicals. Medical waste is also strictly regulated by state and federal agencies including the California Occupational Safety and Health Agency (Cal/OSHA), the California Department of Toxic Substances Control (DTSC), and the California Department of Transportation (Caltrans) to minimize adverse hazards from accidental release. Furthermore, in Rolling Hills Estates, the County of Los Angeles Fire Department, Health Hazardous Materials Division, is responsible for the Hazardous Materials Disclosure and California Accidental Release Prevention programs. Any businesses using hazardous materials that may occupy the project site after the completion of construction would be required to comply with existing hazardous material regulations. The proposed project would not result in the routine transport, use, disposal, handling, or emission of any hazardous materials that would create a significant hazard to the public or to the environment. Based on the uses that would be part of the project and the existing regulatory structure, hazardous materials would not be transported, used, stored, or disposed of such that the proposed project would cause a threat to public safety, during either construction or operation of the project. Therefore, impacts are considered less than significant.

- X(c) Less Than Significant Impact With Mitigation Incorporated. Potential construction-related hazards could be created during the course of construction at the project site, given that demolition is proposed for buildings that could potentially contain hazardous materials such as asbestos-containing building materials and lead paint. The presence of asbestos-containing building materials and/or lead paint in a building does not necessarily endanger the health of building occupants; as long as these materials remain in good condition and are not disturbed or damaged, exposure is unlikely. However, these materials may release hazardous toxics into the environment if disturbed or improperly handled, such as during the demolition activities proposed as part of+ the project. Implementation of Mitigation Measure HAZ-1 would reduce potential impacts to a level of less than significant.

Mitigation Measure HAZ-1: The project applicant shall be required to retain an EPA-Certified Asbestos Professional and EPA Lead-Safe Certified contractor to prepare an Asbestos/Lead Paint Management Plan that includes lead and asbestos inspection notes and sampling results, as well as a Respiratory Protection Program, Medical Surveillance Requirements, an Injury and Illness Program, asbestos-containing building materials disposal requirements, and a Periodic [Asbestos] Surveillance Schedule. All asbestos-containing building materials and lead paint identified in the Asbestos/Lead Paint Management Plan shall be removed and disposed of by an EPA-Certified Asbestos Professional and EPA Lead-Safe Certified contractor, as appropriate, in accordance with all state and federal regulations.

Timing/Implementation: Prior to issuance of building and/or grading permits

Monitoring/Enforcement: Rolling Hills Estates Building and Safety Department

X(d) Less Than Significant Impact. The project site is less than a tenth of a mile from the Academy of Foreign Languages, approximately a tenth of a mile from Discovery World Early Education Center, approximately two-tenths of a mile from Soleado Elementary School, and approximately four-tenths of a mile from Peninsula High School. The proposed RCFE would not normally use hazardous materials in a manner that could affect off-site uses, and as previously described, hazardous medical waste is strictly regulated by state and federal agencies. During demolition and construction of the new buildings, hazardous materials may be used. However, as discussed previously, all hazardous materials used during the project's construction phase are regulated by state and federal law. Once completed, the proposed project would not emit hazardous emissions or handle petroleum, petroleum byproducts, or hazardous or acutely hazardous materials, substances, or waste. Therefore, the proposed project would have a less than significant impact.

X(e) Less Than Significant Impact With Mitigation Incorporated. The project site is not listed as a hazardous material cleanup site on either the California Department of Toxic Substances Control (2014) EnviroStor database or the State Water Resources Control Board (2014) GeoTracker database. While not listed in these databases, two tenant spaces on-site were previously occupied by a dry cleaning business and a gas station; thus, there is the potential for localized contamination to exist on-site related to dry cleaning chemicals and gasoline. A Remedial Action Plan was prepared for the project site in 2014 to plan the removal of volatile organic compound (VOC) masses present in the soil and to specify the soil management procedures to be taken during redevelopment. The Remedial Action Plan, prepared by Bowyer Environmental Consulting (March 2014) for The Village shopping center (see Appendix D), states the following:

A limited soil sampling effort was implemented at the dry cleaning facility in 2004 (ADR Environmental Group, Inc., January 11, 2004). This investigation showed that relatively low levels of tetrachloroethene (PCE) and trichloroethene (TCE) were present in shallow soil beneath the dry cleaner. An additional soil and soil gas investigation conducted by BEC between November 2012 and April of 2013 confirmed the presence of PCE and related daughter products including TCE, cis-1,2-dichloroethene (cis-1,2- DCE) and vinyl chloride. Low levels of other chlorinated and aromatic VOCs were also observed in collected vapor and soil samples. The soil results suggest that the vertical extents of impacts are limited

(Approximately 15 feet). The soil vapor results increase with depth, but this may be a result of greater levels of ambient air exchange in the shallow subsurface...

Only PCE, TCE and vinyl chloride was observed in soil vapor samples in excess of conservative screening criteria. These three compounds were observed at concentrations in excess of California Human Health Screening Levels (CHHSLs) for commercial/industrial land use. Further evaluations were performed to estimate the potential health risks posed by the observed vapor concentrations using the latest version of the Johnson and Ettinger model (The Advanced Soil Gas Model–USEPA 2003a; model last modified February 2004, which was further modified to include California EPA toxicity factors). Based on these evaluations, soil vapor samples collected from the dry cleaning facility exhibit concentrations that exceed unrestricted use criteria (incremental lifetime cancer risks of greater than 1×10^{-6}) but do not exceed criteria that is typically acceptable for commercial/industrial purposes (incremental lifetime cancer risks of greater than 1×10^{-5}) based on carcinogenic risk. In addition, the non-carcinogenic risks did not exceed unrestricted use criteria (Hazard Quotient of less than 1).

Based on a summary provided in a Phase I Report (MACTEC, July 25, 2005), the gasoline service station located at the northwestern corner of the Property was the subject of several historical investigation and remediation efforts in the 1980s and 1990s. Based on these efforts, the Los Angeles Area Regional Water Quality Control Board (RWQCB) closed the gasoline station in 1999.

As noted, massed VOCs associated with the dry cleaning operation were observed in soil vapor samples in excess of conservative screening criteria. Contaminants associated with the gas station have been adequately remediated. Adherence to the Remedial Action Plan would reduce the chemical mass of PCE and daughter products in the subsurface by implementing a soil vapor extraction program. It is anticipated that the implementation of a soil vapor extraction program for a six-month period would significantly reduce PCE mass in the subsurface and should allow the redevelopment activities to be implemented for the project's intended uses (Bowyer Environmental Consulting 2014). In accordance with the Remedial Action Plan, environmental monitoring activities would be conducted during demolition and grading activities associated with the proposed project in order to address any residual volatile organic compounds that remain following the implementation of the vapor extraction program. If, during future development activities, residual VOCs are observed at levels of concern, removal activities would be conducted to address these conditions. While remediation is in place for former on-site operations, the proposed project would not cause any significant impacts related to known hazardous material conditions/sites. With the required adherence to the Remedial Action Plan, the proposed project would have a less than significant impact. Mitigation Measure HAZ-2 ensures that the Remedial Action Plan is implemented on the project site prior to the commencement of project operations.

Mitigation Measure HAZ-2: The project applicant shall be required to complete all site remediation actions contained in the Remedial Action Plan prepared for the project site by Bowyer Environmental Consulting in March 2014 (see Appendix D).

Timing/Implementation: Prior to issuance of building and/or grading permits, and during construction

Monitoring/Enforcement: Rolling Hills Estates Building and Safety Department

- X(f-g) No Impact. The project site is located approximately 2.75 miles southwest of Torrance Municipal Airport. Los Angeles International Airport (LAX) and Hawthorne Municipal Airport are located approximately 11.25 miles northwest and 10.5 miles northeast of the project site, respectively. The project site is not located in a designated airport influence area or runway protection zone area, nor would it involve any improvements that would otherwise affect airport operations. As a result, the proposed project would not present a safety hazard related to aircraft or airport operations. No impacts would occur.
- X(h) Less Than Significant Impact. According to Exhibit 8-2 of the City's General Plan Public Safety Element, Hawthorne Boulevard, Crenshaw Boulevard, and Palos Verdes Drive East are the designated emergency evacuation routes in the city. Los Angeles County Public Works has prioritized these routes for debris clearance and road repairs in the event they are damaged during a major earthquake or other natural disaster. In addition, Indian Peak Road, Palos Verdes Drive North, and Silver Spur Road are disaster routes proposed to augment County routes for City-specific emergency planning purposes.
- The project provides adequate street access, and project operations would not interfere with an emergency response plan or emergency evacuation plan. Also, the project site plan is subject to review and approval by the Los Angeles County Fire Department in order to ensure adequate provision of fire hydrants and access. This step in the permitting process ensures adequate emergency response and access, and the project would have a less than significant impact.
- X(i) Less Than Significant Impact. The project site is located in a commercial district and not in a Fire Hazard area identified on Exhibit 8-1 of the City's General Plan. Nonetheless, the stringent Building Code requirements associated with the State's Very High Fire Hazard Severity Zone apply to all properties in the city. The project is required to comply with all pertinent Fire Code and City ordinance requirements for construction, access, water mains, fire hydrants, and fire flows. Specific Fire Code requirements would be addressed during the building plan check. Given the site's location and the required compliance with the Fire Code and ordinance requirements, the project would not result in significant impacts related to wildland fire hazards.

XI HYDROLOGY AND WATER QUALITY	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
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 the site or 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) Be subject to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Explanation of Checklist Judgments

XI(a, c, f) Less Than Significant Impact. Section 402 of the federal Clean Water Act requires National Pollutant Discharge Elimination System (NPDES) permits for stormwater discharges from storm drain systems to waters of the United States.² The City of

² Storm drainage systems are described as Municipal Separate Storm Sewer Systems (MS4s) and include streets, gutters, conduits, natural or artificial drains, channels, and watercourses or other facilities that are owned, operated, maintained, or controlled by a permittee and used for purposes of collecting, storing, transporting, or disposing of stormwater.

Rolling Hills Estates is a co-permittee in the Los Angeles County storm drain system permit or “municipal permit” (Order No. 01-182; NPDES No. CAS0041 as amended by Orders R4-2006-0074 and R4-2007-0042).

The proposed project would be subject to the requirements of the Municipal NPDES Permit and the City’s Municipal Code. Both the Municipal Code and the Municipal NPDES Permit require application of erosion and sedimentation control best management practices (BMPs) during construction for proper water quality management. Erosion control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap sediment once it has been mobilized. BMPs will be specifically identified in the project-specific Wet Weather Erosion Control Plan and designed to prevent erosion and construction pollutants from entering the City’s storm drain and receiving waters. By requiring implementation of a Wet Weather Erosion Control Plan and of BMPs during construction activities, the City ensures that these activities would not violate standards or degrade water quality. As part of its normal project approval and construction oversight activities, the City of Rolling Hills Estates monitors compliance with these requirements.

The Los Angeles County Municipal Permit also requires that stormwater pollution prevention plans (SWPPPs) be prepared for all construction projects with disturbed areas of 1 acre or greater. The statewide NPDES construction permit maintained by the State Water Resources Control Board also requires a SWPPP for construction projects that involve 1 or more acres of land disturbance. The SWPPP is required to outline the best management practices that will be incorporated during construction. These BMPs will minimize construction-induced water pollutants by controlling erosion and sediment, establishing waste handling/disposal requirements, and providing non-stormwater management procedures.

The project is also required to implement stormwater pollution controls for the completed project. Pursuant to Section 8.38.070(c) of the Rolling Hills Estates Municipal Code, since the project involves greater than 1 acre of ground disturbance, the project must incorporate required BMPs into plans submitted to the City as follows:

1. General. Projects must control pollutants, pollutant loads, and runoff volume from the project site by minimizing the impervious surface area and controlling runoff through infiltration, bioretention, or rainfall harvest and use. Projects must incorporate BMPs in accordance with the requirements of the municipal NPDES permit.
2. Stormwater Mitigation. Project applicants must prepare a stormwater mitigation plan that includes those BMPs necessary to control stormwater pollution from the completed project. The structural or treatment control BMPs (including, as applicable, post-construction treatment control BMPs) in the stormwater mitigation plan must meet the design standards set forth in the municipal NPDES permit.

In addition to Section 402, Section 303 of the Clean Water Act requires states to designate uses for all bodies within state boundaries (intrastate waters) and to establish water quality criteria for those water bodies. Those water bodies that do not satisfy the water quality criteria for their designated uses are identified as impaired. In order to improve the quality of impaired water bodies and thus achieve the water quality criteria, the US Environmental Protection Agency requires states to establish

Total Maximum Daily Load (TMDL) standards that apply to tributary sources for impaired water bodies. While the proposed project may result in minor alteration of existing localized drainage patterns with the proposed project site draining to Silver Spur Road and the existing Village shopping center draining to Drybank Drive, the storm drain system that serves the current project site would continue to drain into the Wilmington Drain, which in turn discharges into Machado Lake. The storm drain system that serves the majority of Rolling Hills Estates drains into Machado Lake, which is identified as an impaired water body. TMDLs have been adopted for Machado Lake for nutrients and trash, and additional TMDLs for toxics and metals are currently under review.

Both construction and operation activities associated with the project could generate additional water pollutants that could adversely affect stormwater quality and the water quality in downstream Machado Lake. Construction-related activities can release sediments from exposed soils into local storm drains. In addition, construction waste materials such as chemicals, liquid products, and petroleum products may make their way into local storm drains. However, as indicated above, the project would be subject to the requirements of the Municipal NPDES Permit and the City's Municipal Code. Pursuant to these requirements, best management practices (BMPs) would be instituted to effectively offset these potential sources of water pollution.

Operationally, stormwater or urban runoff from the developed project site could collect sediment, trash, metals, and oils as it flows through the site's parking lot and other site surfaces. These potential post-construction pollutants would be addressed through treatment control BMPs that would be incorporated into the final site design of the project, as required by Section 8.38.070(c) of the City's Municipal Code. These BMPs would be implemented to treat runoff from the proposed project's buildings, including roof runoff.

In summary, with the required compliance with the municipal permit and with the City's Municipal Code, the proposed project would not result in significant impacts related to a violation of water quality standards or waste discharge requirements, erosion or siltation, or any other degradation of water quality.

- XI(b) Less Than Significant Impact. The proposed project would not directly use any groundwater to serve the project site. While additional commercial and residential care uses would be available on completion of the project, these uses are not expected to result in a substantial depletion of groundwater resources.

The project site is fully developed, eliminating the possibility of groundwater recharge through the percolation of stormwater or landscaping water on the site. Under the proposed project, the site's groundwater recharge ability would remain similar to current conditions and would not substantially impede percolation of water into the underlying substrate at a level beyond current conditions. Implementation of the proposed project would not result a net deficit in aquifer volume or a lowering of the local groundwater table level.

- XI(d, e) Less Than Significant Impact. Storm drainage facilities exist throughout the project site. While it is possible that the proposed project may result in minor alteration of existing localized drainage patterns, the proposed project would not increase the volume of stormwater flowing from the project site because the amount of on-site impermeable surfaces would remain generally the same as in the existing condition.

Therefore, anticipated stormwater runoff would not cause flooding or exceed the capacity of the storm drain system.

- XI(g-j) No Impact. The project site is shown on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06037C1940F as located in Zone X, which is defined as “areas determined to outside the 0.2 percent annual chance floodplain.” The project would therefore not result in the placement of uses within a 100-year flood zone. The project site is not within the inundation area of any reservoir, levee, or dam, and the project site is not in an area that would be subject to seiche, tsunami, or mudflow.

XII AGRICULTURE RESOURCES	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:</i>				
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 nonagricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use?	☐	☐	☐	☒

Explanation of Checklist Judgments

- XII(a) No Impact. The project site is located in a fully developed area in Rolling Hills Estates, which is an urbanized area of Los Angeles County. The proposed project site is not currently used for productive agricultural purposes. The project site is not located adjacent to or near any land used for agricultural purposes. The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.
- XII(b) No Impact. No agricultural resources are identified in the City’s General Plan, and no agricultural resources are present on the project site. The site is not subject to a Williamson Act contract, and the site is not zoned for agricultural use. Therefore, the proposed project would have no impact in this regard.
- XII(c) No Impact. Neither the project site nor any nearby parcels are currently used for agricultural purposes. The project proposes the development of a RCFE building and the remodeling of an existing commercial use that would in no way hinder the operations of any existing agricultural practices.

XIII MINERAL RESOURCES	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
a) Result in the loss of availability of a known mineral resource that would be of future 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?	☐	☐	☐	☒

Explanation of Checklist Judgments

XIII(a, b) No Impact. The project site is fully developed and is not located on any known bank of minerals. The site is not within any of the Mineral Resource Zone boundaries identified by the City on Exhibit 5-4 of the General Plan Conservation Element. Therefore, the proposed project would have no impact on the availability of a known mineral resource that would be of value and would not result in the loss a locally important mineral resource.

XIV POPULATION AND HOUSING	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
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?	☐	☐	☐	☒

Explanation of Checklist Judgments

XIV(a) Less Than Significant Impact. The proposed project would result in the development of a residential care facility for the elderly featuring one four-story building containing 114 units and the continued use/reuse of two existing commercial buildings on the site. Based on the conservative assumption of two residents per assisted living unit and one resident per memory care unit, the proposed project would result in 208 additional residents. The addition of 208 residents to the city population of 8,223 would not be considered a substantial increase. The residential care use proposed with the project is an allowed use under the current General Plan designation (Commercial General). Furthermore, according to SCAG's (2016) demographics and growth forecast, which is intended to provide more details on the development of the regional growth forecasts for 2016–2040, 8,600 Rolling Hills Estates residents are predicted in 2040. Therefore, the increase in population as a result of the proposed project has been anticipated by SCAG and planned for in the City's General Plan.

Considering an employee-to-resident ratio of 1:2.5, which is based on employment levels at similar facilities (Our Family Home 2014), the assisted living facility would be expected to create approximately 50 new jobs. The addition of 50 new permanent jobs in the city would not be considered a substantial increase. It is expected that these jobs could be filled by existing area residents or that any new residents could be accommodated in existing vacant housing without the need for construction of new housing. Furthermore, the project would not extend any roads or other infrastructure that could remove a barrier to growth in other areas. Therefore, the proposed project would not induce substantial population growth and this impact would be less than significant.

XIV(b, c) No Impact. The site is currently fully developed as a commercial/retail land use and is not used for residential uses. Thus, no displacement of housing or persons would result.

XV PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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) Other public facilities?	☐	☐	☐	☒

Explanation of Checklist Judgments

XV(a) Less Than Significant Impact. The City of Rolling Hills Estates is within the jurisdiction of and is part of the Consolidated Fire Protection District of Los Angeles County, through which the Los Angeles County Fire Department provides fire protection and emergency medical services to the city and all unincorporated areas in Los Angeles County. Fire Station 106, located at 27413 Indian Peak Road in Rolling Hills Estates, is approximately 0.2 mile from the project site. Fire Station 56, located at 12 Crest Road West in the City of Rolling Hills, is less than 1.5 miles from the project site. While these stations are the closest stations to the project site, the Fire Department as a whole serves the project area.

Generally, the need for new fire facilities is based on the time it takes for a station to respond to an incident. The Fire Department seeks to maintain a 5-minute response time. As a medical facility for the elderly, the proposed project could potentially increase demand for emergency medical services. However, because there is an existing station 0.2 mile from the project site, the response time would be minimal and most likely within the 5-minute response time standard. Therefore, the project would not require any new or expanded fire facilities. Furthermore, the project would be designed and constructed in accordance with the Fire Code, thereby minimizing the potential for fire hazards and ensuring adequate site access for emergency responders. This impact would be less than significant.

XV(b) Less Than Significant Impact. The City of Rolling Hills Estates contracts with the Los Angeles County Sheriff's Department for police protection and law enforcement services. The main sheriff's station serving the city is located at 26123 Narbonne Avenue in Lomita, approximately 3 miles to the east of the site. The emergency response time averages 5 minutes or less. The Sheriff's Department's service standards are a 6-minute emergency response time, a 20-minute immediate response call response time, and a 1-hour report call response time. Because the project site is located in an existing developed area that is currently adequately served by the Sheriff's Department, the project would not result in the need for additional law enforcement facilities to serve the project. The impacts on police protection services are expected to be less than significant.

- XV(c) No Impact. The project proposes the development of a residential care facility for the elderly and the continued use/reuse of two commercial buildings. Therefore, the project would not generate additional students who would attend schools in the area.
- XV(d) No Impact. The proposed project is the construction of a residential care facility for the elderly and the continued use/reuse of two commercial buildings. The project would not result in the demand for additional public services or the need for new or expanded public service facilities.

XVI UTILITIES AND SERVICE SYSTEMS		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
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 stormwater 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?	☐	☐	☒	☐

Explanation of Checklist Judgments

XVI(a) Less Than Significant Impact. The proposed new construction of a residential care facility for the elderly would generate an increase in wastewater. The region's existing wastewater facilities are designed to treat domestic sewage and to accommodate the level of growth anticipated in local general plans. The proposed project is consistent with the existing City zoning and General Plan land use designations for the project site. Therefore, the proposed project would not generate wastewater in a manner that would exceed the wastewater treatment requirements of the Regional Water Quality Control Board. See also Response XVI(b, d, e), below.

XVI(b, d, e) Less Than Significant Impact. The City of Rolling Hills Estates is serviced by the California Water Service Company (Cal Water). Cal Water's Palos Verdes system is part of the Rancho Dominguez District, which contains the service areas of the Hermosa-Redondo, Dominguez, and Hawthorne systems. Cal Water's Rancho Dominguez District purchases imported Colorado River and State Water Project water supplies from the Metropolitan Water District of Southern California to serve the domestic water system on the Palos Verdes Peninsula. The Palos Verdes system serves approximately 23,900 customer connections through 330 miles of pipeline, 36 booster pumps, and 18 storage tanks with a maximum capacity of 30.5 million gallons. The system does not produce domestic water from groundwater wells.

The average water consumption in Rolling Hills Estates is 236.1 gallons of water per person per day (Rolling Hills Estates 2012) and the average water consumption in the city is approximately 1.2 million gallons per day (mgd). The proposed RCFE would result in an additional daily water demand of approximately 49,109 gallons of water (208 people x 236.1 gallon/person/day) or 54.75 acre feet per year. This demand would increase the water consumption in the Rancho Dominguez District by 0.17 percent, which would be well within the District's anticipated future demand, as identified in the Urban Water Management Plan (California Water Service 2016). No other component of the proposed project would increase water use beyond the existing water demand on the project site. The project's additional water demand would not exceed the capacity of Cal Water's Palos Verdes system. As such, the proposed project would not result in a need for new or substantial alterations to local or regional water treatment or distribution facilities.

Wastewater generated by the project would be treated at the Joint Water Pollution Control Plant in Carson, which has a design capacity of 385 mgd and currently processes an average flow of 280.5 mgd. With the proposed project, it is expected that there would be an additional 17,784 gallons of wastewater (156 gallons per unit x 114 units). The project is not anticipated to result in a need for new or substantial alternations to the existing sewer system due to the limited amount of additional sewage that would be generated by the project and the capacity of the existing wastewater conveyance and treatment system. Impacts are anticipated to be less than significant.

- XVI(c) Less Than Significant Impact. Existing storm drain facilities are anticipated to be adequate to accommodate project flows as discussed more fully in subsection XI, Hydrology and Water Quality, of this Initial Study.
- XVI(f) Less Than Significant Impact. Refuse disposal and recycling services to the city and the project site are provided by a private entity, Waste Management, which contracts with the Sanitation Districts of Los Angeles County (SDLAC) for disposal of refuse. The SDLAC maintains multiple refuse disposal facilities, including three landfills, five gas-to-energy/refuse-to-energy facilities, two material recovery facilities, and various recycling facilities and transfer stations. As shown in Table XVI-1, in 2012 Rolling Hills Estates produced approximately 5,390 tons of solid waste, as reported to the California Department of Resources Recycling and Recovery (2016). The majority of this waste, 77.9 percent, was taken to the El Sobrante Landfill in Corona, which has a cease operations date of January 1, 2045. All other area landfills have a cease operations date beyond the year 2019. With the proposed project, it is expected that there would be an additional 456 pounds of waste per day (4 lbs/unit/ day x 114 units). Based on this information, landfills in the area would have sufficient capacity to absorb the addition of the proposed project's solid waste.

Table XVI-1
City of Rolling Hills Estates Solid Waste Disposal – 2012

Destination Facility	2012 City Tonnage to Facility	Permitted Maximum Capacity (million cubic yards)	Remaining Capacity (Million Cubic Yards) (survey date)	Cease Operations Date
Antelope Valley Public Landfill	27	n/a	20.4 (n/a)	1/1/2042
Azusa Land Reclamation Co. Landfill	5	66.670	n/a	1/1/2025
Chiquita Canyon Sanitary Landfill	52	63.900	29.3 (11/23/2006)	11/24/2019
El Sobrante Landfill	4,197	184.930	145.530 (4/6/2009)	1/1/2045
Lancaster Landfill and Recycling Center	1	27.000	14.514 (8/28/2012)	3/1/2044
Olinda Alpha Sanitary Landfill	6	74.900	38.578 (10/1/2005)	12/31/2021
Prima Deshecha Sanitary Landfill	100	172.900	87.385 (8/1/2005)	12/31/2067
Sunshine Canyon City/County Landfill	104	140.9	112.3 (7/3/2007)	12/31/2037
2012 Total	5,390			

Source: CalRecycle 2016

XVI(g) Less Than Significant Impact. The project applicant is required to comply with all local, state, and federal requirements for integrated waste management (e.g., recycling, green waste) and solid waste disposal. The project would have a less than significant impact.

XVII MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Does the project:</i>				
a) 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) 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) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Explanation of Checklist Judgments

XVII(a) Less Than Significant Impact With Mitigation Incorporated. Based on the analysis in subsection VII, Biological Resources, of this IS/MND, the proposed project would not have substantial impacts to special-status species, stream habitat, and wildlife dispersal and migration. Furthermore, the proposed project would not affect the local, regional, or national populations or ranges of any plant or animal species and would not threaten any plant communities. Similarly, as discussed in subsection VIII, Cultural Resources, with the incorporation of mitigation measures, the proposed project would not have substantial impacts to historical, archaeological, or paleontological resources and thus would not eliminate any important examples of California history or prehistory. Therefore, the proposed project would not result in a Mandatory Finding of Significance due to impacts to biological or cultural resources.

XVII(b) Less Than Significant Impact. A significant cumulative impact may occur if the project, in conjunction with related projects, would result in impacts that are less than significant when viewed separately but would be significant when viewed together. When considering the proposed project in combination with other past, present, and reasonably foreseeable future projects in the vicinity of the project site, the proposed project does not have the potential to cause impacts that are cumulatively considerable. As detailed in the above discussions, the proposed project would not result in any significant and unmitigable impacts in any environmental categories. In all cases, the impacts associated with the project are limited to the project site or are of such a negligible degree that they would not result in a significant contribution to any cumulative impacts. Therefore, the proposed project would not result in a Mandatory Finding of Significance due to cumulative impacts.

- XVII(c) Less Than Significant Impact With Mitigation Incorporated. As detailed above, the proposed project does not have the potential to result in direct or indirect substantial adverse effects on human beings. The proposed project does not approach or exceed any significance thresholds for environmental issues typically associated with direct or indirect effects on people, such as air, water, or land pollution, natural environmental hazards, transportation-related hazards, or adverse effects to emergency service response. However, mitigation is identified in subsection X, Hazards and Hazardous Materials, of this IS/MND to ensure proper remediation of VOCs from past dry cleaner operations on the site and proper handling of any existing asbestos and lead-based paint during construction. In addition, mitigation is identified in subsection VI, Noise, of this IS/MND to reduce the impacts of construction noise on the adjacent Peninsula Center Library. With the incorporation of these mitigation measures, the project would not cause environmental effects that have the potential to cause substantial adverse effects on human beings. Therefore, the proposed project would not result in a Mandatory Finding of Significance in this regard.

APPENDICES

APPENDIX A – TRAFFIC IMPACT ANALYSIS AND PARKING STUDY



TECHNICAL MEMORANDUM

Date: July 1, 2015

To: David Wahba, Planning Director, City of Rolling Hills Estates

CC: John Bellas, PMC

From: Anjum Bawa and Mike Samuelson

Subject: *The Village/Merrill Gardens Parking Study*

Ref: LA14-2758

This technical memorandum summarizes the results of a comprehensive parking demand analysis conducted in support of proposed The Village/Merrill Gardens project (601 Silver Spur Road, 627 Silver Spur Road and 600 Deep Valley Drive) in City of Rolling Hills Estates, California. Provided below is a brief description of the project followed by the detailed discussion of comprehensive parking utilization surveys conducted at the Peninsula Center Library and the existing project site to determine peak parking demand associated with the Library operations.

PROJECT DESCRIPTION

The proposed Village/Merrill Gardens project will involve the subdivision of the existing 3.13-acre property into two parcels. Parcel 1, 1.48 acres, will involve the demolition of the existing Building A (601 Silver Spur Road) and Building D (627 Silver Spur Road) and construction of a new 134,479 square foot, 115-unit Residential Care Facility for the elderly. Parcel 2 will contain 21,075 square feet (sf) of commercial condominium use in Building B (627 Silver Spur Road) and Building C (600 Deep Valley Drive). Sixty two (62) spaces will be provided in a below-grade garage to serve the Residential Care Facility on Parcel 1. A new 168-space parking facility is proposed to serve the needs of commercial condominium in Parcel 2. Parcel 2 will also include 28 parking spaces in a surface lot and 26 spaces in the basement of Building B. The project proposes to dedicate a total of 81 spaces for the Peninsula Center Library use, and 141 spaces will be dedicated for use by the Village.

According to an original reciprocal parking agreement between the Project and the Library, the Project site is require to provide 195 spaces towards Library use. The City had requested the project applicant to conduct a detailed parking study to justify providing 114 fewer parking spaces for Library use.

Existing Uses on Project Site and Parking

The existing site consists of four buildings and has a total of 45,675 sf of retail space and restaurant space. Figure 1 shows location of existing buildings on the site summarized below:

Figure 1 – Existing Project Site



- Building A is a single story with 4,200 sf
- Building B is two stories with 10,000 sf on the upper level and 1,075 sf on the lower level, which also contains 26 parking spaces
- Building C is a single story with 9,600 sf
- Building D is a split level with 10,400 sf on both levels

The project site provides a total of 245 parking spaces:

- 222 standard spaces
- 6 handicap accessible spaces
- 17 reserved for customer parking

Library Parking

The Library parking facility consists of three levels of structured parking with a total of 165 parking spaces. Level 1 consists of 22 spaces and is dedicated to staff parking only. Level 2 (43 spaces) and Rooftop level (100 spaces) allow visitor parking. In addition to the Library parking facility, Library patrons can park in spaces provided at the Project site located immediately adjacent to the Library with direct pedestrian access from the parking lot to the Library building.



Existing On-Site Library Parking

	Regular Spaces	Handicap Spaces	Compact	Maintenance	Total
1 st Floor	18	3	0	1	22
2 nd Floor	41	2	0	0	43
Roof	92	4	4	0	100
Total	151	9	4	1	165

PARKING UTILIZATION SURVEYS

To develop an understanding of total parking demand generated by the Library, comprehensive parking utilization surveys were conducted both at the Library parking facility and the Project site. The surveys on the project site involved observation of patrons associated with existing uses on the site and also library patrons parking and walking to/from the library. Per detailed discussion with the Library, parking surveys were conducted on four separate days in the month of May 2015. Parking utilization was observed every 30 minutes throughout the day, beginning before the Library opened until after it closed for the day:

- Thursday May 14, 2015 – From 8:00 AM to 9:00 PM (13 hours)
- Friday May 15, 2015 – From 8:00 AM to 7:00 PM (11 hours)
- Sunday May 17, 2015 – From 8:00 AM to 6:00 PM (10 hours)
- Thursday May 28, 2015 – From 8:00 AM to 9:00 PM (13 hours)

Tables 1A through 1D summarize parking utilization observed at the Library parking facility on all four days. As shown in the tables, of the total 165 spaces available in the Library parking facility, peak parking utilization ranged from 84 spaces at 2:30 PM on Sunday, May 17, 2015 to 119 spaces at 1:00 PM on Thursday, May 28, 2015. This represents a range of approximately 58% to 72% utilization. Table 1E provides a brief summary of peak parking utilization on all four surveyed days.

Tables 2A through 2D summarize parking utilization observed at the Project site where a total of 245 spaces are currently provided. As mentioned, surveys at the Project site involved observation of patrons associated with existing uses on the site and library patrons parking and walking to/from the library. As shown in the tables, peak parking utilization for the project site ranged from 62 spaces at 2:30 PM on Sunday, May 17, 2015 to 96 spaces at 1:00 PM on Thursday, May 28, 2015. This represents a range of approximately 25% to 39% utilization.

Peak demand for Library patrons only ranged from 48 spaces at 1:00 PM on Sunday, May 17, 2015 to 67 spaces at 1:00 PM on Thursday, May 28, 2015. Table 2E provides a brief summary of peak parking utilization on all four surveyed days.

Detailed parking inventory and utilization data is provided in the attachment to this memorandum.

Combined Parking Demand Generated By Library

To calculate total parking demand generated by the Library, parking utilization at the Library parking facility was combined with parking utilization observed for Library patrons at the Project site.



David Wahba
City of Rolling Hills Estates, CA
July 1, 2015
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Tables 3A through 3D summarize combined parking demand for all four surveyed days. As shown in the tables, the combined peak parking demand ranged from 129 spaces at 2:30 PM on Sunday, May 17, 2015 to 186 spaces at 1:00 PM on Thursday, May 28, 2015. Table 3E shows a brief summary of combined peak demand associated with the Library operation on all four surveyed days.

RECOMMENDED SUPPLY FOR LIBRARY OPERATIONS

Based on the aforementioned information, Library operations are observed to generate a peak parking demand of 186 spaces.

For the purpose of this parking demand analysis, a parking facility is considered to have reached its effective supply if 90% of the spaces in the facility are utilized. Effective supply is the cushion of extra spaces that a parking system must have to account for operating fluctuations, vehicle maneuvers, mis-parked vehicles, minor construction, etc. A parking system operates at optimum efficiency at slightly less than its actual capacity. It is unrealistic to expect an arriving parker to find the last available parking space in a system without significant frustration and the resulting perception that parking is inadequate. Because "perception is reality," parking "demand" must include this effective supply cushion (*Parking Structure – Planning, Design, Construction and Repair*, 3rd ed. [Anthony P Chrest... et al., 2001]). A 10% cushion is widely accepted in the parking industry as adequate. Therefore, to accommodate peak parking demand of 186 spaces, a parking supply of 205 spaces would provide the necessary cushion of extra spaces for operating fluctuations and other inefficiencies.

The existing Library parking facility provides a total of 165 spaces in three separate levels. Subtracting this supply from the estimated supply of 205 spaces, it is recommended that, at a minimum, the proposed Project should dedicate 40 spaces towards Library use. Since the project is proposing to dedicate 81 spaces for Library use, this number of spaces should be adequate to accommodate parking demand generated by the Library.

Table 1A
Peninsula Center Library
Parking Inventory and Occupancy Summary
Thursday, May 14, 2015

Time	1st Floor	2nd Floor	Roof	Total
<i>Inventory</i>	<i>22</i>	<i>43</i>	<i>100</i>	<i>165</i>
8:00 AM	8	1	5	14
8:30 AM	10	1	9	20
9:00 AM	16	6	19	41
9:30 AM	16	13	28	57
10:00 AM	16	19	38	73
10:30 AM	17	22	47	86
11:00 AM	18	24	62	104
11:30 AM	18	30	63	111
12:00 PM	19	38	58	115
12:30 PM	19	37	59	115
1:00 PM	20	38	53	111
1:30 PM	20	38	59	117
2:00 PM	20	38	54	112
2:30 PM	18	37	48	103
3:00 PM	17	30	54	101
3:30 PM	18	33	50	101
4:00 PM	15	26	44	85
4:30 PM	8	22	47	77
5:00 PM	7	28	44	79
5:30 PM	3	37	52	92
6:00 PM	3	29	48	80
6:30 PM	3	32	44	79
7:00 PM	3	26	46	75
7:30 PM	3	17	29	49
8:00 PM	3	0	10	13
8:30 PM	2	0	5	7
9:00 PM	2	0	1	3

**Peak Parking Demand 117 Spaces
at 1:30 PM**

Percent Occupancy 71%

Table 1B
Peninsula Center Library
Parking Inventory and Occupancy Summary
Friday, May 15, 2015

Time	1st Floor	2nd Floor	Roof	Total
<i>Inventory</i>	<i>22</i>	<i>43</i>	<i>100</i>	<i>165</i>
8:00 AM	6	1	8	15
8:30 AM	8	2	10	20
9:00 AM	9	17	28	54
9:30 AM	12	26	38	76
10:00 AM	11	28	40	79
10:30 AM	10	34	41	85
11:00 AM	13	33	43	89
11:30 AM	13	33	49	95
12:00 PM	11	39	45	95
12:30 PM	11	28	41	80
1:00 PM	12	31	39	82
1:30 PM	12	23	37	72
2:00 PM	12	19	36	67
2:30 PM	12	19	37	68
3:00 PM	8	24	40	72
3:30 PM	8	28	42	78
4:00 PM	9	30	44	83
4:30 PM	8	26	42	76
5:00 PM	7	21	31	59
5:30 PM	5	18	33	56
6:00 PM	3	0	14	17
6:30 PM	3	0	10	13
7:00 PM	3	0	5	8
7:30 PM	0	0	0	0
8:00 PM	0	0	0	0
8:30 PM	0	0	0	0
9:00 PM	0	0	0	0

Peak Parking Demand 95 Spaces
at 11:30 AM

Percent Occupancy 58%

Table 1C
Peninsula Center Library
Parking Inventory and Occupancy Summary
Sunday, May 17, 2015

Time	1st Floor	2nd Floor	Roof	Total
<i>Inventory</i>	<i>22</i>	<i>43</i>	<i>100</i>	<i>165</i>
8:00 AM	2	0	1	3
8:30 AM	2	0	1	3
9:00 AM	2	0	4	6
9:30 AM	2	0	4	6
10:00 AM	2	0	5	7
10:30 AM	2	0	6	8
11:00 AM	2	0	9	11
11:30 AM	1	1	10	12
12:00 PM	1	4	12	17
12:30 PM	2	7	14	23
1:00 PM	4	23	23	50
1:30 PM	4	28	34	66
2:00 PM	4	34	43	81
2:30 PM	4	33	47	84
3:00 PM	4	31	39	74
3:30 PM	4	32	42	78
4:00 PM	4	31	43	78
4:30 PM	4	23	35	62
5:00 PM	4	0	18	22
5:30 PM	2	0	5	7
6:00 PM	2	0	9	11

Peak Parking Demand 84 Spaces
at 2:30 PM

Percent Occupancy 51%

Table 1D
Peninsula Center Library
Parking Inventory and Occupancy Summary
Thursday, May 28, 2015

Time	1st Floor	2nd Floor	Roof	Total
<i>Inventory</i>	<i>22</i>	<i>43</i>	<i>100</i>	<i>165</i>
8:00 AM	10	2	6	18
8:30 AM	13	2	7	22
9:00 AM	16	10	21	47
9:30 AM	16	15	29	60
10:00 AM	17	21	43	81
10:30 AM	16	26	41	83
11:00 AM	17	35	45	97
11:30 AM	17	35	48	100
12:00 PM	17	40	58	115
12:30 PM	18	33	56	107
1:00 PM	18	37	64	119
1:30 PM	18	24	50	92
2:00 PM	18	23	45	86
2:30 PM	18	30	51	99
3:00 PM	15	35	58	108
3:30 PM	15	33	59	107
4:00 PM	14	35	64	113
4:30 PM	7	37	64	108
5:00 PM	3	36	59	98
5:30 PM	2	35	56	93
6:00 PM	2	33	43	78
6:30 PM	2	26	38	66
7:00 PM	2	23	34	59
7:30 PM	2	21	28	51
8:00 PM	2	9	23	34
8:30 PM	2	0	5	7
9:00 PM	2	0	4	6

**Peak Parking Demand 119 Spaces
at 1:00 PM**

Percent Occupancy 72%

Table 1E
Peninsula Center Library
Parking Inventory and Occupancy Summary
Summary of All Survey Days

Date	Peak Parking Demand	Peak Time	Percent Occupancy
Thursday, May 14, 2015	117 Spaces	at 1:30 PM	71%
Friday, May 15, 2015	95 Spaces	at 11:30 AM	58%
Sunday, May 17, 2015	84 Spaces	at 2:30 PM	51%
Thursday, May 28, 2015	119 Spaces	at 1:00 PM	72%

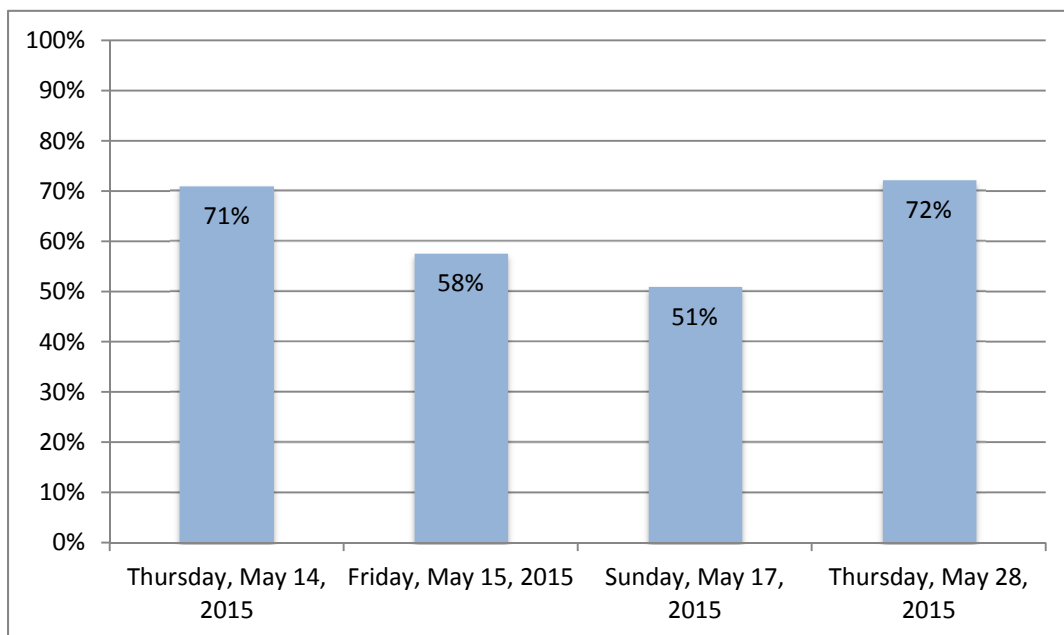


Table 2A
Project Site Parking Lot
Parking Inventory and Occupancy Summary
Thursday, May 14, 2015

Time	Library Patrons	Others	Total
Inventory	N/A		245
8:00 AM	3	6	9
8:30 AM	6	7	13
9:00 AM	9	16	25
9:30 AM	14	23	37
10:00 AM	23	29	52
10:30 AM	32	27	59
11:00 AM	38	27	65
11:30 AM	50	19	69
12:00 PM	54	10	64
12:30 PM	58	9	67
1:00 PM	53	15	68
1:30 PM	56	15	71
2:00 PM	52	19	71
2:30 PM	50	21	71
3:00 PM	48	16	64
3:30 PM	51	23	74
4:00 PM	56	26	82
4:30 PM	51	26	77
5:00 PM	53	30	83
5:30 PM	56	32	88
6:00 PM	46	35	81
6:30 PM	43	32	75
7:00 PM	45	30	75
7:30 PM	27	24	51
8:00 PM	6	5	11
8:30 PM	2	3	5
9:00 PM	0	1	1

Peak Parking Demand 88 Spaces
at 5:30 PM

Percent Occupancy 36%

Peak Demand from
Library Patrons 58

Table 2B
Project Site Parking Lot
Parking Inventory and Occupancy Summary
Friday, May 15, 2015

Time	Library Patrons	Others	Total
<i>Inventory</i>	<i>N/A</i>		245
8:00 AM	6	3	9
8:30 AM	13	11	24
9:00 AM	33	10	43
9:30 AM	47	9	56
10:00 AM	43	4	47
10:30 AM	58	6	64
11:00 AM	55	9	64
11:30 AM	60	9	69
12:00 PM	53	7	60
12:30 PM	52	7	59
1:00 PM	52	12	64
1:30 PM	52	16	68
2:00 PM	50	18	68
2:30 PM	47	20	67
3:00 PM	55	20	75
3:30 PM	62	27	89
4:00 PM	57	32	89
4:30 PM	55	29	84
5:00 PM	37	27	64
5:30 PM	36	21	57
6:00 PM	15	18	33
6:30 PM	7	16	23
7:00 PM	4	12	16
7:30 PM	0	0	0
8:00 PM	0	0	0
8:30 PM	0	0	0
9:00 PM	0	0	0

Peak Parking Demand 89 Spaces
at 3:30 PM

Percent Occupancy 36%

Peak Demand from
Library Patrons 62

Table 2C
Project Site Parking Lot
Parking Inventory and Occupancy Summary
Sunday, May 17, 2015

Time	Library Patrons	Others	Total
<i>Inventory</i>	<i>N/A</i>		245
8:00 AM	0	0	0
8:30 AM	0	0	0
9:00 AM	0	0	0
9:30 AM	0	0	0
10:00 AM	0	3	3
10:30 AM	0	7	7
11:00 AM	1	6	7
11:30 AM	4	8	12
12:00 PM	6	7	13
12:30 PM	8	9	17
1:00 PM	23	10	33
1:30 PM	34	4	38
2:00 PM	43	11	54
2:30 PM	45	7	52
3:00 PM	46	11	57
3:30 PM	46	12	58
4:00 PM	48	14	62
4:30 PM	34	14	48
5:00 PM	11	10	21
5:30 PM	4	6	10
6:00 PM	12	9	21

**Peak Parking Demand 62 Spaces
at 4:00 PM**

Percent Occupancy 25%

**Peak Demand from
Library Patrons 48**

Table 2D
Project Site Parking Lot
Parking Inventory and Occupancy Summary
Thursday, May 28, 2015

Time	Library Patrons	Others	Total
Inventory	N/A		245
8:00 AM	3	2	5
8:30 AM	8	11	19
9:00 AM	12	10	22
9:30 AM	19	9	28
10:00 AM	27	4	31
10:30 AM	33	6	39
11:00 AM	47	9	56
11:30 AM	54	9	63
12:00 PM	65	7	72
12:30 PM	65	7	72
1:00 PM	67	12	79
1:30 PM	56	16	72
2:00 PM	45	18	63
2:30 PM	53	20	73
3:00 PM	62	20	82
3:30 PM	66	27	93
4:00 PM	64	32	96
4:30 PM	67	29	96
5:00 PM	63	27	90
5:30 PM	56	21	77
6:00 PM	51	18	69
6:30 PM	46	16	62
7:00 PM	41	12	53
7:30 PM	32	0	32
8:00 PM	17	0	17
8:30 PM	6	0	6
9:00 PM	3	0	3

Peak Parking Demand 96 Spaces
at 4:00 PM

Percent Occupancy 39%

Peak Demand from 67
Library Patrons

Note:

A total nine patrons were observed to park their vehicle and walk to Starbucks or/and other adjacent uses before they were observed to enter the Library. These patrons were counted under the Library Patrons count.

Table 2E
Project Site Parking Lot
Parking Inventory and Occupancy Summary
Summary of All Survey Days

Date	Peak Demand from Library Patrons	Peak Parking Demand	Peak Time	Percent Occupancy
Thursday, May 14, 2015	58	88 Spaces	at 1:30 PM	36%
Friday, May 15, 2015	62	89 Spaces	at 11:30 AM	36%
Sunday, May 17, 2015	48	62 Spaces	at 2:30 PM	25%
Thursday, May 28, 2015	67	96 Spaces	at 1:00 PM	39%

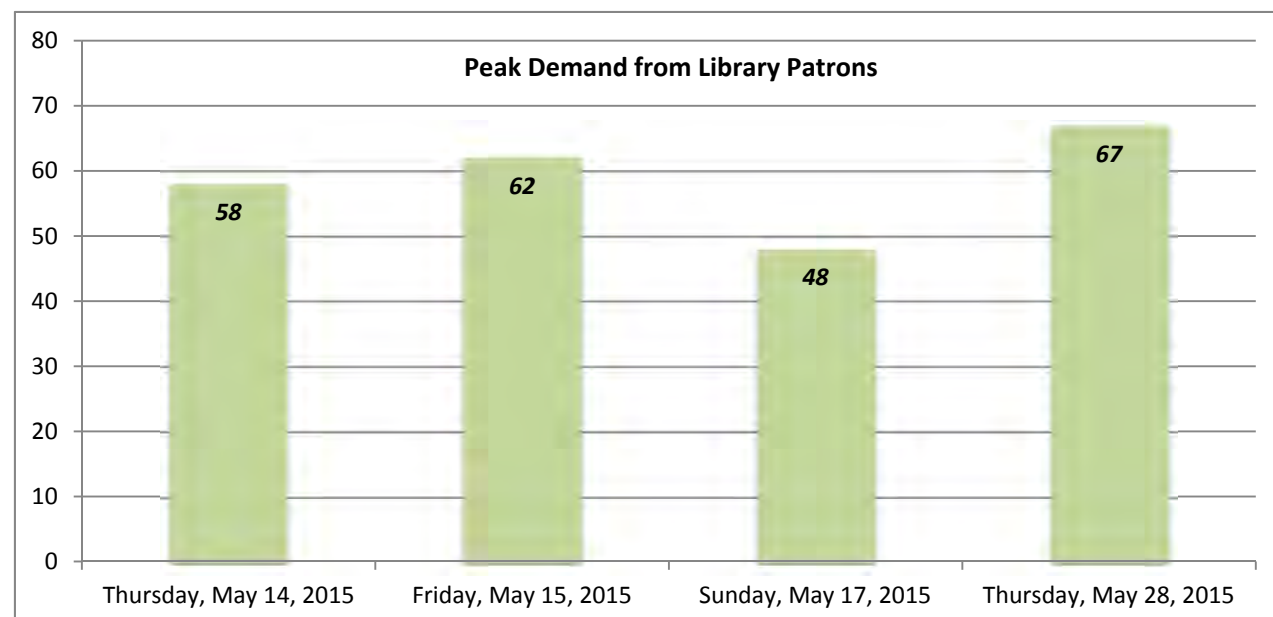
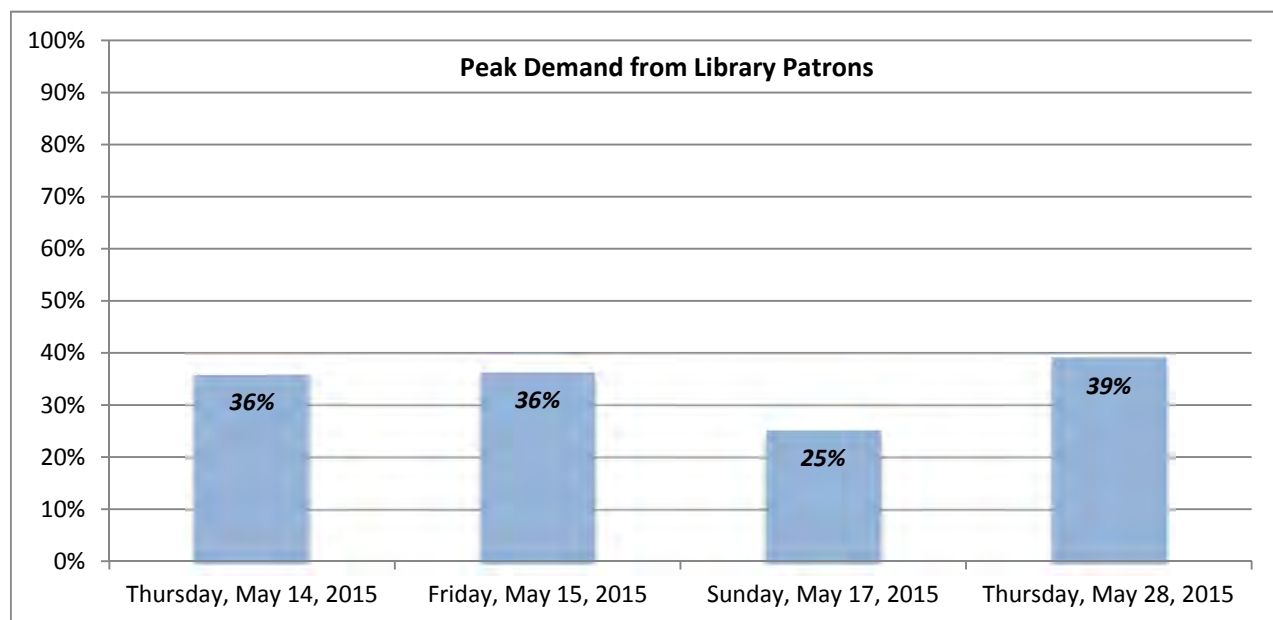


Table 3A
Combined Parking Demand of Library Patrons Parking at Peninsula Center
Thursday, May 14, 2015

Time	Parking Demand Observed at the Library	Parking Demand from Library Patrons	Total
<i>Inventory</i>	<i>165</i>	<i>N/A</i>	<i>N/A</i>
8:00 AM	14	3	17
8:30 AM	20	6	26
9:00 AM	41	9	50
9:30 AM	57	14	71
10:00 AM	73	23	96
10:30 AM	86	32	118
11:00 AM	104	38	142
11:30 AM	111	50	161
12:00 PM	115	54	169
12:30 PM	115	58	173
1:00 PM	111	53	164
1:30 PM	117	56	173
2:00 PM	112	52	164
2:30 PM	103	50	153
3:00 PM	101	48	149
3:30 PM	101	51	152
4:00 PM	85	56	141
4:30 PM	77	51	128
5:00 PM	79	53	132
5:30 PM	92	56	148
6:00 PM	80	46	126
6:30 PM	79	43	122
7:00 PM	75	45	120
7:30 PM	49	27	76
8:00 PM	13	6	19
8:30 PM	7	2	9
9:00 PM	3	0	3

Peak Parking Demand 173 Spaces
at 12:30 PM

Peak Demand from Library
Patrons in Project Parking Lot at 58

Table 3B
Combined Parking Demand of Library Patrons Parking at Peninsula Center
Friday, May 15, 2015

Time	Parking Demand Observed at the Library	Parking Demand from Library Patrons	Total
<i>Inventory</i>	<i>165</i>	<i>N/A</i>	<i>N/A</i>
8:00 AM	15	6	21
8:30 AM	20	13	33
9:00 AM	54	33	87
9:30 AM	76	47	123
10:00 AM	79	43	122
10:30 AM	85	58	143
11:00 AM	89	55	144
11:30 AM	95	60	155
12:00 PM	95	53	148
12:30 PM	80	52	132
1:00 PM	82	52	134
1:30 PM	72	52	124
2:00 PM	67	50	117
2:30 PM	68	47	115
3:00 PM	72	55	127
3:30 PM	78	62	140
4:00 PM	83	57	140
4:30 PM	76	55	131
5:00 PM	59	37	96
5:30 PM	56	36	92
6:00 PM	17	15	32
6:30 PM	13	7	20
7:00 PM	8	4	12
7:30 PM	0	0	0
8:00 PM	0	0	0
8:30 PM	0	0	0
9:00 PM	0	0	0

Peak Parking Demand 155 Spaces
at 11:30 AM

Peak Demand from Library
Patrons in Project Parking Lot at 60

Table 3C
Combined Parking Demand of Library Patrons Parking at
Peninsula Center Library and Adjacent Parking Lot
Sunday, May 17, 2015

Time	Parking Demand Observed at the Library	Parking Demand from Library Patrons	Total
<i>Inventory</i>	<i>165</i>	<i>N/A</i>	<i>N/A</i>
8:00 AM	3	0	3
8:30 AM	3	0	3
9:00 AM	6	0	6
9:30 AM	6	0	6
10:00 AM	7	0	7
10:30 AM	8	0	8
11:00 AM	11	1	12
11:30 AM	12	4	16
12:00 PM	17	6	23
12:30 PM	23	8	31
1:00 PM	50	23	73
1:30 PM	66	34	100
2:00 PM	81	43	124
2:30 PM	84	45	129
3:00 PM	74	46	120
3:30 PM	78	46	124
4:00 PM	78	48	126
4:30 PM	62	34	96
5:00 PM	22	11	33
5:30 PM	7	4	11
6:00 PM	11	12	23

Peak Parking Demand 129 Spaces
at 2:30 PM

Peak Demand from Library
Patrons in Project Parking Lot at 45

Table 3D
Combined Parking Demand of Library Patrons Parking at
Peninsula Center Library and Adjacent Parking Lot
Thursday, May 28, 2015

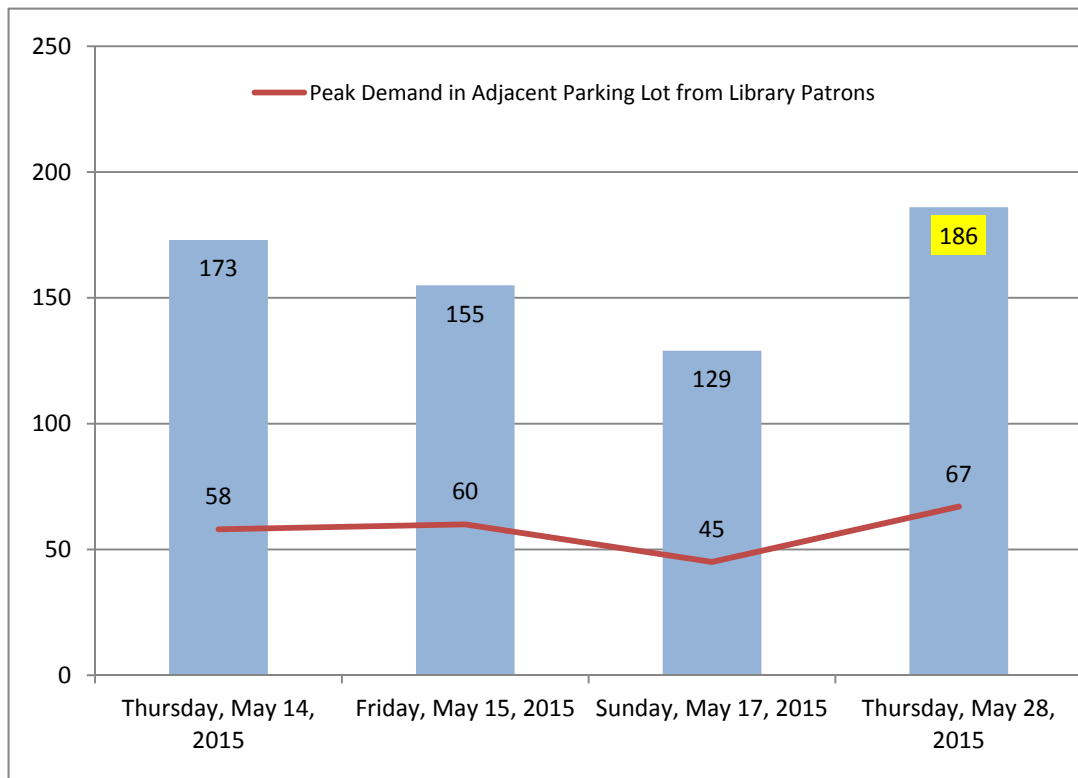
Time	Parking Demand Observed at the Library	Parking Demand from Library Patrons	Total
<i>Inventory</i>	<i>165</i>	<i>N/A</i>	<i>N/A</i>
8:00 AM	18	3	21
8:30 AM	22	8	30
9:00 AM	47	12	59
9:30 AM	60	19	79
10:00 AM	81	27	108
10:30 AM	83	33	116
11:00 AM	97	47	144
11:30 AM	100	54	154
12:00 PM	115	65	180
12:30 PM	107	65	172
1:00 PM	119	67	186
1:30 PM	92	56	148
2:00 PM	86	45	131
2:30 PM	99	53	152
3:00 PM	108	62	170
3:30 PM	107	66	173
4:00 PM	113	64	177
4:30 PM	108	67	175
5:00 PM	98	63	161
5:30 PM	93	56	149
6:00 PM	78	51	129
6:30 PM	66	46	112
7:00 PM	59	41	100
7:30 PM	51	32	83
8:00 PM	34	17	51
8:30 PM	7	6	13
9:00 PM	6	3	9

Peak Parking Demand 186 Spaces
at 1:00 PM

Peak Demand from Library
Patrons in Project Parking Lot at 67

Table 3E
Combined Parking Demand of Library Patrons Parking at Peninsula Center
Library and Adjacent Parking Lot
Summary of All Survey Days

Date	Combined Peak Parking Demand	Peak Demand in Adjacent Parking Lot from Library Patrons	Peak Time
Thursday, May 14, 2015	173	58	at 12:30 PM
Friday, May 15, 2015	155	60	at 11:30 AM
Sunday, May 17, 2015	129	45	at 2:30 PM
Thursday, May 28, 2015	186	67	at 1:00 PM



ATTACHMENT
PARKING INVENTORY AND UTILIZATION DATA

Parking Occupancy by Type at Project Site Thursday May 14, 2015					
Time	Zone A & B Combined		Zone C		Grand Total
	Library	Other	Library	Other	
8:00	0	2	3	4	9
8:30	1	3	5	4	13
9:00	1	5	8	11	25
9:30	2	5	12	18	37
10:00	2	7	21	22	52
10:30	2	7	30	20	59
11:00	2	9	36	18	65
11:30	2	10	48	9	69
12:00	2	10	52	0	64
12:30	2	8	56	1	67
13:00	2	6	51	9	68
13:30	2	6	54	9	71
14:00	1	8	51	11	71
14:30	1	9	49	12	71
15:00	1	5	47	11	64
15:30	1	10	50	13	74
16:00	1	11	55	15	82
16:30	1	7	50	19	77
17:00	1	8	52	22	83
17:30	1	5	55	27	88
18:00	2	5	44	30	81
18:30	1	8	42	24	75
19:00	1	5	44	25	75
19:30	1	2	26	22	51
20:00	0	2	6	3	11
20:30	0	3	2	0	5
21:00	0	1	0	0	1

Parking Occupancy by Type at Project Site Friday May 15, 2015					
Time	Zone A & B Combined		Zone C		Grand Total
	Library	Other	Library	Other	
8:00	0	2	6	1	9
8:30	2	4	11	7	24
9:00	2	2	31	8	43
9:30	3	4	44	5	56
10:00	3	4	40	0	47
10:30	3	5	55	1	64
11:00	3	9	52	0	64
11:30	3	9	57	0	69
12:00	3	7	50	0	60
12:30	3	5	49	2	59
13:00	2	7	50	5	64
13:30	1	10	51	6	68
14:00	1	10	49	8	68
14:30	2	11	45	9	67
15:00	2	9	53	11	75
15:30	2	12	60	15	89
16:00	2	14	55	18	89
16:30	2	9	53	20	84
17:00	1	10	36	17	64
17:30	1	11	35	10	57
18:00	1	8	14	10	33
18:30	0	10	7	6	23
19:00	0	5	4	7	16

Parking Occupancy by Type at Project Site Sunday May 17, 2015					
Time	Zone A & B Combined		Zone C		Grand Total
	Library	Other	Library	Other	
8:00	0	0	0	0	0
8:30	0	0	0	0	0
9:00	0	0	0	0	0
9:30	0	0	0	0	0
10:00	0	0	0	3	3
10:30	0	2	0	5	7
11:00	0	2	1	4	7
11:30	0	2	4	6	12
12:00	0	2	6	5	13
12:30	0	3	8	6	17
13:00	0	4	23	6	33
13:30	1	4	33	0	38
14:00	1	6	42	5	54
14:30	1	2	44	5	52
15:00	1	4	45	7	57
15:30	1	3	45	9	58
16:00	1	4	47	10	62
16:30	1	2	33	12	48
17:00	1	6	10	4	21
17:30	1	0	3	6	10
18:00	0	3	12	6	21

Parking Occupancy by Type at Project Site Thursday May 28, 2015					
Time	Zone A & B Combined		Zone C		Grand Total
	Library	Other	Library	Other	
8:00	0	2	3	0	5
8:30	2	4	6	6	18
9:00	2	4	10	9	25
9:30	2	4	17	6	29
10:00	2	6	25	12	45
10:30	2	6	31	16	55
11:00	2	6	45	19	72
11:30	2	7	52	11	72
12:00	3	7	62	10	82
12:30	3	7	62	12	84
13:00	3	6	64	15	88
13:30	2	13	54	18	87
14:00	2	8	43	22	75
14:30	2	9	51	23	85
15:00	2	13	60	24	99
15:30	2	16	64	26	108
16:00	2	18	62	27	109
16:30	3	22	64	30	119
17:00	3	17	60	29	109
17:30	2	15	54	0	71
18:00	2	17	49	2	70
18:30	1	12	45	5	63
19:00	1	9	40	6	56
19:30	1	8	31	3	43
20:00	1	10	16	0	27
20:30	0	3	6	0	9
21:00	0	2	3	0	5

LIBRARY PARKING LOT STUDY

Day: Thursday
Date: 5/14/2015

TIME	1st Floor				2nd Floor			Roof				GRAND TOTAL
	Reg	HC	Reserved Maintenance	SUBTOTAL	Reg	HC	SUBTOTAL	Reg	HC	Compact	SUBTOTAL	
Spaces	18	3	1	22	41	2	43	92	4	4	100	165
8:00	7	1	0	8	1	0	1	5	0	0	5	14
8:30	9	1	0	10	1	0	1	9	0	0	9	20
9:00	13	3	0	16	6	0	6	17	0	2	19	41
9:30	13	3	0	16	13	0	13	26	0	2	28	57
10:00	13	3	0	16	17	2	19	36	0	2	38	73
10:30	14	3	0	17	20	2	22	44	1	2	47	86
11:00	15	3	0	18	22	2	24	58	1	3	62	104
11:30	15	3	0	18	28	2	30	58	2	3	63	111
12:00	16	3	0	19	37	1	38	54	1	3	58	115
12:30	16	3	0	19	36	1	37	57	0	2	59	115
13:00	17	3	0	20	37	1	38	50	0	3	53	111
13:30	17	3	0	20	37	1	38	53	3	3	59	117
14:00	17	3	0	20	37	1	38	48	2	4	54	112
14:30	16	2	0	18	37	0	37	43	2	3	48	103
15:00	16	1	0	17	30	0	30	49	2	3	54	101
15:30	17	1	0	18	31	2	33	45	2	3	50	101
16:00	15	0	0	15	25	1	26	39	2	3	44	85
16:30	8	0	0	8	22	0	22	44	1	2	47	77
17:00	7	0	0	7	26	2	28	42	0	2	44	79
17:30	3	0	0	3	35	2	37	51	0	1	52	92
18:00	3	0	0	3	28	1	29	47	0	1	48	80
18:30	3	0	0	3	31	1	32	43	0	1	44	79
19:00	3	0	0	3	25	1	26	45	0	1	46	75
19:30	3	0	0	3	16	1	17	29	0	0	29	49
20:00	3	0	0	3	0	0	0	10	0	0	10	13
20:30	2	0	0	2	0	0	0	5	0	0	5	7
21:00	2	0	0	2	0	0	0	1	0	0	1	3

LIBRARY PARKING LOT STUDY

Day: Friday
Date: 5/15/2015

TIME	1st Floor				2nd Floor			Roof				GRAND TOTAL
	Reg	HC	Reserved Maintenance	SUBTOTAL	Reg	HC	SUBTOTAL	Reg	HC	Compact	SUBTOTAL	
Spaces	18	3	1	22	41	2	43	92	4	4	100	165
8:00	5	1	0	6	1	0	1	6	0	2	8	15
8:30	7	1	0	8	2	0	2	8	0	2	10	20
9:00	7	2	0	9	17	0	17	25	1	2	28	54
9:30	10	2	0	12	26	0	26	35	1	2	38	76
10:00	9	2	0	11	27	1	28	37	1	2	40	79
10:30	8	2	0	10	32	2	34	38	1	2	41	85
11:00	11	2	0	13	31	2	33	41	0	2	43	89
11:30	11	2	0	13	31	2	33	47	0	2	49	95
12:00	9	2	0	11	37	2	39	42	0	3	45	95
12:30	9	2	0	11	28	0	28	39	0	2	41	80
13:00	10	2	0	12	31	0	31	37	0	2	39	82
13:30	10	2	0	12	22	1	23	35	0	2	37	72
14:00	10	2	0	12	19	0	19	35	0	1	36	67
14:30	10	2	0	12	19	0	19	36	0	1	37	68
15:00	6	2	0	8	22	2	24	38	0	2	40	72
15:30	7	1	0	8	27	1	28	40	0	2	42	78
16:00	8	1	0	9	29	1	30	42	0	2	44	83
16:30	7	1	0	8	26	0	26	40	0	2	42	76
17:00	6	1	0	7	21	0	21	29	0	2	31	59
17:30	4	1	0	5	18	0	18	32	0	1	33	56
18:00	2	1	0	3	0	0	0	14	0	0	14	17
18:30	2	1	0	3	0	0	0	10	0	0	10	13
19:00	2	1	0	3	0	0	0	5	0	0	5	8

LIBRARY PARKING LOT STUDY

Day: Sunday
Date: 5/17/2015

TIME	1st Floor				2nd Floor			Roof				GRAND TOTAL
	Reg	HC	Reserved Maintenance	SUBTOTAL	Reg	HC	SUBTOTAL	Reg	HC	Compact	SUBTOTAL	
Spaces	18	3	1	22	41	2	43	92	4	4	100	165
8:00	2	0	0	2	0	0	0	1	0	0	1	3
8:30	2	0	0	2	0	0	0	1	0	0	1	3
9:00	2	0	0	2	0	0	0	4	0	0	4	6
9:30	2	0	0	2	0	0	0	4	0	0	4	6
10:00	2	0	0	2	0	0	0	4	0	1	5	7
10:30	2	0	0	2	0	0	0	5	0	1	6	8
11:00	2	0	0	2	0	0	0	7	0	2	9	11
11:30	1	0	0	1	1	0	1	8	0	2	10	12
12:00	1	0	0	1	4	0	4	10	0	2	12	17
12:30	2	0	0	2	7	0	7	12	0	2	14	23
13:00	4	0	0	4	23	0	23	21	0	2	23	50
13:30	4	0	0	4	27	1	28	32	0	2	34	66
14:00	4	0	0	4	33	1	34	39	1	3	43	81
14:30	4	0	0	4	31	2	33	43	1	3	47	84
15:00	4	0	0	4	29	2	31	35	1	3	39	74
15:30	4	0	0	4	30	2	32	38	1	3	42	78
16:00	4	0	0	4	29	2	31	39	1	3	43	78
16:30	4	0	0	4	23	0	23	33	0	2	35	62
17:00	4	0	0	4	0	0	0	17	0	1	18	22
17:30	2	0	0	2	0	0	0	5	0	0	5	7
18:00	2	0	0	2	0	0	0	9	0	0	9	11

NOTES: Construction material in the space reserved for a maintenance vehicle

LIBRARY PARKING LOT STUDY

Day: Thursday
Date: 5/28/2015

TIME	1st Floor				2nd Floor			Roof				GRAND TOTAL
	Reg	HC	Reserved Maintenance	SUBTOTAL	Reg	HC	SUBTOTAL	Reg	HC	Compact	SUBTOTAL	
Spaces	18	3	1	22	41	2	43	92	4	4	100	165
8:00	9	1	0	10	2	0	2	6	0	0	6	18
8:30	11	2	0	13	2	0	2	7	0	0	7	22
9:00	14	2	0	16	8	2	10	19	0	2	21	47
9:30	14	2	0	16	13	2	15	27	0	2	29	60
10:00	15	2	0	17	19	2	21	41	0	2	43	81
10:30	14	2	0	16	24	2	26	39	0	2	41	83
11:00	15	2	0	17	33	2	35	43	0	2	45	97
11:30	15	2	0	17	33	2	35	45	1	2	48	100
12:00	15	2	0	17	38	2	40	54	1	3	58	115
12:30	16	2	0	18	32	1	33	53	0	3	56	107
13:00	16	2	0	18	35	2	37	60	1	3	64	119
13:30	15	3	0	18	23	1	24	47	1	2	50	92
14:00	16	2	0	18	22	1	23	42	1	2	45	86
14:30	16	2	0	18	28	2	30	46	2	3	51	99
15:00	13	2	0	15	33	2	35	53	2	3	58	108
15:30	12	3	0	15	32	1	33	54	2	3	59	107
16:00	11	3	0	14	35	0	35	58	3	3	64	113
16:30	6	1	0	7	37	0	37	59	2	3	64	108
17:00	3	0	0	3	36	0	36	55	2	2	59	98
17:30	2	0	0	2	34	1	35	52	2	2	56	93
18:00	2	0	0	2	32	1	33	40	0	3	43	78
18:30	2	0	0	2	25	1	26	35	0	3	38	66
19:00	2	0	0	2	22	1	23	31	0	3	34	59
19:30	2	0	0	2	20	1	21	25	0	3	28	51
20:00	2	0	0	2	8	1	9	20	0	3	23	34
20:30	2	0	0	2	0	0	0	5	0	0	5	7
21:00	2	0	0	2	0	0	0	40	0	0	40	42

STREET PARKING OBSERVATIONS

Day: Thursday

Date: 5/28/2015

Deep Valley Dr bet. Roxcove Dr & Library	
Person/Group Exits Vehicle To Library (hh:mm:ss)	Person/Group Enters Vehicle From Library (hh:mm:ss)
11:09	11:49
12:15	12:37
14:30	14:32
14:59	15:57
15:05	16:38
15:40	15:47
15:47	17:05
16:10	16:33
17:23	18:18
17:23	17:39
17:30	18:18
18:02	18:22
18:08	18:41
18:40	19:39
19:08	19:42

Drybank Dr bet. Deep Valley Dr & Silver Spur Rd	
Person/Group Exits Vehicle To Library (hh:mm:ss)	Person/Group Enters Vehicle From Library (hh:mm:ss)
9:00	
9:18	
10:00	11:12
10:14	10:17
10:26	10:30
11:08	
11:12	11:31
11:22	12:05
11:30	13:50
11:30	11:35
11:51	12:16
12:19	12:30
12:21	13:02
12:48	14:20
12:56	14:07
13:24	13:30
13:35	13:37
14:39	17:02
14:57	15:14
15:19	15:41
15:20	16:41
15:21	15:28
15:30	15:43
15:34	15:40
15:37	15:57
15:52	
16:43	
16:48	18:03
17:28	17:39
17:31	17:44
17:31	17:40
17:34	18:06
17:39	18:12
17:45	20:20
17:47	19:32
18:18	18:33
18:45	19:09
18:46	19:00
18:50	19:11
19:03	19:13
19:15	19:49
19:20	19:50

PARKING LOT TO STREET OBSERVATIONS

Day: Thursday

Date: 5/28/2015

Drybank Dr bet. Deep Valley Dr & Silver Spur Rd				
TIME PERSON/GROUP EXITS LOT (hh:mm:ss)	STARBUCKS To	ELSEWHERE To	ELSEWHERE (SOUTH) To	TIME TO LIBRARY (hh:mm:ss)
9:16	X			9:35
9:43		X		9:57
9:57	X			10:19
11:21		X		11:57
12:18	X			12:51
12:54	X			13:21
16:00		X		16:31
16:44		X		
16:47		X		
17:11			X	17:12
17:44	X			18:00
17:51		X		
18:42			X	

Draft Traffic Impact Analysis for The Village/Merrill Gardens at Rolling Hills Estates

Prepared for:
Continental Development Corporation

May 2016

LA15-2808

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1. INTRODUCTION

This technical report summarizes the results of a traffic study conducted by Fehr & Peers to evaluate the potential traffic impacts of the proposed The Village/Merrill Gardens at Rolling Hills Estates project, which is proposed on the site of the existing 'The Village' retail space located at 601 and 627 Silver Spur Road in Rolling Hills Estates, California. The location of the project can be seen in Figure 1. The project was prepared according to the City of Rolling Hills Estates' Traffic Impact Analysis Methodology Guidelines.

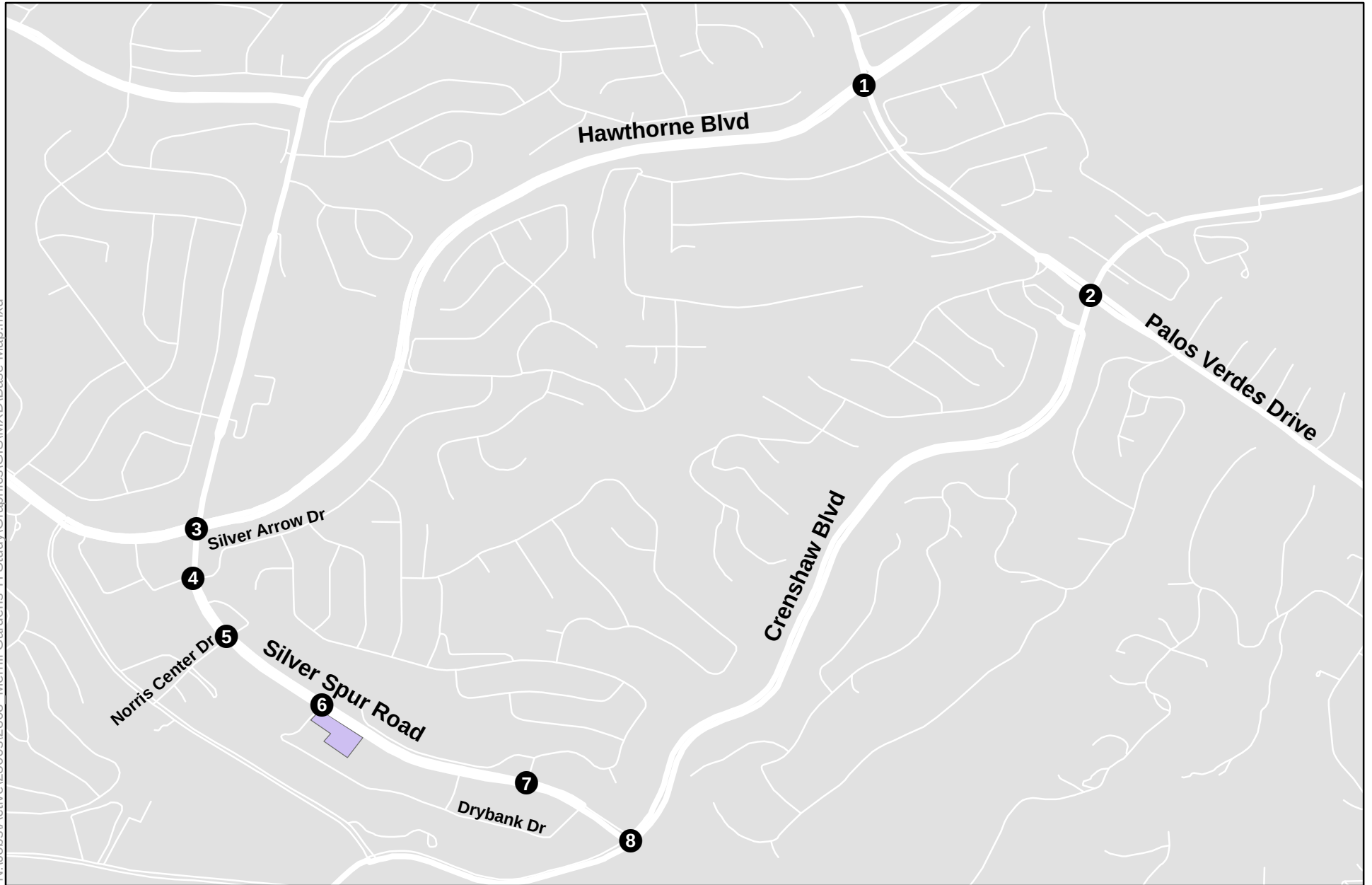
PROJECT DESCRIPTION

The project site is located in the City's main commercial district and is bounded by Deep Valley Drive to the south, Silver Spur Road to the north, the Peninsula Center Library to the east and Drybank Drive to the west. The 3.13-acre site includes four buildings and parking areas. There is a parking lot on the southern half of the site (upper parking lot), and a parking lot on the northern half of the site (lower parking lot) with a driveway transition between the two levels.

The project site is developed with "The Village" Shopping Center, which currently consists of 46,075 square feet (ft) of retail and office space in four buildings:

- **Building A** (601 Silver Spur Road) is a 4,200 sf single-story building.
- **Building B** (627 Silver Spur Road) is a 2-story building with approximately 10,000 sf of retail on the upper level with shops facing south to the parking lot, and 1,558 sf of retail on the lower level facing Drybank Drive with parking for 26 cars on the lower level.
- **Building C** (600 Deep Valley Drive) is a 9,517 sf single story building, at the corner of Deep Valley Drive & Drybank Drive.
- **Building D** (627 Silver Spur Road) is a 2-story split level building approximately 10,400 sf on each level. The lower level retail is faces the Silver Spur Road parking. The upper level retail is faces the Deep Valley Drive parking lot.

The project proposes to subdivide the existing 3.13-acre property into two parcels; a 1.48-acre parcel (Parcel 1) and a 1.65-acre parcel (Parcel 2) with airspace condominiums for commercial condominium purposes on Parcel 2. The proposed development plan calls for existing Building A (601 Silver Spur Road) and Building D (627 Silver Spur Road) of The Village to be demolished. Parcel 1 would be developed with a 137,785 square foot, 114-unit Residential Care Facility for the Elderly (RCFE)/assisted living structure containing 94 assisted living units and 20 memory care units and partially below-grade parking for 63 vehicles.



 Project Site

0 0.25 0.5 Miles


Figure 1
Project Site and Study Intersections
B-134

Buildings B and C underwent seismic, cosmetic, and lighting upgrades and renovation during 2013/14 and the project applicant also received approval for a new Master Sign Program and landscape improvements on the site. Under the proposed re-parcelization plan, the Village Shopping Center use would continue to occupy proposed Parcel 2. Once re-parcelization is complete, leasable area will be reduced by 25,000 sf, and The Village will contain a total of 21,075 sf of gross leasable area in Building B and Building C. The Peninsula Seniors have signed a lease to occupy approximately 3,813 sf in Building B. The project has an expected opening date in 2018.

The redeveloped Village site (proposed Parcel 2) will provide 221 parking stalls. Twenty-six existing surface parking stalls and 26 existing covered parking stalls located at 627 Silver Spur Road (Building B basement level) will be retained. Ninety surface stalls will be removed, and a new 2-level, 169-stall parking deck with one level of semi-subterranean parking and one level of above-grade parking will be constructed. Parcel 2 and the adjacent Palos Verdes Library District property will be subject to a reciprocal ingress/egress/parking agreement acceptable to the Palos Verdes Library District of Los Angeles County, Continental Development Corporation and Continental RHE Corporation, and the City of Rolling Hills Estates. Figure 2 shows the project site plan.

STUDY SCOPE

This study evaluates the potential for project-related traffic impacts on the street system surrounding the project site. Peak hour traffic impacts for the project were evaluated for the peak hour during typical weekday morning (7:00 to 9:00 AM), midday (11:00 AM to 1:00 PM) and afternoon (4:00 to 6:00 PM) peak periods. The following traffic scenarios were analyzed in the study:

- Existing Conditions – The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis includes a description of the street system serving the site, current traffic volumes, and an assessment of the operating conditions at these locations.
- Existing plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under existing conditions with the addition of project-generated traffic. The impacts of the proposed project on existing traffic operating conditions are then identified.
- Cumulative (2018) without Project Conditions – Cumulative traffic conditions without the proposed project are developed for 2018. The objective of this analysis is to project future traffic growth and operating conditions that could be expected to result from regional growth and related projects in the vicinity of the project site by 2018.

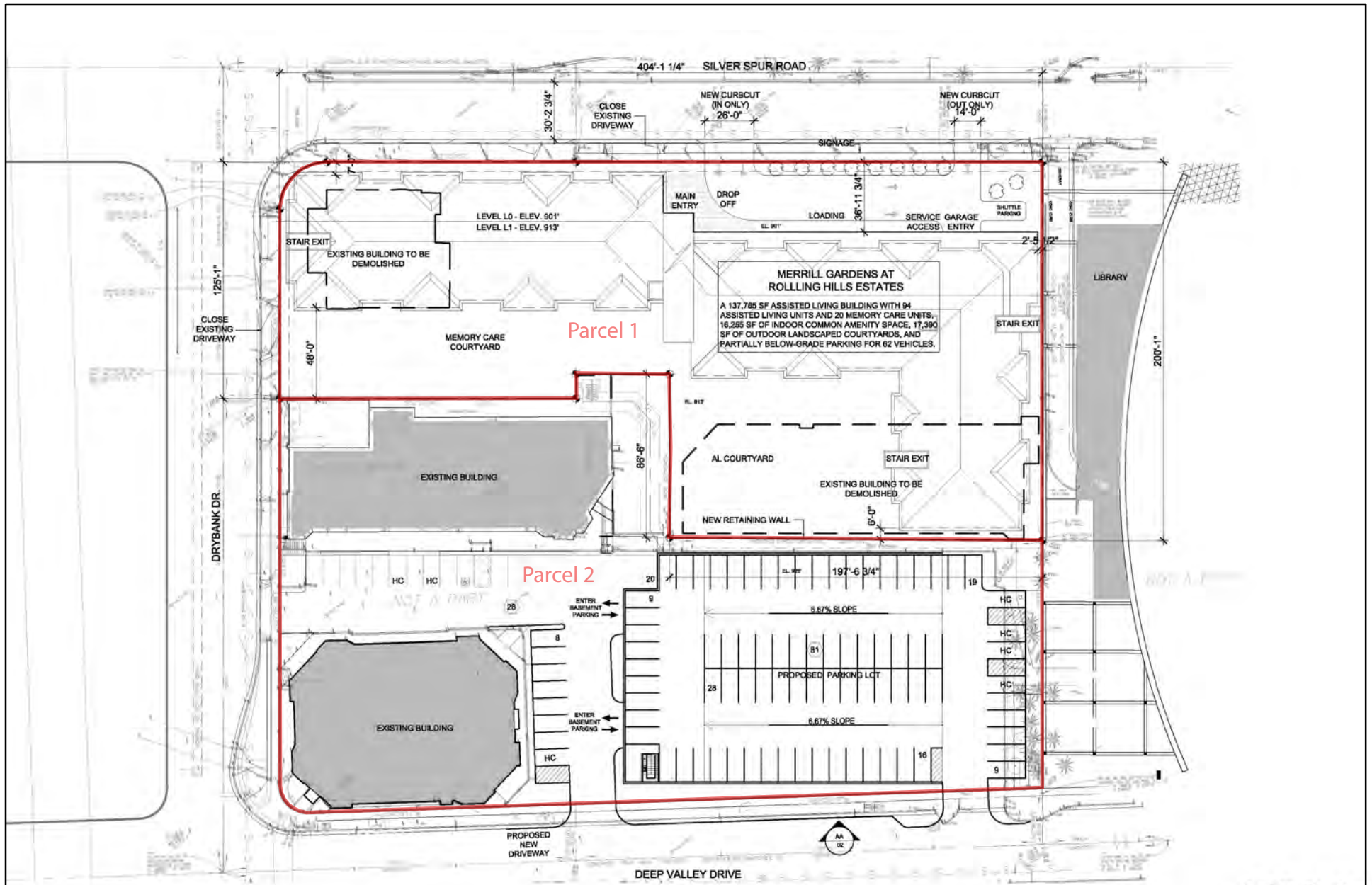


Figure 2
Site Plan
B-136

- Cumulative (2018) plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under Cumulative conditions with the addition of project-generated traffic. The impacts of the proposed project on future traffic operating conditions were then identified.

Following discussion with staff from City of Rolling Hills Estates, eight signalized intersections were selected to be studied as part of the traffic impact analysis for the proposed project:

1. Hawthorne Boulevard & Palos Verdes Drive North
2. Crenshaw Boulevard & Palos Verdes Drive North
3. Hawthorne Boulevard & Silver Spur Road
4. Silver Arrow Drive & Silver Spur Road
5. Norris Center Drive & Silver Spur Road
6. Drybank Drive & Silver Spur Road
7. Beachgate Drive & Silver Spur Road
8. Crenshaw Boulevard & Silver Spur Road

Figure 1 shows the location of the project site and the eight study intersections. Lane configurations of the study intersections can be seen in Appendix A.

ORGANIZATION OF REPORT

This report is divided into five chapters, including this introduction. Chapter 2 describes the existing transportation conditions including an inventory of the streets, and transit service in the study area, a summary of traffic volumes, and an assessment of operating conditions. The methodologies used to develop traffic forecasts for the scenarios described above and the forecasts themselves are included in Chapter 3. Chapter 4 presents an assessment of potential intersection traffic impacts of the proposed project under Existing and Cumulative conditions. Chapter 5 contains the study conclusions. Appendices to this report include details of the technical analysis.

2. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the study area. The assessment of conditions relevant to this study includes a description of the study area, an inventory of the local street system in the vicinity of the project site, a review of traffic volumes on these facilities, an assessment of the resultant operating conditions, and the current transit service in the study area. A detailed description of these elements is presented in this chapter.

STUDY AREA

The proposed project is located at 601 and 627 Silver Spur Road in Rolling Hills Estates, California. The study area includes intersections located in City of Rolling Hills Estates. Access to the site is currently provided by Silver Spur Road, Drybank Drive and Deep Valley Drive. The proposed project would have right-in/right-out access via Silver Spur Road. Access to the two existing buildings and the proposed new parking structure would be provided by Drybank Drive and Deep Valley Drive. The study area for this analysis is bounded by Palos Verdes Drive North on the northeast, Hawthorne Boulevard on the northwest, Crenshaw Boulevard on the southeast, and Silver Spur Road on the southwest.

EXISTING STREET SYSTEM

Primary regional access to the site is provided by Crenshaw Boulevard, Hawthorne Boulevard, Silver Spur Road & Palos Verdes Drive North. The following is a brief description of the streets that serve the site:

Southeast/Northwest Roadways

- Silver Spur Road – Silver Spur Road runs southeast/northwest and is classified as a Secondary Arterial in the City of Rolling Hills Estates General Plan. The street provides direct access to the project site via a driveway east of Drybank Drive. The street provides four travel lanes and has a raised median with left-turn lanes at signalized intersections. Parallel parking is available on both sides of the street. The posted speed limit is 35 mph.
- Palos Verdes Drive North – Palos Verdes Drive North runs southeast/northwest and is classified as a Secondary Arterial in the City of Rolling Hills Estates General Plan. The street provides two travel lanes with a center turn lane. Additional turn lanes and through lanes are provided at the intersections with Crenshaw Boulevard and Hawthorne Boulevard. The posted speed limit is 35 mph.

- Indian Peak Road – Indian Peak Road runs southeast/northwest and is classified as a Secondary Arterial in the City of Rolling Hills Estates General Plan. The street provides four travel lanes between Hawthorne Boulevard and the southernmost entrance to the Peninsula Shopping Center, and two lanes with a center median on the rest of the street. The posted speed limit is 40 mph.

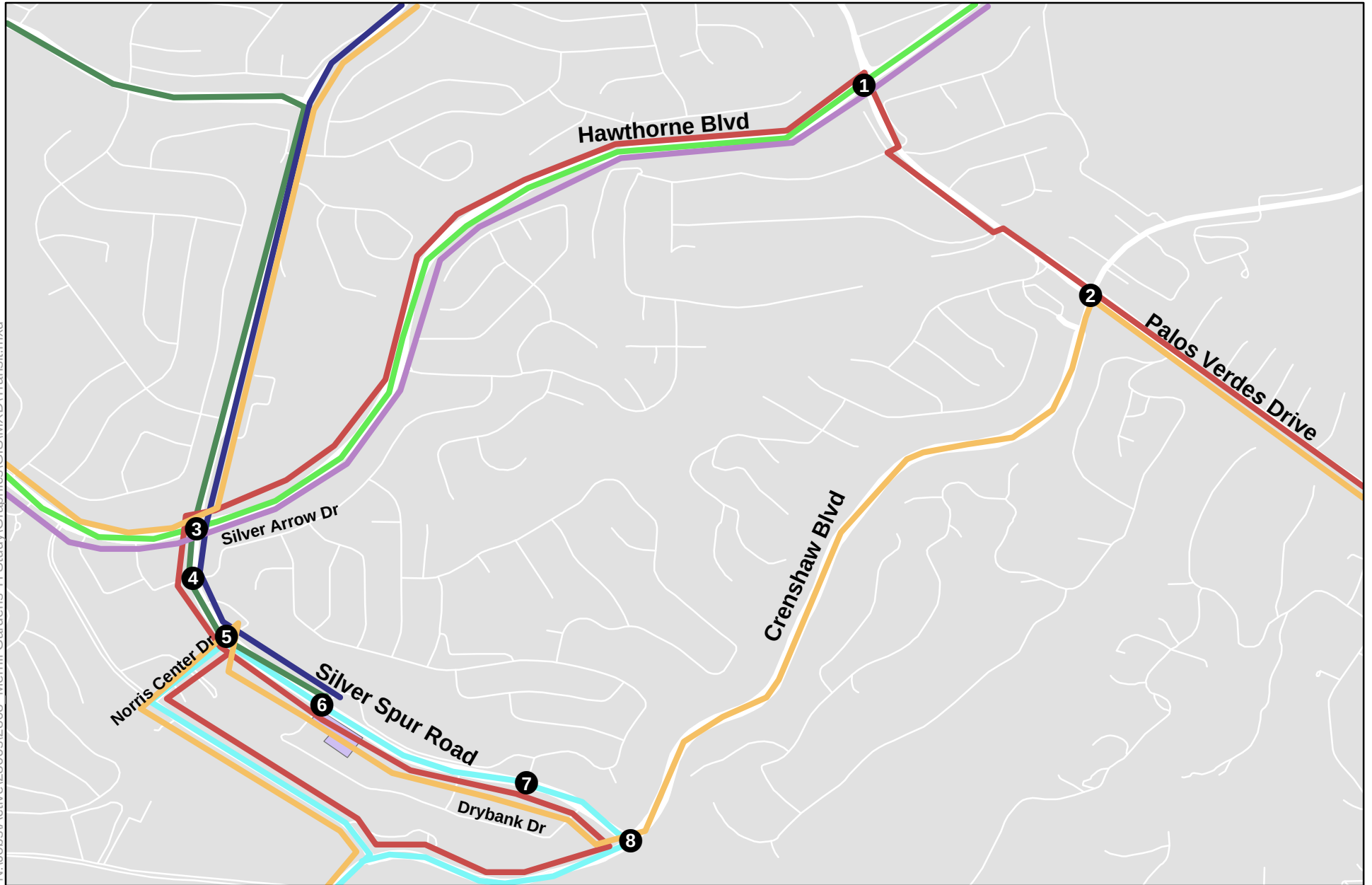
Northeast/Southwest Roadways

- Hawthorne Boulevard – Hawthorne Boulevard is designated as a Major Arterial in City of Rolling Hills Estates General Plan and runs northeast/southwest. The street provides four travel lanes with a center median and left-turn lanes at intersections. The posted speed limit is 45 mph.
- Crenshaw Boulevard – Crenshaw Boulevard is designated as a Major Arterial in City of Rolling Hills Estates General Plan and runs northeast/southwest. The street provides four travel lanes with a center median and left-turn lanes at intersections. The posted speed limit is 45 mph.

EXISTING TRANSIT SERVICE

Seven bus lines currently serve the study area. These transit lines are operated by Los Angeles County Metropolitan Transportation Authority (Metro), Los Angeles Department of Transportation (LADOT), and Palos Verdes Peninsula Transit Authority (PVPTA). Transit lines are described below and illustrated in Figure 3.

- Metro Line 344 – Line 344 is a north/south line that runs from the intersection of Palos Verdes Drive South & Seacove Drive to the Harbor Gateway Transit Center. The line has 30-minute headways during AM/PM peak hours and 60-minute headways during the midday peak hour. The line runs on Hawthorne Boulevard in the study area with stops every few blocks. Project site access is provided via a stop at the intersection of Hawthorne Boulevard & Silver Spur Road.
- PVPTA Blue Line – The Blue Line runs from Palos Verdes High School to Peninsula Center Library via Hawthorne Boulevard, Highridge Road, Crenshaw Boulevard and Silver Spur Road. The line only provides AM and PM peak period service and has 10- to 90-minute headways. Service is not provided in the midday peak period. Project site access is provided via a stop at the Peninsula Center Library.
- PVPTA Silver Line – The Silver Line runs from Palos Verdes High School to Peninsula Center Library via Silver Spur Road, Montemalaga Drive, Via Zurita and Via Coronel. The line only provides AM and PM peak period service and has 40- to 70-minute headways. Service is not provided in the midday peak period. Project site access is provided via a stop at the Peninsula Center Library.
- PVPTA White Line – The White Line runs from Palos Verdes High School to Peninsula Center Library via Palos Verdes Drive North, and Silver Spur Road. The line only provides AM and PM peak period service and has 10-70 minute headways. Service is not provided in the midday peak period. Project site access is provided via a stop at the Peninsula Center Library.



Transit Lines



- LADOT Commuter Express 448
- Metro 344
- PVPTA 225
- PVPTA Blue
- PVPTA Green
- PVPTA Silver
- PVPTA White

0 0.25 0.5 Miles

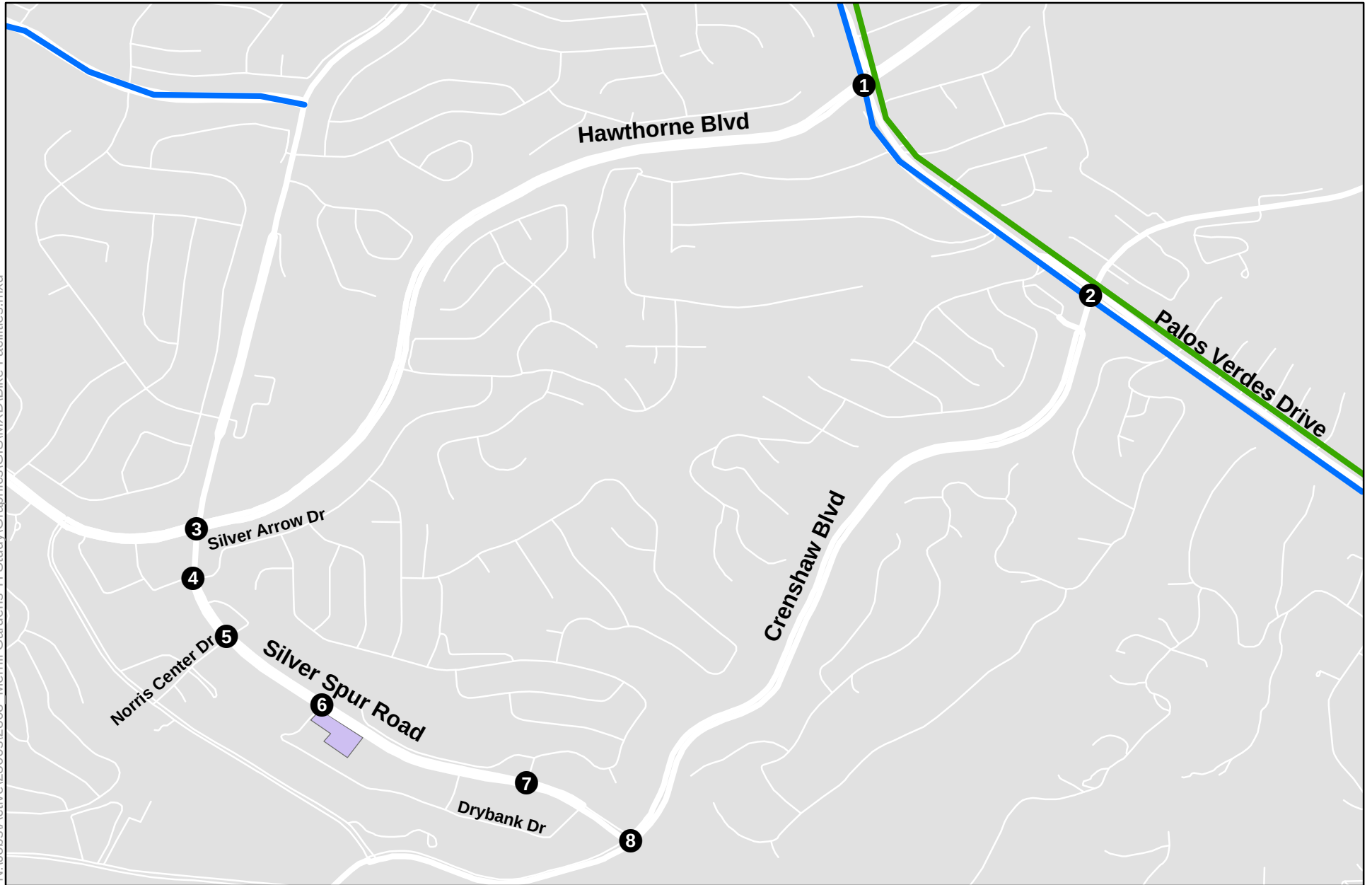
Figure 3
Existing Transit Lines
B-140

- PVPTA Green Line – The Green Line runs from Miraleste Plaza to Peninsula Center Library via Palos Verdes Drive North, Palos Verdes Drive East, Western Avenue, Hawthorne Boulevard and Silver Spur Road. The line only provides AM and PM peak period service and has 10- to 70-minute headways. Service is not provided in the midday peak period. Project site access is provided via a stop at the Peninsula Center Library.
- PVPTA Line 225 – Line 225 runs from Averill Avenue and 8th Street in San Pedro to the intersection of Palos Verdes Boulevard & Via Valencia in the City of Torrance. The line provides 60-minute headways during the AM and midday peak period and 45-minute headways during the PM peak period. Project site access is provided via a stop at the Drybank Drive and Silver Spur Road.
- LADOT Commuter Express Line 448 – Line 448 runs from the intersection of Crest Road & Crenshaw Boulevard to downtown Los Angeles. The line provides 15-minute headways during the AM (to downtown Los Angeles) and PM (from downtown Los Angeles) peak period. Service is not provided in the midday peak period. Project site access is provided via a stop at the intersection of Hawthorne Boulevard & Silver Spur Road.

EXISTING BICYCLE AND PEDESTRIAN FACILITIES

There is limited dedicated bicycle infrastructure in the study area. North of the site, bicycle lanes (Class II facilities) extend in a southeast/northwest direction on Palos Verdes Drive North east of Crenshaw Boulevard to the edge of the study area and a multi-use path (Class I) extends on the northern side of Palos Verdes Drive North within the entirety of the study area. Bicycle lanes are also present on Montemalaga Drive from Silver Spur Road to the edge of the study area. Existing bike facilities are shown in Figure 4.

All of the streets immediately bordering the project site and nearly all of the other streets in the vicinity include sidewalks, facilitating pedestrian movement. Marked crosswalks are present at most intersections in the study area. Pedestrian walk phases are either automatically provided at the intersections or are actuated by pedestrian push-buttons.



Bike Facilities

 Bike Lane  Multi-use Path

0 0.25 0.5 Miles

Figure 4
Existing Bike Facilities
B-142



EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

This section presents the existing peak hour turning movement traffic volumes for each of the intersections analyzed in the study, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each, indicating volume/capacity ratios and levels of service. Traffic counts are provided in Appendix B.

EXISTING TRAFFIC VOLUMES

Weekday morning, midday and evening peak hour traffic counts were conducted at the eight analyzed intersections in January 2016. Existing peak hour weekday traffic volumes are illustrated in Figure 5.

LEVEL OF SERVICE METHODOLOGY

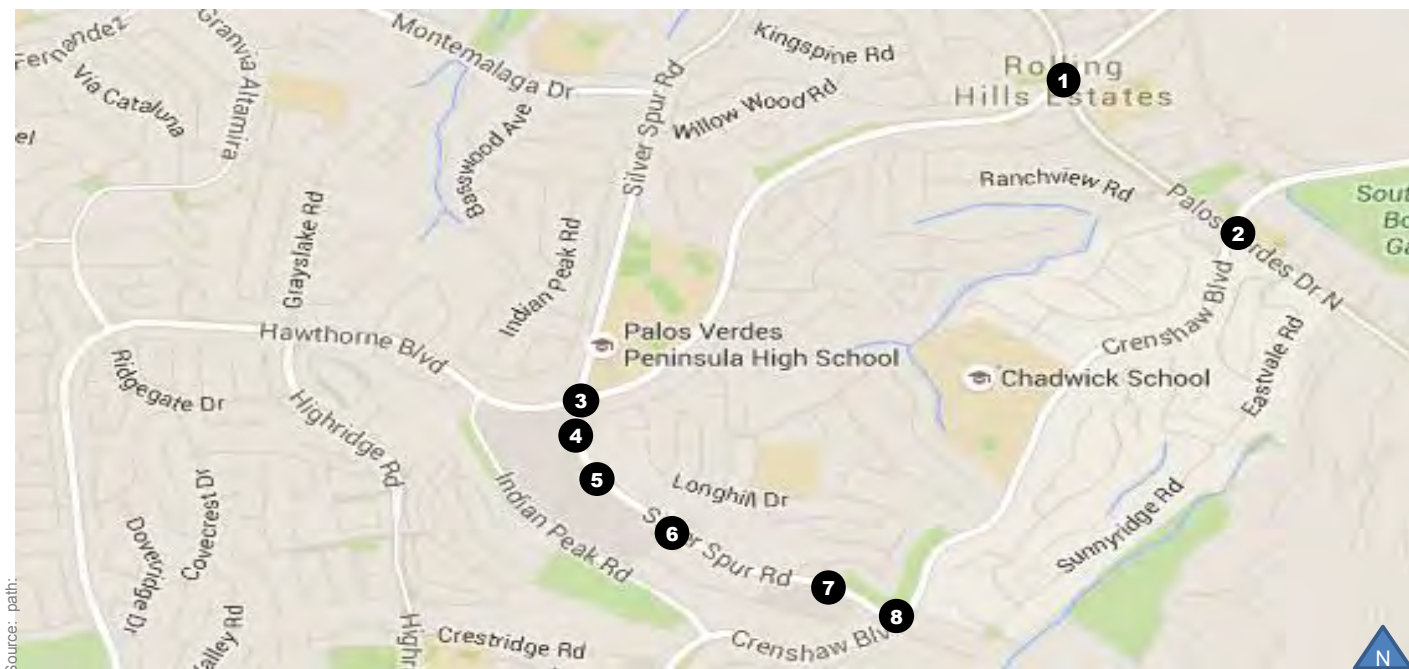
Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow on the street system, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is typically recognized as the minimum desirable level of service in urban areas. Levels of service definitions are provided in Table 1.

Per the requirements of the City of Rolling Hills Estates, Intersection Capacity Utilization (ICU) methodology was used to determine each intersection's volume-to-capacity (V/C) ratio and corresponding LOS for the eight signalized study intersections. The ICU method of intersection capacity analysis determines the intersection V/C ratio and corresponding LOS for the turning movements and intersection characteristics at signalized intersections. "Capacity" represents the maximum volume of vehicles in the critical lanes that have a reasonable expectation of passing through an intersection in one hour under prevailing roadway and traffic conditions. The ICU ratios used in this study were calculated by dividing critical traffic movement volumes at an intersection by the capacity per number of lanes for the movement.

EXISTING LEVELS OF SERVICE

The existing traffic volumes were analyzed using the methodology described above to determine the current operating conditions at the eight analyzed intersections. Table 2 summarizes the existing 2016 LOS analysis results. As shown in the table, none of the eight intersections are currently operating at poor levels of service, i.e., LOS E or F, during any of the analyzed peak hours.

Detailed LOS calculation worksheets are presented in Appendix C.



1. Hawthorne Blvd/Palos Verdes Drive Palos Verdes Drive Hawthorne Blvd 202 [183] (239) 543 [674] (964) 147 [80] (121) 138 [105] (100) 479 [297] (352) 276 [183] (190) 375 [253] (174) 614 [436] (391) 15 [22] (25) 28 [35] (7) 841 [655] (755) 324 [211] (192)	2. Crenshaw Blvd/Palos Verdes Drive Palos Verdes Drive Crenshaw Blvd 296 [149] (202) 685 [559] (709) 56 [84] (107) 99 [82] (66) 488 [344] (407) 480 [374] (535) 493 [288] (281) 543 [436] (473) 55 [44] (48) 111 [60] (53) 962 [676] (656) 473 [392] (412)	3. Hawthorne Blvd/Silver Spur Road Silver Spur Road Hawthorne Blvd 155 [72] (61) 474 [540] (798) 165 [184] (180) 90 [176] (185) 367 [225] (216) 141 [176] (251) 127 [101] (78) 377 [385] (241) 122 [139] (129) 179 [183] (156) 887 [563] (609) 290 [190] (202)	4. Silver Arrow Drive/Silver Spur Road Silver Spur Road Silver Arrow Drive 124 [34] (43) 20 [26] (13) 49 [23] (35) 33 [31] (41) 396 [460] (555) 67 [200] (136) 166 [52] (34) 590 [565] (522) 83 [151] (88) 76 [81] (60) 27 [30] (23) 77 [149] (89)
5. Norris Center Drive/Silver Spur Road Silver Spur Road Norris Center Drive 3 [13] (13) 1 [14] (12) 3 [16] (13) 16 [10] (1) 376 [524] (584) 76 [63] (74) 42 [40] (24) 455 [644] (548) 196 [140] (120) 128 [110] (110) 9 [4] (1) 47 [109] (94)	6. Drybank Drive/Silver Spur Road Silver Spur Road Drybank Drive 12 [40] (62) 2 [3] (3) 0 [8] (4) 4 [9] (8) 439 [391] (380) 34 [52] (65) 26 [59] (55) 440 [587] (478) 53 [150] (147) 26 [141] (209) 2 [3] (3) 17 [51] (63)	7. Beachgate Drive/Silver Spur Road Silver Spur Road Beachgate Drive 19 [29] (25) 10 [19] (11) 137 [67] (102) 179 [101] (130) 470 [335] (351) 40 [50] (57) 31 [68] (64) 358 [501] (454) 29 [60] (32) 34 [72] (84) 6 [20] (15) 33 [53] (66)	8. Crenshaw Blvd/Silver Spur Road Silver Spur Road Crenshaw Blvd 512 [448] (533) 675 [496] (741) 4 [0] (0) 0 [0] (0) 0 [0] (0) 0 [0] (0) 445 [528] (513) 0 [0] (0) 109 [181] (243) 288 [150] (153) 1,113 [607] (536) 0 [0] (0)

Figure 5
Existing Peak Hour Traffic Volumes



TABLE 1
LEVEL OF SERVICE DEFINITIONS
FOR SIGNALIZED INTERSECTIONS

Level of Service	Intersection Capacity Utilization	Definition
A	0.000-0.600	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	0.601-0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701-0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801-0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901-1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity*, Transportation Research Board, 1980.

TABLE 2
EXISTING CONDITIONS
INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name	E/W Street Name [a]	Analyzed Period	Existing	
				V/C or Delay	LOS
1	Hawthorne Blvd	Palos Verdes Drive North	AM	0.839	D
			MD	0.606	B
			PM	0.630	B
2	Crenshaw Blvd	Palos Verdes Drive North	AM	0.813	D
			MD	0.660	B
			PM	0.725	C
3	Hawthorne Blvd	Silver Spur Road	AM	0.698	B
			MD	0.657	B
			PM	0.718	C
4	Silver Arrow Drive	Silver Spur Road	AM	0.494	A
			MD	0.575	A
			PM	0.466	A
5	Norris Center Drive	Silver Spur Road	AM	0.414	A
			MD	0.469	A
			PM	0.430	A
6	Drybank Drive	Silver Spur Road	AM	0.314	A
			MD	0.478	A
			PM	0.495	A
7	Beachgate Drive	Silver Spur Road	AM	0.460	A
			MD	0.439	A
			PM	0.447	A
8	Crenshaw Blvd	Silver Spur Road	AM	0.697	B
			MD	0.680	B
			PM	0.723	C

a. All intersections are signalized.

b. Intersection Capacity Utilization (ICU) methodology used for all intersections.

3. TRAFFIC PROJECTIONS

PROJECT TRAFFIC

The development of trip generation estimates for the proposed project is a 3-step process: trip generation, trip distribution, and traffic assignment.

PROJECT TRAFFIC GENERATION

As indicated in Chapter 1, proposed project would involve the net new construction of:

- Addition of 114-unit RCFE
- Demolition of 25,000 sf of commercial space

In addition to the existing 9,517 sf real estate office and dry cleaner use in Building C, it is anticipated a portion of the existing retail space in Building B will be converted to new uses:

- 3,813 sf to senior center space
- 7,745 sf to medical office space

Vehicle trip generation for the project was estimated using a combination of: 1) standard rates developed in *Trip Generation, 9th Edition* (Institute of Transportation Engineers [ITE], 2012) and 2) trip generation rates for similar sites from existing traffic impact analysis reports. For the project's senior center component, rates were taken from *Huntington Beach Senior Center Final Subsequent Environmental Impact Report* (Atkins, 2011), which developed rates based on counts at senior centers located in Newport Beach, CA and Huntington Beach, CA. Credits for transit, biking and walking were considered, but were not included in the trip generation due to the site's location and existing travel behavior in the area. Credits for the existing land use, The Village shopping center, were also factored into the trip generation. After discussion with City of Rolling Hills Estates staff, the number of occupied beds was used in place of the total number of beds to calculate the trip generation for the RCFE units in order to produce a more conservative trip generation estimate. Trip generation for the midday peak period was assumed to be equal to trip generation in the PM peak period because neither ITE nor empirical studies provide trip generation estimates for the midday peak period.

Table 3 estimates the trip generation for the project. The project is estimated to generate a net decrease of 740 daily trips, including a decrease of 24 trips (12 inbound/12 outbound) during the midday peak

**TABLE 3 - PROJECT TRIP GENERATION ESTIMATES
VILLAGE/MERRILL GARDENS AT ROLLING HILL ESTATES**

	Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]												Estimated Trip Generation											
				Daily Rate	AM Peak Hour			Midday Peak Hour [b]			PM Peak Hour			Daily Trips	AM Peak Hour			Midday Peak Hour [b]			PM Peak Hour						
					Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out		Total	% In	% Out	Total	% In	% Out	Total	% In	% Out				
Existing	Building A	826 [c] [d]	4,200 ksf	44.32	0.96	62%	38%	2.71	44%	56%	2.71	44%	56%	186	4	2	2	11	5	6	11	5	6				
	Building B	826 [c] [d]	11,558 ksf	44.32	0.96	62%	38%	2.71	44%	56%	2.71	44%	56%	512	11	7	4	31	14	17	31	14	17				
	Building C	826 [c] [d]	9,517 ksf	44.32	0.96	62%	38%	2.71	44%	56%	2.71	44%	56%	422	9	6	3	26	11	15	26	11	15				
	Building D	826 [c] [d]	20,800 ksf	44.32	0.96	62%	38%	2.71	44%	56%	2.71	44%	56%	922	20	12	8	56	25	31	56	25	31				
	Existing Total		46,075											2,042	44	27	17	124	55	69	124	55	69				
Proposed	Residential Care Facility	254	114 Occupied Beds	2.74	0.18	65%	35%	0.29	44%	56%	0.29	44%	56%	312	21	14	7	33	15	18	33	15	18				
	Medical Office	720	7,745 ksf	36.13	2.39	79%	21%	3.57	28%	72%	3.57	28%	72%	280	19	15	4	28	8	20	28	8	20				
	Senior Center	[e]	3,813 ksf	75.45	7.00	77%	33%	3.33	73%	27%	3.33	73%	27%	288	27	21	6	13	9	4	13	9	4				
	Frozen Yogurt	826 [c] [d]	1,035 ksf	44.32	0.96	62%	38%	2.71	44%	56%	2.71	44%	56%	46	1	1	0	3	1	2	3	1	2				
	Commercial	826 [c] [d]	8,482 ksf	44.32	0.96	62%	38%	2.71	44%	56%	2.71	44%	56%	376	8	5	3	23	10	13	23	10	13				
	Project Total													1,302	76	56	20	100	43	57	100	43	57				
	Net Total												-740	32	29	3	-24	-12	-12	-24	-12	-12					

- a. Source: Institute of Transportation Engineers (ITE), *Trip Generation*, 9th Edition, 2012.
- b. Weekday midday peak hour trip rate is assumed to be equal to PM peak hour trip rate.
- c. ITE code 826 ("Specialty Retail Center") is used for small strip shopping centers that contain a variety of retail shops, restaurants and also include services such as real estate offices, insurance offices and tax services.
- d. For ITE code 826 ("Specialty Retail Center"), no rate is given for the peak hour of adjacent street traffic between 7 and 9 am. Instead, the rate from ITE 820 ("Shopping Center") is used.
- e. Rates taken from Environmental Impact Report of the Huntington Beach Senior Center. Rate developed from counts at senior centers located in Newport Beach, CA and Huntington Beach, CA.

hour and 24 trips (12 inbound/12 outbound) during the PM peak hour. The project is expected to generate a net increase of 32 trips (29 inbound/three outbound) during the AM peak hour.

The geographic distribution of the traffic generated by the proposed project depends on several factors. These factors include the type and density of the proposed land uses, the geographic distribution from which patients and staff are drawn, and the location of the project in relation to the surrounding street system. The general distribution pattern used in this traffic study was developed in consultation with City of Rolling Hills Estates' staff and is illustrated in Figure 6.

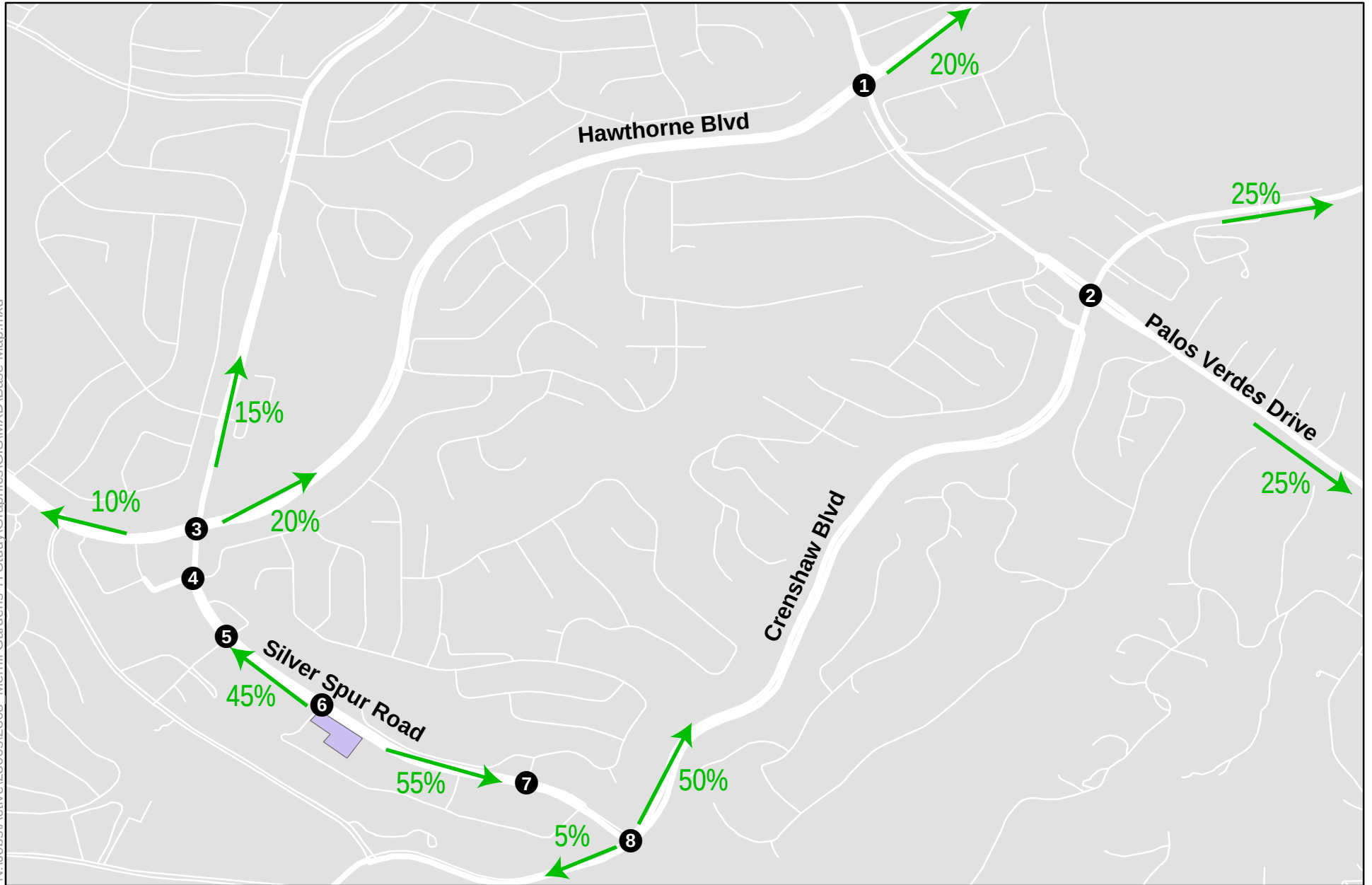
PROJECT TRAFFIC ASSIGNMENT

The traffic expected to be generated by the proposed project was assigned to the street network using the distribution pattern described in Figure 6. Figure 7 illustrates the assignment of project traffic at the eight study intersections and the project driveway.

EXISTING BASELINE PLUS PROJECT TRAFFIC PROJECTIONS

The estimated project traffic was added to the Existing traffic volumes to estimate Existing plus Project traffic volumes. Existing plus Project traffic volumes are presented in Figure 8.

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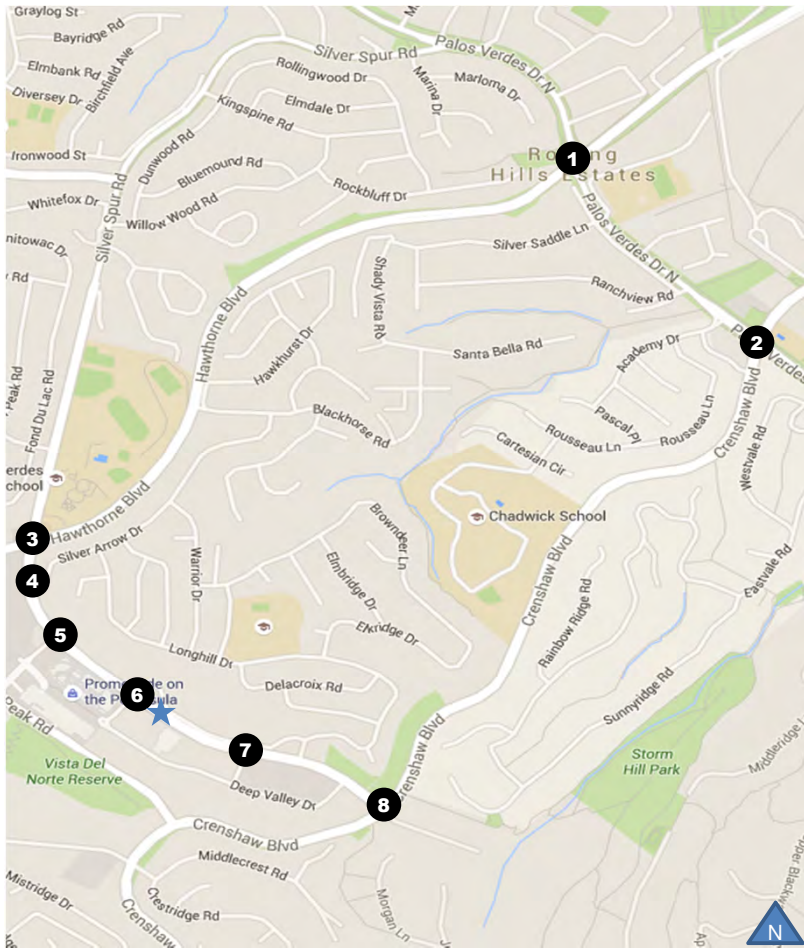
Project Site



Project Distribution

0 0.25 0.5 Miles

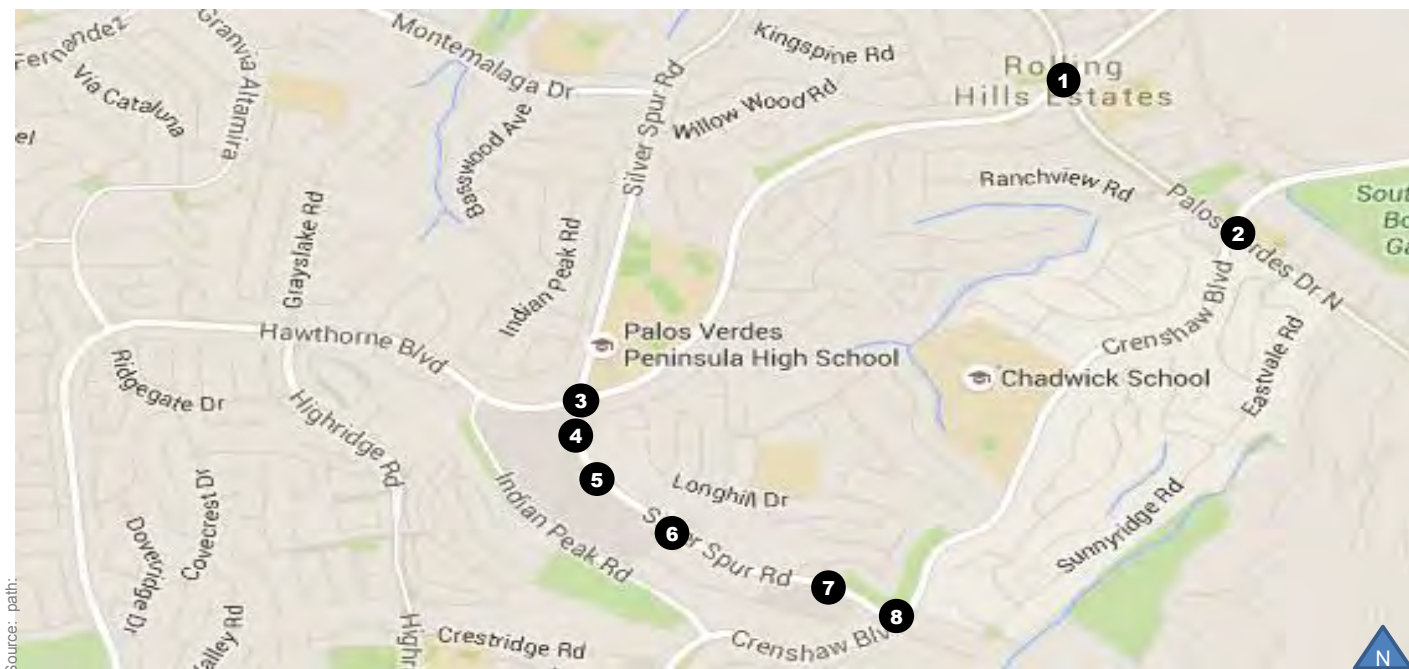
Figure 6
Project Trip Distribution
B-150



1. Hawthorne Blvd/Palos Verdes Drive 	2. Crenshaw Blvd/Palos Verdes Drive 	3. Hawthorne Blvd/Silver Spur Road
4. Silver Arrow Drive/Silver Spur Road 	5. Norris Center Drive/Silver Spur Road 	6. Drybank Drive/Silver Spur Road
7. Beachgate Drive/Silver Spur Road 	8. Crenshaw Blvd/Silver Spur Road 	9. Project Driveway/

Figure 7
Project Only Peak Hour Traffic Volumes





1. Hawthorne Blvd/Palos Verdes Drive Palos Verdes Drive: 202 [183] (239), 549 [672] (962), 147 [80] (121) Hawthorne Blvd: 138 [105] (100), 479 [297] (352), 276 [183] (190) Silver Spur Road: 375 [253] (174), 614 [436] (391), 15 [22] (25) Norris Center Drive: 28 [35] (7), 842 [653] (753), 324 [211] (192)	2. Crenshaw Blvd/Palos Verdes Drive Palos Verdes Drive: 296 [149] (202), 693 [556] (706), 56 [84] (107) Crenshaw Blvd: 99 [82] (66), 488 [344] (407), 487 [371] (532) Silver Spur Road: 493 [288] (281), 543 [436] (473), 55 [44] (48) Drybank Drive: 111 [60] (53), 963 [673] (653), 474 [389] (409)	3. Hawthorne Blvd/Silver Spur Road Silver Spur Road: 155 [72] (61), 474 [540] (798), 171 [182] (178) Hawthorne Blvd: 91 [174] (183), 367 [223] (214), 141 [175] (250) Silver Spur Road: 127 [101] (78), 381 [383] (239), 122 [139] (129) Beachgate Drive: 179 [183] (156), 887 [563] (609), 293 [189] (201)	4. Silver Arrow Drive/Silver Spur Road Silver Spur Road: 124 [34] (43), 20 [26] (13), 49 [23] (35) Silver Arrow Drive: 33 [31] (41), 397 [455] (550), 67 [200] (136) Silver Spur Road: 166 [52] (34), 603 [560] (517), 83 [151] (88) Silver Spur Road: 76 [81] (60), 27 [30] (23), 77 [149] (89)
5. Norris Center Drive/Silver Spur Road Silver Spur Road: 3 [13] (13), 1 [14] (12), 3 [16] (13) Norris Center Drive: 16 [10] (1), 377 [519] (579), 76 [63] (74) Silver Spur Road: 42 [40] (24), 468 [639] (543), 196 [140] (120) Silver Spur Road: 128 [110] (110), 9 [4] (1), 48 [108] (93)	6. Drybank Drive/Silver Spur Road Silver Spur Road: 12 [40] (62), 2 [3] (3), 0 [8] (4) Drybank Drive: 4 [9] (8), 440 [386] (375), 49 [46] (59) Silver Spur Road: 26 [59] (55), 454 [581] (472), 53 [150] (147) Silver Spur Road: 26 [141] (209), 2 [3] (3), 17 [51] (63)	7. Beachgate Drive/Silver Spur Road Silver Spur Road: 19 [29] (25), 10 [19] (11), 137 [67] (102) Beachgate Drive: 179 [101] (130), 485 [329] (345), 40 [50] (57) Silver Spur Road: 32 [63] (59), 360 [494] (447), 29 [60] (32) Silver Spur Road: 34 [72] (84), 6 [20] (15), 33 [53] (56)	8. Crenshaw Blvd/Silver Spur Road Silver Spur Road: 527 [442] (527), 675 [496] (741), 4 [0] (0) Crenshaw Blvd: 0 [0] (0), 0 [0] (0), 0 [0] (0) Silver Spur Road: 447 [522] (507), 0 [0] (0), 109 [180] (242) Silver Spur Road: 288 [150] (153), 1,113 [607] (536), 0 [0] (0)

Figure 8
Existing Plus Project Peak Hour Traffic Volumes



CUMULATIVE BASE TRAFFIC GENERATION

In order to evaluate the potential impact of the proposed project in the future on the surrounding street system, it was necessary to develop estimates of cumulative traffic conditions both with and without the project. Cumulative traffic volumes without the project were first estimated based on an expected 2018 project completion. The trips generated by the proposed project are then estimated and separately assigned to the surrounding street system.

The cumulative traffic projections reflect growth in traffic from two primary sources: background or ambient growth in the existing traffic volumes to reflect the effects of overall regional growth both in and outside of the study area, and traffic generated by specific projects in, or in the vicinity of, the study area. These factors are described below.

AREAWIDE TRAFFIC GROWTH

After consultation with City of Rolling Hills Estates' staff, an area-wide traffic growth of 1.00% per year was agreed upon for the study area. Future increases in the background traffic volumes due to regional growth and development are expected to continue at this rate, at least through 2018. Existing 2016 traffic volumes were adjusted upward by 1.00% per year for two years to reflect areawide regional growth up to 2018.

CUMULATIVE PROJECTS TRAFFIC GENERATION

As indicated, the second major source of traffic growth in the study area is from specific cumulative development projects, also called related projects, expected to be built in the vicinity of the proposed project site prior to the proposed build-out. Per direction from the City staff, data describing cumulative projects in the area was obtained from the recently completed *Peninsula Pointe Assisted Living Traffic Impact Analysis* (Linscott, Law & Greenspan, 2016), which contained a total of 13 related projects, five in the City of Rancho Palos Verdes and eight in the City of Rolling Hills Estates. The related project trip generation from *Peninsula Pointe Assisted Living Traffic Impact Analysis* was not modified except for replacing the Merrill Gardens at Rolling Hills Estates with the Peninsula Pointe Assisted Living.

Trip generation and distribution of the cumulative projects was also based on information obtained from *Peninsula Pointe Assisted Living Traffic Impact Analysis*. Since *Peninsula Pointe Assisted Living Traffic Impact Analysis* did not analyze the midday peak hour, midday cumulative project trip generation was assumed to equal PM trip generation. The cumulative projects are expected to generate approximately 3,444 daily trips, 312 trips during the morning peak hour, 382 trips during the midday peak hour and 382



trips during the evening peak hour. Trip generation for the related projects can be found in Table 4. The locations of the related projects are illustrated in Figure 9, and the related projects' volumes are illustrated in Figure 10. Cumulative volumes, created using the methodology described above, are illustrated in Figure 11.

CUMULATIVE PLUS PROJECT TRAFFIC PROJECTIONS

Cumulative project volumes were then added to the project generated volumes to create the Cumulative plus Project volumes, illustrated in Figure 12.

TABLE 4
RELATED PROJECTS TRIP GENERATION ESTIMATES

Number	Project Location	Land Use	ITE Land Use Code	Size	Estimated Trip Generation [a]									
					Daily Trips	AM Peak Hour Trips			Midday Peak Hour Trips [b]			PM Peak Hour Trips		
						In	Out	Total	In	Out	Total	In	Out	Total
1	Crestridge Senior Condominium Project (5601 Crestridge Road)	Residential Condo/Townhouse	230	60 DU	349	4	22	26	21	10	31	21	10	31
2	Highridge Condominium Project (28220 Highridge Road)	Residential Condo/Townhouse	230	27 DU	157	2	10	12	9	5	14	9	5	14
3	St. John Fisher Church Expansion (5448 Crest Road)	Church	560	32.426 ksf	295	11	7	18	9	9	18	9	9	18
4	Lower Hesse Park Master Plan (29307 Hawthorne Boulevard)	City Park	411	9 acres	17	23	18	41	18	14	32	18	14	32
		Tennis Court	490	3 courts	93	3	2	5	6	6	12	6	6	12
5	Grandview Park Master Plan	City Park	411	18 acres	34	45	36	81	36	27	63	36	27	63
6	Deep Valley Condos Project (627 Deep Valley Drive)	Residential Condo/Townhouse	230	58 DU	337	4	22	26	20	10	30	20	10	30
		General Office	710	5,810 ksf	64	8	1	9	2	7	9	2	7	9
7	Brickwall Condominiums Project (655-683 Deep Valley Dr/924-950 Indian Peak Dr)	Residential Condo/Townhouse	230	148 DU	860	11	54	65	52	25	77	52	25	77
		General Office	710	14,200 ksf	157	19	3	22	4	17	21	4	17	21
8	827 Deep Valley Drive Project	Senior Adult Housing-Attached	252	16 DU	55	1	2	3	2	2	4	2	2	4
9	Mediterranean Village Project (927 Deep Valley Drive)	Residential Condo/Townhouse	230	75 DU	436	6	27	33	26	13	39	26	13	39
		General Office	710	2,000 ksf	22	3	0	3	1	2	3	1	2	3
10	Crest Road Subdivision Project (5883 Crest Road)	Residential Condo/Townhouse	230	4 DU	23	0	2	2	1	1	2	1	1	2
11	Rolling Hills Methodist Church (26483 Crenshaw Boulevard)	Church	560	7,500 ksf	68	2	2	4	2	2	4	2	2	4
12	Peninsula Shopping Center Project (Hawthorne Boulevard-Silverspur Road)	Shopping Center	820	16,583 ksf	708	10	6	16	30	32	62	30	32	62
13	Peninsula Pointe Assisted Living Project (27520 Hawthorne Boulevard) [c]	Assisted Living	254	Occupied 102 Beds	(231)	(51)	(3)	(54)	3	(42)	(39)	3	(42)	(39)
	Net Total				3,444	101	211	312	242	140	382	242	140	382

a. Per direction from City Staff, related projects information was obtained from Traffic Impact Analysis for Peninsula Pointe Assisted Living Project. February 22, 2016

b. Midday trip generation is not provided in the Traffic Impact Analysis for Peninsula Pointe Assisted Living Project. Midday trip generation is assumed to equal PM peak hour trip estimates

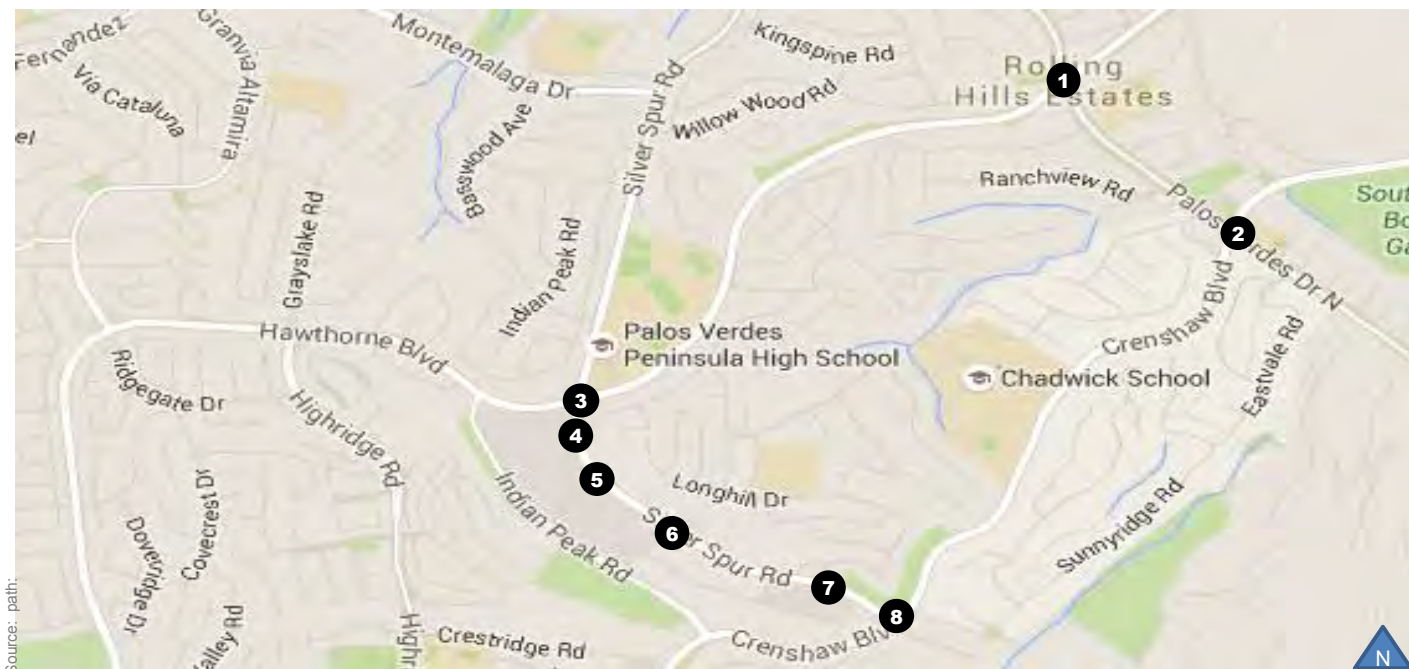
c. Trip generation for the Peninsula Pointe Assisted Living Project includes the proposed project trip generation less the existing use trip generation



● Related Projects ■ Project Site

0 0.5 1 Miles
|-----|-----|

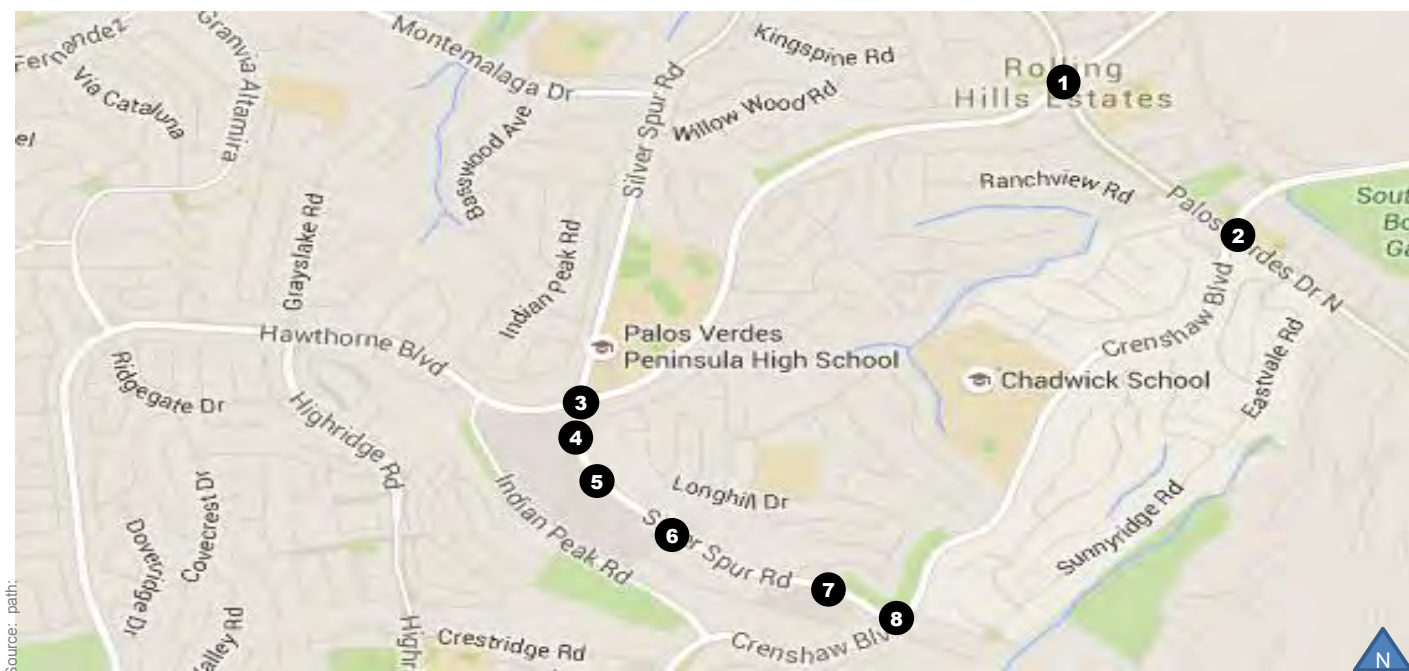
Figure 9
Related Project Locations
B-156



1. Hawthorne Blvd/Palos Verdes Drive	2. Crenshaw Blvd/Palos Verdes Drive	3. Hawthorne Blvd/Silver Spur Road	4. Silver Arrow Drive/Silver Spur Road
5. Norris Center Drive/Silver Spur Road	6. Drybank Drive/Silver Spur Road	7. Beachgate Drive/Silver Spur Road	8. Crenshaw Blvd/Silver Spur Road

Figure 10
Related Project Peak Hour Traffic Volumes

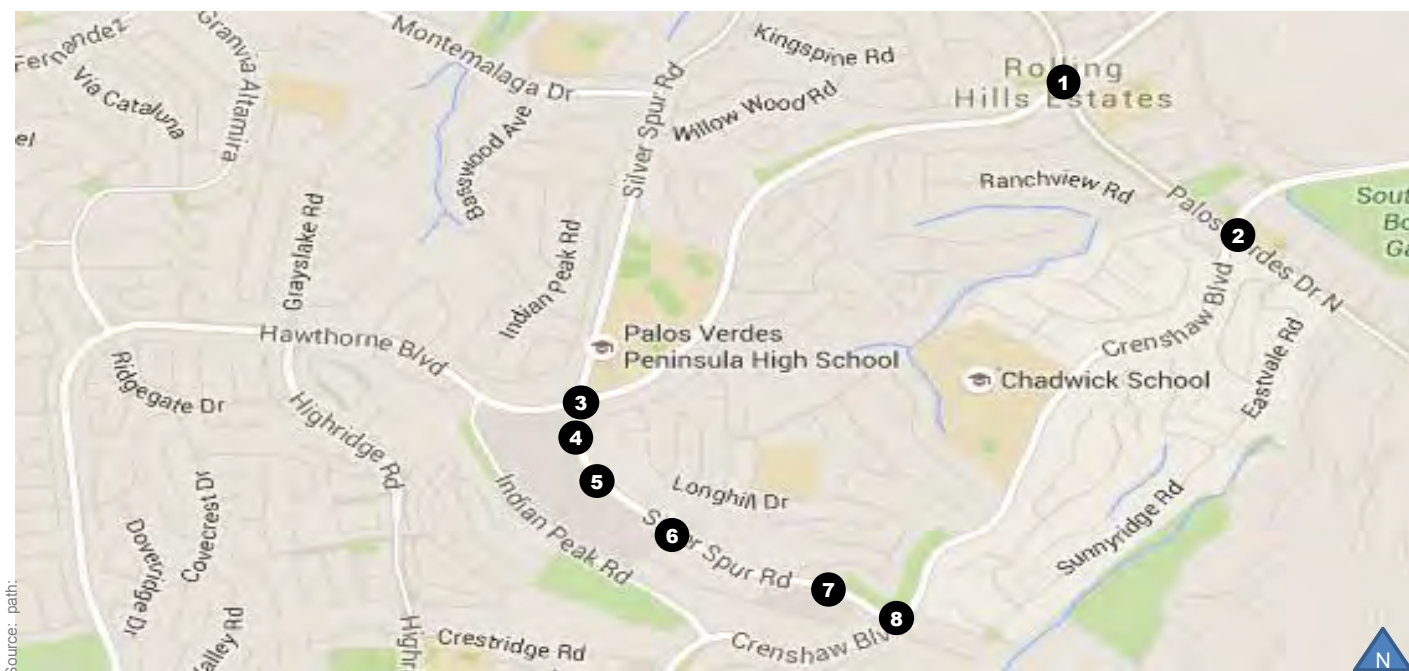




1. Hawthorne Blvd/Palos Verdes Drive Hawthorne Blvd Palos Verdes Drive Northbound: 208 [189] (246), 563 [708] (1,004), 155 [96] (137) Southbound: 155 [115] (110), 506 [314] (370), 283 [188] (195) Eastbound: 385 [259] (178), 634 [461] (415), 22 [41] (45) Westbound: 46 [48] (19), 877 [682] (784), 331 [216] (197)	2. Crenshaw Blvd/Palos Verdes Drive Crenshaw Blvd Palos Verdes Drive Northbound: 304 [154] (208), 702 [580] (733), 57 [86] (109) Southbound: 101 [84] (67), 499 [352] (416), 493 [390] (555) Eastbound: 505 [296] (289), 555 [446] (483), 65 [74] (78) Westbound: 141 [77] (70), 990 [696] (573), 490 [405] (425)	3. Hawthorne Blvd/Silver Spur Road Hawthorne Blvd Silver Spur Road Northbound: 158 [73] (62), 497 [582] (845), 172 [200] (196) Southbound: 100 [189] (198), 376 [232] (222), 145 [182] (258) Eastbound: 130 [103] (80), 387 [394] (247), 124 [142] (132) Westbound: 183 [187] (159), 933 [594] (641), 298 [195] (207)	4. Silver Arrow Drive/Silver Spur Road Silver Arrow Drive Silver Spur Road Northbound: 126 [35] (44), 20 [27] (13), 50 [23] (36) Southbound: 34 [32] (42), 415 [482] (579), 68 [204] (139) Eastbound: 169 [53] (35), 613 [590] (546), 85 [154] (90) Westbound: 78 [83] (61), 28 [31] (23), 79 [152] (91)
5. Norris Center Drive/Silver Spur Road Norris Center Drive Silver Spur Road Northbound: 3 [13] (13), 1 [14] (12), 3 [16] (13) Southbound: 16 [10] (1), 395 [547] (609), 78 [64] (75) Eastbound: 43 [41] (24), 475 [671] (573), 200 [143] (122) Westbound: 131 [112] (112), 9 [4] (1), 48 [111] (96)	6. Drybank Drive/Silver Spur Road Drybank Drive Silver Spur Road Northbound: 12 [41] (63), 2 [3] (3), 0 [8] (4) Southbound: 4 [9] (8), 452 [406] (395), 36 [56] (69) Eastbound: 27 [60] (56), 457 [609] (498), 57 [157] (154) Westbound: 34 [150] (219), 2 [3] (3), 17 [52] (64)	7. Beachgate Drive/Silver Spur Road Beachgate Drive Silver Spur Road Northbound: 19 [30] (26), 10 [19] (11), 140 [68] (104) Southbound: 183 [103] (133), 484 [352] (368), 42 [54] (61) Eastbound: 32 [69] (65), 371 [517] (469), 32 [65] (37) Westbound: 35 [73] (86), 6 [20] (15), 39 [56] (69)	8. Crenshaw Blvd/Silver Spur Road Crenshaw Blvd Silver Spur Road Northbound: 526 [468] (555), 701 [544] (794), 4 [0] (0) Southbound: 0 [0] (0), 0 [0] (0), 0 [0] (0) Eastbound: 463 [546] (530), 0 [0] (0), 113 [186] (249) Westbound: 296 [155] (158), 1,172 [640] (568), 0 [0] (0)

Figure 11
Cumulative Peak Hour Traffic Volumes





1. Hawthorne Blvd/Palos Verdes Drive	2. Crenshaw Blvd/Palos Verdes Drive	3. Hawthorne Blvd/Silver Spur Road	4. Silver Arrow Drive/Silver Spur Road
5. Norris Center Drive/Silver Spur Road	6. Drybank Drive/Silver Spur Road	7. Beachgate Drive/Silver Spur Road	8. Crenshaw Blvd/Silver Spur Road

Figure 12
Cumulative Plus Project Peak Hour Traffic Volumes



4. TRAFFIC IMPACT ANALYSIS

This section presents an analysis of the information in the previous chapter to determine the potential traffic impacts of the proposed project on the operating conditions of the surrounding street system. The traffic impact analysis compares the projected LOS at each study intersection under Cumulative plus Project conditions to the Cumulative conditions to estimate the incremental increase in the V/C ratio caused by the proposed project. This provides the information needed to assess the potential impact of the project using significance criteria established by local jurisdictions.

SIGNIFICANT TRAFFIC IMPACT CRITERIA

The City of Rolling Hills Estates set forth significant impact criteria in their *Traffic Impact Analysis Methodology Guidelines*. According to the City's criteria, a project impact would be considered significant and require mitigation if one of the following conditions is met at a signalized intersection:

- A change in LOS from C to D or D to E
- Within LOS C or D, a change in ICU value greater than 0.02
- Within LOS E or F a change in ICU greater than 0.01 is an impact

EXISTING PLUS PROJECT IMPACT ANALYSIS

The Existing plus Project volumes as estimated in the previous chapter were analyzed to determine potential operating conditions and traffic impacts with the addition of project-generated traffic. Table 5 shows the results of the analysis. After applying the aforementioned significant impact criteria, it was determined that the proposed project would not result in significant impacts at any of the eight study intersections. Detailed level of service worksheets are provided in Appendix B.

CUMULATIVE PLUS PROJECT IMPACT ANALYSIS

The Cumulative plus Project volumes as estimated in the previous chapter were analyzed to determine potential operating conditions and traffic impacts with the addition of project-generated. Table 6 shows the results of the analysis. After applying the aforementioned significant impact criteria, it was determined that the proposed project would not result in significant impacts at any of the eight study intersections.

TABLE 5
EXISTING CONDITIONS
INTERSECTION LEVEL OF SERVICE AND SIGNIFICANT IMPACT ANALYSIS

ID	N/S Street Name	E/W Street Name [a]	Analyzed Period	Existing		Existing+Project		Project Increase In V/C	Significant Impact
				V/C or Delay	LOS	V/C or Delay	LOS		
1	Hawthorne Blvd	Palos Verdes Drive North	AM	0.839	D	0.839	D	0.000	NO
			MD	0.606	B	0.606	B	0.000	NO
			PM	0.631	B	0.630	B	-0.001	NO
2	Crenshaw Blvd	Palos Verdes Drive North	AM	0.812	D	0.813	D	0.001	NO
			MD	0.660	B	0.660	B	0.000	NO
			PM	0.727	C	0.725	C	-0.002	NO
3	Hawthorne Blvd	Silver Spur Road	AM	0.692	B	0.698	B	0.006	NO
			MD	0.657	B	0.657	B	0.000	NO
			PM	0.720	C	0.718	C	-0.002	NO
4	Silver Arrow Drive	Silver Spur Road	AM	0.490	A	0.494	A	0.004	NO
			MD	0.575	A	0.575	A	0.000	NO
			PM	0.468	A	0.466	A	-0.002	NO
5	Norris Center Drive	Silver Spur Road	AM	0.409	A	0.414	A	0.005	NO
			MD	0.469	A	0.469	A	0.000	NO
			PM	0.432	A	0.430	A	-0.002	NO
6	Drybank Drive	Silver Spur Road	AM	0.300	A	0.314	A	0.014	NO
			MD	0.478	A	0.478	A	0.000	NO
			PM	0.501	A	0.495	A	-0.006	NO
7	Beachgate Drive	Silver Spur Road	AM	0.454	A	0.460	A	0.006	NO
			MD	0.439	A	0.439	A	0.000	NO
			PM	0.451	A	0.447	A	-0.004	NO
8	Crenshaw Blvd	Silver Spur Road	AM	0.687	B	0.697	B	0.010	NO
			MD	0.680	B	0.680	B	0.000	NO
			PM	0.729	C	0.723	C	-0.006	NO

a. All intersections are signalized.

b. Intersection Capacity Utilization (ICU) methodology used for all intersections.

TABLE 6
CUMULATIVE CONDITIONS
INTERSECTION LEVEL OF SERVICE AND SIGNIFICANT IMPACT ANALYSIS

ID	N/S Street Name	E/W Street Name [a]	Analyzed Period	Cumulative		Cumulative+Project		Project Increase In V/C	Significant Impact
				V/C or Delay	LOS	V/C or Delay	LOS		
1	Hawthorne Blvd	Palos Verdes Drive North	AM	0.870	D	0.870	D	0.000	NO
			MD	0.633	B	0.633	B	0.000	NO
			PM	0.658	B	0.657	B	-0.001	NO
2	Crenshaw Blvd	Palos Verdes Drive North	AM	0.832	D	0.835	D	0.003	NO
			MD	0.687	B	0.685	B	-0.002	NO
			PM	0.765	C	0.763	C	-0.002	NO
3	Hawthorne Blvd	Silver Spur Road	AM	0.715	C	0.720	C	0.005	NO
			MD	0.681	B	0.679	B	-0.002	NO
			PM	0.742	C	0.742	C	0.000	NO
4	Silver Arrow Drive	Silver Spur Road	AM	0.501	A	0.505	A	0.004	NO
			MD	0.589	A	0.587	A	-0.002	NO
			PM	0.480	A	0.478	A	-0.002	NO
5	Norris Center Drive	Silver Spur Road	AM	0.419	A	0.423	A	0.004	NO
			MD	0.480	A	0.479	A	-0.001	NO
			PM	0.442	A	0.441	A	-0.001	NO
6	Drybank Drive	Silver Spur Road	AM	0.314	A	0.327	A	0.013	NO
			MD	0.496	A	0.491	A	-0.005	NO
			PM	0.519	A	0.513	A	-0.006	NO
7	Beachgate Drive	Silver Spur Road	AM	0.466	A	0.472	A	0.006	NO
			MD	0.452	A	0.450	A	-0.002	NO
			PM	0.463	A	0.459	A	-0.004	NO
8	Crenshaw Blvd	Silver Spur Road	AM	0.704	C	0.714	C	0.010	NO
			MD	0.703	C	0.697	B	-0.006	NO
			PM	0.753	C	0.747	C	-0.006	NO

a. All intersections are signalized.

b. Intersection Capacity Utilization (ICU) methodology used for all intersections.



MITIGATION MEASURES

The traffic impact analysis determined that the proposed development would not generate significant traffic impacts at any of the eight analyzed intersections under Cumulative plus Project conditions. Therefore, no mitigations are required.

QUEUING ANALYSIS

After consultation with City of Rolling Hills Estates staff, a queuing analysis was performed for westbound left turns at the intersection of Silver Spur Road & Drybank Drive. As the only access to the project site for eastbound vehicles on Silver Spur Road is a right-in right-out driveway, project trips traveling westbound on Silver Spur Road will need to make a U-turn at the intersection of Drybank Drive in order to access the site. City staff expressed concerns that the existing turn pocket may not be long enough to accommodate the expected trips associated with the project. Since the project is expected to generate a net increase in trips only in the AM peak hour, the analysis was only conducted for this time period.

The Synchro traffic analysis software was used to implement the HCM methodology to calculate the 95th percentile queue, which was compared with the available vehicle storage for the analyzed movement. Turn pocket lengths were coded based on available storage in the left-turn pocket. Traffic signal-related information such as phasing and timing plans (minimum green, maximum green, gap, etc.) was obtained from the City and traffic volumes were taken from those developed in Chapter 3.

The results of the queuing analysis are shown in Table 7. As shown in the table, queuing in all scenarios is less than the amount of storage space provided.

TABLE 7
MORNING PEAK HOUR 95TH PERCENTILE QUEUES FOR WESTBOUND
LEFT TURNS AT SILVER SPUR ROAD & DRYBANK DRIVE

Turn Pocket Length (ft)	Queue Length (ft)				Queue Exceeds Storage
	Existing	Existing plus Project	Future	Future plus Project	
90	15	25	20	55	NO

a. Analysis conducted in Synchro using the HCM methodology.

PEDESTRIAN SIGNAL CROSSING TIMES

City of Rolling Hills Estates staff expressed concern that the current signal timing at the intersection of Silver Spur Road & Drybank Drive may not provide adequate crossing time for pedestrians from the project. Existing signal timing plans from the City show that the amount of time given to cross Drybank Drive is 19 seconds (seven seconds for walk, 12 seconds for do not walk) and the amount of time to cross Silver Spur Road is 23 seconds (seven seconds for walk, 16 seconds for do not walk). Drybank Drive is approximately 60 feet wide and Silver Spur Road is approximately 90 feet wide. There is not an established average walking speed, but the California MUTCD allows a speed of 2.8 feet per second for locations routinely used by older or disabled pedestrians. Using a walking speed of 2.8 feet per second, Drybank Drive could be crossed in 21.4 seconds (60 feet/2.8 feet per second) and Silver Spur Road could be crossed in 32.1 seconds (90 feet/2.8 feet per second). Based on these calculations, the existing signal timing plans do not provide adequate time to cross Drybank Drive or Silver Spur Road.

OPERATION OF ROUNDABOUT

City of Rolling Hills Estates staff expressed concern that the project could decrease the safety and service at the intersection of Deep Valley Drive & Drybank Drive. The intersection is currently a 3-legged roundabout, with the south leg serving as the entrance/exit to the parking structure serving the Promenade on the Peninsula. The City expressed specific concern that vehicles exiting the parking structure do not currently yield appropriately.

An analysis of the intersection was conducted using the SIDRA software. SIDRA allows the analyst to input the design of the roundabout, vehicle and pedestrian volumes, and driving parameters. Once these inputs are completed, the software produces a level of service for the intersection. The existing counts at the intersection were analyzed during the PM period, since this is the period when the street network near the project is busiest. Existing volumes were grown using the same methodology as stated above to determine the Cumulative traffic volumes, and no project trips were assigned through this intersection. In order to estimate pedestrian volumes once the project was completed, a conservative estimate was made and existing pedestrian volumes were doubled. Table 8 displays the results of this analysis.

Although the operations of the roundabout are not expected to deteriorate with the development of the project, there are a few improvements the City could make in order to increase operational efficiency and safety.

TABLE 8
EVENING PEAK HOUR ROUNDABOUT ANALYSIS FOR
DRYBANK DRIVE & DEEP VALLEY DRIVE

Scenario	Time Period	Delay (seconds)	LOS
Existing	PM	3.2	A
Cumulative plus Project		3.3	A

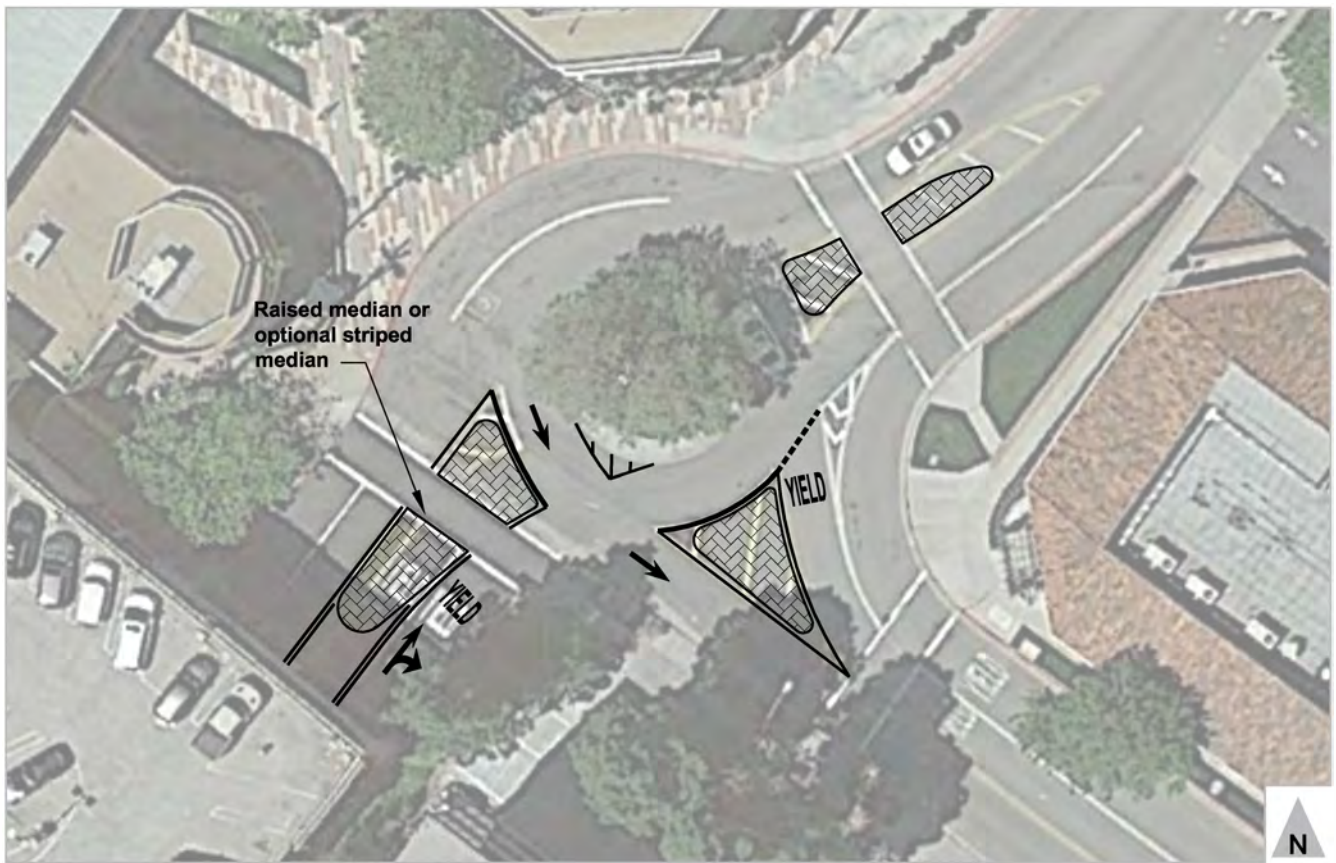
- a. Analysis conducted in Sidra using the HCM methodology.
- b. Roundabout analyzed only during the PM period, when the street network near the project is busiest.

1. Raised splitter islands could be added to the three approaches to increase safety and comfort for crossing pedestrians.
2. In order to reduce conflicts for vehicles exiting the parking structure, the configuration for this approach could be reduced from the existing through lane and right-turn lane to a single through/right lane. If this design is not deemed feasible, the City could instead provide additional advanced signage (including flashing pedestrian beacons) and pavement markings to better orient drivers exiting the parking structure.
3. At the garage exit, the City could also consider adding a painted or raised island between the through lane and the right-turn lane to further delineate the correct vehicle position.

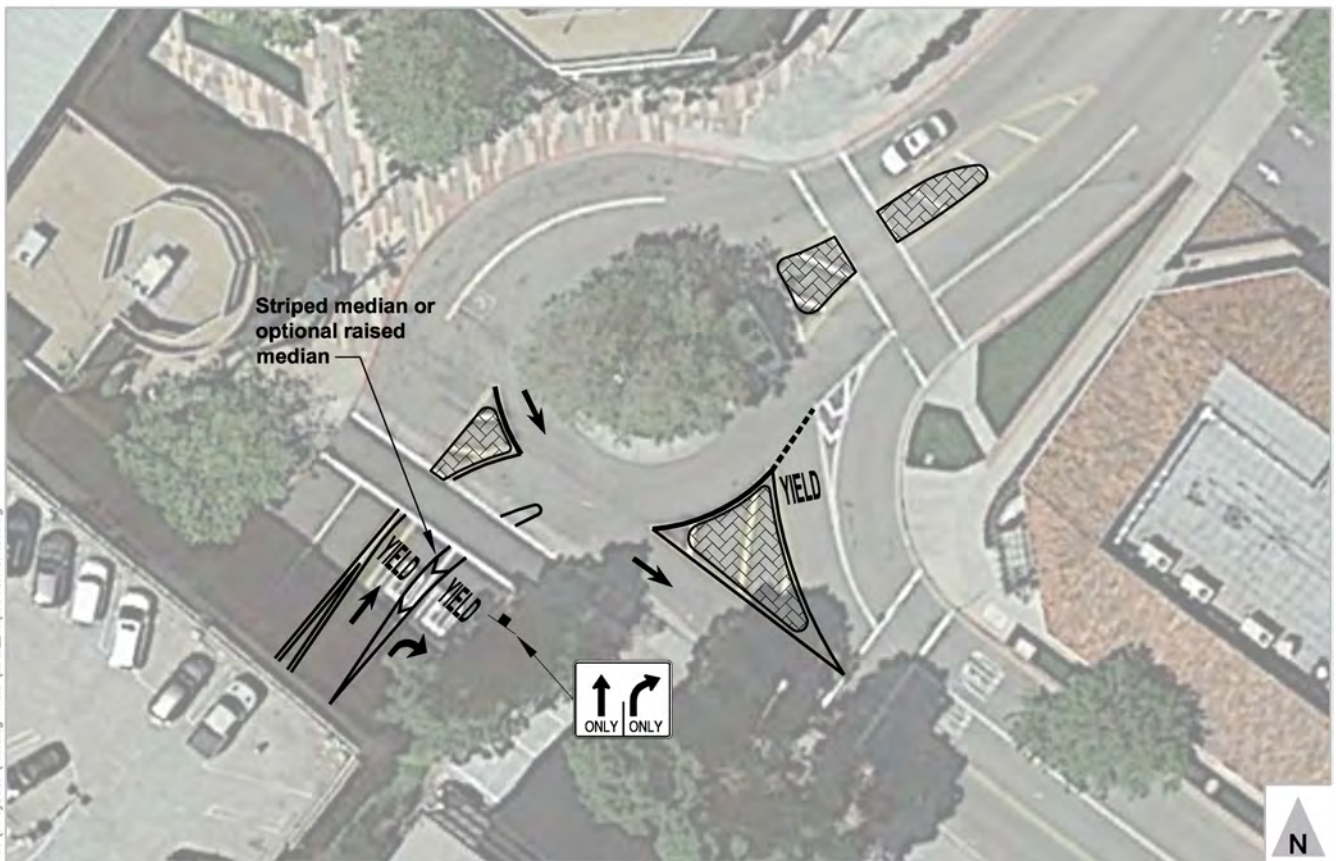
Figure 13 shows these suggested improvements.

SITE ACCESS AND EGRESS

The two existing driveways providing access via Silver Spur Road will be closed, as will the existing driveway on Drybank Drive providing access to Building A. Site access for the RCFE is provided via a new right-in right-out on Silver Spur Road. Access to The Village portion of the project is provided via two existing driveways on Drybank Drive, a new driveway on Deep Valley Drive, and a relocated driveway on Deep Valley Drive. Analysis of the new driveway on Silver Spur Road was conducted using the 2010 *Highway Capacity Manual* methodology. Results are shown in Table 9.



Suggested Improvements - Option 1



Suggested Improvements - Option 2

Figure 13

Suggested Roundabout Improvements



TABLE 9
PEAK HOUR SILVER SPUR ROAD DRIVEWAY ANALYSIS

Scenario	Time Period	Delay (seconds)	LOS
Existing plus Project	AM	9.9	A
Cumulative plus Project		10.0	B
Existing plus Project	MD	10.7	B
Cumulative plus Project		10.8	B
Existing plus Project	PM	10.3	B
Cumulative plus Project		10.4	B

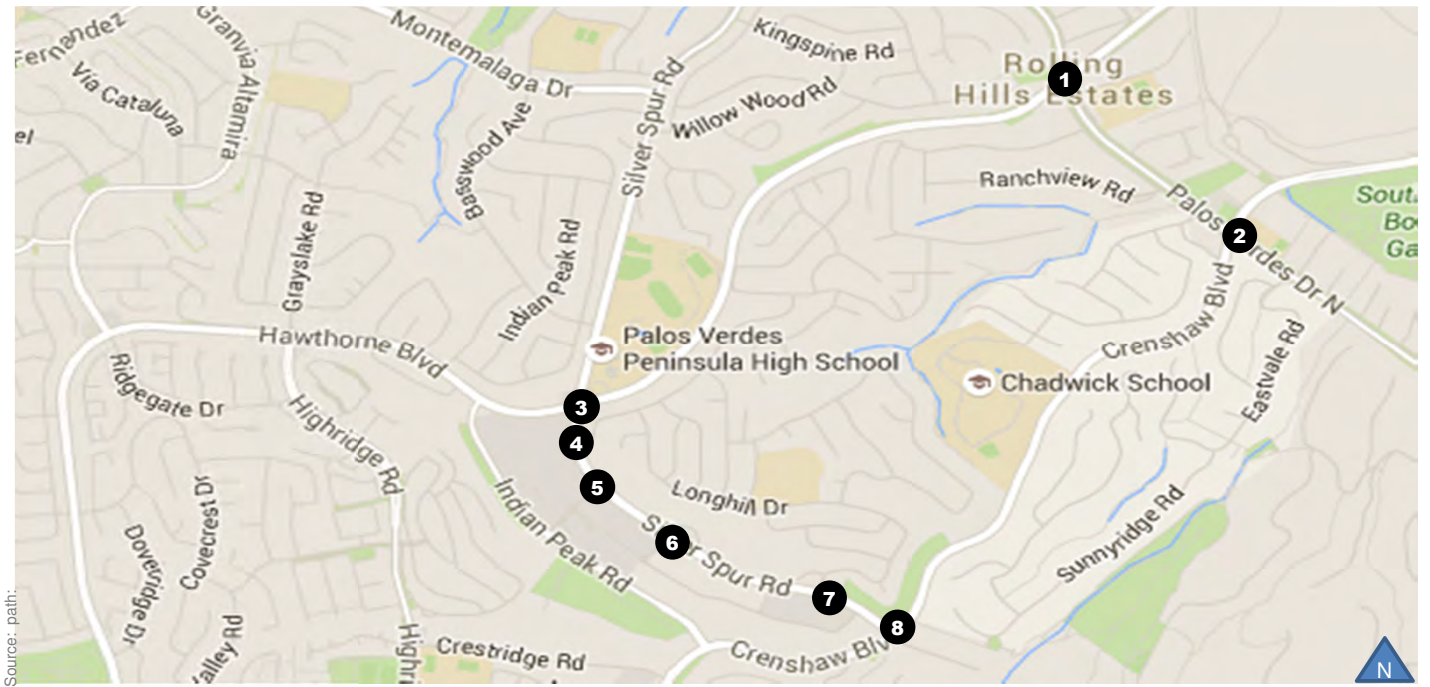
a. Analysis conducted in Synchro using the HCM methodology.

5. CONCLUSIONS

This study was undertaken to analyze the potential traffic impacts of the proposed RCFE and commercial space development on the local street system. The following summarizes the results of this analysis:

- The proposed project would involve the demolition of 36,558 sf of existing commercial space and replace it with the construction of 114-unit RCFE on proposed Parcel 1. Proposed Parcel 2, The Village, will be converted to 21,075 sf of commercial condominiums. The project currently anticipates occupancies by a senior center, medical/dental offices, the existing frozen yogurt shop, real estate office, and dry cleaner, all served by covered, surface, and structured parking.
- The project is estimated to generate a net of -740 daily trips, including -24 trips (-12 inbound/-12 outbound) during the midday and PM peak hours. A net increase of 32 trips (29 inbound/three outbound) is estimated in the AM peak hour.
- The LOS analysis for the Existing plus Project scenario (using the City of Rolling Hills Estates significance criteria) determined that the proposed project would not significantly impact traffic at any of the eight study intersections.
- The LOS analysis for the Cumulative plus Project scenario (using the City of Rolling Hills Estates significance criteria) determined that the proposed project would not significantly impact traffic at any of the eight study intersections.
- Roundabout operations at the intersection of Drybank Drive & Deep Valley Drive will remain largely unchanged. Several improvements are proposed that could further increase operational efficiency and safety.
- In order to accommodate the project's clientele of seniors, crossing time should be lengthened at the intersection of Silver Spur Road and Drybank Drive to provide adequate time for pedestrians to cross.
- The project will not increase the queue for westbound left turns beyond the existing capacity of the left-turn lane.
- Parcel 2 and the adjacent Palos Verdes Library District property will be subject to a reciprocal ingress/egress/parking agreement acceptable to the Palos Verdes Library District of Los Angeles County, Continental Development Corporation and Continental RHE Corporation, and the City of Rolling Hills Estates.

APPENDIX A: INTERSECTION LANE CONFIGURATIONS



Source: path:

1. Hawthorne Blvd/Palos Verdes Drive	2. Crenshaw Blvd/Palos Verdes Drive	3. Hawthorne Blvd/Silver Spur Road	4. Silver Arrow Drive/Silver Spur Road
5. Norris Center Drive/Silver Spur Road	6. Drybank Drive/Silver Spur Road	7. Beachgate Drive/Silver Spur Road	8. Crenshaw Blvd/Silver Spur Road



APPENDIX B: INTERSECTION TRAFFIC COUNTS

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-001

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/21/2019

NS/EW Streets:	AM												TOTAL	
	Drybank Dr			Drybank Dr			Silver Spur Rd			Silver Spur Rd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	NL 1	NT 0.5	NR 0.5	SL 1	ST 0.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0		
LANES:														
7:00 AM	10	0	6	0	0	0	2	49	7	2	45	0	121	
7:15 AM	14	0	5	1	0	1	3	62	12	3	76	2	179	
7:30 AM	7	1	3	0	0	1	4	110	5	5	153	1	290	
7:45 AM	6	0	5	0	2	5	6	152	16	11	151	1	355	
8:00 AM	9	0	4	0	0	3	9	108	16	10	61	2	222	
8:15 AM	4	1	5	0	0	3	7	70	16	8	74	0	188	
8:30 AM	11	0	5	0	0	0	9	98	23	15	60	0	221	
8:45 AM	9	0	3	1	1	2	9	104	30	18	79	0	256	
TOTAL VOLUMES : APPROACH %'s :	NL 70 64.81%	NT 2 1.85%	NR 36 33.33%	SL 2 10.00%	ST 3 15.00%	SR 15 75.00%	EL 49 5.29%	ET 753 81.23%	ER 125 13.48%	WL 72 9.27%	WT 699 89.96%	WR 6 0.77%	TOTAL 1832	
PEAK HR START TIME :	730 AM													TOTAL
PEAK HR VOL :	26	2	17	0	2	12	26	440	53	34	439	4	1055	
PEAK HR FACTOR :	0.865			0.500			0.746			0.732			0.743	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	1	0
0	0	1	0
0	0	1	0
0	0	2	0
0	0	2	0
0	0	4	0
0	0	2	0
0	0	4	2
NB 0	SB 0	EB 17	WB 2

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-001

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/23/2020

NS/EW Streets:	PM												TOTAL	
	Drybank Dr			Drybank Dr			Silver Spur Rd			Silver Spur Rd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	NL 1	NT 0.5	NR 0.5	SL 1	ST 0.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0		
LANES:														
4:00 PM	50	0	21	0	2	21	13	119	53	15	104	4	402	
4:15 PM	50	1	17	1	1	9	12	131	32	11	77	2	344	
4:30 PM	49	1	13	1	0	11	11	113	23	17	102	0	341	
4:45 PM	60	1	12	2	0	11	19	115	39	22	97	2	380	
5:00 PM	60	1	11	1	3	8	20	109	22	18	112	3	368	
5:15 PM	30	1	10	2	1	22	27	101	28	18	88	1	329	
5:30 PM	40	2	15	2	2	11	17	105	30	16	107	2	349	
5:45 PM	36	0	12	5	1	25	24	100	39	12	78	0	332	
TOTAL VOLUMES : APPROACH %'s :	NL 375 76.06%	NT 7 1.42%	NR 111 22.52%	SL 14 9.86%	ST 10 7.04%	SR 118 83.10%	EL 143 10.98%	ET 893 68.59%	ER 266 20.43%	WL 129 14.21%	WT 765 84.25%	WR 14 1.54%	TOTAL 2845	
PEAK HR START TIME :	400 PM													TOTAL
PEAK HR VOL :	209	3	63	4	3	52	55	478	147	65	380	8	1467	
PEAK HR FACTOR :	0.942			0.641			0.919			0.921			0.912	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	4	1
0	0	5	1
0	0	2	0
0	0	7	2
0	0	2	0
0	0	3	1
0	0	7	2
0	0	2	0

NB	SB	EB	WB
0	0	32	7

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-002

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/21/2019

AM														
NS/EW Streets:	Beachgate Dr			Beachgate Dr			Silver Spur Rd			Silver Spur Rd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	
7:00 AM	3	1	1	16	0	1	4	42	2	4	51	7	132	
7:15 AM	3	0	9	36	0	1	1	53	2	8	76	11	200	
7:30 AM	7	0	3	47	1	4	4	91	4	7	161	27	356	
7:45 AM	8	2	9	24	2	3	10	131	10	17	168	36	420	
8:00 AM	8	2	14	16	2	4	8	83	10	11	72	38	268	
8:15 AM	11	2	7	50	5	8	9	53	5	5	69	78	302	
8:30 AM	5	1	11	49	6	6	6	71	11	4	77	16	263	
8:45 AM	8	3	12	23	1	1	7	76	9	11	98	27	276	
TOTAL VOLUMES : APPROACH %'s :	53 40.77%	11 8.46%	66 50.77%	261 85.29%	17 5.56%	28 9.15%	49 6.98%	600 85.47%	53 7.55%	67 6.21%	772 71.55%	240 22.24%	2217	
PEAK HR START TIME :	730 AM													TOTAL
PEAK HR VOL :	34	6	33	137	10	19	31	358	29	40	470	179	1346	
PEAK HR FACTOR :	0.760			0.659			0.692			0.779			0.801	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	1	0
0	0	0	1
0	0	1	1
0	0	0	0
0	0	0	0
0	0	2	1
0	0	2	0
0	1	0	1
NB 0	SB 1	EB 6	WB 4

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-002

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/23/2019

PM														
NS/EW Streets:	Beachgate Dr			Beachgate Dr			Silver Spur Rd			Silver Spur Rd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	
4:00 PM	27	8	14	20	5	6	12	104	19	12	80	26	333	
4:15 PM	18	4	18	26	8	5	18	104	13	20	83	24	341	
4:30 PM	27	4	18	25	1	11	11	102	12	9	62	20	302	
4:45 PM	23	5	14	31	2	4	16	105	13	13	97	36	359	
5:00 PM	34	3	17	29	4	6	17	120	3	15	90	28	366	
5:15 PM	13	5	12	20	3	8	12	101	10	16	67	36	303	
5:30 PM	14	2	13	22	2	7	19	128	6	13	97	30	353	
5:45 PM	20	5	13	37	1	8	13	106	7	13	53	34	310	
TOTAL VOLUMES : APPROACH %'s :	NL 176 53.17%	NT 36 10.88%	NR 119 35.95%	SL 210 72.16%	ST 26 8.93%	SR 55 18.90%	EL 118 11.02%	ET 870 81.23%	ER 83 7.75%	WL 111 11.40%	WT 629 64.58%	WR 234 24.02%	TOTAL 2667	
PEAK HR START TIME :	445 PM													TOTAL
PEAK HR VOL :	84	15	56	102	11	25	64	454	32	57	351	130	1381	
PEAK HR FACTOR :	0.718			0.885			0.899			0.921			0.943	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	3	0
0	0	4	1
0	0	3	0
0	0	4	0
0	0	2	0
0	0	3	2
0	0	8	0
0	0	3	0
NB	SB	EB	WB
0	0	30	3

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-003

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/21/2019

AM													
NS/EW Streets:	Crenshaw Blvd			Crenshaw Blvd			Silver Spur Rd			Silver Spur Rd			
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1.5	ET 0.5	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	6	152	0	0	96	80	59	0	7	0	0	0	400
7:15 AM	23	204	0	0	125	100	78	0	23	0	0	0	553
7:30 AM	74	259	0	1	180	139	103	0	38	0	0	0	794
7:45 AM	98	319	0	2	189	156	133	0	23	0	0	0	920
8:00 AM	47	280	0	1	172	114	103	0	27	0	0	0	744
8:15 AM	69	255	0	0	134	103	106	0	21	0	0	0	688
8:30 AM	29	283	0	1	121	105	109	0	37	0	0	0	685
8:45 AM	28	215	0	0	137	143	81	0	30	0	0	0	634
TOTAL VOLUMES : APPROACH %'s :	NL 374 15.98%	NT 1967 84.02%	NR 0 0.00%	SL 5 0.24%	ST 1154 54.98%	SR 940 44.78%	EL 772 78.94%	ET 0 0.00%	ER 206 21.06%	WL #DIV/0!	WT 0 #DIV/0!	WR 0 #DIV/0!	TOTAL 5418
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	288	1113	0	4	675	512	445	0	109	0	0	0	3146
PEAK HR FACTOR :	0.840		0.858				0.888			0.000			0.855

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	1	0	0
0	2	0	0
0	1	0	0
0	0	0	0
0	1	0	0
0	0	0	0

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-003

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/21/2016

NS/EW Streets:	PM												TOTAL	
	Crenshaw Blvd			Crenshaw Blvd			Silver Spur Rd			Silver Spur Rd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1.5	ET 0.5	ER 1	WL 0	WT 1		WR 0
4:00 PM	50	142	0	1	180	124	112	0	69	0	0	0	678	
4:15 PM	51	115	0	0	178	123	91	0	67	0	0	0	625	
4:30 PM	34	141	0	0	197	108	115	0	60	0	0	0	655	
4:45 PM	41	137	0	0	165	136	124	0	61	0	0	0	664	
5:00 PM	40	127	0	0	176	132	148	0	75	0	0	0	698	
5:15 PM	39	127	0	0	191	120	115	0	44	0	0	0	636	
5:30 PM	33	145	0	0	209	145	126	0	63	0	0	0	721	
5:45 PM	25	120	0	0	166	99	127	0	72	0	0	0	609	
TOTAL VOLUMES :	313	1054	0	1	1462	987	958	0	511	0	0	0	5286	
APPROACH %'s :	22.90%	77.10%	0.00%	0.04%	59.67%	40.29%	65.21%	0.00%	34.79%	#DIV/0!	#DIV/0!	#DIV/0!		
PEAK HR START TIME :	445 PM													TOTAL
PEAK HR VOL :	153	536	0	0	741	533	513	0	243	0	0	0	2719	
PEAK HR FACTOR :	0.968			0.900			0.848			0.000			0.943	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
0	1	0	0

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-004

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/21/2019

AM														
NS/EW Streets:	Norris Center Dr			Norris Center Dr			Silver Spur Rd			Silver Spur Rd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 1.3	NT 0.3	NR 1.3	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	
7:00 AM	11	1	3	0	0	0	3	49	12	6	45	0	130	
7:15 AM	19	3	5	0	0	1	6	70	28	11	77	5	225	
7:30 AM	53	1	7	0	0	0	7	109	48	12	143	4	384	
7:45 AM	48	4	13	2	0	0	13	155	63	29	120	5	452	
8:00 AM	11	2	17	1	0	1	12	115	39	12	55	5	270	
8:15 AM	16	2	10	0	1	2	10	76	46	23	58	2	246	
8:30 AM	13	2	21	2	0	1	9	105	29	15	52	3	252	
8:45 AM	11	1	16	1	0	1	7	118	34	21	63	3	276	
TOTAL VOLUMES : APPROACH %'s :	182 62.76%	16 5.52%	92 31.72%	6 46.15%	1 7.69%	6 46.15%	67 5.76%	797 68.53%	299 25.71%	129 16.78%	613 79.71%	27 3.51%	2235	
PEAK HR START TIME :	730 AM													TOTAL
PEAK HR VOL :	128	9	47	3	1	3	42	455	196	76	376	16	1352	
PEAK HR FACTOR :	0.708			0.583			0.750			0.736			0.748	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	1
0	0	0	0
0	0	2	0
2	0	1	3
0	0	1	0
0	0	1	0
0	0	1	1
0	0	1	0
NB	SB	EB	WB
2	0	7	5

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-004

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/23/2019

NS/EW Streets:	PM												TOTAL	
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR		
	1.3	0.3	1.3	0	1	0	1	2	0	1	2	0		
LANES:														
4:00 PM	26	1	32	7	5	3	10	143	30	18	170	0	445	
4:15 PM	30	0	22	2	2	1	7	140	27	23	119	0	373	
4:30 PM	26	0	15	1	2	3	5	129	27	17	143	0	368	
4:45 PM	28	0	25	3	3	6	2	136	36	16	152	1	408	
5:00 PM	31	0	20	9	3	11	3	109	42	34	156	0	418	
5:15 PM	22	1	17	5	4	4	4	132	34	19	133	0	375	
5:30 PM	34	1	18	7	2	2	3	116	41	20	140	1	385	
5:45 PM	30	1	22	0	0	1	5	136	33	18	122	0	368	
TOTAL VOLUMES :	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
APPROACH %'s :	227	4	171	34	21	31	39	1041	270	165	1135	2	3140	
	56.47%	1.00%	42.54%	39.53%	24.42%	36.05%	2.89%	77.11%	20.00%	12.67%	87.17%	0.15%		
PEAK HR START TIME :	400 PM													TOTAL
PEAK HR VOL :	110	1	94	13	12	13	24	548	120	74	584	1	1594	
PEAK HR FACTOR :	0.869			0.633			0.945			0.876			0.896	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	2	4
0	0	3	3
0	0	1	3
0	0	0	2
0	0	2	4
0	0	3	4
0	0	2	0
NB	SB	EB	WB
0	0	15	27

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-005

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

AM													
NS/EW Streets:	Silver Arrow Dr			Silver Arrow Dr			Silver Spur Rd			Silver Spur Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0.5	NR 0.5	SL 1	ST 0.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	7	4	7	2	4	6	7	45	5	8	45	3	143
7:15 AM	16	2	6	13	4	15	11	82	11	13	75	3	251
7:30 AM	28	4	26	18	5	28	18	128	20	16	151	4	446
7:45 AM	30	12	25	12	8	32	27	198	34	26	130	18	552
8:00 AM	12	8	13	3	1	12	41	146	18	13	58	4	329
8:15 AM	6	3	13	16	6	52	80	118	11	12	57	7	381
8:30 AM	10	1	10	9	7	37	16	132	15	16	47	2	302
8:45 AM	14	2	6	12	2	20	7	154	11	16	57	4	305
TOTAL VOLUMES :	NL 123	NT 36	NR 106	SL 85	ST 37	SR 202	EL 207	ET 1003	ER 125	WL 120	WT 620	WR 45	TOTAL 2709
APPROACH %'s :	46.42%	13.58%	40.00%	26.23%	11.42%	62.35%	15.51%	75.13%	9.36%	15.29%	78.98%	5.73%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	76	27	77	49	20	124	166	590	83	67	396	33	1708
PEAK HR FACTOR :	0.672			0.652			0.810			0.713			0.774

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	5	0
0	0	7	2
0	2	1	2
0	0	2	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
0	2	15	4

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-005

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/23/2019

PM														
NS/EW Streets:	Silver Arrow Dr			Silver Arrow Dr			Silver Spur Rd			Silver Spur Rd				
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	NL 1	NT 0.5	NR 0.5	SL 1	ST 0.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	
4:00 PM	17	5	28	13	3	10	7	133	29	38	159	10	452	
4:15 PM	17	10	16	6	4	14	8	140	26	33	114	7	395	
4:30 PM	13	5	26	7	2	12	13	112	16	33	134	14	387	
4:45 PM	13	3	19	9	4	7	6	137	17	32	148	10	405	
5:00 PM	14	5	18	6	4	7	10	113	16	42	158	9	402	
5:15 PM	24	10	15	6	3	8	10	143	28	43	113	9	412	
5:30 PM	11	9	17	6	5	12	9	121	22	42	133	8	395	
5:45 PM	22	10	20	4	7	6	10	145	30	32	119	9	414	
TOTAL VOLUMES :	NL 131	NT 57	NR 159	SL 57	ST 32	SR 76	EL 73	ET 1044	ER 184	WL 295	WT 1078	WR 76	TOTAL 3262	
APPROACH %'s :	37.75%	16.43%	45.82%	34.55%	19.39%	46.06%	5.61%	80.25%	14.14%	20.36%	74.40%	5.24%		
PEAK HR START TIME :	400 PM													TOTAL
PEAK HR VOL :	60	23	89	35	13	43	34	522	88	136	555	41	1639	
PEAK HR FACTOR :	0.860			0.875			0.925			0.884			0.907	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	1	0
0	0	0	2
0	0	1	1
0	0	0	0
0	0	1	2
0	0	0	0
0	0	0	1
0	0	3	1
NB 0	SB 0	EB 6	WB 7

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-006

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/21/2016

AM														
NS/EW Streets:	Hawthorne Blvd			Hawthorne Blvd			Silver Spur Rd			Silver Spur Rd				
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1	TOTAL	
7:00 AM	20	164	13	19	56	6	12	25	6	21	23	11	376	
7:15 AM	65	182	33	23	99	29	26	47	26	14	82	18	644	
7:30 AM	79	190	50	26	94	58	39	93	35	16	144	21	845	
7:45 AM	36	197	76	59	137	72	43	131	28	23	129	36	967	
8:00 AM	35	250	65	37	130	23	35	91	45	42	61	14	828	
8:15 AM	29	250	99	43	113	2	10	62	14	60	33	19	734	
8:30 AM	39	251	56	33	120	9	12	77	14	52	27	18	708	
8:45 AM	50	208	51	68	127	3	9	55	24	34	35	19	683	
TOTAL VOLUMES : APPROACH %'s :	NL 353 14.19%	NT 1692 68.01%	NR 443 17.81%	SL 308 22.22%	ST 876 63.20%	SR 202 14.57%	EL 186 19.40%	ET 581 60.58%	ER 192 20.02%	WL 262 27.52%	WT 534 56.09%	WR 156 16.39%	TOTAL 5785	
PEAK HR START TIME :	730 AM													TOTAL
PEAK HR VOL :	179	887	290	165	474	155	127	377	122	141	367	90	3374	
PEAK HR FACTOR :	0.897			0.741			0.775			0.795			0.872	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	1
0	0	0	1
2	0	0	2
1	0	0	0
1	0	0	0
0	0	0	1
4	0	0	0
NB	SB	EB	WB
8	0	0	5

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-006

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/21/2016

NS/EW Streets:	PM												TOTAL	
	Hawthorne Blvd			Hawthorne Blvd			Silver Spur Rd			Silver Spur Rd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2		WR 1
4:00 PM	46	170	52	46	194	3	15	71	39	69	65	45	815	
4:15 PM	35	151	53	48	171	13	19	71	38	68	50	40	757	
4:30 PM	36	155	46	39	183	16	17	59	23	57	55	42	728	
4:45 PM	26	155	48	42	201	9	20	66	27	72	59	38	763	
5:00 PM	45	174	46	51	213	17	15	42	27	58	55	61	804	
5:15 PM	41	120	57	46	190	14	21	73	36	59	52	38	747	
5:30 PM	44	160	51	41	194	21	22	60	39	62	50	48	792	
5:45 PM	39	123	55	45	206	8	17	84	38	52	59	34	760	
TOTAL VOLUMES : APPROACH %'s :	NL 312 16.18%	NT 1208 62.66%	NR 408 21.16%	SL 358 17.80%	ST 1552 77.18%	SR 101 5.02%	EL 146 15.55%	ET 526 56.02%	ER 267 28.43%	WL 497 38.59%	WT 445 34.55%	WR 346 26.86%	TOTAL 6166	
PEAK HR START TIME :	445 PM													TOTAL
PEAK HR VOL :	156	609	202	180	798	61	78	241	129	251	216	185	3106	
PEAK HR FACTOR :	0.912			0.924			0.862			0.937			0.966	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
6	0	0	1
0	0	0	0
2	0	0	0
2	0	0	0
6	0	0	0
3	0	0	1
2	0	0	0
1	0	0	0
NB	SB	EB	WB
22	0	0	2

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-007

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/21/2016

AM														
NS/EW Streets:	Hawthorne Blvd			Hawthorne Blvd			Palos Verdes Dr N			Palos Verdes Dr N				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 2	WT 2	WR 1	TOTAL	
7:00 AM	3	140	55	18	73	16	35	74	1	37	95	19	566	
7:15 AM	5	199	69	27	120	31	48	101	3	69	110	23	805	
7:30 AM	5	170	85	49	126	32	81	208	3	82	143	20	1004	
7:45 AM	5	187	84	29	163	57	102	162	5	98	151	40	1083	
8:00 AM	12	266	84	32	135	57	105	130	2	49	108	35	1015	
8:15 AM	6	218	71	37	119	56	87	114	5	47	77	43	880	
8:30 AM	16	288	61	16	141	50	111	120	5	32	91	44	975	
8:45 AM	7	216	56	30	147	46	68	108	7	52	107	20	864	
TOTAL VOLUMES : APPROACH %'s :	NL 59 2.56%	NT 1684 72.96%	NR 565 24.48%	SL 238 14.81%	ST 1024 63.72%	SR 345 21.47%	EL 637 37.80%	ET 1017 60.36%	ER 31 1.84%	WL 466 29.27%	WT 882 55.40%	WR 244 15.33%	TOTAL 7192	
PEAK HR START TIME :	730 AM													TOTAL
PEAK HR VOL :	28	841	324	147	543	202	375	614	15	276	479	138	3982	
PEAK HR FACTOR :	0.824			0.896			0.860			0.772			0.919	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	1	0	0
0	1	0	0
0	1	0	0
0	1	0	0
0	1	0	0
0	2	0	0
1	0	0	0
NB 1	SB 7	EB 0	WB 0

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-007

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/21/2019

NS/EW Streets:	PM												TOTAL	
	Hawthorne Blvd			Hawthorne Blvd			Palos Verdes Dr N			Palos Verdes Dr N				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 2	WT 2	WR 1		
LANES:														
4:00 PM	2	186	57	32	213	60	53	124	3	40	92	27	889	
4:15 PM	7	177	55	31	206	55	53	117	5	55	75	19	855	
4:30 PM	6	140	54	26	209	52	47	127	2	38	96	37	834	
4:45 PM	0	182	59	28	229	61	39	99	3	33	93	27	853	
5:00 PM	0	212	59	31	248	54	42	90	7	52	91	20	906	
5:15 PM	1	173	35	28	262	59	49	110	6	56	92	28	899	
5:30 PM	6	188	39	34	225	65	44	92	9	49	76	25	852	
5:45 PM	5	159	37	29	258	61	33	94	3	58	94	18	849	
TOTAL VOLUMES : APPROACH %'s :	NL 27 1.47%	NT 1417 77.05%	NR 395 21.48%	SL 239 9.35%	ST 1850 72.38%	SR 467 18.27%	EL 360 28.78%	ET 853 68.19%	ER 38 3.04%	WL 381 29.51%	WT 709 54.92%	WR 201 15.57%	TOTAL 6937	
PEAK HR START TIME :	445 PM													TOTAL
PEAK HR VOL :	7	755	192	121	964	239	174	391	25	190	352	100	3510	
PEAK HR FACTOR :	0.880			0.948			0.894			0.912			0.969	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	1	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	3	0	0
0	1	0	0
0	2	0	0
0	0	0	0
NB 1	SB 7	EB 0	WB 0

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-008

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/21/2019

AM														
NS/EW Streets:	Crenshaw Blvd			Crenshaw Blvd			Palos Verdes Dr N			Palos Verdes Dr N				
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 2	WT 2	WR 0	TOTAL	
7:00 AM	14	101	95	4	102	40	47	102	6	102	108	16	737	
7:15 AM	12	144	122	11	127	56	52	121	12	131	144	12	944	
7:30 AM	39	205	122	10	192	87	106	139	20	136	138	20	1214	
7:45 AM	31	265	126	17	184	76	151	133	16	146	153	34	1332	
8:00 AM	23	276	117	14	150	55	135	136	9	110	97	20	1142	
8:15 AM	18	216	108	15	159	78	101	135	10	88	100	25	1053	
8:30 AM	13	246	132	7	146	31	106	116	10	92	92	23	1014	
8:45 AM	9	199	111	14	147	40	78	110	21	123	125	36	1013	
TOTAL VOLUMES : APPROACH %'s :	NL 159 5.79%	NT 1652 60.20%	NR 933 34.00%	SL 92 5.22%	ST 1207 68.50%	SR 463 26.28%	EL 776 41.45%	ET 992 52.99%	ER 104 5.56%	WL 928 44.81%	WT 957 46.21%	WR 186 8.98%	TOTAL 8449	
PEAK HR START TIME :	730 AM													TOTAL
PEAK HR VOL :	111	962	473	56	685	296	493	543	55	480	488	99	4741	
PEAK HR FACTOR :	0.916			0.897			0.909			0.801			0.890	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	1	3	0
4	3	2	0
24	7	14	0
16	4	42	0
5	1	31	1
3	0	9	0
5	0	9	0
3	0	4	0
NB 60	SB 16	EB 114	WB 1

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5021-008

Day: Thursday

City: Rolling Hills Estates

Date: 1/21/2016

City: Rolling Hills Estates

Date: 1/21/2016

NS/EW Streets:	PM												TOTAL	
	Crenshaw Blvd			Crenshaw Blvd			Palos Verdes Dr N			Palos Verdes Dr N				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 2	WT 2	WR 0		
LANES:														
4:00 PM	16	150	90	34	162	54	104	122	15	124	85	22	978	
4:15 PM	9	135	77	28	166	43	99	142	16	102	90	19	926	
4:30 PM	28	144	89	23	165	43	64	116	10	132	91	11	916	
4:45 PM	10	136	104	17	183	57	78	130	14	124	101	20	974	
5:00 PM	20	158	114	27	167	43	67	117	12	120	103	14	962	
5:15 PM	7	130	99	33	187	50	71	124	13	129	118	19	980	
5:30 PM	16	132	95	30	172	52	65	102	9	162	85	13	933	
5:45 PM	17	158	83	38	137	43	58	124	11	136	115	21	941	
TOTAL VOLUMES : APPROACH %'s :	NL 123 6.10%	NT 1143 56.67%	NR 751 37.23%	SL 230 11.77%	ST 1339 68.53%	SR 385 19.70%	EL 606 36.01%	ET 977 58.05%	ER 100 5.94%	WL 1029 52.61%	WT 788 40.29%	WR 139 7.11%	TOTAL 7610	
PEAK HR START TIME :	445 PM													TOTAL
PEAK HR VOL :	53	556	412	107	709	202	281	473	48	535	407	66	3849	
PEAK HR FACTOR :	0.874			0.943			0.903			0.947			0.982	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
10	6	22	0
3	1	17	0
9	0	12	0
5	2	8	0
8	3	14	0
1	3	10	0
3	4	11	0
6	3	8	0
NB 45	SB 22	EB 102	WB 0

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5183-002

Day: Tuesday

City: Rolling Hills Estates

Date: 3/29/2016

AM													
NS/EW Streets:	Deep Valley Dr			Deep Valley Dr			Drybank Dr			Drybank Dr			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	1	0	0	0	0	1	1	0	1	0	
7:00 AM	2	0	9	0	0	0	0	1	1	7	4	0	24
7:15 AM	2	0	8	0	0	0	0	3	2	6	8	0	29
7:30 AM	2	0	4	0	0	0	0	1	1	7	7	0	22
7:45 AM	3	0	5	0	0	0	0	3	4	8	9	0	32
8:00 AM	3	0	13	0	0	0	0	6	3	9	7	0	41
8:15 AM	1	0	10	0	0	0	0	3	6	17	4	0	41
8:30 AM	8	0	6	0	0	0	0	6	9	13	14	0	56
8:45 AM	6	0	12	0	0	0	0	4	7	23	17	0	69
TOTAL VOLUMES :	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
APPROACH %'s :	27	0	67	0	0	0	0	27	33	90	70	0	314
	28.72%	0.00%	71.28%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	45.00%	55.00%	56.25%	43.75%	0.00%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	18	0	41	0	0	0	0	19	25	62	42	0	207
PEAK HR FACTOR :	0.819			0.000			0.733			0.650			0.750

CONTROL : 3-Way Yield

UTURNS			
NB	SB	EB	WB
0			1
0			2
0			1
0			1
0			0
2			1
2			1
NB	SB	EB	WB
4	0	0	8

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 16-5183-002

Day: Tuesday

City: Rolling Hills Estates

Date: 3/29/2016

City: Rolling Hills Estates

Date: 5/25/2016

NS/EW Streets:	PM												TOTAL
	Deep Valley Dr			Deep Valley Dr			Drybank Dr			Drybank Dr			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 1	SL 0	ST 0	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	
4:00 PM	10	0	31	0	0	0	0	15	9	28	14	0	107
4:15 PM	10	0	44	0	0	0	0	16	5	25	24	0	124
4:30 PM	21	0	43	0	0	0	0	9	12	21	16	0	122
4:45 PM	17	0	37	0	0	0	0	10	9	33	28	0	134
5:00 PM	14	0	36	0	0	0	0	22	5	22	28	0	127
5:15 PM	10	0	33	0	0	0	0	8	13	23	12	0	99
5:30 PM	11	0	46	0	0	0	1	15	5	26	16	0	120
5:45 PM	8	0	24	0	0	0	0	10	7	32	13	0	94
TOTAL VOLUMES : APPROACH %'s :	NL 101 25.57%	NT 0 0.00%	NR 294 74.43%	SL #DIV/0!	ST 0 #DIV/0!	SR 0 #DIV/0!	EL 1 0.58%	ET 105 61.40%	ER 65 38.01%	WL 210 58.17%	WT 151 41.83%	WR 0 0.00%	TOTAL 927
PEAK HR START TIME :	415 PM												TOTAL
PEAK HR VOL :	62	0	160	0	0	0	0	57	31	101	96	0	507
PEAK HR FACTOR :	0.867			0.000			0.815			0.807			0.946

CONTROL : 3-Way Yield

UTURNS			
NB	SB	EB	WB
0		0	2
0		0	2
1		0	3
0		0	4
0		0	1
2		0	1
0		1	2
0		0	4
NB	SB	EB	WB
3	0	1	19

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5183-002
N/S Street: Deep Valley Dr
E/W Street: Drybank Dr
DATE: 3/29/2016
CITY: Rolling Hills Estates

DAY: Tuesday

A M

PEDESTRIANS

T I M E	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	4	4	0	1
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	1	1	2	1	0
7:45 AM	0	0	0	1	1	1	0	0
8:00 AM	0	0	0	1	1	1	1	2
8:15 AM	0	0	2	3	0	1	0	0
8:30 AM	0	0	0	0	1	1	1	0
8:45 AM	0	0	2	2	0	1	6	0
TOTALS	0	0	5	8	8	11	9	3

BIKES

T I M E	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0

P M

PEDESTRIANS

T I M E	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	2	7	0	2	2	2
4:15 PM	0	0	9	12	2	3	0	5
4:30 PM	0	0	2	2	0	0	1	4
4:45 PM	0	0	11	9	2	0	4	5
5:00 PM	0	0	2	7	1	6	0	0
5:15 PM	0	0	2	2	1	2	1	0
5:30 PM	0	0	3	5	1	0	0	0
5:45 PM	0	0	6	4	2	1	1	1
TOTALS	0	0	37	48	9	14	9	17

BIKES

T I M E	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5183-001
N/S Street: Silver Spur Rd
E/W Street: Drybank Dr
DATE: 3/29/2016
CITY: Rolling Hills Estates

DAY: Tuesday

A M

PEDESTRIANS

T I M E	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	1
7:45 AM	1	0	0	0	0	0	1	1
8:00 AM	0	0	0	0	0	0	1	2
8:15 AM	1	0	0	0	0	0	0	0
8:30 AM	5	2	0	0	0	0	0	0
8:45 AM	0	0	0	3	0	0	0	1
TOTALS	9	2	0	3	0	0	2	5

BIKES

T I M E	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	0	0	0	0	1	0	0	0	0	0	0	0

P M

PEDESTRIANS

T I M E	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	1	1	0	1	1	2
4:15 PM	0	1	0	0	0	0	1	1
4:30 PM	0	0	1	1	0	0	1	1
4:45 PM	0	2	0	1	0	0	2	3
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	1	1	0	0	0
5:30 PM	0	0	1	0	0	0	1	4
5:45 PM	0	0	0	0	0	1	1	0
TOTALS	0	4	3	4	1	2	7	11

BIKES

T I M E	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	0	0	0	0	0	0	1	0	0	0	0	0

APPENDIX C: LOS ANALYSIS

Existing

Project Title: Merrill Gardens
Intersection: 1 - Hawthorne Blvd & Palos Verdes Drive
Description: Existing

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	202	1,600	0.009	N-S(1): 0.355 *
	TH	2.00	543	3,200	0.170	N-S(2): 0.188
	LT	1.00	147	1,600	0.092 *	E-W(1): 0.300
Westbound	RT	1.00	138	1,600	0.040	E-W(2): 0.384 *
	TH	2.00	479	3,200	0.150 *	V/C: 0.739
	LT	2.00	276	2,560	0.108	Lost Time: 0.100
Northbound	RT	1.00	324	1,600	0.149	ITS: 0.000
	TH	2.00	841	3,200	0.263 *	
	LT	1.00	28	1,600	0.018	
Eastbound	RT	1.00	15	1,600	0.001	ICU: 0.839
	TH	2.00	614	3,200	0.192	
	LT	1.00	375	1,600	0.234 *	LOS: D

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	239	1,600	0.095	N-S(1): 0.312 *
	TH	2.00	964	3,200	0.301	N-S(2): 0.305
	LT	1.00	121	1,600	0.076 *	E-W(1): 0.196
Westbound	RT	1.00	100	1,600	0.025	E-W(2): 0.219 *
	TH	2.00	352	3,200	0.110 *	V/C: 0.531
	LT	2.00	190	2,560	0.074	Lost Time: 0.100
Northbound	RT	1.00	192	1,600	0.083	ITS: 0.000
	TH	2.00	755	3,200	0.236 *	
	LT	1.00	7	1,600	0.004	
Eastbound	RT	1.00	25	1,600	0.013	ICU: 0.631
	TH	2.00	391	3,200	0.122	
	LT	1.00	174	1,600	0.109 *	LOS: B

Project Title: Merrill Gardens
Intersection: 2 - Crenshaw Blvd & Palos Verdes Drive
Description: Existing

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	296	1,600	0.089	N-S(1): 0.336 *
	TH	2.00	685	3,200	0.214	N-S(2): 0.283
	LT	1.00	56	1,600	0.035 *	E-W(1): 0.375
Westbound	RT	0.00	99	0	0.000	E-W(2): 0.376 *
	TH	2.00	488	3,200	0.183 *	V/C: 0.712
	LT	2.00	480	2,560	0.188	Lost Time: 0.100
Northbound	RT	1.00	473	1,600	0.202	ITS: 0.000
	TH	2.00	962	3,200	0.301 *	
	LT	1.00	111	1,600	0.069	
Eastbound	RT	0.00	55	0	0.000	ICU: 0.812
	TH	2.00	543	3,200	0.187	
	LT	2.00	493	2,560	0.193 *	LOS: D

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	202	1,600	0.071	N-S(1): 0.241
	TH	2.00	709	3,200	0.222 *	N-S(2): 0.255 *
	LT	1.00	107	1,600	0.067	E-W(1): 0.372 *
Westbound	RT	0.00	66	0	0.000	E-W(2): 0.258
	TH	2.00	407	3,200	0.148	V/C: 0.627
	LT	2.00	535	2,560	0.209 *	Lost Time: 0.100
Northbound	RT	1.00	412	1,600	0.153	ITS: 0.000
	TH	2.00	556	3,200	0.174	
	LT	1.00	53	1,600	0.033 *	
Eastbound	RT	0.00	48	0	0.000	ICU: 0.727
	TH	2.00	473	3,200	0.163 *	
	LT	2.00	281	2,560	0.110	LOS: C

Project Title: Merrill Gardens
Intersection: 3 - Hawthorne Blvd & Silver Spur Road
Description: Existing

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	155	1,600	0.057	N-S(1): 0.348 *
	TH	2.00	474	3,200	0.148	N-S(2): 0.260
	LT	1.00	165	1,600	0.103 *	E-W(1): 0.244 *
Westbound	RT	1.00	90	1,600	0.005	E-W(2): 0.194
	TH	2.00	367	3,200	0.115	V/C: 0.592
	LT	1.00	141	1,600	0.088 *	Lost Time: 0.100
Northbound	RT	0.00	290	0	0.000	ITS: 0.000
	TH	3.00	887	4,800	0.245 *	
	LT	1.00	179	1,600	0.112	
Eastbound	RT	0.00	122	0	0.000	ICU: 0.692
	TH	2.00	377	3,200	0.156 *	
	LT	1.00	127	1,600	0.079	LOS: B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	61	1,600	0.014	N-S(1): 0.282
	TH	2.00	798	3,200	0.249 *	N-S(2): 0.347 *
	LT	1.00	180	1,600	0.113	E-W(1): 0.273 *
Westbound	RT	1.00	185	1,600	0.059	E-W(2): 0.117
	TH	2.00	216	3,200	0.068	V/C: 0.620
	LT	1.00	251	1,600	0.157 *	Lost Time: 0.100
Northbound	RT	0.00	202	0	0.000	ITS: 0.000
	TH	3.00	609	4,800	0.169	
	LT	1.00	156	1,600	0.098 *	
Eastbound	RT	0.00	129	0	0.000	ICU: 0.720
	TH	2.00	241	3,200	0.116 *	
	LT	1.00	78	1,600	0.049	LOS: C

Project Title: Merrill Gardens
Intersection: 4 - Silver Arrow Drive & Silver Spur Road
Description: Existing

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	124	0	0.000	N-S(1): 0.096
	TH	1.00	20	1,600	0.090 *	N-S(2): 0.138 *
	LT	1.00	49	1,600	0.031	E-W(1): 0.252 *
Westbound	RT	0.00	33	0	0.000	E-W(2): 0.238
	TH	2.00	396	3,200	0.134	V/C: 0.390
	LT	1.00	67	1,600	0.042 *	Lost Time: 0.100
Northbound	RT	0.00	77	0	0.000	ITS: 0.000
	TH	1.00	27	1,600	0.065	
	LT	1.00	76	1,600	0.048 *	
Eastbound	RT	0.00	83	0	0.000	ICU: 0.490
	TH	2.00	590	3,200	0.210 *	
	LT	1.00	166	1,600	0.104	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	43	0	0.000	N-S(1): 0.092 *
	TH	1.00	13	1,600	0.035	N-S(2): 0.073
	LT	1.00	35	1,600	0.022 *	E-W(1): 0.276 *
Westbound	RT	0.00	41	0	0.000	E-W(2): 0.207
	TH	2.00	555	3,200	0.186	V/C: 0.368
	LT	1.00	136	1,600	0.085 *	Lost Time: 0.100
Northbound	RT	0.00	89	0	0.000	ITS: 0.000
	TH	1.00	23	1,600	0.070 *	
	LT	1.00	60	1,600	0.038	
Eastbound	RT	0.00	88	0	0.000	ICU: 0.468
	TH	2.00	522	3,200	0.191 *	
	LT	1.00	34	1,600	0.021	LOS: A

Project Title: Merrill Gardens
Intersection: 5 - Norris Center Drive & Silver Spur Road
Description: Existing

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	3	0	0.000	N-S(1): 0.045
	TH	1.00	1	1,600	0.004 *	N-S(2): 0.058 *
	LT	0.00	3	1,600	0.002	E-W(1): 0.251 *
Westbound	RT	0.00	16	0	0.000	E-W(2): 0.149
	TH	2.00	376	3,200	0.123	V/C: 0.309
	LT	1.00	76	1,600	0.048 *	Lost Time: 0.100
Northbound	RT	1.00	47	1,600	0.006	ITS: 0.000
	TH	0.13	9	210	0.043	
	LT	1.87	128	2,392	0.054 *	
Eastbound	RT	0.00	196	0	0.000	ICU: 0.409
	TH	2.00	455	3,200	0.203 *	
	LT	1.00	42	1,600	0.026	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	13	0	0.000	N-S(1): 0.051
	TH	1.00	12	1,600	0.024 *	N-S(2): 0.077 *
	LT	0.00	13	1,600	0.008	E-W(1): 0.255 *
Westbound	RT	0.00	1	0	0.000	E-W(2): 0.198
	TH	2.00	584	3,200	0.183	V/C: 0.332
	LT	1.00	74	1,600	0.046 *	Lost Time: 0.100
Northbound	RT	1.38	94	2,201	0.020	ITS: 0.000
	TH	0.01	1	23	0.043	
	LT	1.61	110	2,060	0.053 *	
Eastbound	RT	0.00	120	0	0.000	ICU: 0.432
	TH	2.00	548	3,200	0.209 *	
	LT	1.00	24	1,600	0.015	LOS: A

Project Title: Merrill Gardens
Intersection: 6 - Drybank Drive & Silver Spur Road
Description: Existing

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	12	0	0.000	N-S(1): 0.012
	TH	1.00	2	1,600	0.009 *	N-S(2): 0.025 *
	LT	1.00	0	1,600	0.000	E-W(1): 0.175 *
Westbound	RT	0.00	4	0	0.000	E-W(2): 0.154
	TH	2.00	439	3,200	0.138	V/C: 0.200
	LT	1.00	34	1,600	0.021 *	Lost Time: 0.100
Northbound	RT	0.00	17	0	0.000	ITS: 0.000
	TH	1.00	2	1,600	0.012	
	LT	1.00	26	1,600	0.016 *	
Eastbound	RT	0.00	53	0	0.000	ICU: 0.300
	TH	2.00	440	3,200	0.154 *	
	LT	1.00	26	1,600	0.016	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	52	0	0.000	N-S(1): 0.044
	TH	1.00	3	1,600	0.034 *	N-S(2): 0.165 *
	LT	1.00	4	1,600	0.003	E-W(1): 0.236 *
Westbound	RT	0.00	8	0	0.000	E-W(2): 0.155
	TH	2.00	380	3,200	0.121	V/C: 0.401
	LT	1.00	65	1,600	0.041 *	Lost Time: 0.100
Northbound	RT	0.00	63	0	0.000	ITS: 0.000
	TH	1.00	3	1,600	0.041	
	LT	1.00	209	1,600	0.131 *	
Eastbound	RT	0.00	147	0	0.000	ICU: 0.501
	TH	2.00	478	3,200	0.195 *	
	LT	1.00	55	1,600	0.034	LOS: A

Project Title: Merrill Gardens
Intersection: 7 - Beachgate Drive & Silver Spur Road
Description: Existing

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	19	0	0.000	N-S(1): 0.132 *
	TH	1.00	10	1,600	0.104	N-S(2): 0.125
	LT	0.00	137	1,600	0.086 *	E-W(1): 0.146
Westbound	RT	0.00	179	0	0.000	E-W(2): 0.222 *
	TH	2.00	470	3,200	0.203 *	V/C: 0.354
	LT	1.00	40	1,600	0.025	Lost Time: 0.100
Northbound	RT	0.00	33	0	0.000	ITS: 0.000
	TH	1.00	6	1,600	0.046 *	
	LT	0.00	34	1,600	0.021	
Eastbound	RT	0.00	29	0	0.000	ICU: 0.454
	TH	2.00	358	3,200	0.121	
	LT	1.00	31	1,600	0.019 *	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	25	0	0.000	N-S(1): 0.161 *
	TH	1.00	11	1,600	0.086	N-S(2): 0.139
	LT	0.00	102	1,600	0.064 *	E-W(1): 0.188
Westbound	RT	0.00	130	0	0.000	E-W(2): 0.190 *
	TH	2.00	351	3,200	0.150 *	V/C: 0.351
	LT	1.00	57	1,600	0.036	Lost Time: 0.100
Northbound	RT	0.00	56	0	0.000	ITS: 0.000
	TH	1.00	15	1,600	0.097 *	
	LT	0.00	84	1,600	0.053	
Eastbound	RT	0.00	32	0	0.000	ICU: 0.451
	TH	2.00	454	3,200	0.152	
	LT	1.00	64	1,600	0.040 *	LOS: A

Project Title: Merrill Gardens
Intersection: 8 - Crenshaw Blvd & Silver Spur Road
Description: Existing

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	512	1,600	0.233 *	N-S(1): 0.351
	TH	2.00	675	3,200	0.211	N-S(2): 0.413 *
	LT	1.00	4	1,600	0.003	E-W(1): 0.000
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.174 *
	TH	1.00	0	1,600	0.000 *	V/C: 0.587
	LT	0.00	0	0	0.000	Lost Time: 0.100
Northbound	RT	0.00	0	0	0.000	ITS: 0.000
	TH	2.00	1,113	3,200	0.348	
	LT	1.00	288	1,600	0.180 *	
Eastbound	RT	1.00	109	1,600	0.000	ICU: 0.687
	TH	0.00	0	0	0.000	
	LT	2.00	445	2,560	0.174 *	LOS: B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	533	1,600	0.333 *	N-S(1): 0.168
	TH	2.00	741	3,200	0.232	N-S(2): 0.429 *
	LT	1.00	0	1,600	0.000	E-W(1): 0.104
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.200 *
	TH	1.00	0	1,600	0.000 *	V/C: 0.629
	LT	0.00	0	0	0.000	Lost Time: 0.100
Northbound	RT	0.00	0	0	0.000	ITS: 0.000
	TH	2.00	536	3,200	0.168	
	LT	1.00	153	1,600	0.096 *	
Eastbound	RT	1.00	243	1,600	0.104	ICU: 0.729
	TH	0.00	0	0	0.000	
	LT	2.00	513	2,560	0.200 *	LOS: C

Existing plus Project

Project Title: Merrill Gardens
Intersection: 1 - Hawthorne Blvd & Palos Verdes Drive
Description: Existing plus Project

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	202	1,600	0.009	N-S(1): 0.355 *
	TH	2.00	549	3,200	0.172	N-S(2): 0.190
	LT	1.00	147	1,600	0.092 *	E-W(1): 0.300
Westbound	RT	1.00	138	1,600	0.040	E-W(2): 0.384 *
	TH	2.00	479	3,200	0.150 *	
	LT	2.00	276	2,560	0.108	V/C: 0.739
Northbound	RT	1.00	324	1,600	0.149	Lost Time: 0.100
	TH	2.00	842	3,200	0.263 *	ITS: 0.000
	LT	1.00	28	1,600	0.018	
Eastbound	RT	1.00	15	1,600	0.001	ICU: 0.839
	TH	2.00	614	3,200	0.192	
	LT	1.00	375	1,600	0.234 *	LOS: D

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	239	1,600	0.095	N-S(1): 0.311 *
	TH	2.00	962	3,200	0.301	N-S(2): 0.305
	LT	1.00	121	1,600	0.076 *	E-W(1): 0.196
Westbound	RT	1.00	100	1,600	0.025	E-W(2): 0.219 *
	TH	2.00	352	3,200	0.110 *	
	LT	2.00	190	2,560	0.074	V/C: 0.530
Northbound	RT	1.00	192	1,600	0.083	Lost Time: 0.100
	TH	2.00	753	3,200	0.235 *	ITS: 0.000
	LT	1.00	7	1,600	0.004	
Eastbound	RT	1.00	25	1,600	0.013	ICU: 0.630
	TH	2.00	391	3,200	0.122	
	LT	1.00	174	1,600	0.109 *	LOS: B

Project Title: Merrill Gardens
Intersection: 2 - Crenshaw Blvd & Palos Verdes Drive
Description: Existing plus Project

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	296	1,600	0.089	N-S(1): 0.336 *
	TH	2.00	693	3,200	0.217	N-S(2): 0.286
	LT	1.00	56	1,600	0.035 *	E-W(1): 0.377 *
Westbound	RT	0.00	99	0	0.000	E-W(2): 0.376
	TH	2.00	488	3,200	0.183	V/C: 0.713
	LT	2.00	487	2,560	0.190 *	Lost Time: 0.100
Northbound	RT	1.00	474	1,600	0.201	ITS: 0.000
	TH	2.00	963	3,200	0.301 *	
	LT	1.00	111	1,600	0.069	
Eastbound	RT	0.00	55	0	0.000	ICU: 0.813
	TH	2.00	543	3,200	0.187 *	
	LT	2.00	493	2,560	0.193	LOS: D

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	202	1,600	0.071	N-S(1): 0.240
	TH	2.00	706	3,200	0.221 *	N-S(2): 0.254 *
	LT	1.00	107	1,600	0.067	E-W(1): 0.371 *
Westbound	RT	0.00	66	0	0.000	E-W(2): 0.258
	TH	2.00	407	3,200	0.148	V/C: 0.625
	LT	2.00	532	2,560	0.208 *	Lost Time: 0.100
Northbound	RT	1.00	409	1,600	0.152	ITS: 0.000
	TH	2.00	553	3,200	0.173	
	LT	1.00	53	1,600	0.033 *	
Eastbound	RT	0.00	48	0	0.000	ICU: 0.725
	TH	2.00	473	3,200	0.163 *	
	LT	2.00	281	2,560	0.110	LOS: C

Project Title: Merrill Gardens
Intersection: 3 - Hawthorne Blvd & Silver Spur Road
Description: Existing plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	155	1,600	0.057	N-S(1): 0.353 *
	TH	2.00	474	3,200	0.148	N-S(2): 0.260
	LT	1.00	171	1,600	0.107 *	E-W(1): 0.245 *
Westbound	RT	1.00	91	1,600	0.003	E-W(2): 0.194
	TH	2.00	367	3,200	0.115	
	LT	1.00	141	1,600	0.088 *	V/C: 0.598
Northbound	RT	0.00	293	0	0.000	Lost Time: 0.100
	TH	3.00	887	4,800	0.246 *	ITS: 0.000
	LT	1.00	179	1,600	0.112	
Eastbound	RT	0.00	122	0	0.000	ICU: 0.698
	TH	2.00	381	3,200	0.157 *	
	LT	1.00	127	1,600	0.079	LOS: B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	61	1,600	0.014	N-S(1): 0.280
	TH	2.00	798	3,200	0.249 *	N-S(2): 0.347 *
	LT	1.00	178	1,600	0.111	E-W(1): 0.271 *
Westbound	RT	1.00	183	1,600	0.059	E-W(2): 0.116
	TH	2.00	214	3,200	0.067	
	LT	1.00	250	1,600	0.156 *	V/C: 0.618
Northbound	RT	0.00	201	0	0.000	Lost Time: 0.100
	TH	3.00	609	4,800	0.169	ITS: 0.000
	LT	1.00	156	1,600	0.098 *	
Eastbound	RT	0.00	129	0	0.000	ICU: 0.718
	TH	2.00	239	3,200	0.115 *	
	LT	1.00	78	1,600	0.049	LOS: C

Project Title: Merrill Gardens
Intersection: 4 - Silver Arrow Drive & Silver Spur Road
Description: Existing plus Project

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	124	0	0.000	N-S(1):	0.096
	TH	1.00	20	1,600	0.090 *	N-S(2):	0.138 *
	LT	1.00	49	1,600	0.031	E-W(1):	0.256 *
Westbound	RT	0.00	33	0	0.000	E-W(2):	0.238
	TH	2.00	397	3,200	0.134	V/C:	0.394
	LT	1.00	67	1,600	0.042 *	Lost Time:	0.100
Northbound	RT	0.00	77	0	0.000	ITS:	0.000
	TH	1.00	27	1,600	0.065		
	LT	1.00	76	1,600	0.048 *		
Eastbound	RT	0.00	83	0	0.000	ICU:	0.494
	TH	2.00	603	3,200	0.214 *		
	LT	1.00	166	1,600	0.104	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	43	0	0.000	N-S(1):	0.092 *
	TH	1.00	13	1,600	0.035	N-S(2):	0.073
	LT	1.00	35	1,600	0.022 *	E-W(1):	0.274 *
Westbound	RT	0.00	41	0	0.000	E-W(2):	0.206
	TH	2.00	550	3,200	0.185	V/C:	0.366
	LT	1.00	136	1,600	0.085 *	Lost Time:	0.100
Northbound	RT	0.00	89	0	0.000	ITS:	0.000
	TH	1.00	23	1,600	0.070 *		
	LT	1.00	60	1,600	0.038		
Eastbound	RT	0.00	88	0	0.000	ICU:	0.466
	TH	2.00	517	3,200	0.189 *		
	LT	1.00	34	1,600	0.021	LOS:	A

Project Title: Merrill Gardens
Intersection: 5 - Norris Center Drive & Silver Spur Road
Description: Existing plus Project

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	3	0	0.000	N-S(1): 0.045
	TH	1.00	1	1,600	0.004 *	N-S(2): 0.058 *
	LT	0.00	3	1,600	0.002	E-W(1): 0.256 *
Westbound	RT	0.00	16	0	0.000	E-W(2): 0.149
	TH	2.00	377	3,200	0.123	V/C: 0.314
	LT	1.00	76	1,600	0.048 *	Lost Time: 0.100
Northbound	RT	1.00	48	1,600	0.006	ITS: 0.000
	TH	0.13	9	210	0.043	
	LT	1.87	128	2,392	0.054 *	
Eastbound	RT	0.00	196	0	0.000	ICU: 0.414
	TH	2.00	468	3,200	0.208 *	
	LT	1.00	42	1,600	0.026	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	13	0	0.000	N-S(1): 0.051
	TH	1.00	12	1,600	0.024 *	N-S(2): 0.077 *
	LT	0.00	13	1,600	0.008	E-W(1): 0.253 *
Westbound	RT	0.00	1	0	0.000	E-W(2): 0.196
	TH	2.00	579	3,200	0.181	V/C: 0.330
	LT	1.00	74	1,600	0.046 *	Lost Time: 0.100
Northbound	RT	1.37	93	2,188	0.019	ITS: 0.000
	TH	0.01	1	24	0.043	
	LT	1.62	110	2,071	0.053 *	
Eastbound	RT	0.00	120	0	0.000	ICU: 0.430
	TH	2.00	543	3,200	0.207 *	
	LT	1.00	24	1,600	0.015	LOS: A

Project Title: Merrill Gardens
Intersection: 6 - Drybank Drive & Silver Spur Road
Description: Existing plus Project

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	12	0	0.000	N-S(1): 0.012
	TH	1.00	2	1,600	0.009 *	N-S(2): 0.025 *
	LT	1.00	0	1,600	0.000	E-W(1): 0.189 *
Westbound	RT	0.00	4	0	0.000	E-W(2): 0.155
	TH	2.00	440	3,200	0.139	V/C: 0.214
	LT	1.00	49	1,600	0.031 *	Lost Time: 0.100
Northbound	RT	0.00	17	0	0.000	ITS: 0.000
	TH	1.00	2	1,600	0.012	
	LT	1.00	26	1,600	0.016 *	
Eastbound	RT	0.00	53	0	0.000	ICU: 0.314
	TH	2.00	454	3,200	0.158 *	
	LT	1.00	26	1,600	0.016	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	52	0	0.000	N-S(1): 0.044
	TH	1.00	3	1,600	0.034 *	N-S(2): 0.165 *
	LT	1.00	4	1,600	0.003	E-W(1): 0.230 *
Westbound	RT	0.00	8	0	0.000	E-W(2): 0.154
	TH	2.00	375	3,200	0.120	V/C: 0.395
	LT	1.00	59	1,600	0.037 *	Lost Time: 0.100
Northbound	RT	0.00	63	0	0.000	ITS: 0.000
	TH	1.00	3	1,600	0.041	
	LT	1.00	209	1,600	0.131 *	
Eastbound	RT	0.00	147	0	0.000	ICU: 0.495
	TH	2.00	472	3,200	0.193 *	
	LT	1.00	55	1,600	0.034	LOS: A

Project Title: Merrill Gardens
Intersection: 7 - Beachgate Drive & Silver Spur Road
Description: Existing plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	19	0	0.000	N-S(1): 0.132 *
	TH	1.00	10	1,600	0.104	N-S(2): 0.125
	LT	0.00	137	1,600	0.086 *	E-W(1): 0.147
Westbound	RT	0.00	179	0	0.000	E-W(2): 0.228 *
	TH	2.00	485	3,200	0.208 *	V/C: 0.360
	LT	1.00	40	1,600	0.025	Lost Time: 0.100
Northbound	RT	0.00	33	0	0.000	ITS: 0.000
	TH	1.00	6	1,600	0.046 *	
	LT	0.00	34	1,600	0.021	
Eastbound	RT	0.00	29	0	0.000	ICU: 0.460
	TH	2.00	360	3,200	0.122	
	LT	1.00	32	1,600	0.020 *	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	25	0	0.000	N-S(1): 0.161 *
	TH	1.00	11	1,600	0.086	N-S(2): 0.139
	LT	0.00	102	1,600	0.064 *	E-W(1): 0.186 *
Westbound	RT	0.00	130	0	0.000	E-W(2): 0.185
	TH	2.00	345	3,200	0.148	V/C: 0.347
	LT	1.00	57	1,600	0.036 *	Lost Time: 0.100
Northbound	RT	0.00	56	0	0.000	ITS: 0.000
	TH	1.00	15	1,600	0.097 *	
	LT	0.00	84	1,600	0.053	
Eastbound	RT	0.00	32	0	0.000	ICU: 0.447
	TH	2.00	447	3,200	0.150 *	
	LT	1.00	59	1,600	0.037	LOS: A

Project Title: Merrill Gardens
Intersection: 8 - Crenshaw Blvd & Silver Spur Road
Description: Existing plus Project

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	527	1,600	0.242 *	N-S(1): 0.351
	TH	2.00	675	3,200	0.211	N-S(2): 0.422 *
	LT	1.00	4	1,600	0.003	E-W(1): 0.000
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.175 *
	TH	1.00	0	1,600	0.000 *	V/C: 0.597
	LT	0.00	0	0	0.000	Lost Time: 0.100
Northbound	RT	0.00	0	0	0.000	ITS: 0.000
	TH	2.00	1,113	3,200	0.348	
	LT	1.00	288	1,600	0.180 *	
Eastbound	RT	1.00	109	1,600	0.000	ICU: 0.697
	TH	0.00	0	0	0.000	
	LT	2.00	447	2,560	0.175 *	LOS: B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	527	1,600	0.329 *	N-S(1): 0.168
	TH	2.00	741	3,200	0.232	N-S(2): 0.425 *
	LT	1.00	0	1,600	0.000	E-W(1): 0.103
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.198 *
	TH	1.00	0	1,600	0.000 *	V/C: 0.623
	LT	0.00	0	0	0.000	Lost Time: 0.100
Northbound	RT	0.00	0	0	0.000	ITS: 0.000
	TH	2.00	536	3,200	0.168	
	LT	1.00	153	1,600	0.096 *	
Eastbound	RT	1.00	242	1,600	0.103	ICU: 0.723
	TH	0.00	0	0	0.000	
	LT	2.00	507	2,560	0.198 *	LOS: C

Future

Project Title: Merrill Gardens
Intersection: 1 - Hawthorne Blvd & Palos Verdes Drive
Description: Future

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	208	1,600	0.010	N-S(1): 0.371 *
	TH	2.00	563	3,200	0.176	N-S(2): 0.205
	LT	1.00	155	1,600	0.097 *	E-W(1): 0.309
Westbound	RT	1.00	155	1,600	0.048	E-W(2): 0.399 *
	TH	2.00	506	3,200	0.158 *	
	LT	2.00	283	2,560	0.111	V/C: 0.770
Northbound	RT	1.00	331	1,600	0.152	Lost Time: 0.100
	TH	2.00	877	3,200	0.274 *	ITS: 0.000
	LT	1.00	46	1,600	0.029	
Eastbound	RT	1.00	22	1,600	0.000	ICU: 0.870
	TH	2.00	634	3,200	0.198	
	LT	1.00	385	1,600	0.241 *	LOS: D

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	246	1,600	0.098	N-S(1): 0.331 *
	TH	2.00	1,004	3,200	0.314	N-S(2): 0.326
	LT	1.00	137	1,600	0.086 *	E-W(1): 0.206
Westbound	RT	1.00	110	1,600	0.026	E-W(2): 0.227 *
	TH	2.00	370	3,200	0.116 *	
	LT	2.00	195	2,560	0.076	V/C: 0.558
Northbound	RT	1.00	197	1,600	0.085	Lost Time: 0.100
	TH	2.00	784	3,200	0.245 *	ITS: 0.000
	LT	1.00	19	1,600	0.012	
Eastbound	RT	1.00	45	1,600	0.022	ICU: 0.658
	TH	2.00	415	3,200	0.130	
	LT	1.00	178	1,600	0.111 *	LOS: B

Project Title: Merrill Gardens
Intersection: 2 - Crenshaw Blvd & Palos Verdes Drive
Description: Future

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	304	1,600	0.091	N-S(1): 0.345 *
	TH	2.00	702	3,200	0.219	N-S(2): 0.307
	LT	1.00	57	1,600	0.036 *	E-W(1): 0.387 *
Westbound	RT	0.00	101	0	0.000	E-W(2): 0.385
	TH	2.00	499	3,200	0.188	V/C: 0.732
	LT	2.00	493	2,560	0.193 *	Lost Time: 0.100
Northbound	RT	1.00	490	1,600	0.210	ITS: 0.000
	TH	2.00	990	3,200	0.309 *	
	LT	1.00	141	1,600	0.088	
Eastbound	RT	0.00	65	0	0.000	ICU: 0.832
	TH	2.00	555	3,200	0.194 *	
	LT	2.00	505	2,560	0.197	LOS: D

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	208	1,600	0.074	N-S(1): 0.247
	TH	2.00	733	3,200	0.229 *	N-S(2): 0.273 *
	LT	1.00	109	1,600	0.068	E-W(1): 0.392 *
Westbound	RT	0.00	67	0	0.000	E-W(2): 0.264
	TH	2.00	416	3,200	0.151	V/C: 0.665
	LT	2.00	555	2,560	0.217 *	Lost Time: 0.100
Northbound	RT	1.00	425	1,600	0.157	ITS: 0.000
	TH	2.00	573	3,200	0.179	
	LT	1.00	70	1,600	0.044 *	
Eastbound	RT	0.00	78	0	0.000	ICU: 0.765
	TH	2.00	483	3,200	0.175 *	
	LT	2.00	289	2,560	0.113	LOS: C

Project Title: Merrill Gardens
Intersection: 3 - Hawthorne Blvd & Silver Spur Road
Description: Future

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	158	1,600	0.058	N-S(1): 0.364 *
	TH	2.00	497	3,200	0.155	N-S(2): 0.269
	LT	1.00	172	1,600	0.108 *	E-W(1): 0.251 *
Westbound	RT	1.00	100	1,600	0.009	E-W(2): 0.199
	TH	2.00	376	3,200	0.118	
	LT	1.00	145	1,600	0.091 *	V/C: 0.615
Northbound	RT	0.00	298	0	0.000	Lost Time: 0.100
	TH	3.00	933	4,800	0.256 *	ITS: 0.000
	LT	1.00	183	1,600	0.114	
Eastbound	RT	0.00	124	0	0.000	ICU: 0.715
	TH	2.00	387	3,200	0.160 *	
	LT	1.00	130	1,600	0.081	LOS: C

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	62	1,600	0.014	N-S(1): 0.300
	TH	2.00	845	3,200	0.264 *	N-S(2): 0.363 *
	LT	1.00	196	1,600	0.123	E-W(1): 0.279 *
Westbound	RT	1.00	198	1,600	0.063	E-W(2): 0.119
	TH	2.00	222	3,200	0.069	
	LT	1.00	258	1,600	0.161 *	V/C: 0.642
Northbound	RT	0.00	207	0	0.000	Lost Time: 0.100
	TH	3.00	641	4,800	0.177	ITS: 0.000
	LT	1.00	159	1,600	0.099 *	
Eastbound	RT	0.00	132	0	0.000	ICU: 0.742
	TH	2.00	247	3,200	0.118 *	
	LT	1.00	80	1,600	0.050	LOS: C

Project Title: Merrill Gardens
Intersection: 4 - Silver Arrow Drive & Silver Spur Road
Description: Future

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	126	0	0.000	N-S(1):	0.098
	TH	1.00	20	1,600	0.091 *	N-S(2):	0.140 *
	LT	1.00	50	1,600	0.031	E-W(1):	0.261 *
Westbound	RT	0.00	34	0	0.000	E-W(2):	0.246
	TH	2.00	415	3,200	0.140	V/C:	0.401
	LT	1.00	68	1,600	0.043 *	Lost Time:	0.100
Northbound	RT	0.00	79	0	0.000	ITS:	0.000
	TH	1.00	28	1,600	0.067		
	LT	1.00	78	1,600	0.049 *		
Eastbound	RT	0.00	85	0	0.000	ICU:	0.501
	TH	2.00	613	3,200	0.218 *		
	LT	1.00	169	1,600	0.106	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	44	0	0.000	N-S(1):	0.094 *
	TH	1.00	13	1,600	0.036	N-S(2):	0.074
	LT	1.00	36	1,600	0.023 *	E-W(1):	0.286 *
Westbound	RT	0.00	42	0	0.000	E-W(2):	0.216
	TH	2.00	579	3,200	0.194	V/C:	0.380
	LT	1.00	139	1,600	0.087 *	Lost Time:	0.100
Northbound	RT	0.00	91	0	0.000	ITS:	0.000
	TH	1.00	23	1,600	0.071 *		
	LT	1.00	61	1,600	0.038		
Eastbound	RT	0.00	90	0	0.000	ICU:	0.480
	TH	2.00	546	3,200	0.199 *		
	LT	1.00	35	1,600	0.022	LOS:	A

Project Title: Merrill Gardens
Intersection: 5 - Norris Center Drive & Silver Spur Road
Description: Future

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	3	0	0.000	N-S(1): 0.046
	TH	1.00	1	1,600	0.004 *	N-S(2): 0.059 *
	LT	0.00	3	1,600	0.002	E-W(1): 0.260 *
Westbound	RT	0.00	16	0	0.000	E-W(2): 0.155
	TH	2.00	395	3,200	0.128	V/C: 0.319
	LT	1.00	78	1,600	0.049 *	Lost Time: 0.100
Northbound	RT	1.00	48	1,600	0.006	ITS: 0.000
	TH	0.13	9	206	0.044	
	LT	1.87	131	2,395	0.055 *	
Eastbound	RT	0.00	200	0	0.000	ICU: 0.419
	TH	2.00	475	3,200	0.211 *	
	LT	1.00	43	1,600	0.027	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	13	0	0.000	N-S(1): 0.052
	TH	1.00	12	1,600	0.024 *	N-S(2): 0.078 *
	LT	0.00	13	1,600	0.008	E-W(1): 0.264 *
Westbound	RT	0.00	1	0	0.000	E-W(2): 0.206
	TH	2.00	609	3,200	0.191	V/C: 0.342
	LT	1.00	75	1,600	0.047 *	Lost Time: 0.100
Northbound	RT	1.38	96	2,205	0.020	ITS: 0.000
	TH	0.01	1	23	0.044	
	LT	1.61	112	2,058	0.054 *	
Eastbound	RT	0.00	122	0	0.000	ICU: 0.442
	TH	2.00	573	3,200	0.217 *	
	LT	1.00	24	1,600	0.015	LOS: A

Project Title: Merrill Gardens
Intersection: 6 - Drybank Drive & Silver Spur Road
Description: Future

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	12	0	0.000	N-S(1): 0.012
	TH	1.00	2	1,600	0.009 *	N-S(2): 0.030 *
	LT	1.00	0	1,600	0.000	E-W(1): 0.184 *
Westbound	RT	0.00	4	0	0.000	E-W(2): 0.160
	TH	2.00	452	3,200	0.143	V/C: 0.214
	LT	1.00	36	1,600	0.023 *	Lost Time: 0.100
Northbound	RT	0.00	17	0	0.000	ITS: 0.000
	TH	1.00	2	1,600	0.012	
	LT	1.00	34	1,600	0.021 *	
Eastbound	RT	0.00	57	0	0.000	ICU: 0.314
	TH	2.00	457	3,200	0.161 *	
	LT	1.00	27	1,600	0.017	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	53	0	0.000	N-S(1): 0.045
	TH	1.00	3	1,600	0.035 *	N-S(2): 0.172 *
	LT	1.00	4	1,600	0.003	E-W(1): 0.247 *
Westbound	RT	0.00	8	0	0.000	E-W(2): 0.161
	TH	2.00	395	3,200	0.126	V/C: 0.419
	LT	1.00	69	1,600	0.043 *	Lost Time: 0.100
Northbound	RT	0.00	64	0	0.000	ITS: 0.000
	TH	1.00	3	1,600	0.042	
	LT	1.00	219	1,600	0.137 *	
Eastbound	RT	0.00	154	0	0.000	ICU: 0.519
	TH	2.00	498	3,200	0.204 *	
	LT	1.00	56	1,600	0.035	LOS: A

Project Title: Merrill Gardens
Intersection: 7 - Beachgate Drive & Silver Spur Road
Description: Future

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	19	0	0.000	N-S(1): 0.138 *
	TH	1.00	10	1,600	0.106	N-S(2): 0.128
	LT	0.00	140	1,600	0.088 *	E-W(1): 0.152
Westbound	RT	0.00	183	0	0.000	E-W(2): 0.228 *
	TH	2.00	484	3,200	0.208 *	V/C: 0.366
	LT	1.00	42	1,600	0.026	Lost Time: 0.100
Northbound	RT	0.00	39	0	0.000	ITS: 0.000
	TH	1.00	6	1,600	0.050 *	
	LT	0.00	35	1,600	0.022	
Eastbound	RT	0.00	32	0	0.000	ICU: 0.466
	TH	2.00	371	3,200	0.126	
	LT	1.00	32	1,600	0.020 *	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	26	0	0.000	N-S(1): 0.165 *
	TH	1.00	11	1,600	0.088	N-S(2): 0.142
	LT	0.00	104	1,600	0.065 *	E-W(1): 0.196
Westbound	RT	0.00	133	0	0.000	E-W(2): 0.198 *
	TH	2.00	368	3,200	0.157 *	V/C: 0.363
	LT	1.00	61	1,600	0.038	Lost Time: 0.100
Northbound	RT	0.00	59	0	0.000	ITS: 0.000
	TH	1.00	15	1,600	0.100 *	
	LT	0.00	86	1,600	0.054	
Eastbound	RT	0.00	37	0	0.000	ICU: 0.463
	TH	2.00	469	3,200	0.158	
	LT	1.00	65	1,600	0.041 *	LOS: A

Project Title: Merrill Gardens
Intersection: 8 - Crenshaw Blvd & Silver Spur Road
Description: Future

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	526	1,600	0.238 *	N-S(1): 0.369
	TH	2.00	701	3,200	0.219	N-S(2): 0.423 *
	LT	1.00	4	1,600	0.003	E-W(1): 0.000
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.181 *
	TH	1.00	0	1,600	0.000 *	V/C: 0.604
	LT	0.00	0	0	0.000	Lost Time: 0.100
Northbound	RT	0.00	0	0	0.000	ITS: 0.000
	TH	2.00	1,172	3,200	0.366	
	LT	1.00	296	1,600	0.185 *	
Eastbound	RT	1.00	113	1,600	0.000	ICU: 0.704
	TH	0.00	0	0	0.000	
	LT	2.00	463	2,560	0.181 *	LOS: C

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	555	1,600	0.347 *	N-S(1): 0.178
	TH	2.00	794	3,200	0.248	N-S(2): 0.446 *
	LT	1.00	0	1,600	0.000	E-W(1): 0.106
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.207 *
	TH	1.00	0	1,600	0.000 *	V/C: 0.653
	LT	0.00	0	0	0.000	Lost Time: 0.100
Northbound	RT	0.00	0	0	0.000	ITS: 0.000
	TH	2.00	568	3,200	0.178	
	LT	1.00	158	1,600	0.099 *	
Eastbound	RT	1.00	249	1,600	0.106	ICU: 0.753
	TH	0.00	0	0	0.000	
	LT	2.00	530	2,560	0.207 *	LOS: C

Future plus Project

Project Title: Merrill Gardens
Intersection: 1 - Hawthorne Blvd & Palos Verdes Drive
Description: Future plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	208	1,600	0.010	N-S(1): 0.371 *
	TH	2.00	569	3,200	0.178	N-S(2): 0.207
	LT	1.00	155	1,600	0.097 *	E-W(1): 0.309
Westbound	RT	1.00	155	1,600	0.048	E-W(2): 0.399 *
	TH	2.00	506	3,200	0.158 *	V/C: 0.770
	LT	2.00	283	2,560	0.111	Lost Time: 0.100
Northbound	RT	1.00	331	1,600	0.152	ITS: 0.000
	TH	2.00	878	3,200	0.274 *	
	LT	1.00	46	1,600	0.029	
Eastbound	RT	1.00	22	1,600	0.000	ICU: 0.870
	TH	2.00	634	3,200	0.198	
	LT	1.00	385	1,600	0.241 *	LOS: D

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	246	1,600	0.098	N-S(1): 0.330 *
	TH	2.00	1,002	3,200	0.313	N-S(2): 0.325
	LT	1.00	137	1,600	0.086 *	E-W(1): 0.206
Westbound	RT	1.00	110	1,600	0.026	E-W(2): 0.227 *
	TH	2.00	370	3,200	0.116 *	V/C: 0.557
	LT	2.00	195	2,560	0.076	Lost Time: 0.100
Northbound	RT	1.00	197	1,600	0.085	ITS: 0.000
	TH	2.00	782	3,200	0.244 *	
	LT	1.00	19	1,600	0.012	
Eastbound	RT	1.00	45	1,600	0.022	ICU: 0.657
	TH	2.00	415	3,200	0.130	
	LT	1.00	178	1,600	0.111 *	LOS: B

Project Title: Merrill Gardens
Intersection: 2 - Crenshaw Blvd & Palos Verdes Drive
Description: Future plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	304	1,600	0.091	N-S(1): 0.346 *
	TH	2.00	710	3,200	0.222	N-S(2): 0.310
	LT	1.00	57	1,600	0.036 *	E-W(1): 0.389 *
Westbound	RT	0.00	101	0	0.000	E-W(2): 0.385
	TH	2.00	499	3,200	0.188	V/C: 0.735
	LT	2.00	500	2,560	0.195 *	Lost Time: 0.100
Northbound	RT	1.00	491	1,600	0.209	ITS: 0.000
	TH	2.00	991	3,200	0.310 *	
	LT	1.00	141	1,600	0.088	
Eastbound	RT	0.00	65	0	0.000	ICU: 0.835
	TH	2.00	555	3,200	0.194 *	
	LT	2.00	505	2,560	0.197	LOS: D

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	208	1,600	0.074	N-S(1): 0.246
	TH	2.00	730	3,200	0.228 *	N-S(2): 0.272 *
	LT	1.00	109	1,600	0.068	E-W(1): 0.391 *
Westbound	RT	0.00	67	0	0.000	E-W(2): 0.264
	TH	2.00	416	3,200	0.151	V/C: 0.663
	LT	2.00	552	2,560	0.216 *	Lost Time: 0.100
Northbound	RT	1.00	422	1,600	0.156	ITS: 0.000
	TH	2.00	570	3,200	0.178	
	LT	1.00	70	1,600	0.044 *	
Eastbound	RT	0.00	78	0	0.000	ICU: 0.763
	TH	2.00	483	3,200	0.175 *	
	LT	2.00	289	2,560	0.113	LOS: C

Project Title: Merrill Gardens
Intersection: 3 - Hawthorne Blvd & Silver Spur Road
Description: Future plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	158	1,600	0.058	N-S(1): 0.368 *
	TH	2.00	497	3,200	0.155	N-S(2): 0.269
	LT	1.00	178	1,600	0.111 *	E-W(1): 0.252 *
Westbound	RT	1.00	101	1,600	0.008	E-W(2): 0.199
	TH	2.00	376	3,200	0.118	
	LT	1.00	145	1,600	0.091 *	V/C: 0.620
Northbound	RT	0.00	301	0	0.000	Lost Time: 0.100
	TH	3.00	933	4,800	0.257 *	ITS: 0.000
	LT	1.00	183	1,600	0.114	
Eastbound	RT	0.00	124	0	0.000	ICU: 0.720
	TH	2.00	391	3,200	0.161 *	
	LT	1.00	130	1,600	0.081	LOS: C

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	62	1,600	0.014	N-S(1): 0.297
	TH	2.00	845	3,200	0.264 *	N-S(2): 0.363 *
	LT	1.00	194	1,600	0.121	E-W(1): 0.279 *
Westbound	RT	1.00	196	1,600	0.062	E-W(2): 0.119
	TH	2.00	220	3,200	0.069	
	LT	1.00	257	1,600	0.161 *	V/C: 0.642
Northbound	RT	0.00	206	0	0.000	Lost Time: 0.100
	TH	3.00	641	4,800	0.176	ITS: 0.000
	LT	1.00	159	1,600	0.099 *	
Eastbound	RT	0.00	132	0	0.000	ICU: 0.742
	TH	2.00	245	3,200	0.118 *	
	LT	1.00	80	1,600	0.050	LOS: C

Project Title: Merrill Gardens
Intersection: 4 - Silver Arrow Drive & Silver Spur Road
Description: Future plus Project

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	126	0	0.000	N-S(1): 0.098
	TH	1.00	20	1,600	0.091 *	N-S(2): 0.140 *
	LT	1.00	50	1,600	0.031	E-W(1): 0.265 *
Westbound	RT	0.00	34	0	0.000	E-W(2): 0.247
	TH	2.00	416	3,200	0.141	V/C: 0.405
	LT	1.00	68	1,600	0.043 *	Lost Time: 0.100
Northbound	RT	0.00	79	0	0.000	ITS: 0.000
	TH	1.00	28	1,600	0.067	
	LT	1.00	78	1,600	0.049 *	
Eastbound	RT	0.00	85	0	0.000	ICU: 0.505
	TH	2.00	626	3,200	0.222 *	
	LT	1.00	169	1,600	0.106	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	44	0	0.000	N-S(1): 0.094 *
	TH	1.00	13	1,600	0.036	N-S(2): 0.074
	LT	1.00	36	1,600	0.023 *	E-W(1): 0.284 *
Westbound	RT	0.00	42	0	0.000	E-W(2): 0.215
	TH	2.00	574	3,200	0.193	V/C: 0.378
	LT	1.00	139	1,600	0.087 *	Lost Time: 0.100
Northbound	RT	0.00	91	0	0.000	ITS: 0.000
	TH	1.00	23	1,600	0.071 *	
	LT	1.00	61	1,600	0.038	
Eastbound	RT	0.00	90	0	0.000	ICU: 0.478
	TH	2.00	541	3,200	0.197 *	
	LT	1.00	35	1,600	0.022	LOS: A

Project Title: Merrill Gardens
Intersection: 5 - Norris Center Drive & Silver Spur Road
Description: Future plus Project

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	3	0	0.000	N-S(1): 0.046
	TH	1.00	1	1,600	0.004 *	N-S(2): 0.059 *
	LT	0.00	3	1,600	0.002	E-W(1): 0.264 *
Westbound	RT	0.00	16	0	0.000	E-W(2): 0.156
	TH	2.00	396	3,200	0.129	V/C: 0.323
	LT	1.00	78	1,600	0.049 *	Lost Time: 0.100
Northbound	RT	1.00	49	1,600	0.006	ITS: 0.000
	TH	0.13	9	206	0.044	
	LT	1.87	131	2,395	0.055 *	
Eastbound	RT	0.00	200	0	0.000	ICU: 0.423
	TH	2.00	488	3,200	0.215 *	
	LT	1.00	43	1,600	0.027	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	13	0	0.000	N-S(1): 0.051
	TH	1.00	12	1,600	0.024 *	N-S(2): 0.078 *
	LT	0.00	13	1,600	0.008	E-W(1): 0.263 *
Westbound	RT	0.00	1	0	0.000	E-W(2): 0.204
	TH	2.00	604	3,200	0.189	V/C: 0.341
	LT	1.00	75	1,600	0.047 *	Lost Time: 0.100
Northbound	RT	1.37	95	2,192	0.020	ITS: 0.000
	TH	0.01	1	23	0.043	
	LT	1.62	112	2,068	0.054 *	
Eastbound	RT	0.00	122	0	0.000	ICU: 0.441
	TH	2.00	568	3,200	0.216 *	
	LT	1.00	24	1,600	0.015	LOS: A

Project Title: Merrill Gardens
Intersection: 6 - Drybank Drive & Silver Spur Road
Description: Future plus Project

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	12	0	0.000	N-S(1): 0.012
	TH	1.00	2	1,600	0.009 *	N-S(2): 0.030 *
	LT	1.00	0	1,600	0.000	E-W(1): 0.197 *
Westbound	RT	0.00	4	0	0.000	E-W(2): 0.160
	TH	2.00	453	3,200	0.143	V/C: 0.227
	LT	1.00	51	1,600	0.032 *	Lost Time: 0.100
Northbound	RT	0.00	17	0	0.000	ITS: 0.000
	TH	1.00	2	1,600	0.012	
	LT	1.00	34	1,600	0.021 *	
Eastbound	RT	0.00	57	0	0.000	ICU: 0.327
	TH	2.00	471	3,200	0.165 *	
	LT	1.00	27	1,600	0.017	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	53	0	0.000	N-S(1): 0.045
	TH	1.00	3	1,600	0.035 *	N-S(2): 0.172 *
	LT	1.00	4	1,600	0.003	E-W(1): 0.241 *
Westbound	RT	0.00	8	0	0.000	E-W(2): 0.159
	TH	2.00	390	3,200	0.124	V/C: 0.413
	LT	1.00	63	1,600	0.039 *	Lost Time: 0.100
Northbound	RT	0.00	64	0	0.000	ITS: 0.000
	TH	1.00	3	1,600	0.042	
	LT	1.00	219	1,600	0.137 *	
Eastbound	RT	0.00	154	0	0.000	ICU: 0.513
	TH	2.00	492	3,200	0.202 *	
	LT	1.00	56	1,600	0.035	LOS: A

Project Title: Merrill Gardens
Intersection: 7 - Beachgate Drive & Silver Spur Road
Description: Future plus Project

Thru Lane: 1600 vph
 Left Lane: 1600 vph
 Double Lt Penalty: 20 %
 ITS: 0 %

N-S Split Phase : N
 E-W Split Phase : N
 Lost Time (% of cycle) : 10
 V/C Round Off (decs.) : 3

OLA Movements :
 FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	19	0	0.000	N-S(1): 0.138 *
	TH	1.00	10	1,600	0.106	N-S(2): 0.128
	LT	0.00	140	1,600	0.088 *	E-W(1): 0.153
Westbound	RT	0.00	183	0	0.000	E-W(2): 0.234 *
	TH	2.00	499	3,200	0.213 *	V/C: 0.372
	LT	1.00	42	1,600	0.026	Lost Time: 0.100
Northbound	RT	0.00	39	0	0.000	ITS: 0.000
	TH	1.00	6	1,600	0.050 *	
	LT	0.00	35	1,600	0.022	
Eastbound	RT	0.00	32	0	0.000	ICU: 0.472
	TH	2.00	373	3,200	0.127	
	LT	1.00	33	1,600	0.021 *	LOS: A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	26	0	0.000	N-S(1): 0.165 *
	TH	1.00	11	1,600	0.088	N-S(2): 0.142
	LT	0.00	104	1,600	0.065 *	E-W(1): 0.194 *
Westbound	RT	0.00	133	0	0.000	E-W(2): 0.193
	TH	2.00	362	3,200	0.155	V/C: 0.359
	LT	1.00	61	1,600	0.038 *	Lost Time: 0.100
Northbound	RT	0.00	59	0	0.000	ITS: 0.000
	TH	1.00	15	1,600	0.100 *	
	LT	0.00	86	1,600	0.054	
Eastbound	RT	0.00	37	0	0.000	ICU: 0.459
	TH	2.00	462	3,200	0.156 *	
	LT	1.00	60	1,600	0.038	LOS: A

Project Title: Merrill Gardens
Intersection: 8 - Crenshaw Blvd & Silver Spur Road
Description: Future plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

OLA Movements :
FF Movements:

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	541	1,600	0.247 *	N-S(1): 0.369
	TH	2.00	701	3,200	0.219	N-S(2): 0.432 *
	LT	1.00	4	1,600	0.003	E-W(1): 0.000
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.182 *
	TH	1.00	0	1,600	0.000 *	V/C: 0.614
	LT	0.00	0	0	0.000	Lost Time: 0.100
Northbound	RT	0.00	0	0	0.000	ITS: 0.000
	TH	2.00	1,172	3,200	0.366	
	LT	1.00	296	1,600	0.185 *	
Eastbound	RT	1.00	113	1,600	0.000	ICU: 0.714
	TH	0.00	0	0	0.000	
	LT	2.00	465	2,560	0.182 *	LOS: C

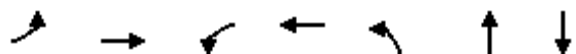
Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	549	1,600	0.343 *	N-S(1): 0.178
	TH	2.00	794	3,200	0.248	N-S(2): 0.442 *
	LT	1.00	0	1,600	0.000	E-W(1): 0.106
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.205 *
	TH	1.00	0	1,600	0.000 *	V/C: 0.647
	LT	0.00	0	0	0.000	Lost Time: 0.100
Northbound	RT	0.00	0	0	0.000	ITS: 0.000
	TH	2.00	568	3,200	0.178	
	LT	1.00	158	1,600	0.099 *	
Eastbound	RT	1.00	248	1,600	0.106	ICU: 0.747
	TH	0.00	0	0	0.000	
	LT	2.00	524	2,560	0.205 *	LOS: C

APPENDIX D: QUEUING ANALYSIS

Queues
Existing

4/18/2016



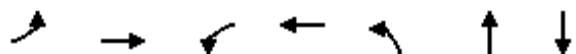
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	28	536	37	481	28	20	15
v/c Ratio	0.08	0.38	0.11	0.34	0.05	0.03	0.02
Control Delay	8.2	8.8	8.7	9.2	7.7	4.6	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	8.8	8.7	9.2	7.7	4.6	4.9
Queue Length 50th (ft)	4	38	5	36	4	0	0
Queue Length 95th (ft)	14	64	17	61	14	8	7
Internal Link Dist (ft)		614		817		370	431
Turn Bay Length (ft)	90		90				
Base Capacity (vph)	355	1416	327	1415	557	655	656
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.38	0.11	0.34	0.05	0.03	0.02

Intersection Summary

Description:

Queues
Existing plus Project

4/18/2016



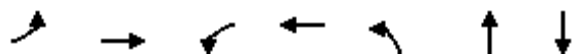
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	28	551	53	482	28	20	15
v/c Ratio	0.08	0.39	0.17	0.34	0.05	0.03	0.02
Control Delay	8.2	8.9	9.4	9.2	7.7	4.6	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	8.9	9.4	9.2	7.7	4.6	4.9
Queue Length 50th (ft)	4	39	7	36	4	0	0
Queue Length 95th (ft)	14	67	23	61	14	8	7
Internal Link Dist (ft)		614		506		370	431
Turn Bay Length (ft)	90		90				
Base Capacity (vph)	355	1416	319	1415	557	655	656
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.39	0.17	0.34	0.05	0.03	0.02

Intersection Summary

Description:

Queues
Future

4/18/2016



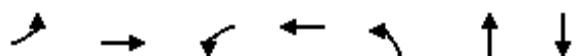
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	29	559	39	495	37	20	15
v/c Ratio	0.08	0.40	0.12	0.35	0.07	0.03	0.02
Control Delay	8.3	8.9	8.9	9.2	7.9	4.6	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	8.9	8.9	9.2	7.9	4.6	4.9
Queue Length 50th (ft)	4	40	5	37	5	0	0
Queue Length 95th (ft)	14	67	18	63	16	8	7
Internal Link Dist (ft)		614		817		370	431
Turn Bay Length (ft)	90		90				
Base Capacity (vph)	349	1415	315	1415	557	655	656
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.40	0.12	0.35	0.07	0.03	0.02

Intersection Summary

Description:

Queues
Future plus Project

4/18/2016



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	29	574	55	496	37	20	15
v/c Ratio	0.07	0.42	0.14	0.36	0.10	0.05	0.03
Control Delay	28.4	20.6	29.3	20.5	25.9	12.3	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.4	20.6	29.3	20.5	25.9	12.3	13.6
Queue Length 50th (ft)	13	118	25	103	16	1	1
Queue Length 95th (ft)	36	164	57	143	40	18	16
Internal Link Dist (ft)		614		471		370	431
Turn Bay Length (ft)	90		90				
Base Capacity (vph)	393	1364	393	1375	371	442	441
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.42	0.14	0.36	0.10	0.05	0.03

Intersection Summary

Description:

APPENDIX E: ROUNDABOUT ANALYSIS

INTERSECTION SUMMARY

 **Site: Drybank/Deep Valley**

New Site
Roundabout

Intersection Performance - Hourly Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	551 veh/h	756 pers/h
Percent Heavy Vehicles (Demand)	0.0 %	
Degree of Saturation	0.199	
Practical Spare Capacity	327.3 %	
Effective Intersection Capacity	2770 veh/h	
Control Delay (Total)	0.49 veh-h/h	0.59 pers-h/h
Control Delay (Average)	3.2 sec	2.8 sec
Control Delay (Worst Lane)	5.2 sec	
Control Delay (Worst Movement)	5.2 sec	5.2 sec
Geometric Delay (Average)	0.0 sec	
Stop-Line Delay (Average)	3.2 sec	
Idling Time (Average)	2.7 sec	
Intersection Level of Service (LOS)	LOS A	
95% Back of Queue - Vehicles (Worst Lane)	0.6 veh	
95% Back of Queue - Distance (Worst Lane)	14.5 ft	
Queue Storage Ratio (Worst Lane)	0.01	
Total Effective Stops	29 veh/h	34 pers/h
Effective Stop Rate	0.05 per veh	0.05 per pers
Proportion Queued	0.11	0.10
Performance Index	9.6	9.6
Travel Distance (Total)	184.2 veh-mi/h	221.1 pers-mi/h
Travel Distance (Average)	1765 ft	1544 ft
Travel Time (Total)	9.2 veh-h/h	11.1 pers-h/h
Travel Time (Average)	60.2 sec	52.7 sec
Travel Speed	20.0 mph	20.0 mph
Cost (Total)	135.98 \$/h	135.98 \$/h
Fuel Consumption (Total)	4.2 gal/h	
Carbon Dioxide (Total)	37.1 kg/h	
Hydrocarbons (Total)	0.022 kg/h	
Carbon Monoxide (Total)	0.144 kg/h	
NOx (Total)	0.004 kg/h	

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Intersection Performance - Annual Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	264,522 veh/y	362,817 pers/y
Delay	236 veh-h/y	283 pers-h/y
Effective Stops	13,763 veh/y	16,515 pers/y
Travel Distance	88,436 veh-mi/y	106,123 pers-mi/y
Travel Time	4,424 veh-h/y	5,309 pers-h/y
Cost	65,271 \$/y	65,271 \$/y
Fuel Consumption	2,004 gal/y	
Carbon Dioxide	17,827 kg/y	
Hydrocarbons	11 kg/y	
Carbon Monoxide	69 kg/y	
NOx	2 kg/y	

INTERSECTION SUMMARY

 **Site: Drybank/Deep Valley**

New Site
Roundabout

Intersection Performance - Hourly Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	562 veh/h	863 pers/h
Percent Heavy Vehicles (Demand)	0.0 %	
Degree of Saturation	0.203	
Practical Spare Capacity	317.9 %	
Effective Intersection Capacity	2763 veh/h	
Control Delay (Total)	0.51 veh-h/h	0.61 pers-h/h
Control Delay (Average)	3.3 sec	2.6 sec
Control Delay (Worst Lane)	5.2 sec	
Control Delay (Worst Movement)	5.2 sec	5.2 sec
Geometric Delay (Average)	0.0 sec	
Stop-Line Delay (Average)	3.3 sec	
Idling Time (Average)	2.8 sec	
Intersection Level of Service (LOS)	LOS A	
95% Back of Queue - Vehicles (Worst Lane)	0.6 veh	
95% Back of Queue - Distance (Worst Lane)	14.9 ft	
Queue Storage Ratio (Worst Lane)	0.01	
Total Effective Stops	30 veh/h	36 pers/h
Effective Stop Rate	0.05 per veh	0.04 per pers
Proportion Queued	0.11	0.09
Performance Index	9.8	9.8
Travel Distance (Total)	187.9 veh-mi/h	225.4 pers-mi/h
Travel Distance (Average)	1765 ft	1379 ft
Travel Time (Total)	9.4 veh-h/h	11.3 pers-h/h
Travel Time (Average)	60.3 sec	47.1 sec
Travel Speed	20.0 mph	20.0 mph
Cost (Total)	138.81 \$/h	138.81 \$/h
Fuel Consumption (Total)	4.3 gal/h	
Carbon Dioxide (Total)	37.9 kg/h	
Hydrocarbons (Total)	0.023 kg/h	
Carbon Monoxide (Total)	0.147 kg/h	
NOx (Total)	0.004 kg/h	

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Intersection Performance - Annual Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	269,739 veh/y	414,470 pers/y
Delay	245 veh-h/y	294 pers-h/y
Effective Stops	14,370 veh/y	17,244 pers/y
Travel Distance	90,179 veh-mi/y	108,215 pers-mi/y
Travel Time	4,516 veh-h/y	5,419 pers-h/y
Cost	66,629 \$/y	66,629 \$/y
Fuel Consumption	2,045 gal/y	
Carbon Dioxide	18,193 kg/y	
Hydrocarbons	11 kg/y	
Carbon Monoxide	71 kg/y	
NOx	2 kg/y	

APPENDIX F: DRIVEWAY ANALYSIS

Intersection							
Int Delay, s/veh	0						
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Vol, veh/h	442	29	0	493	0	3	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	-	0	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	480	32	0	536	0	3	
Major/Minor	Major1	Major2	Minor1				
Conflicting Flow All	0	0	512	0	764	256	
Stage 1	-	-	-	-	496	-	
Stage 2	-	-	-	-	268	-	
Critical Hdwy	-	-	4.14	-	6.84	6.94	
Critical Hdwy Stg 1	-	-	-	-	5.84	-	
Critical Hdwy Stg 2	-	-	-	-	5.84	-	
Follow-up Hdwy	-	-	2.22	-	3.52	3.32	
Pot Cap-1 Maneuver	-	-	1050	-	340	743	
Stage 1	-	-	-	-	577	-	
Stage 2	-	-	-	-	753	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	-	-	1050	-	340	743	
Mov Cap-2 Maneuver	-	-	-	-	340	-	
Stage 1	-	-	-	-	577	-	
Stage 2	-	-	-	-	753	-	
Approach	EB	WB	NB				
HCM Control Delay, s	0	0	9.9				
HCM LOS				A			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT		
Capacity (veh/h)	743	-	-	1050	-		
HCM Lane V/C Ratio	0.004	-	-	-	-		
HCM Control Delay (s)	9.9	-	-	0	-		
HCM Lane LOS	A	-	-	A	-		
HCM 95th %tile Q(veh)	0	-	-	0	-		

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	459	29	0	508	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	499	32	0	552	0	3
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	530	0	791	265
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	276	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1033	-	327	733
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	746	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1033	-	327	733
Mov Cap-2 Maneuver	-	-	-	-	327	-
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	746	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.9	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	733	-	-	1033	-	
HCM Lane V/C Ratio	0.004	-	-	-	-	
HCM Control Delay (s)	9.9	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

APPENDIX B – AIR QUALITY AND GREENHOUSE GAS MODEL OUTPUT

Merrill Gardens- Rolling Hills Estates
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	169.00	Space	1.65	26,357.00	0
Congregate Care (Assisted Living)	114.00	Dwelling Unit	1.48	135,852.00	326

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	503.21	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SCE's mandated 2020 intensity factor

Land Use - Lot acreage and square footage per project applicant

Construction Phase - Construction timing per project applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Trips and VMT - Haul distances per applicant

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Trip generation per Traffic Report.

Woodstoves - No hearths or stoves

Energy Use - Energy use per applicant

Construction Off-road Equipment Mitigation - PM reduction per SCAQMD, CEQA handbook.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00

tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	40
tblConstructionPhase	NumDays	18.00	33.00
tblConstructionPhase	NumDays	18.00	85.00
tblConstructionPhase	NumDays	230.00	129.00
tblConstructionPhase	NumDays	230.00	391.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	8.00	23.00
tblConstructionPhase	NumDays	8.00	25.00
tblConstructionPhase	NumDays	18.00	23.00
tblConstructionPhase	NumDays	18.00	34.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	PhaseEndDate	8/16/2017	6/30/2017
tblConstructionPhase	PhaseEndDate	10/27/2017	6/1/2018
tblConstructionPhase	PhaseEndDate	6/2/2017	3/3/2017
tblConstructionPhase	PhaseEndDate	7/4/2018	8/31/2018
tblConstructionPhase	PhaseEndDate	11/30/2018	6/30/2017
tblConstructionPhase	PhaseEndDate	11/15/2016	10/14/2016
tblConstructionPhase	PhaseStartDate	7/1/2017	5/17/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	2/5/2018
tblConstructionPhase	PhaseStartDate	4/15/2017	4/17/2017
tblConstructionPhase	PhaseStartDate	5/17/2017	2/15/2017
tblConstructionPhase	PhaseStartDate	10/15/2016	10/17/2016
tblConstructionPhase	PhaseStartDate	3/11/2017	3/13/2017

tblConstructionPhase	PhaseStartDate	6/2/2018	8/1/2018
tblConstructionPhase	PhaseStartDate	10/16/2018	5/16/2017
tblConstructionPhase	PhaseStartDate	11/2/2016	10/1/2016
tblConstructionPhase	PhaseStartDate	3/4/2017	3/6/2017
tblEnergyUse	LightingElect	741.44	74.44
tblEnergyUse	LightingElect	2.63	0.19
tblEnergyUse	NT24E	0.19	0.01
tblEnergyUse	T24E	181.82	5,050.00
tblEnergyUse	T24E	3.92	0.01
tblEnergyUse	T24NG	6,951.80	14,200.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	96.90	0.00
tblFireplaces	NumberNoFireplace	11.40	114.00
tblFireplaces	NumberWood	5.70	0.00
tblGrading	MaterialExported	0.00	8,220.00
tblGrading	MaterialExported	0.00	15,500.00
tblLandUse	LandUseSquareFeet	67,600.00	26,357.00
tblLandUse	LandUseSquareFeet	114,000.00	135,852.00
tblLandUse	LotAcreage	1.52	1.65
tblLandUse	LotAcreage	7.13	1.48
tblOffRoadEquipment	HorsePower	162.00	345.00
tblOffRoadEquipment	HorsePower	162.00	306.00
tblOffRoadEquipment	HorsePower	162.00	330.00
tblOffRoadEquipment	HorsePower	162.00	306.00
tblOffRoadEquipment	HorsePower	89.00	20.00
tblOffRoadEquipment	HorsePower	125.00	142.00

tblOffRoadEquipment	HorsePower	130.00	100.00
tblOffRoadEquipment	HorsePower	255.00	210.00
tblOffRoadEquipment	HorsePower	255.00	166.00
tblOffRoadEquipment	HorsePower	81.00	20.00
tblOffRoadEquipment	HorsePower	208.00	210.00
tblOffRoadEquipment	HorsePower	162.00	306.00
tblOffRoadEquipment	HorsePower	8.00	157.00
tblOffRoadEquipment	HorsePower	84.00	630.00
tblOffRoadEquipment	HorsePower	199.00	267.00
tblOffRoadEquipment	HorsePower	199.00	74.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	503.21
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	8.60
tblTripsAndVMT	HaulingTripLength	20.00	8.60
tblVehicleTrips	ST_TR	2.20	11.42
tblVehicleTrips	SU_TR	2.44	11.42
tblVehicleTrips	WD_TR	2.74	11.42
tblWoodstoves	NumberCatalytic	5.70	0.00
tblWoodstoves	NumberNoncatalytic	5.70	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	3.8225	51.0597	24.9067	0.0891	1.5222	1.5720	3.0942	0.3878	1.4462	1.8341	0.0000	9,078.000 9	9,078.000 9	1.2150	0.0000	9,103.516 8
2017	35.9674	76.3364	53.9463	0.1528	7.9870	3.3334	10.8236	3.8305	3.2356	6.4905	0.0000	15,666.65 74	15,666.65 74	1.3341	0.0000	15,694.67 24
2018	16.0458	45.1140	27.3484	0.1052	1.3580	1.4056	2.7231	0.3622	1.3879	1.7249	0.0000	11,318.78 35	11,318.78 35	0.5476	0.0000	11,330.28 24
Total	55.8357	172.5100	106.2014	0.3471	10.8671	6.3109	16.6409	4.5805	6.0697	10.0495	0.0000	36,063.44 18	36,063.44 18	3.0967	0.0000	36,128.47 16

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	3.8225	51.0597	24.9067	0.0891	0.9832	1.5720	2.5552	0.2688	1.4462	1.7150	0.0000	9,078.000 9	9,078.000 9	1.2150	0.0000	9,103.516 8
2017	35.9674	76.3364	53.9463	0.1528	3.5979	3.3334	6.4346	1.6259	3.2356	4.2860	0.0000	15,666.65 74	15,666.65 74	1.3341	0.0000	15,694.67 24
2018	16.0458	45.1140	27.3484	0.1052	0.8916	1.4056	2.2567	0.2477	1.3879	1.6104	0.0000	11,318.78 35	11,318.78 35	0.5476	0.0000	11,330.28 24
Total	55.8357	172.5100	106.2014	0.3471	5.4728	6.3109	11.2465	2.1425	6.0697	7.6114	0.0000	36,063.44 18	36,063.44 18	3.0967	0.0000	36,128.47 16

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	49.64	0.00	32.42	53.23	0.00	24.26	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.9592	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520	0.0000	16.9720	16.9720	0.0166	0.0000	17.3208
Energy	0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893
Mobile	3.8939	11.1304	45.6282	0.1442	9.4507	0.1931	9.6438	2.5274	0.1781	2.7055		11,183.7474	11,183.7474	0.4021		11,192.1916
Total	7.9065	11.6963	55.2763	0.1476	9.4507	0.2819	9.7326	2.5274	0.2669	2.7943	0.0000	11,783.5616	11,783.5616	0.4299	0.0107	11,795.9018

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.9592	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520	0.0000	16.9720	16.9720	0.0166	0.0000	17.3208
Energy	0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893
Mobile	3.8939	11.1304	45.6282	0.1442	9.4507	0.1931	9.6438	2.5274	0.1781	2.7055		11,183.7474	11,183.7474	0.4021		11,192.1916
Total	7.9065	11.6963	55.2763	0.1476	9.4507	0.2819	9.7326	2.5274	0.2669	2.7943	0.0000	11,783.5616	11,783.5616	0.4299	0.0107	11,795.9018

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition 1	Demolition	10/1/2016	11/1/2016	5	22	
2	Site Preparation 1	Site Preparation	10/1/2016	10/14/2016	5	10	
3	Grading 1	Grading	10/17/2016	11/16/2016	5	23	
4	Building Construction 1	Building Construction	11/17/2016	5/16/2017	5	129	
5	Demolition 2	Demolition	2/15/2017	3/3/2017	5	13	
6	Site Preparation 2	Site Preparation	3/6/2017	3/10/2017	5	5	
7	Grading 2	Grading	3/13/2017	4/14/2017	5	25	
8	Building Construction 2	Building Construction	4/17/2017	10/15/2018	5	391	
9	Paving 1	Paving	5/16/2017	6/30/2017	5	34	
10	Architectural Coating 1	Architectural Coating	5/17/2017	6/30/2017	5	33	
11	Architectural Coating 2	Architectural Coating	2/5/2018	6/1/2018	5	85	
12	Paving 2	Paving	8/1/2018	8/31/2018	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 275,100; Residential Outdoor: 91,700; Non-Residential Indoor: 39,536; Non-Residential Outdoor: 13,179 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition 1	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition 1	Excavators	1	8.00	345	0.38
Demolition 1	Rubber Tired Dozers	1	8.00	210	0.40
Site Preparation 1	Crawler Tractors	1	8.00	210	0.43
Site Preparation 1	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 1	Excavators	1	8.00	330	0.38
Grading 1	Graders	0	8.00	174	0.41
Grading 1	Rubber Tired Dozers	0	8.00	255	0.40
Grading 1	Rubber Tired Loaders	1	8.00	267	0.36
Grading 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction 1	Cranes	0	7.00	226	0.29
Building Construction 1	Forklifts	4	8.00	89	0.20
Building Construction 1	Generator Sets	0	8.00	84	0.74
Building Construction 1	Pumps	2	8.00	84	0.74
Building Construction 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction 1	Welders	0	8.00	46	0.45
Demolition 2	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition 2	Excavators	3	8.00	306	0.38
Demolition 2	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation 2	Excavators	1	8.00	306	0.38
Site Preparation 2	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation 2	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 2	Excavators	2	8.00	306	0.38
Grading 2	Graders	0	8.00	174	0.41
Grading 2	Plate Compactors	1	8.00	157	0.43
Grading 2	Rubber Tired Dozers	1	8.00	166	0.40

Grading 2	Rubber Tired Loaders	2	8.00	74	0.36
Grading 2	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction 2	Cranes	0	7.00	226	0.29
Building Construction 2	Forklifts	4	8.00	20	0.20
Building Construction 2	Generator Sets	0	8.00	84	0.74
Building Construction 2	Pumps	2	8.00	630	0.74
Building Construction 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction 2	Welders	0	8.00	46	0.45
Paving 1	Cement and Mortar Mixers	0	6.00	9	0.56
Paving 1	Concrete/Industrial Saws	4	8.00	20	0.73
Paving 1	Pavers	0	8.00	125	0.42
Paving 1	Paving Equipment	3	6.00	100	0.36
Paving 1	Rollers	0	6.00	80	0.38
Paving 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Architectural Coating 1	Air Compressors	1	6.00	78	0.48
Architectural Coating 2	Air Compressors	1	6.00	78	0.48
Paving 2	Cement and Mortar Mixers	0	6.00	9	0.56
Paving 2	Pavers	1	8.00	142	0.42
Paving 2	Paving Equipment	0	6.00	130	0.36
Paving 2	Rollers	0	6.00	80	0.38
Paving 2	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition 1	2	5.00	0.00	19.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation 1	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 1	2	5.00	0.00	1,028.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Building Construction 1	6	93.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition 2	3	8.00	0.00	95.00	14.70	6.90	8.60	LD_Mix	HDT_Mix	HHDT
Site Preparation 2	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	6	15.00	0.00	1,938.00	14.70	6.90	8.60	LD_Mix	HDT_Mix	HHDT
Building Construction 2	6	93.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 1	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 1	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architechural Coating 2	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition 1 - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1879	0.0000	0.1879	0.0285	0.0000	0.0285			0.0000			0.0000
Off-Road	1.5829	18.3525	6.8956	0.0185		0.7951	0.7951		0.7315	0.7315		1,920.7936	1,920.7936	0.5794		1,932.9606
Total	1.5829	18.3525	6.8956	0.0185	0.1879	0.7951	0.9831	0.0285	0.7315	0.7600		1,920.7936	1,920.7936	0.5794		1,932.9606

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0152	0.2421	0.1718	6.5000e-004	0.0150	3.5800e-003	0.0186	4.1200e-003	3.3000e-003	7.4200e-003		65.0046	65.0046	4.8000e-004		65.0147
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003		61.5213
Total	0.0375	0.2701	0.5187	1.3800e-003	0.0709	4.1100e-003	0.0750	0.0189	3.7900e-003	0.0227		126.4556	126.4556	3.8300e-003		126.5360

3.2 Demolition 1 - 2016**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0719	0.0000	0.0719	0.0109	0.0000	0.0109			0.0000			0.0000
Off-Road	1.5829	18.3525	6.8956	0.0185		0.7951	0.7951		0.7315	0.7315	0.0000	1,920.7936	1,920.7936	0.5794		1,932.9606
Total	1.5829	18.3525	6.8956	0.0185	0.0719	0.7951	0.8670	0.0109	0.7315	0.7424	0.0000	1,920.7936	1,920.7936	0.5794		1,932.9606

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0152	0.2421	0.1718	6.5000e-004	0.0105	3.5800e-003	0.0141	3.0000e-003	3.3000e-003	6.2900e-003		65.0046	65.0046	4.8000e-004		65.0147
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0280	0.3469	7.3000e-004	0.0365	5.3000e-004	0.0370	0.0101	4.9000e-004	0.0105		61.4511	61.4511	3.3500e-003		61.5213
Total	0.0375	0.2701	0.5187	1.3800e-003	0.0469	4.1100e-003	0.0510	0.0131	3.7900e-003	0.0168		126.4556	126.4556	3.8300e-003		126.5360

3.3 Site Preparation 1 - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7147	9.6313	2.8714	7.7800e-003		0.3714	0.3714		0.3417	0.3417		808.0235	808.0235	0.2437		813.1418
Total	0.7147	9.6313	2.8714	7.7800e-003	0.5303	0.3714	0.9016	0.0573	0.3417	0.3989		808.0235	808.0235	0.2437		813.1418

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0134	0.0168	0.2081	4.4000e-004	0.0335	3.2000e-004	0.0339	8.8900e-003	2.9000e-004	9.1800e-003		36.8706	36.8706	2.0100e-003		36.9128
Total	0.0134	0.0168	0.2081	4.4000e-004	0.0335	3.2000e-004	0.0339	8.8900e-003	2.9000e-004	9.1800e-003		36.8706	36.8706	2.0100e-003		36.9128

3.3 Site Preparation 1 - 2016**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2028	0.0000	0.2028	0.0219	0.0000	0.0219			0.0000			0.0000
Off-Road	0.7147	9.6313	2.8714	7.7800e-003		0.3714	0.3714		0.3417	0.3417	0.0000	808.0235	808.0235	0.2437		813.1418
Total	0.7147	9.6313	2.8714	7.7800e-003	0.2028	0.3714	0.5742	0.0219	0.3417	0.3636	0.0000	808.0235	808.0235	0.2437		813.1418

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0134	0.0168	0.2081	4.4000e-004	0.0219	3.2000e-004	0.0222	6.0300e-003	2.9000e-004	6.3200e-003		36.8706	36.8706	2.0100e-003		36.9128
Total	0.0134	0.0168	0.2081	4.4000e-004	0.0219	3.2000e-004	0.0222	6.0300e-003	2.9000e-004	6.3200e-003		36.8706	36.8706	2.0100e-003		36.9128

3.4 Grading 1 - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0404	0.0000	0.0404	6.1200e-003	0.0000	6.1200e-003			0.0000			0.0000
Off-Road	1.1346	14.0695	6.3814	0.0189		0.4951	0.4951		0.4555	0.4555		1,963.6912	1,963.6912	0.5923		1,976.1299
Total	1.1346	14.0695	6.3814	0.0189	0.0404	0.4951	0.5355	6.1200e-003	0.4555	0.4616		1,963.6912	1,963.6912	0.5923		1,976.1299

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0451	18.3395	10.7641	0.0496	1.1670	0.2772	1.4442	0.3195	0.2550	0.5745		5,005.6094	5,005.6094	0.0362		5,006.3691
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003		61.5213
Total	1.0674	18.3676	11.1110	0.0504	1.2229	0.2777	1.5006	0.3343	0.2555	0.5898		5,067.0604	5,067.0604	0.0395		5,067.8904

3.4 Grading 1 - 2016**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0155	0.0000	0.0155	2.3400e-003	0.0000	2.3400e-003			0.0000			0.0000
Off-Road	1.1346	14.0695	6.3814	0.0189		0.4951	0.4951		0.4555	0.4555	0.0000	1,963.6912	1,963.6912	0.5923		1,976.1299
Total	1.1346	14.0695	6.3814	0.0189	0.0155	0.4951	0.5105	2.3400e-003	0.4555	0.4578	0.0000	1,963.6912	1,963.6912	0.5923		1,976.1299

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0451	18.3395	10.7641	0.0496	0.8125	0.2772	1.0897	0.2325	0.2550	0.4874		5,005.6094	5,005.6094	0.0362		5,006.3691
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0280	0.3469	7.3000e-004	0.0365	5.3000e-004	0.0370	0.0101	4.9000e-004	0.0105		61.4511	61.4511	3.3500e-003		61.5213
Total	1.0674	18.3676	11.1110	0.0504	0.8489	0.2777	1.1266	0.2425	0.2555	0.4980		5,067.0604	5,067.0604	0.0395		5,067.8904

3.5 Building Construction 1 - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2453	17.6318	12.7767	0.0193		1.3659	1.3659		1.3137	1.3137		1,880.9569	1,880.9569	0.3121		1,887.5110
Total	2.2453	17.6318	12.7767	0.0193		1.3659	1.3659		1.3137	1.3137		1,880.9569	1,880.9569	0.3121		1,887.5110

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1432	1.4877	1.7284	3.7400e-003	0.1060	0.0233	0.1293	0.0302	0.0214	0.0516		374.3750	374.3750	2.7500e-003		374.4328
Worker	0.4142	0.5213	6.4514	0.0135	1.0395	9.8300e-003	1.0494	0.2757	9.0400e-003	0.2847		1,142.9898	1,142.9898	0.0622		1,144.2964
Total	0.5574	2.0090	8.1797	0.0173	1.1455	0.0331	1.1786	0.3059	0.0304	0.3363		1,517.3648	1,517.3648	0.0650		1,518.7292

3.5 Building Construction 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2453	17.6318	12.7767	0.0193		1.3659	1.3659		1.3137	1.3137	0.0000	1,880.9569	1,880.9569	0.3121		1,887.5110
Total	2.2453	17.6318	12.7767	0.0193		1.3659	1.3659		1.3137	1.3137	0.0000	1,880.9569	1,880.9569	0.3121		1,887.5110

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1432	1.4877	1.7284	3.7400e-003	0.0750	0.0233	0.0983	0.0226	0.0214	0.0439		374.3750	374.3750	2.7500e-003		374.4328
Worker	0.4142	0.5213	6.4514	0.0135	0.6780	9.8300e-003	0.6879	0.1870	9.0400e-003	0.1960		1,142.9898	1,142.9898	0.0622		1,144.2964
Total	0.5574	2.0090	8.1797	0.0173	0.7530	0.0331	0.7861	0.2095	0.0304	0.2399		1,517.3648	1,517.3648	0.0650		1,518.7292

3.5 Building Construction 1 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0409	16.3700	12.6597	0.0193		1.2320	1.2320		1.1838	1.1838		1,871.088 2	1,871.088 2	0.2989		1,877.366 0
Total	2.0409	16.3700	12.6597	0.0193		1.2320	1.2320		1.1838	1.1838		1,871.088 2	1,871.088 2	0.2989		1,877.366 0

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1310	1.3562	1.6227	3.7300e-003	0.1061	0.0207	0.1268	0.0302	0.0191	0.0492		368.3967	368.3967	2.6600e-003		368.4525
Worker	0.3722	0.4715	5.8452	0.0135	1.0395	9.4200e-003	1.0489	0.2757	8.6800e-003	0.2844		1,100.215 6	1,100.215 6	0.0575		1,101.423 2
Total	0.5032	1.8277	7.4679	0.0173	1.1456	0.0301	1.1757	0.3059	0.0277	0.3336		1,468.612 3	1,468.612 3	0.0602		1,469.875 8

3.5 Building Construction 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0409	16.3700	12.6597	0.0193		1.2320	1.2320		1.1838	1.1838	0.0000	1,871.088 2	1,871.088 2	0.2989		1,877.366 0
Total	2.0409	16.3700	12.6597	0.0193		1.2320	1.2320		1.1838	1.1838	0.0000	1,871.088 2	1,871.088 2	0.2989		1,877.366 0

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1310	1.3562	1.6227	3.7300e-003	0.0751	0.0207	0.0958	0.0226	0.0191	0.0416		368.3967	368.3967	2.6600e-003		368.4525
Worker	0.3722	0.4715	5.8452	0.0135	0.6780	9.4200e-003	0.6875	0.1870	8.6800e-003	0.1956		1,100.215 6	1,100.215 6	0.0575		1,101.423 2
Total	0.5032	1.8277	7.4679	0.0173	0.7531	0.0301	0.7832	0.2095	0.0277	0.2373		1,468.612 3	1,468.612 3	0.0602		1,469.875 8

3.6 Demolition 2 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5750	0.0000	1.5750	0.2385	0.0000	0.2385			0.0000			0.0000
Off-Road	1.2293	15.4252	7.3739	0.0299		0.4988	0.4988		0.4589	0.4589		3,056.614 3	3,056.614 3	0.9365		3,076.281 7
Total	1.2293	15.4252	7.3739	0.0299	1.5750	0.4988	2.0738	0.2385	0.4589	0.6974		3,056.614 3	3,056.614 3	0.9365		3,076.281 7

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0750	0.8899	1.0545	2.4300e-003	0.0548	0.0121	0.0669	0.0150	0.0111	0.0261		240.1128	240.1128	1.9300e-003		240.1534
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0320	0.0406	0.5028	1.1600e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		94.6422	94.6422	4.9500e-003		94.7461
Total	0.1070	0.9304	1.5573	3.5900e-003	0.1442	0.0129	0.1571	0.0387	0.0119	0.0506		334.7550	334.7550	6.8800e-003		334.8995

3.6 Demolition 2 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6024	0.0000	0.6024	0.0912	0.0000	0.0912			0.0000			0.0000
Off-Road	1.2293	15.4252	7.3739	0.0299		0.4988	0.4988		0.4589	0.4589	0.0000	3,056.614 3	3,056.614 3	0.9365		3,076.281 7
Total	1.2293	15.4252	7.3739	0.0299	0.6024	0.4988	1.1012	0.0912	0.4589	0.5501	0.0000	3,056.614 3	3,056.614 3	0.9365		3,076.281 7

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0750	0.8899	1.0545	2.4300e-003	0.0382	0.0121	0.0503	0.0109	0.0111	0.0221		240.1128	240.1128	1.9300e-003		240.1534
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0320	0.0406	0.5028	1.1600e-003	0.0583	8.1000e-004	0.0591	0.0161	7.5000e-004	0.0168		94.6422	94.6422	4.9500e-003		94.7461
Total	0.1070	0.9304	1.5573	3.5900e-003	0.0965	0.0129	0.1094	0.0270	0.0119	0.0389		334.7550	334.7550	6.8800e-003		334.8995

3.7 Site Preparation 2 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4098	5.1417	2.4580	9.9700e-003		0.1663	0.1663		0.1530	0.1530		1,018.8714	1,018.8714	0.3122		1,025.4272
Total	0.4098	5.1417	2.4580	9.9700e-003	0.0000	0.1663	0.1663	0.0000	0.1530	0.1530		1,018.8714	1,018.8714	0.3122		1,025.4272

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0120	0.0152	0.1886	4.4000e-004	0.0335	3.0000e-004	0.0338	8.8900e-003	2.8000e-004	9.1700e-003		35.4908	35.4908	1.8600e-003		35.5298
Total	0.0120	0.0152	0.1886	4.4000e-004	0.0335	3.0000e-004	0.0338	8.8900e-003	2.8000e-004	9.1700e-003		35.4908	35.4908	1.8600e-003		35.5298

3.7 Site Preparation 2 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4098	5.1417	2.4580	9.9700e-003		0.1663	0.1663		0.1530	0.1530	0.0000	1,018.8714	1,018.8714	0.3122		1,025.4272
Total	0.4098	5.1417	2.4580	9.9700e-003	0.0000	0.1663	0.1663	0.0000	0.1530	0.1530	0.0000	1,018.8714	1,018.8714	0.3122		1,025.4272

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0120	0.0152	0.1886	4.4000e-004	0.0219	3.0000e-004	0.0222	6.0300e-003	2.8000e-004	6.3100e-003		35.4908	35.4908	1.8600e-003		35.5298
Total	0.0120	0.0152	0.1886	4.4000e-004	0.0219	3.0000e-004	0.0222	6.0300e-003	2.8000e-004	6.3100e-003		35.4908	35.4908	1.8600e-003		35.5298

3.8 Grading 2 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0922	0.0000	6.0922	3.3208	0.0000	3.3208			0.0000			0.0000
Off-Road	2.5879	26.8342	13.6940	0.0302		1.4447	1.4447		1.3291	1.3291		3,084.7928	3,084.7928	0.9452		3,104.6414
Total	2.5879	26.8342	13.6940	0.0302	6.0922	1.4447	7.5369	3.3208	1.3291	4.6500		3,084.7928	3,084.7928	0.9452		3,104.6414

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7952	9.4396	11.1863	0.0257	0.5815	0.1283	0.7098	0.1593	0.1180	0.2773		2,547.1167	2,547.1167	0.0205		2,547.5470
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0600	0.0761	0.9428	2.1800e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		177.4541	177.4541	9.2800e-003		177.6489
Total	0.8552	9.5157	12.1291	0.0279	0.7492	0.1298	0.8790	0.2038	0.1194	0.3232		2,724.5709	2,724.5709	0.0298		2,725.1959

3.8 Grading 2 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3303	0.0000	2.3303	1.2702	0.0000	1.2702			0.0000			0.0000
Off-Road	2.5879	26.8342	13.6940	0.0302		1.4447	1.4447		1.3291	1.3291	0.0000	3,084.7928	3,084.7928	0.9452		3,104.6414
Total	2.5879	26.8342	13.6940	0.0302	2.3303	1.4447	3.7750	1.2702	1.3291	2.5994	0.0000	3,084.7928	3,084.7928	0.9452		3,104.6414

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7952	9.4396	11.1863	0.0257	0.4052	0.1283	0.5335	0.1160	0.1180	0.2340		2,547.1167	2,547.1167	0.0205		2,547.5470
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0600	0.0761	0.9428	2.1800e-003	0.1094	1.5200e-003	0.1109	0.0302	1.4000e-003	0.0316		177.4541	177.4541	9.2800e-003		177.6489
Total	0.8552	9.5157	12.1291	0.0279	0.5146	0.1298	0.6444	0.1462	0.1194	0.2656		2,724.5709	2,724.5709	0.0298		2,725.1959

3.9 Building Construction 2 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0125	44.3185	17.4643	0.0822		1.3156	1.3156		1.3156	1.3156		9,345.5185	9,345.5185	0.3618		9,353.1160
Total	4.0125	44.3185	17.4643	0.0822		1.3156	1.3156		1.3156	1.3156		9,345.5185	9,345.5185	0.3618		9,353.1160

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1310	1.3562	1.6227	3.7300e-003	0.1061	0.0207	0.1268	0.0302	0.0191	0.0492		368.3967	368.3967	2.6600e-003		368.4525
Worker	0.3722	0.4715	5.8452	0.0135	1.0395	9.4200e-003	1.0489	0.2757	8.6800e-003	0.2844		1,100.2156	1,100.2156	0.0575		1,101.4232
Total	0.5032	1.8277	7.4679	0.0173	1.1456	0.0301	1.1757	0.3059	0.0277	0.3336		1,468.6123	1,468.6123	0.0602		1,469.8758

3.9 Building Construction 2 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0125	44.3185	17.4643	0.0822		1.3156	1.3156		1.3156	1.3156	0.0000	9,345.5185	9,345.5185	0.3618		9,353.1160
Total	4.0125	44.3185	17.4643	0.0822		1.3156	1.3156		1.3156	1.3156	0.0000	9,345.5185	9,345.5185	0.3618		9,353.1160

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1310	1.3562	1.6227	3.7300e-003	0.0751	0.0207	0.0958	0.0226	0.0191	0.0416		368.3967	368.3967	2.6600e-003		368.4525
Worker	0.3722	0.4715	5.8452	0.0135	0.6780	9.4200e-003	0.6875	0.1870	8.6800e-003	0.1956		1,100.2156	1,100.2156	0.0575		1,101.4232
Total	0.5032	1.8277	7.4679	0.0173	0.7531	0.0301	0.7832	0.2095	0.0277	0.2373		1,468.6123	1,468.6123	0.0602		1,469.8758

3.9 Building Construction 2 - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7823	39.4838	17.1190	0.0822		1.1840	1.1840		1.1840	1.1840		9,345.5185	9,345.5185	0.3289		9,352.4253
Total	3.7823	39.4838	17.1190	0.0822		1.1840	1.1840		1.1840	1.1840		9,345.5185	9,345.5185	0.3289		9,352.4253

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1234	1.2469	1.5501	3.7300e-003	0.1061	0.0195	0.1256	0.0302	0.0180	0.0481		362.3120	362.3120	2.6400e-003		362.3675
Worker	0.3351	0.4280	5.3113	0.0135	1.0395	9.1200e-003	1.0486	0.2757	8.4400e-003	0.2841		1,059.9543	1,059.9543	0.0534		1,061.0760
Total	0.4585	1.6748	6.8613	0.0172	1.1456	0.0286	1.1742	0.3059	0.0264	0.3323		1,422.2662	1,422.2662	0.0561		1,423.4435

3.9 Building Construction 2 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7823	39.4838	17.1190	0.0822		1.1840	1.1840		1.1840	1.1840	0.0000	9,345.5185	9,345.5185	0.3289		9,352.4253
Total	3.7823	39.4838	17.1190	0.0822		1.1840	1.1840		1.1840	1.1840	0.0000	9,345.5185	9,345.5185	0.3289		9,352.4253

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1234	1.2469	1.5501	3.7300e-003	0.0751	0.0195	0.0946	0.0226	0.0180	0.0405		362.3120	362.3120	2.6400e-003		362.3675
Worker	0.3351	0.4280	5.3113	0.0135	0.6780	9.1200e-003	0.6872	0.1870	8.4400e-003	0.1954		1,059.9543	1,059.9543	0.0534		1,061.0760
Total	0.4585	1.6748	6.8613	0.0172	0.7531	0.0286	0.7817	0.2095	0.0264	0.2359		1,422.2662	1,422.2662	0.0561		1,423.4435

3.10 Paving 1 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5099	11.9013	7.7552	0.0142		0.7237	0.7237		0.6791	0.6791		1,299.881 1	1,299.881 1	0.2818		1,305.798 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5099	11.9013	7.7552	0.0142		0.7237	0.7237		0.6791	0.6791		1,299.881 1	1,299.881 1	0.2818		1,305.798 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787

3.10 Paving 1 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5099	11.9013	7.7552	0.0142		0.7237	0.7237		0.6791	0.6791	0.0000	1,299.881 1	1,299.881 1	0.2818		1,305.798 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5099	11.9013	7.7552	0.0142		0.7237	0.7237		0.6791	0.6791	0.0000	1,299.881 1	1,299.881 1	0.2818		1,305.798 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0720	0.0913	1.1313	2.6200e-003	0.1312	1.8200e-003	0.1331	0.0362	1.6800e-003	0.0379		212.9450	212.9450	0.0111		213.1787
Total	0.0720	0.0913	1.1313	2.6200e-003	0.1312	1.8200e-003	0.1331	0.0362	1.6800e-003	0.0379		212.9450	212.9450	0.0111		213.1787

3.11 Architectural Coating 1 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.4614					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	29.7937	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0761	0.0963	1.1942	2.7600e-003	0.2124	1.9200e-003	0.2143	0.0563	1.7700e-003	0.0581		224.7752	224.7752	0.0118		225.0220
Total	0.0761	0.0963	1.1942	2.7600e-003	0.2124	1.9200e-003	0.2143	0.0563	1.7700e-003	0.0581		224.7752	224.7752	0.0118		225.0220

3.11 Architectural Coating 1 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.4614					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	29.7937	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0761	0.0963	1.1942	2.7600e-003	0.1385	1.9200e-003	0.1405	0.0382	1.7700e-003	0.0400		224.7752	224.7752	0.0118		225.0220
Total	0.0761	0.0963	1.1942	2.7600e-003	0.1385	1.9200e-003	0.1405	0.0382	1.7700e-003	0.0400		224.7752	224.7752	0.0118		225.0220

3.12 Architectural Coating 2 - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.4380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	11.7366	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0685	0.0874	1.0851	2.7600e-003	0.2124	1.8600e-003	0.2142	0.0563	1.7200e-003	0.0581		216.5498	216.5498	0.0109		216.7790
Total	0.0685	0.0874	1.0851	2.7600e-003	0.2124	1.8600e-003	0.2142	0.0563	1.7200e-003	0.0581		216.5498	216.5498	0.0109		216.7790

3.12 Architectural Coating 2 - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.4380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	11.7366	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0685	0.0874	1.0851	2.7600e-003	0.1385	1.8600e-003	0.1404	0.0382	1.7200e-003	0.0399		216.5498	216.5498	0.0109		216.7790
Total	0.0685	0.0874	1.0851	2.7600e-003	0.1385	1.8600e-003	0.1404	0.0382	1.7200e-003	0.0399		216.5498	216.5498	0.0109		216.7790

3.13 Paving 2 - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3563	3.9416	3.1968	5.1400e-003		0.1926	0.1926		0.1772	0.1772		516.8067	516.8067	0.1609		520.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.3563	3.9416	3.1968	5.1400e-003		0.1926	0.1926		0.1772	0.1772		516.8067	516.8067	0.1609		520.1854

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0108	0.0138	0.1713	4.4000e-004	0.0335	2.9000e-004	0.0338	8.8900e-003	2.7000e-004	9.1700e-003		34.1921	34.1921	1.7200e-003		34.2283
Total	0.0108	0.0138	0.1713	4.4000e-004	0.0335	2.9000e-004	0.0338	8.8900e-003	2.7000e-004	9.1700e-003		34.1921	34.1921	1.7200e-003		34.2283

3.13 Paving 2 - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3563	3.9416	3.1968	5.1400e-003		0.1926	0.1926		0.1772	0.1772	0.0000	516.8067	516.8067	0.1609		520.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.3563	3.9416	3.1968	5.1400e-003		0.1926	0.1926		0.1772	0.1772	0.0000	516.8067	516.8067	0.1609		520.1854

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0108	0.0138	0.1713	4.4000e-004	0.0219	2.9000e-004	0.0222	6.0300e-003	2.7000e-004	6.3000e-003		34.1921	34.1921	1.7200e-003		34.2283
Total	0.0108	0.0138	0.1713	4.4000e-004	0.0219	2.9000e-004	0.0222	6.0300e-003	2.7000e-004	6.3000e-003		34.1921	34.1921	1.7200e-003		34.2283

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.8939	11.1304	45.6282	0.1442	9.4507	0.1931	9.6438	2.5274	0.1781	2.7055		11,183.74 74	11,183.74 74	0.4021		11,192.19 16
Unmitigated	3.8939	11.1304	45.6282	0.1442	9.4507	0.1931	9.6438	2.5274	0.1781	2.7055		11,183.74 74	11,183.74 74	0.4021		11,192.19 16

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	1,301.88	1,301.88	1301.88	4,448,722	4,448,722
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	1,301.88	1,301.88	1,301.88	4,448,722	4,448,722

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted)	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530094	0.057664	0.178835	0.124843	0.039181	0.006319	0.017052	0.034445	0.002509	0.003148	0.003693	0.000531	0.001685

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893
NaturalGas Unmitigated	0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Congregate Care (Assisted Living)	4954.16	0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893
Total		0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	4.95416	0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.9592	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520	0.0000	16.9720	16.9720	0.0166	0.0000	17.3208
Unmitigated	3.9592	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520	0.0000	16.9720	16.9720	0.0166	0.0000	17.3208

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4585					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.2117					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2890	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520		16.9720	16.9720	0.0166		17.3208
Total	3.9592	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520	0.0000	16.9720	16.9720	0.0166	0.0000	17.3208

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4585					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.2117					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2890	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520		16.9720	16.9720	0.0166		17.3208
Total	3.9592	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520	0.0000	16.9720	16.9720	0.0166	0.0000	17.3208

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Merrill Gardens- Rolling Hills Estates
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	169.00	Space	1.65	26,357.00	0
Congregate Care (Assisted Living)	114.00	Dwelling Unit	1.48	135,852.00	326

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	503.21	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SCE's mandated 2020 intensity factor

Land Use - Lot acreage and square footage per project applicant

Construction Phase - Construction timing per project applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Trips and VMT - Haul distances per applicant

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Trip generation per Traffic Report.

Woodstoves - No hearths or stoves

Energy Use - Energy use per applicant

Construction Off-road Equipment Mitigation - PM reduction per SCAQMD, CEQA handbook.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00

tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	40
tblConstructionPhase	NumDays	18.00	33.00
tblConstructionPhase	NumDays	18.00	85.00
tblConstructionPhase	NumDays	230.00	129.00
tblConstructionPhase	NumDays	230.00	391.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	8.00	23.00
tblConstructionPhase	NumDays	8.00	25.00
tblConstructionPhase	NumDays	18.00	23.00
tblConstructionPhase	NumDays	18.00	34.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	PhaseEndDate	8/16/2017	6/30/2017
tblConstructionPhase	PhaseEndDate	10/27/2017	6/1/2018
tblConstructionPhase	PhaseEndDate	6/2/2017	3/3/2017
tblConstructionPhase	PhaseEndDate	7/4/2018	8/31/2018
tblConstructionPhase	PhaseEndDate	11/30/2018	6/30/2017
tblConstructionPhase	PhaseEndDate	11/15/2016	10/14/2016
tblConstructionPhase	PhaseStartDate	7/1/2017	5/17/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	2/5/2018
tblConstructionPhase	PhaseStartDate	4/15/2017	4/17/2017
tblConstructionPhase	PhaseStartDate	5/17/2017	2/15/2017
tblConstructionPhase	PhaseStartDate	10/15/2016	10/17/2016
tblConstructionPhase	PhaseStartDate	3/11/2017	3/13/2017

tblConstructionPhase	PhaseStartDate	6/2/2018	8/1/2018
tblConstructionPhase	PhaseStartDate	10/16/2018	5/16/2017
tblConstructionPhase	PhaseStartDate	11/2/2016	10/1/2016
tblConstructionPhase	PhaseStartDate	3/4/2017	3/6/2017
tblEnergyUse	LightingElect	741.44	74.44
tblEnergyUse	LightingElect	2.63	0.19
tblEnergyUse	NT24E	0.19	0.01
tblEnergyUse	T24E	181.82	5,050.00
tblEnergyUse	T24E	3.92	0.01
tblEnergyUse	T24NG	6,951.80	14,200.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	96.90	0.00
tblFireplaces	NumberNoFireplace	11.40	114.00
tblFireplaces	NumberWood	5.70	0.00
tblGrading	MaterialExported	0.00	8,220.00
tblGrading	MaterialExported	0.00	15,500.00
tblLandUse	LandUseSquareFeet	67,600.00	26,357.00
tblLandUse	LandUseSquareFeet	114,000.00	135,852.00
tblLandUse	LotAcreage	1.52	1.65
tblLandUse	LotAcreage	7.13	1.48
tblOffRoadEquipment	HorsePower	162.00	345.00
tblOffRoadEquipment	HorsePower	162.00	306.00
tblOffRoadEquipment	HorsePower	162.00	330.00
tblOffRoadEquipment	HorsePower	162.00	306.00
tblOffRoadEquipment	HorsePower	89.00	20.00
tblOffRoadEquipment	HorsePower	125.00	142.00

tblOffRoadEquipment	HorsePower	130.00	100.00
tblOffRoadEquipment	HorsePower	255.00	210.00
tblOffRoadEquipment	HorsePower	255.00	166.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	503.21
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	8.60
tblTripsAndVMT	HaulingTripLength	20.00	8.60
tblVehicleTrips	ST_TR	2.20	11.42
tblVehicleTrips	SU_TR	2.44	11.42
tblVehicleTrips	WD_TR	2.74	11.42
tblWoodstoves	NumberCatalytic	5.70	0.00
tblWoodstoves	NumberNoncatalytic	5.70	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	3.8712	51.7430	26.2902	0.0890	1.5222	1.5725	3.0947	0.3878	1.4466	1.8345	0.0000	9,063.0515	9,063.0515	1.2154	0.0000	9,088.5741
2017	36.0001	76.5156	53.8615	0.1511	7.9870	3.3338	10.8245	3.8305	3.2360	6.4913	0.0000	15,524.8823	15,524.8823	1.3347	0.0000	15,552.9107
2018	16.0718	45.1921	27.3399	0.1042	1.3580	1.4057	2.7232	0.3622	1.3880	1.7251	0.0000	11,254.1847	11,254.1847	0.5477	0.0000	11,265.6852
Total	55.9431	173.4506	107.4916	0.3443	10.8671	6.3120	16.6424	4.5805	6.0707	10.0509	0.0000	35,842.1184	35,842.1184	3.0977	0.0000	35,907.1701

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	3.8712	51.7430	26.2902	0.0890	0.9832	1.5725	2.5557	0.2688	1.4466	1.7154	0.0000	9,063.0515	9,063.0515	1.2154	0.0000	9,088.5741
2017	36.0001	76.5156	53.8615	0.1511	3.5979	3.3338	6.4355	1.6259	3.2360	4.2868	0.0000	15,524.8823	15,524.8823	1.3347	0.0000	15,552.9107
2018	16.0718	45.1921	27.3399	0.1042	0.8916	1.4057	2.2569	0.2477	1.3880	1.6106	0.0000	11,254.1846	11,254.1846	0.5477	0.0000	11,265.6852
Total	55.9431	173.4506	107.4916	0.3443	5.4728	6.3120	11.2480	2.1425	6.0707	7.6128	0.0000	35,842.1184	35,842.1184	3.0977	0.0000	35,907.1701

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	49.64	0.00	32.41	53.23	0.00	24.26	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.9592	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520	0.0000	16.9720	16.9720	0.0166	0.0000	17.3208
Energy	0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893
Mobile	4.0649	11.7216	45.6560	0.1377	9.4507	0.1937	9.6444	2.5274	0.1786	2.7060		10,705.7736	10,705.7736	0.4025		10,714.2267
Total	8.0776	12.2874	55.3041	0.1411	9.4507	0.2825	9.7332	2.5274	0.2675	2.7949	0.0000	11,305.5877	11,305.5877	0.4303	0.0107	11,317.9369

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.9592	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520	0.0000	16.9720	16.9720	0.0166	0.0000	17.3208
Energy	0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893
Mobile	4.0649	11.7216	45.6560	0.1377	9.4507	0.1937	9.6444	2.5274	0.1786	2.7060		10,705.7736	10,705.7736	0.4025		10,714.2267
Total	8.0776	12.2874	55.3041	0.1411	9.4507	0.2825	9.7332	2.5274	0.2675	2.7949	0.0000	11,305.5877	11,305.5877	0.4303	0.0107	11,317.9369

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition 1	Demolition	10/1/2016	11/1/2016	5	22	
2	Site Preparation 1	Site Preparation	10/1/2016	10/14/2016	5	10	
3	Grading 1	Grading	10/17/2016	11/16/2016	5	23	
4	Building Construction 1	Building Construction	11/17/2016	5/16/2017	5	129	
5	Demolition 2	Demolition	2/15/2017	3/3/2017	5	13	
6	Site Preparation 2	Site Preparation	3/6/2017	3/10/2017	5	5	
7	Grading 2	Grading	3/13/2017	4/14/2017	5	25	
8	Building Construction 2	Building Construction	4/17/2017	10/15/2018	5	391	
9	Paving 1	Paving	5/16/2017	6/30/2017	5	34	
10	Architectural Coating 1	Architectural Coating	5/17/2017	6/30/2017	5	33	
11	Architectural Coating 2	Architectural Coating	2/5/2018	6/1/2018	5	85	
12	Paving 2	Paving	8/1/2018	8/31/2018	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 275,100; Residential Outdoor: 91,700; Non-Residential Indoor: 39,536; Non-Residential Outdoor: 13,179 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition 1	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition 1	Excavators	1	8.00	345	0.38
Demolition 1	Rubber Tired Dozers	1	8.00	210	0.40
Site Preparation 1	Crawler Tractors	1	8.00	210	0.43
Site Preparation 1	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 1	Excavators	1	8.00	330	0.38
Grading 1	Graders	0	8.00	174	0.41
Grading 1	Rubber Tired Dozers	0	8.00	255	0.40
Grading 1	Rubber Tired Loaders	1	8.00	267	0.36
Grading 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction 1	Cranes	0	7.00	226	0.29
Building Construction 1	Forklifts	4	8.00	89	0.20
Building Construction 1	Generator Sets	0	8.00	84	0.74
Building Construction 1	Pumps	2	8.00	84	0.74
Building Construction 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction 1	Welders	0	8.00	46	0.45
Demolition 2	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition 2	Excavators	3	8.00	306	0.38
Demolition 2	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation 2	Excavators	1	8.00	306	0.38
Site Preparation 2	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation 2	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 2	Excavators	2	8.00	306	0.38
Grading 2	Graders	0	8.00	174	0.41
Grading 2	Plate Compactors	1	8.00	157	0.43
Grading 2	Rubber Tired Dozers	1	8.00	166	0.40

Grading 2	Rubber Tired Loaders	2	8.00	74	0.36
Grading 2	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction 2	Cranes	0	7.00	226	0.29
Building Construction 2	Forklifts	4	8.00	20	0.20
Building Construction 2	Generator Sets	0	8.00	84	0.74
Building Construction 2	Pumps	2	8.00	630	0.74
Building Construction 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction 2	Welders	0	8.00	46	0.45
Paving 1	Cement and Mortar Mixers	0	6.00	9	0.56
Paving 1	Concrete/Industrial Saws	4	8.00	20	0.73
Paving 1	Pavers	0	8.00	125	0.42
Paving 1	Paving Equipment	3	6.00	100	0.36
Paving 1	Rollers	0	6.00	80	0.38
Paving 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Architectural Coating 1	Air Compressors	1	6.00	78	0.48
Architectural Coating 2	Air Compressors	1	6.00	78	0.48
Paving 2	Cement and Mortar Mixers	0	6.00	9	0.56
Paving 2	Pavers	1	8.00	142	0.42
Paving 2	Paving Equipment	0	6.00	130	0.36
Paving 2	Rollers	0	6.00	80	0.38
Paving 2	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition 1	2	5.00	0.00	19.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation 1	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 1	2	5.00	0.00	1,028.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Building Construction 1	6	93.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition 2	3	8.00	0.00	95.00	14.70	6.90	8.60	LD_Mix	HDT_Mix	HHDT
Site Preparation 2	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	6	15.00	0.00	1,938.00	14.70	6.90	8.60	LD_Mix	HDT_Mix	HHDT
Building Construction 2	6	93.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 1	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 1	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 2	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition 1 - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1879	0.0000	0.1879	0.0285	0.0000	0.0285			0.0000			0.0000
Off-Road	1.5829	18.3525	6.8956	0.0185		0.7951	0.7951		0.7315	0.7315		1,920.7936	1,920.7936	0.5794		1,932.9606
Total	1.5829	18.3525	6.8956	0.0185	0.1879	0.7951	0.9831	0.0285	0.7315	0.7600		1,920.7936	1,920.7936	0.5794		1,932.9606

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0161	0.2506	0.1991	6.4000e-004	0.0150	3.5900e-003	0.0186	4.1200e-003	3.3100e-003	7.4200e-003		64.8520	64.8520	4.9000e-004		64.8622
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		58.0016	58.0016	3.3500e-003		58.0718
Total	0.0393	0.2817	0.5248	1.3300e-003	0.0709	4.1200e-003	0.0751	0.0189	3.8000e-003	0.0227		122.8535	122.8535	3.8400e-003		122.9340

3.2 Demolition 1 - 2016**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0719	0.0000	0.0719	0.0109	0.0000	0.0109			0.0000			0.0000
Off-Road	1.5829	18.3525	6.8956	0.0185		0.7951	0.7951		0.7315	0.7315	0.0000	1,920.7936	1,920.7936	0.5794		1,932.9606
Total	1.5829	18.3525	6.8956	0.0185	0.0719	0.7951	0.8670	0.0109	0.7315	0.7424	0.0000	1,920.7936	1,920.7936	0.5794		1,932.9606

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0161	0.2506	0.1991	6.4000e-004	0.0105	3.5900e-003	0.0141	3.0000e-003	3.3100e-003	6.3000e-003		64.8520	64.8520	4.9000e-004		64.8622
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0232	0.0311	0.3257	6.9000e-004	0.0365	5.3000e-004	0.0370	0.0101	4.9000e-004	0.0105		58.0016	58.0016	3.3500e-003		58.0718
Total	0.0393	0.2817	0.5248	1.3300e-003	0.0469	4.1200e-003	0.0511	0.0131	3.8000e-003	0.0168		122.8535	122.8535	3.8400e-003		122.9340

3.3 Site Preparation 1 - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7147	9.6313	2.8714	7.7800e-003		0.3714	0.3714		0.3417	0.3417		808.0235	808.0235	0.2437		813.1418
Total	0.7147	9.6313	2.8714	7.7800e-003	0.5303	0.3714	0.9016	0.0573	0.3417	0.3989		808.0235	808.0235	0.2437		813.1418

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0139	0.0187	0.1954	4.1000e-004	0.0335	3.2000e-004	0.0339	8.8900e-003	2.9000e-004	9.1800e-003		34.8009	34.8009	2.0100e-003		34.8431
Total	0.0139	0.0187	0.1954	4.1000e-004	0.0335	3.2000e-004	0.0339	8.8900e-003	2.9000e-004	9.1800e-003		34.8009	34.8009	2.0100e-003		34.8431

3.3 Site Preparation 1 - 2016**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2028	0.0000	0.2028	0.0219	0.0000	0.0219			0.0000			0.0000
Off-Road	0.7147	9.6313	2.8714	7.7800e-003		0.3714	0.3714		0.3417	0.3417	0.0000	808.0235	808.0235	0.2437		813.1418
Total	0.7147	9.6313	2.8714	7.7800e-003	0.2028	0.3714	0.5742	0.0219	0.3417	0.3636	0.0000	808.0235	808.0235	0.2437		813.1418

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0139	0.0187	0.1954	4.1000e-004	0.0219	3.2000e-004	0.0222	6.0300e-003	2.9000e-004	6.3200e-003		34.8009	34.8009	2.0100e-003		34.8431
Total	0.0139	0.0187	0.1954	4.1000e-004	0.0219	3.2000e-004	0.0222	6.0300e-003	2.9000e-004	6.3200e-003		34.8009	34.8009	2.0100e-003		34.8431

3.4 Grading 1 - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0404	0.0000	0.0404	6.1200e-003	0.0000	6.1200e-003			0.0000			0.0000
Off-Road	1.1346	14.0695	6.3814	0.0189		0.4951	0.4951		0.4555	0.4555		1,963.6912	1,963.6912	0.5923		1,976.1299
Total	1.1346	14.0695	6.3814	0.0189	0.0404	0.4951	0.5355	6.1200e-003	0.4555	0.4616		1,963.6912	1,963.6912	0.5923		1,976.1299

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0912	19.0082	12.1627	0.0496	1.1670	0.2776	1.4447	0.3195	0.2554	0.5749		4,997.7116	4,997.7116	0.0365		4,998.4779
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		58.0016	58.0016	3.3500e-003		58.0718
Total	1.1144	19.0393	12.4884	0.0503	1.2229	0.2782	1.5011	0.3343	0.2559	0.5902		5,055.7132	5,055.7132	0.0398		5,056.5497

3.4 Grading 1 - 2016**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0155	0.0000	0.0155	2.3400e-003	0.0000	2.3400e-003			0.0000			0.0000
Off-Road	1.1346	14.0695	6.3814	0.0189		0.4951	0.4951		0.4555	0.4555	0.0000	1,963.6912	1,963.6912	0.5923		1,976.1299
Total	1.1346	14.0695	6.3814	0.0189	0.0155	0.4951	0.5105	2.3400e-003	0.4555	0.4578	0.0000	1,963.6912	1,963.6912	0.5923		1,976.1299

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0912	19.0082	12.1627	0.0496	0.8125	0.2776	1.0901	0.2325	0.2554	0.4879		4,997.7116	4,997.7116	0.0365		4,998.4779
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0232	0.0311	0.3257	6.9000e-004	0.0365	5.3000e-004	0.0370	0.0101	4.9000e-004	0.0105		58.0016	58.0016	3.3500e-003		58.0718
Total	1.1144	19.0393	12.4884	0.0503	0.8489	0.2782	1.1271	0.2425	0.2559	0.4984		5,055.7132	5,055.7132	0.0398		5,056.5497

3.5 Building Construction 1 - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2453	17.6318	12.7767	0.0193		1.3659	1.3659		1.3137	1.3137		1,880.9569	1,880.9569	0.3121		1,887.5110
Total	2.2453	17.6318	12.7767	0.0193		1.3659	1.3659		1.3137	1.3137		1,880.9569	1,880.9569	0.3121		1,887.5110

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1580	1.5250	2.1043	3.7100e-003	0.1060	0.0235	0.1295	0.0302	0.0216	0.0518		371.2666	371.2666	2.8300e-003		371.3260
Worker	0.4309	0.5781	6.0578	0.0128	1.0395	9.8300e-003	1.0494	0.2757	9.0400e-003	0.2847		1,078.8289	1,078.8289	0.0622		1,080.1356
Total	0.5889	2.1031	8.1621	0.0165	1.1455	0.0333	1.1789	0.3059	0.0307	0.3365		1,450.0955	1,450.0955	0.0651		1,451.4615

3.5 Building Construction 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2453	17.6318	12.7767	0.0193		1.3659	1.3659		1.3137	1.3137	0.0000	1,880.9569	1,880.9569	0.3121		1,887.5110
Total	2.2453	17.6318	12.7767	0.0193		1.3659	1.3659		1.3137	1.3137	0.0000	1,880.9569	1,880.9569	0.3121		1,887.5110

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1580	1.5250	2.1043	3.7100e-003	0.0750	0.0235	0.0985	0.0226	0.0216	0.0442		371.2666	371.2666	2.8300e-003		371.3260
Worker	0.4309	0.5781	6.0578	0.0128	0.6780	9.8300e-003	0.6879	0.1870	9.0400e-003	0.1960		1,078.8289	1,078.8289	0.0622		1,080.1356
Total	0.5889	2.1031	8.1621	0.0165	0.7530	0.0333	0.7864	0.2095	0.0307	0.2402		1,450.0955	1,450.0955	0.0651		1,451.4615

3.5 Building Construction 1 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0409	16.3700	12.6597	0.0193		1.2320	1.2320		1.1838	1.1838		1,871.088 2	1,871.088 2	0.2989		1,877.366 0
Total	2.0409	16.3700	12.6597	0.0193		1.2320	1.2320		1.1838	1.1838		1,871.088 2	1,871.088 2	0.2989		1,877.366 0

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1439	1.3895	1.9959	3.7100e-003	0.1061	0.0209	0.1270	0.0302	0.0193	0.0494		365.3311	365.3311	2.7400e-003		365.3886
Worker	0.3864	0.5228	5.4663	0.0128	1.0395	9.4200e-003	1.0489	0.2757	8.6800e-003	0.2844		1,038.377 9	1,038.377 9	0.0575		1,039.585 6
Total	0.5303	1.9123	7.4622	0.0165	1.1456	0.0304	1.1759	0.3059	0.0279	0.3338		1,403.709 0	1,403.709 0	0.0603		1,404.974 2

3.5 Building Construction 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0409	16.3700	12.6597	0.0193		1.2320	1.2320		1.1838	1.1838	0.0000	1,871.088 2	1,871.088 2	0.2989		1,877.366 0
Total	2.0409	16.3700	12.6597	0.0193		1.2320	1.2320		1.1838	1.1838	0.0000	1,871.088 2	1,871.088 2	0.2989		1,877.366 0

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1439	1.3895	1.9959	3.7100e-003	0.0751	0.0209	0.0960	0.0226	0.0193	0.0418		365.3311	365.3311	2.7400e-003		365.3886
Worker	0.3864	0.5228	5.4663	0.0128	0.6780	9.4200e-003	0.6875	0.1870	8.6800e-003	0.1956		1,038.377 9	1,038.377 9	0.0575		1,039.585 6
Total	0.5303	1.9123	7.4622	0.0165	0.7531	0.0304	0.7834	0.2095	0.0279	0.2375		1,403.709 0	1,403.709 0	0.0603		1,404.974 2

3.6 Demolition 2 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5750	0.0000	1.5750	0.2385	0.0000	0.2385			0.0000			0.0000
Off-Road	1.2293	15.4252	7.3739	0.0299		0.4988	0.4988		0.4589	0.4589		3,056.614 3	3,056.614 3	0.9365		3,076.281 7
Total	1.2293	15.4252	7.3739	0.0299	1.5750	0.4988	2.0738	0.2385	0.4589	0.6974		3,056.614 3	3,056.614 3	0.9365		3,076.281 7

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0816	0.9170	1.2902	2.4200e-003	0.0548	0.0122	0.0670	0.0150	0.0112	0.0262		238.8417	238.8417	1.9800e-003		238.8833
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0332	0.0450	0.4702	1.1000e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		89.3228	89.3228	4.9500e-003		89.4267
Total	0.1148	0.9619	1.7604	3.5200e-003	0.1442	0.0130	0.1572	0.0387	0.0119	0.0507		328.1645	328.1645	6.9300e-003		328.3100

3.6 Demolition 2 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6024	0.0000	0.6024	0.0912	0.0000	0.0912			0.0000			0.0000
Off-Road	1.2293	15.4252	7.3739	0.0299		0.4988	0.4988		0.4589	0.4589	0.0000	3,056.614 3	3,056.614 3	0.9365		3,076.281 7
Total	1.2293	15.4252	7.3739	0.0299	0.6024	0.4988	1.1012	0.0912	0.4589	0.5501	0.0000	3,056.614 3	3,056.614 3	0.9365		3,076.281 7

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0816	0.9170	1.2902	2.4200e-003	0.0382	0.0122	0.0504	0.0109	0.0112	0.0221		238.8417	238.8417	1.9800e-003		238.8833
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0332	0.0450	0.4702	1.1000e-003	0.0583	8.1000e-004	0.0591	0.0161	7.5000e-004	0.0168		89.3228	89.3228	4.9500e-003		89.4267
Total	0.1148	0.9619	1.7604	3.5200e-003	0.0965	0.0130	0.1095	0.0270	0.0119	0.0390		328.1645	328.1645	6.9300e-003		328.3100

3.7 Site Preparation 2 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4098	5.1417	2.4580	9.9700e-003		0.1663	0.1663		0.1530	0.1530		1,018.8714	1,018.8714	0.3122		1,025.4272
Total	0.4098	5.1417	2.4580	9.9700e-003	0.0000	0.1663	0.1663	0.0000	0.1530	0.1530		1,018.8714	1,018.8714	0.3122		1,025.4272

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0125	0.0169	0.1763	4.1000e-004	0.0335	3.0000e-004	0.0338	8.8900e-003	2.8000e-004	9.1700e-003		33.4961	33.4961	1.8600e-003		33.5350
Total	0.0125	0.0169	0.1763	4.1000e-004	0.0335	3.0000e-004	0.0338	8.8900e-003	2.8000e-004	9.1700e-003		33.4961	33.4961	1.8600e-003		33.5350

3.7 Site Preparation 2 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4098	5.1417	2.4580	9.9700e-003		0.1663	0.1663		0.1530	0.1530	0.0000	1,018.8714	1,018.8714	0.3122		1,025.4272
Total	0.4098	5.1417	2.4580	9.9700e-003	0.0000	0.1663	0.1663	0.0000	0.1530	0.1530	0.0000	1,018.8714	1,018.8714	0.3122		1,025.4272

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0125	0.0169	0.1763	4.1000e-004	0.0219	3.0000e-004	0.0222	6.0300e-003	2.8000e-004	6.3100e-003		33.4961	33.4961	1.8600e-003		33.5350
Total	0.0125	0.0169	0.1763	4.1000e-004	0.0219	3.0000e-004	0.0222	6.0300e-003	2.8000e-004	6.3100e-003		33.4961	33.4961	1.8600e-003		33.5350

3.8 Grading 2 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0922	0.0000	6.0922	3.3208	0.0000	3.3208			0.0000			0.0000
Off-Road	2.5879	26.8342	13.6940	0.0302		1.4447	1.4447		1.3291	1.3291		3,084.7928	3,084.7928	0.9452		3,104.6414
Total	2.5879	26.8342	13.6940	0.0302	6.0922	1.4447	7.5369	3.3208	1.3291	4.6500		3,084.7928	3,084.7928	0.9452		3,104.6414

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.8656	9.7271	13.6866	0.0257	0.5815	0.1289	0.7105	0.1593	0.1186	0.2779		2,533.6323	2,533.6323	0.0211		2,534.0743
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0843	0.8817	2.0600e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		167.4803	167.4803	9.2800e-003		167.6751
Total	0.9279	9.8115	14.5682	0.0277	0.7492	0.1305	0.8796	0.2038	0.1200	0.3238		2,701.1126	2,701.1126	0.0303		2,701.7494

3.8 Grading 2 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3303	0.0000	2.3303	1.2702	0.0000	1.2702			0.0000			0.0000
Off-Road	2.5879	26.8342	13.6940	0.0302		1.4447	1.4447		1.3291	1.3291	0.0000	3,084.7928	3,084.7928	0.9452		3,104.6414
Total	2.5879	26.8342	13.6940	0.0302	2.3303	1.4447	3.7750	1.2702	1.3291	2.5994	0.0000	3,084.7928	3,084.7928	0.9452		3,104.6414

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.8656	9.7271	13.6866	0.0257	0.4052	0.1289	0.5342	0.1160	0.1186	0.2346		2,533.6323	2,533.6323	0.0211		2,534.0743
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0843	0.8817	2.0600e-003	0.1094	1.5200e-003	0.1109	0.0302	1.4000e-003	0.0316		167.4803	167.4803	9.2800e-003		167.6751
Total	0.9279	9.8115	14.5682	0.0277	0.5146	0.1305	0.6451	0.1462	0.1200	0.2662		2,701.1126	2,701.1126	0.0303		2,701.7494

3.9 Building Construction 2 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0125	44.3185	17.4643	0.0822		1.3156	1.3156		1.3156	1.3156		9,345.5185	9,345.5185	0.3618		9,353.1160
Total	4.0125	44.3185	17.4643	0.0822		1.3156	1.3156		1.3156	1.3156		9,345.5185	9,345.5185	0.3618		9,353.1160

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1439	1.3895	1.9959	3.7100e-003	0.1061	0.0209	0.1270	0.0302	0.0193	0.0494		365.3311	365.3311	2.7400e-003		365.3886
Worker	0.3864	0.5228	5.4663	0.0128	1.0395	9.4200e-003	1.0489	0.2757	8.6800e-003	0.2844		1,038.3779	1,038.3779	0.0575		1,039.5856
Total	0.5303	1.9123	7.4622	0.0165	1.1456	0.0304	1.1759	0.3059	0.0279	0.3338		1,403.7090	1,403.7090	0.0603		1,404.9742

3.9 Building Construction 2 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0125	44.3185	17.4643	0.0822		1.3156	1.3156		1.3156	1.3156	0.0000	9,345.5185	9,345.5185	0.3618		9,353.1160
Total	4.0125	44.3185	17.4643	0.0822		1.3156	1.3156		1.3156	1.3156	0.0000	9,345.5185	9,345.5185	0.3618		9,353.1160

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1439	1.3895	1.9959	3.7100e-003	0.0751	0.0209	0.0960	0.0226	0.0193	0.0418		365.3311	365.3311	2.7400e-003		365.3886
Worker	0.3864	0.5228	5.4663	0.0128	0.6780	9.4200e-003	0.6875	0.1870	8.6800e-003	0.1956		1,038.3779	1,038.3779	0.0575		1,039.5856
Total	0.5303	1.9123	7.4622	0.0165	0.7531	0.0304	0.7834	0.2095	0.0279	0.2375		1,403.7090	1,403.7090	0.0603		1,404.9742

3.9 Building Construction 2 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7823	39.4838	17.1190	0.0822		1.1840	1.1840		1.1840	1.1840		9,345.5185	9,345.5185	0.3289		9,352.4253
Total	3.7823	39.4838	17.1190	0.0822		1.1840	1.1840		1.1840	1.1840		9,345.5185	9,345.5185	0.3289		9,352.4253

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1350	1.2769	1.9193	3.7000e-003	0.1061	0.0197	0.1258	0.0302	0.0181	0.0483		359.2914	359.2914	2.7300e-003		359.3487
Worker	0.3471	0.4745	4.9453	0.0127	1.0395	9.1200e-003	1.0486	0.2757	8.4400e-003	0.2841		1,000.3003	1,000.3003	0.0534		1,001.4220
Total	0.4821	1.7514	6.8646	0.0164	1.1456	0.0288	1.1744	0.3059	0.0266	0.3324		1,359.5917	1,359.5917	0.0561		1,360.7706

3.9 Building Construction 2 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7823	39.4838	17.1190	0.0822		1.1840	1.1840		1.1840	1.1840	0.0000	9,345.5185	9,345.5185	0.3289		9,352.4253
Total	3.7823	39.4838	17.1190	0.0822		1.1840	1.1840		1.1840	1.1840	0.0000	9,345.5185	9,345.5185	0.3289		9,352.4253

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1350	1.2769	1.9193	3.7000e-003	0.0751	0.0197	0.0948	0.0226	0.0181	0.0407		359.2914	359.2914	2.7300e-003		359.3487
Worker	0.3471	0.4745	4.9453	0.0127	0.6780	9.1200e-003	0.6872	0.1870	8.4400e-003	0.1954		1,000.3003	1,000.3003	0.0534		1,001.4220
Total	0.4821	1.7514	6.8646	0.0164	0.7531	0.0288	0.7819	0.2095	0.0266	0.2361		1,359.5917	1,359.5917	0.0561		1,360.7706

3.10 Paving 1 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5099	11.9013	7.7552	0.0142		0.7237	0.7237		0.6791	0.6791		1,299.881 1	1,299.881 1	0.2818		1,305.798 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5099	11.9013	7.7552	0.0142		0.7237	0.7237		0.6791	0.6791		1,299.881 1	1,299.881 1	0.2818		1,305.798 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101

3.10 Paving 1 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5099	11.9013	7.7552	0.0142		0.7237	0.7237		0.6791	0.6791	0.0000	1,299.881 1	1,299.881 1	0.2818		1,305.798 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5099	11.9013	7.7552	0.0142		0.7237	0.7237		0.6791	0.6791	0.0000	1,299.881 1	1,299.881 1	0.2818		1,305.798 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.1012	1.0580	2.4700e-003	0.1312	1.8200e-003	0.1331	0.0362	1.6800e-003	0.0379		200.9764	200.9764	0.0111		201.2101
Total	0.0748	0.1012	1.0580	2.4700e-003	0.1312	1.8200e-003	0.1331	0.0362	1.6800e-003	0.0379		200.9764	200.9764	0.0111		201.2101

3.11 Architectural Coating 1 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.4614					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	29.7937	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0789	0.1068	1.1168	2.6000e-003	0.2124	1.9200e-003	0.2143	0.0563	1.7700e-003	0.0581		212.1417	212.1417	0.0118		212.3885
Total	0.0789	0.1068	1.1168	2.6000e-003	0.2124	1.9200e-003	0.2143	0.0563	1.7700e-003	0.0581		212.1417	212.1417	0.0118		212.3885

3.11 Architectural Coating 1 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.4614					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	29.7937	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0789	0.1068	1.1168	2.6000e-003	0.1385	1.9200e-003	0.1405	0.0382	1.7700e-003	0.0400		212.1417	212.1417	0.0118		212.3885
Total	0.0789	0.1068	1.1168	2.6000e-003	0.1385	1.9200e-003	0.1405	0.0382	1.7700e-003	0.0400		212.1417	212.1417	0.0118		212.3885

3.12 Architectural Coating 2 - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.4380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	11.7366	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0970	1.0103	2.6000e-003	0.2124	1.8600e-003	0.2142	0.0563	1.7200e-003	0.0581		204.3624	204.3624	0.0109		204.5916
Total	0.0709	0.0970	1.0103	2.6000e-003	0.2124	1.8600e-003	0.2142	0.0563	1.7200e-003	0.0581		204.3624	204.3624	0.0109		204.5916

3.12 Architectural Coating 2 - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.4380					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	11.7366	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0970	1.0103	2.6000e-003	0.1385	1.8600e-003	0.1404	0.0382	1.7200e-003	0.0399		204.3624	204.3624	0.0109		204.5916
Total	0.0709	0.0970	1.0103	2.6000e-003	0.1385	1.8600e-003	0.1404	0.0382	1.7200e-003	0.0399		204.3624	204.3624	0.0109		204.5916

3.13 Paving 2 - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3563	3.9416	3.1968	5.1400e-003		0.1926	0.1926		0.1772	0.1772		516.8067	516.8067	0.1609		520.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.3563	3.9416	3.1968	5.1400e-003		0.1926	0.1926		0.1772	0.1772		516.8067	516.8067	0.1609		520.1854

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0112	0.0153	0.1595	4.1000e-004	0.0335	2.9000e-004	0.0338	8.8900e-003	2.7000e-004	9.1700e-003		32.2678	32.2678	1.7200e-003		32.3039
Total	0.0112	0.0153	0.1595	4.1000e-004	0.0335	2.9000e-004	0.0338	8.8900e-003	2.7000e-004	9.1700e-003		32.2678	32.2678	1.7200e-003		32.3039

3.13 Paving 2 - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3563	3.9416	3.1968	5.1400e-003		0.1926	0.1926		0.1772	0.1772	0.0000	516.8067	516.8067	0.1609		520.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.3563	3.9416	3.1968	5.1400e-003		0.1926	0.1926		0.1772	0.1772	0.0000	516.8067	516.8067	0.1609		520.1854

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0112	0.0153	0.1595	4.1000e-004	0.0219	2.9000e-004	0.0222	6.0300e-003	2.7000e-004	6.3000e-003		32.2678	32.2678	1.7200e-003		32.3039
Total	0.0112	0.0153	0.1595	4.1000e-004	0.0219	2.9000e-004	0.0222	6.0300e-003	2.7000e-004	6.3000e-003		32.2678	32.2678	1.7200e-003		32.3039

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.0649	11.7216	45.6560	0.1377	9.4507	0.1937	9.6444	2.5274	0.1786	2.7060		10,705.77 36	10,705.77 36	0.4025		10,714.22 67
Unmitigated	4.0649	11.7216	45.6560	0.1377	9.4507	0.1937	9.6444	2.5274	0.1786	2.7060		10,705.77 36	10,705.77 36	0.4025		10,714.22 67

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	1,301.88	1,301.88	1301.88	4,448,722	4,448,722
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	1,301.88	1,301.88	1,301.88	4,448,722	4,448,722

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted)	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530094	0.057664	0.178835	0.124843	0.039181	0.006319	0.017052	0.034445	0.002509	0.003148	0.003693	0.000531	0.001685

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893
NaturalGas Unmitigated	0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Congregate Care (Assisted Living)	4954.16	0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893
Total		0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	4.95416	0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0534	0.4566	0.1943	2.9100e-003		0.0369	0.0369		0.0369	0.0369		582.8422	582.8422	0.0112	0.0107	586.3893

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.9592	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520	0.0000	16.9720	16.9720	0.0166	0.0000	17.3208
Unmitigated	3.9592	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520	0.0000	16.9720	16.9720	0.0166	0.0000	17.3208

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4585					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.2117					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2890	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520		16.9720	16.9720	0.0166		17.3208
Total	3.9592	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520	0.0000	16.9720	16.9720	0.0166	0.0000	17.3208

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4585					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.2117					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2890	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520		16.9720	16.9720	0.0166		17.3208
Total	3.9592	0.1093	9.4538	5.0000e-004		0.0520	0.0520		0.0520	0.0520	0.0000	16.9720	16.9720	0.0166	0.0000	17.3208

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Merrill Gardens- Rolling Hills Estates
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	169.00	Space	1.65	26,357.00	0
Congregate Care (Assisted Living)	114.00	Dwelling Unit	1.48	135,852.00	326

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	503.21	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SCE's mandated 2020 intensity factor

Land Use - Lot acreage and square footage per project applicant

Construction Phase - Construction timing per project applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Off-road Equipment - Equipment and horsepower per applicant

Trips and VMT - Haul distances per applicant

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Trip generation per Traffic Report.

Woodstoves - No hearths or stoves

Energy Use - Energy use per applicant

Construction Off-road Equipment Mitigation - PM reduction per SCAQMD, CEQA handbook.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00

tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	40
tblConstructionPhase	NumDays	18.00	33.00
tblConstructionPhase	NumDays	18.00	85.00
tblConstructionPhase	NumDays	230.00	129.00
tblConstructionPhase	NumDays	230.00	391.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	8.00	23.00
tblConstructionPhase	NumDays	8.00	25.00
tblConstructionPhase	NumDays	18.00	23.00
tblConstructionPhase	NumDays	18.00	34.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	PhaseEndDate	8/16/2017	6/30/2017
tblConstructionPhase	PhaseEndDate	10/27/2017	6/1/2018
tblConstructionPhase	PhaseEndDate	6/2/2017	3/3/2017
tblConstructionPhase	PhaseEndDate	7/4/2018	8/31/2018
tblConstructionPhase	PhaseEndDate	11/30/2018	6/30/2017
tblConstructionPhase	PhaseEndDate	11/15/2016	10/14/2016
tblConstructionPhase	PhaseStartDate	7/1/2017	5/17/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	2/5/2018
tblConstructionPhase	PhaseStartDate	4/15/2017	4/17/2017
tblConstructionPhase	PhaseStartDate	5/17/2017	2/15/2017
tblConstructionPhase	PhaseStartDate	10/15/2016	10/17/2016
tblConstructionPhase	PhaseStartDate	3/11/2017	3/13/2017

tblConstructionPhase	PhaseStartDate	6/2/2018	8/1/2018
tblConstructionPhase	PhaseStartDate	10/16/2018	5/16/2017
tblConstructionPhase	PhaseStartDate	11/2/2016	10/1/2016
tblConstructionPhase	PhaseStartDate	3/4/2017	3/6/2017
tblEnergyUse	LightingElect	741.44	74.44
tblEnergyUse	LightingElect	2.63	0.19
tblEnergyUse	NT24E	0.19	0.01
tblEnergyUse	T24E	181.82	5,050.00
tblEnergyUse	T24E	3.92	0.01
tblEnergyUse	T24NG	6,951.80	14,200.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	96.90	0.00
tblFireplaces	NumberNoFireplace	11.40	114.00
tblFireplaces	NumberWood	5.70	0.00
tblGrading	MaterialExported	0.00	8,220.00
tblGrading	MaterialExported	0.00	15,500.00
tblLandUse	LandUseSquareFeet	67,600.00	26,357.00
tblLandUse	LandUseSquareFeet	114,000.00	135,852.00
tblLandUse	LotAcreage	1.52	1.65
tblLandUse	LotAcreage	7.13	1.48
tblOffRoadEquipment	HorsePower	162.00	345.00
tblOffRoadEquipment	HorsePower	162.00	306.00
tblOffRoadEquipment	HorsePower	162.00	330.00
tblOffRoadEquipment	HorsePower	162.00	306.00
tblOffRoadEquipment	HorsePower	89.00	20.00
tblOffRoadEquipment	HorsePower	125.00	142.00

tblOffRoadEquipment	HorsePower	130.00	100.00
tblOffRoadEquipment	HorsePower	255.00	210.00
tblOffRoadEquipment	HorsePower	255.00	166.00
tblOffRoadEquipment	HorsePower	81.00	20.00
tblOffRoadEquipment	HorsePower	208.00	210.00
tblOffRoadEquipment	HorsePower	162.00	306.00
tblOffRoadEquipment	HorsePower	8.00	157.00
tblOffRoadEquipment	HorsePower	84.00	630.00
tblOffRoadEquipment	HorsePower	199.00	267.00
tblOffRoadEquipment	HorsePower	199.00	74.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	503.21
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	8.60
tblTripsAndVMT	HaulingTripLength	20.00	8.60
tblVehicleTrips	ST_TR	2.20	11.42
tblVehicleTrips	SU_TR	2.44	11.42
tblVehicleTrips	WD_TR	2.74	11.42
tblWoodstoves	NumberCatalytic	5.70	0.00
tblWoodstoves	NumberNoncatalytic	5.70	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0920	0.9544	0.6464	1.6300e-003	0.0379	0.0419	0.0798	9.5100e-003	0.0395	0.0490	0.0000	146.1456	146.1456	0.0190	0.0000	146.5447
2017	1.1142	5.9907	3.8992	0.0122	0.2618	0.2244	0.4861	0.0900	0.2190	0.3090	0.0000	1,167.1944	1,167.1944	0.0737	0.0000	1,168.7417
2018	0.9425	4.3861	2.6348	0.0105	0.1249	0.1336	0.2586	0.0334	0.1332	0.1666	0.0000	1,026.5475	1,026.5475	0.0391	0.0000	1,027.3690
Total	2.1487	11.3312	7.1804	0.0244	0.4246	0.3999	0.8245	0.1329	0.3917	0.5246	0.0000	2,339.8875	2,339.8875	0.1318	0.0000	2,342.6554

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0920	0.9544	0.6464	1.6300e-003	0.0241	0.0419	0.0660	6.4800e-003	0.0395	0.0460	0.0000	146.1455	146.1455	0.0190	0.0000	146.5446
2017	1.1142	5.9907	3.8992	0.0122	0.1488	0.2244	0.3732	0.0488	0.2190	0.2678	0.0000	1,167.1932	1,167.1932	0.0737	0.0000	1,168.7406
2018	0.9425	4.3861	2.6348	0.0105	0.0822	0.1336	0.2158	0.0229	0.1332	0.1561	0.0000	1,026.5464	1,026.5464	0.0391	0.0000	1,027.3680
Total	2.1487	11.3312	7.1804	0.0244	0.2551	0.3999	0.6550	0.0782	0.3917	0.4699	0.0000	2,339.8852	2,339.8852	0.1318	0.0000	2,342.6531

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	39.93	0.00	20.57	41.19	0.00	10.44	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7059	0.0137	1.1817	6.0000e-005		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	1.9246	1.9246	1.8800e-003	0.0000	1.9642
Energy	9.7500e-003	0.0833	0.0355	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003	0.0000	297.5993	297.5993	0.0134	4.1700e-003	299.1733
Mobile	0.7034	2.1741	8.3411	0.0254	1.6868	0.0351	1.7219	0.4518	0.0324	0.4842	0.0000	1,787.418 7	1,787.418 7	0.0663	0.0000	1,788.811 9
Waste						0.0000	0.0000		0.0000	0.0000	21.1151	0.0000	21.1151	1.2479	0.0000	47.3203
Water						0.0000	0.0000		0.0000	0.0000	2.3564	33.9497	36.3062	0.2440	6.1200e-003	43.3269
Total	1.4191	2.2711	9.5582	0.0260	1.6868	0.0484	1.7352	0.4518	0.0456	0.4975	23.4715	2,120.892 4	2,144.364 0	1.5735	0.0103	2,180.596 6

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7059	0.0137	1.1817	6.0000e-005		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	1.9246	1.9246	1.8800e-003	0.0000	1.9642
Energy	9.7500e-003	0.0833	0.0355	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003	0.0000	297.5993	297.5993	0.0134	4.1700e-003	299.1733
Mobile	0.7034	2.1741	8.3411	0.0254	1.6868	0.0351	1.7219	0.4518	0.0324	0.4842	0.0000	1,787.4187	1,787.4187	0.0663	0.0000	1,788.8119
Waste						0.0000	0.0000		0.0000	0.0000	21.1151	0.0000	21.1151	1.2479	0.0000	47.3203
Water						0.0000	0.0000		0.0000	0.0000	2.3564	33.9497	36.3062	0.2439	6.1100e-003	43.3231
Total	1.4191	2.2711	9.5582	0.0260	1.6868	0.0484	1.7352	0.4518	0.0456	0.4975	23.4715	2,120.8924	2,144.3640	1.5735	0.0103	2,180.5928

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition 1	Demolition	10/1/2016	11/1/2016	5	22	
2	Site Preparation 1	Site Preparation	10/1/2016	10/14/2016	5	10	
3	Grading 1	Grading	10/17/2016	11/16/2016	5	23	
4	Building Construction 1	Building Construction	11/17/2016	5/16/2017	5	129	
5	Demolition 2	Demolition	2/15/2017	3/3/2017	5	13	
6	Site Preparation 2	Site Preparation	3/6/2017	3/10/2017	5	5	
7	Grading 2	Grading	3/13/2017	4/14/2017	5	25	
8	Building Construction 2	Building Construction	4/17/2017	10/15/2018	5	391	
9	Paving 1	Paving	5/16/2017	6/30/2017	5	34	
10	Architectural Coating 1	Architectural Coating	5/17/2017	6/30/2017	5	33	
11	Architectural Coating 2	Architectural Coating	2/5/2018	6/1/2018	5	85	
12	Paving 2	Paving	8/1/2018	8/31/2018	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 275,100; Residential Outdoor: 91,700; Non-Residential Indoor: 39,536; Non-Residential Outdoor: 13,179 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition 1	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition 1	Excavators	1	8.00	345	0.38
Demolition 1	Rubber Tired Dozers	1	8.00	210	0.40
Site Preparation 1	Crawler Tractors	1	8.00	210	0.43
Site Preparation 1	Rubber Tired Dozers	0	8.00	255	0.40

Site Preparation 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 1	Excavators	1	8.00	330	0.38
Grading 1	Graders	0	8.00	174	0.41
Grading 1	Rubber Tired Dozers	0	8.00	255	0.40
Grading 1	Rubber Tired Loaders	1	8.00	267	0.36
Grading 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction 1	Cranes	0	7.00	226	0.29
Building Construction 1	Forklifts	4	8.00	89	0.20
Building Construction 1	Generator Sets	0	8.00	84	0.74
Building Construction 1	Pumps	2	8.00	84	0.74
Building Construction 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction 1	Welders	0	8.00	46	0.45
Demolition 2	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition 2	Excavators	3	8.00	306	0.38
Demolition 2	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation 2	Excavators	1	8.00	306	0.38
Site Preparation 2	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation 2	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 2	Excavators	2	8.00	306	0.38
Grading 2	Graders	0	8.00	174	0.41
Grading 2	Plate Compactors	1	8.00	157	0.43
Grading 2	Rubber Tired Dozers	1	8.00	166	0.40
Grading 2	Rubber Tired Loaders	2	8.00	74	0.36
Grading 2	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction 2	Cranes	0	7.00	226	0.29
Building Construction 2	Forklifts	4	8.00	20	0.20
Building Construction 2	Generator Sets	0	8.00	84	0.74
Building Construction 2	Pumps	2	8.00	630	0.74

Building Construction 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction 2	Welders	0	8.00	46	0.45
Paving 1	Cement and Mortar Mixers	0	6.00	9	0.56
Paving 1	Concrete/Industrial Saws	4	8.00	20	0.73
Paving 1	Pavers	0	8.00	125	0.42
Paving 1	Paving Equipment	3	6.00	100	0.36
Paving 1	Rollers	0	6.00	80	0.38
Paving 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Architectural Coating 1	Air Compressors	1	6.00	78	0.48
Architectural Coating 2	Air Compressors	1	6.00	78	0.48
Paving 2	Cement and Mortar Mixers	0	6.00	9	0.56
Paving 2	Pavers	1	8.00	142	0.42
Paving 2	Paving Equipment	0	6.00	130	0.36
Paving 2	Rollers	0	6.00	80	0.38
Paving 2	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition 1	2	5.00	0.00	19.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation 1	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 1	2	5.00	0.00	1,028.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Building Construction 1	6	93.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition 2	3	8.00	0.00	95.00	14.70	6.90	8.60	LD_Mix	HDT_Mix	HHDT
Site Preparation 2	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	6	15.00	0.00	1,938.00	14.70	6.90	8.60	LD_Mix	HDT_Mix	HHDT
Building Construction 2	6	93.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 1	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 1	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architechural Coating 2	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition 1 - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0700e-003	0.0000	2.0700e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0174	0.2019	0.0759	2.0000e-004		8.7500e-003	8.7500e-003		8.0500e-003	8.0500e-003	0.0000	19.1677	19.1677	5.7800e-003	0.0000	19.2891
Total	0.0174	0.2019	0.0759	2.0000e-004	2.0700e-003	8.7500e-003	0.0108	3.1000e-004	8.0500e-003	8.3600e-003	0.0000	19.1677	19.1677	5.7800e-003	0.0000	19.2891

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	2.8100e-003	2.1300e-003	1.0000e-005	1.6000e-004	4.0000e-005	2.0000e-004	4.0000e-005	4.0000e-005	8.0000e-005	0.0000	0.6480	0.6480	0.0000	0.0000	0.6481
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	3.5000e-004	3.6600e-003	1.0000e-005	6.0000e-004	1.0000e-005	6.1000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	0.5881	0.5881	3.0000e-005	0.0000	0.5888
Total	4.1000e-004	3.1600e-003	5.7900e-003	2.0000e-005	7.6000e-004	5.0000e-005	8.1000e-004	2.0000e-004	5.0000e-005	2.5000e-004	0.0000	1.2361	1.2361	3.0000e-005	0.0000	1.2369

3.2 Demolition 1 - 2016**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.9000e-004	0.0000	7.9000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0174	0.2019	0.0759	2.0000e-004		8.7500e-003	8.7500e-003		8.0500e-003	8.0500e-003	0.0000	19.1676	19.1676	5.7800e-003	0.0000	19.2891
Total	0.0174	0.2019	0.0759	2.0000e-004	7.9000e-004	8.7500e-003	9.5400e-003	1.2000e-004	8.0500e-003	8.1700e-003	0.0000	19.1676	19.1676	5.7800e-003	0.0000	19.2891

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	2.8100e-003	2.1300e-003	1.0000e-005	1.1000e-004	4.0000e-005	1.5000e-004	3.0000e-005	4.0000e-005	7.0000e-005	0.0000	0.6480	0.6480	0.0000	0.0000	0.6481
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	3.5000e-004	3.6600e-003	1.0000e-005	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.1000e-004	0.0000	0.5881	0.5881	3.0000e-005	0.0000	0.5888
Total	4.1000e-004	3.1600e-003	5.7900e-003	2.0000e-005	5.0000e-004	5.0000e-005	5.5000e-004	1.4000e-004	5.0000e-005	1.8000e-004	0.0000	1.2361	1.2361	3.0000e-005	0.0000	1.2369

3.3 Site Preparation 1 - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.6500e-003	0.0000	2.6500e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5700e-003	0.0482	0.0144	4.0000e-005		1.8600e-003	1.8600e-003		1.7100e-003	1.7100e-003	0.0000	3.6651	3.6651	1.1100e-003	0.0000	3.6884
Total	3.5700e-003	0.0482	0.0144	4.0000e-005	2.6500e-003	1.8600e-003	4.5100e-003	2.9000e-004	1.7100e-003	2.0000e-003	0.0000	3.6651	3.6651	1.1100e-003	0.0000	3.6884

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	1.0000e-004	1.0000e-003	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.1604	0.1604	1.0000e-005	0.0000	0.1606
Total	7.0000e-005	1.0000e-004	1.0000e-003	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.1604	0.1604	1.0000e-005	0.0000	0.1606

3.3 Site Preparation 1 - 2016**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0100e-003	0.0000	1.0100e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5700e-003	0.0482	0.0144	4.0000e-005		1.8600e-003	1.8600e-003		1.7100e-003	1.7100e-003	0.0000	3.6651	3.6651	1.1100e-003	0.0000	3.6883
Total	3.5700e-003	0.0482	0.0144	4.0000e-005	1.0100e-003	1.8600e-003	2.8700e-003	1.1000e-004	1.7100e-003	1.8200e-003	0.0000	3.6651	3.6651	1.1100e-003	0.0000	3.6883

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	1.0000e-004	1.0000e-003	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1604	0.1604	1.0000e-005	0.0000	0.1606
Total	7.0000e-005	1.0000e-004	1.0000e-003	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1604	0.1604	1.0000e-005	0.0000	0.1606

3.4 Grading 1 - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.6000e-004	0.0000	4.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0131	0.1618	0.0734	2.2000e-004		5.6900e-003	5.6900e-003		5.2400e-003	5.2400e-003	0.0000	20.4865	20.4865	6.1800e-003	0.0000	20.6162
Total	0.0131	0.1618	0.0734	2.2000e-004	4.6000e-004	5.6900e-003	6.1500e-003	7.0000e-005	5.2400e-003	5.3100e-003	0.0000	20.4865	20.4865	6.1800e-003	0.0000	20.6162

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0124	0.2225	0.1365	5.7000e-004	0.0132	3.1900e-003	0.0164	3.6200e-003	2.9300e-003	6.5500e-003	0.0000	52.1870	52.1870	3.8000e-004	0.0000	52.1950
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	3.7000e-004	3.8200e-003	1.0000e-005	6.3000e-004	1.0000e-005	6.4000e-004	1.7000e-004	1.0000e-005	1.7000e-004	0.0000	0.6148	0.6148	3.0000e-005	0.0000	0.6156
Total	0.0126	0.2228	0.1403	5.8000e-004	0.0138	3.2000e-003	0.0170	3.7900e-003	2.9400e-003	6.7200e-003	0.0000	52.8019	52.8019	4.1000e-004	0.0000	52.8106

3.4 Grading 1 - 2016**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.8000e-004	0.0000	1.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0131	0.1618	0.0734	2.2000e-004		5.6900e-003	5.6900e-003		5.2400e-003	5.2400e-003	0.0000	20.4864	20.4864	6.1800e-003	0.0000	20.6162
Total	0.0131	0.1618	0.0734	2.2000e-004	1.8000e-004	5.6900e-003	5.8700e-003	3.0000e-005	5.2400e-003	5.2700e-003	0.0000	20.4864	20.4864	6.1800e-003	0.0000	20.6162

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0124	0.2225	0.1365	5.7000e-004	9.2100e-003	3.1900e-003	0.0124	2.6400e-003	2.9300e-003	5.5700e-003	0.0000	52.1870	52.1870	3.8000e-004	0.0000	52.1950
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	3.7000e-004	3.8200e-003	1.0000e-005	4.1000e-004	1.0000e-005	4.2000e-004	1.1000e-004	1.0000e-005	1.2000e-004	0.0000	0.6148	0.6148	3.0000e-005	0.0000	0.6156
Total	0.0126	0.2228	0.1403	5.8000e-004	9.6200e-003	3.2000e-003	0.0128	2.7500e-003	2.9400e-003	5.6900e-003	0.0000	52.8019	52.8019	4.1000e-004	0.0000	52.8106

3.5 Building Construction 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0359	0.2821	0.2044	3.1000e-004		0.0219	0.0219		0.0210	0.0210	0.0000	27.3020	27.3020	4.5300e-003	0.0000	27.3971
Total	0.0359	0.2821	0.2044	3.1000e-004		0.0219	0.0219		0.0210	0.0210	0.0000	27.3020	27.3020	4.5300e-003	0.0000	27.3971

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4500e-003	0.0249	0.0323	6.0000e-005	1.6700e-003	3.7000e-004	2.0400e-003	4.8000e-004	3.4000e-004	8.2000e-004	0.0000	5.4151	5.4151	4.0000e-005	0.0000	5.4159
Worker	6.5000e-003	9.4900e-003	0.0990	2.1000e-004	0.0163	1.6000e-004	0.0165	4.3300e-003	1.4000e-004	4.4800e-003	0.0000	15.9109	15.9109	9.0000e-004	0.0000	15.9298
Total	8.9500e-003	0.0344	0.1313	2.7000e-004	0.0180	5.3000e-004	0.0185	4.8100e-003	4.8000e-004	5.3000e-003	0.0000	21.3260	21.3260	9.4000e-004	0.0000	21.3458

3.5 Building Construction 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0359	0.2821	0.2044	3.1000e-004		0.0219	0.0219		0.0210	0.0210	0.0000	27.3020	27.3020	4.5300e-003	0.0000	27.3971
Total	0.0359	0.2821	0.2044	3.1000e-004		0.0219	0.0219		0.0210	0.0210	0.0000	27.3020	27.3020	4.5300e-003	0.0000	27.3971

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4500e-003	0.0249	0.0323	6.0000e-005	1.1800e-003	3.7000e-004	1.5600e-003	3.6000e-004	3.4000e-004	7.0000e-004	0.0000	5.4151	5.4151	4.0000e-005	0.0000	5.4159
Worker	6.5000e-003	9.4900e-003	0.0990	2.1000e-004	0.0107	1.6000e-004	0.0108	2.9400e-003	1.4000e-004	3.0900e-003	0.0000	15.9109	15.9109	9.0000e-004	0.0000	15.9298
Total	8.9500e-003	0.0344	0.1313	2.7000e-004	0.0118	5.3000e-004	0.0124	3.3000e-003	4.8000e-004	3.7900e-003	0.0000	21.3260	21.3260	9.4000e-004	0.0000	21.3458

3.5 Building Construction 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0990	0.7939	0.6140	9.3000e-004		0.0598	0.0598		0.0574	0.0574	0.0000	82.3250	82.3250	0.0132	0.0000	82.6012
Total	0.0990	0.7939	0.6140	9.3000e-004		0.0598	0.0598		0.0574	0.0574	0.0000	82.3250	82.3250	0.0132	0.0000	82.6012

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7600e-003	0.0687	0.0927	1.8000e-004	5.0600e-003	1.0100e-003	6.0700e-003	1.4400e-003	9.3000e-004	2.3700e-003	0.0000	16.1522	16.1522	1.2000e-004	0.0000	16.1547
Worker	0.0177	0.0260	0.2710	6.3000e-004	0.0494	4.6000e-004	0.0499	0.0131	4.2000e-004	0.0136	0.0000	46.4224	46.4224	2.5300e-003	0.0000	46.4756
Total	0.0244	0.0948	0.3637	8.1000e-004	0.0545	1.4700e-003	0.0560	0.0146	1.3500e-003	0.0159	0.0000	62.5747	62.5747	2.6500e-003	0.0000	62.6303

3.5 Building Construction 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0990	0.7939	0.6140	9.3000e-004		0.0598	0.0598		0.0574	0.0574	0.0000	82.3249	82.3249	0.0132	0.0000	82.6011
Total	0.0990	0.7939	0.6140	9.3000e-004		0.0598	0.0598		0.0574	0.0574	0.0000	82.3249	82.3249	0.0132	0.0000	82.6011

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7600e-003	0.0687	0.0927	1.8000e-004	3.5900e-003	1.0100e-003	4.6000e-003	1.0800e-003	9.3000e-004	2.0100e-003	0.0000	16.1522	16.1522	1.2000e-004	0.0000	16.1547
Worker	0.0177	0.0260	0.2710	6.3000e-004	0.0323	4.6000e-004	0.0328	8.9200e-003	4.2000e-004	9.3400e-003	0.0000	46.4224	46.4224	2.5300e-003	0.0000	46.4756
Total	0.0244	0.0948	0.3637	8.1000e-004	0.0359	1.4700e-003	0.0374	0.0100	1.3500e-003	0.0114	0.0000	62.5747	62.5747	2.6500e-003	0.0000	62.6303

3.6 Demolition 2 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0102	0.0000	0.0102	1.5500e-003	0.0000	1.5500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9900e-003	0.1003	0.0479	1.9000e-004		3.2400e-003	3.2400e-003		2.9800e-003	2.9800e-003	0.0000	18.0239	18.0239	5.5200e-003	0.0000	18.1399
Total	7.9900e-003	0.1003	0.0479	1.9000e-004	0.0102	3.2400e-003	0.0135	1.5500e-003	2.9800e-003	4.5300e-003	0.0000	18.0239	18.0239	5.5200e-003	0.0000	18.1399

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.2000e-004	6.0700e-003	8.0600e-003	2.0000e-005	3.5000e-004	8.0000e-005	4.3000e-004	1.0000e-004	7.0000e-005	1.7000e-004	0.0000	1.4127	1.4127	1.0000e-005	0.0000	1.4130
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	3.0000e-004	3.1200e-003	1.0000e-005	5.7000e-004	1.0000e-005	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.5352	0.5352	3.0000e-005	0.0000	0.5358
Total	7.2000e-004	6.3700e-003	0.0112	3.0000e-005	9.2000e-004	9.0000e-005	1.0100e-003	2.5000e-004	7.0000e-005	3.3000e-004	0.0000	1.9479	1.9479	4.0000e-005	0.0000	1.9488

3.6 Demolition 2 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9200e-003	0.0000	3.9200e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9900e-003	0.1003	0.0479	1.9000e-004		3.2400e-003	3.2400e-003		2.9800e-003	2.9800e-003	0.0000	18.0239	18.0239	5.5200e-003	0.0000	18.1399
Total	7.9900e-003	0.1003	0.0479	1.9000e-004	3.9200e-003	3.2400e-003	7.1600e-003	5.9000e-004	2.9800e-003	3.5700e-003	0.0000	18.0239	18.0239	5.5200e-003	0.0000	18.1399

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.2000e-004	6.0700e-003	8.0600e-003	2.0000e-005	2.4000e-004	8.0000e-005	3.2000e-004	7.0000e-005	7.0000e-005	1.4000e-004	0.0000	1.4127	1.4127	1.0000e-005	0.0000	1.4130
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	3.0000e-004	3.1200e-003	1.0000e-005	3.7000e-004	1.0000e-005	3.8000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.5352	0.5352	3.0000e-005	0.0000	0.5358
Total	7.2000e-004	6.3700e-003	0.0112	3.0000e-005	6.1000e-004	9.0000e-005	7.0000e-004	1.7000e-004	7.0000e-005	2.5000e-004	0.0000	1.9479	1.9479	4.0000e-005	0.0000	1.9488

3.7 Site Preparation 2 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	0.0129	6.1400e-003	2.0000e-005		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	2.3108	2.3108	7.1000e-004	0.0000	2.3256
Total	1.0200e-003	0.0129	6.1400e-003	2.0000e-005	0.0000	4.2000e-004	4.2000e-004	0.0000	3.8000e-004	3.8000e-004	0.0000	2.3108	2.3108	7.1000e-004	0.0000	2.3256

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.5000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0772	0.0772	0.0000	0.0000	0.0773
Total	3.0000e-005	4.0000e-005	4.5000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0772	0.0772	0.0000	0.0000	0.0773

3.7 Site Preparation 2 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	0.0129	6.1400e-003	2.0000e-005		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	2.3108	2.3108	7.1000e-004	0.0000	2.3256
Total	1.0200e-003	0.0129	6.1400e-003	2.0000e-005	0.0000	4.2000e-004	4.2000e-004	0.0000	3.8000e-004	3.8000e-004	0.0000	2.3108	2.3108	7.1000e-004	0.0000	2.3256

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0772	0.0772	0.0000	0.0000	0.0773
Total	3.0000e-005	4.0000e-005	4.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0772	0.0772	0.0000	0.0000	0.0773

3.8 Grading 2 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0762	0.0000	0.0762	0.0415	0.0000	0.0415	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0324	0.3354	0.1712	3.8000e-004		0.0181	0.0181		0.0166	0.0166	0.0000	34.9810	34.9810	0.0107	0.0000	35.2060
Total	0.0324	0.3354	0.1712	3.8000e-004	0.0762	0.0181	0.0942	0.0415	0.0166	0.0581	0.0000	34.9810	34.9810	0.0107	0.0000	35.2060

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0105	0.1238	0.1644	3.2000e-004	7.1400e-003	1.6100e-003	8.7500e-003	1.9600e-003	1.4800e-003	3.4400e-003	0.0000	28.8196	28.8196	2.4000e-004	0.0000	28.8245
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	1.0800e-003	0.0113	3.0000e-005	2.0500e-003	2.0000e-005	2.0700e-003	5.5000e-004	2.0000e-005	5.6000e-004	0.0000	1.9298	1.9298	1.1000e-004	0.0000	1.9320
Total	0.0113	0.1249	0.1756	3.5000e-004	9.1900e-003	1.6300e-003	0.0108	2.5100e-003	1.5000e-003	4.0000e-003	0.0000	30.7494	30.7494	3.5000e-004	0.0000	30.7565

3.8 Grading 2 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0291	0.0000	0.0291	0.0159	0.0000	0.0159	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0324	0.3354	0.1712	3.8000e-004		0.0181	0.0181		0.0166	0.0166	0.0000	34.9809	34.9809	0.0107	0.0000	35.2060
Total	0.0324	0.3354	0.1712	3.8000e-004	0.0291	0.0181	0.0472	0.0159	0.0166	0.0325	0.0000	34.9809	34.9809	0.0107	0.0000	35.2060

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0105	0.1238	0.1644	3.2000e-004	4.9900e-003	1.6100e-003	6.6000e-003	1.4300e-003	1.4800e-003	2.9100e-003	0.0000	28.8196	28.8196	2.4000e-004	0.0000	28.8245
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	1.0800e-003	0.0113	3.0000e-005	1.3400e-003	2.0000e-005	1.3600e-003	3.7000e-004	2.0000e-005	3.9000e-004	0.0000	1.9298	1.9298	1.1000e-004	0.0000	1.9320
Total	0.0113	0.1249	0.1756	3.5000e-004	6.3300e-003	1.6300e-003	7.9600e-003	1.8000e-003	1.5000e-003	3.3000e-003	0.0000	30.7494	30.7494	3.5000e-004	0.0000	30.7565

3.9 Building Construction 2 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3712	4.0995	1.6155	7.6100e-003		0.1217	0.1217		0.1217	0.1217	0.0000	784.2253	784.2253	0.0304	0.0000	784.8629
Total	0.3712	4.0995	1.6155	7.6100e-003		0.1217	0.1217		0.1217	0.1217	0.0000	784.2253	784.2253	0.0304	0.0000	784.8629

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0129	0.1311	0.1768	3.4000e-004	9.6500e-003	1.9200e-003	0.0116	2.7500e-003	1.7700e-003	4.5200e-003	0.0000	30.8058	30.8058	2.3000e-004	0.0000	30.8106
Worker	0.0337	0.0497	0.5168	1.2000e-003	0.0943	8.7000e-004	0.0951	0.0250	8.0000e-004	0.0258	0.0000	88.5376	88.5376	4.8300e-003	0.0000	88.6390
Total	0.0465	0.1807	0.6937	1.5400e-003	0.1039	2.7900e-003	0.1067	0.0278	2.5700e-003	0.0304	0.0000	119.3435	119.3435	5.0600e-003	0.0000	119.4495

3.9 Building Construction 2 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3712	4.0995	1.6155	7.6100e-003		0.1217	0.1217		0.1217	0.1217	0.0000	784.2244	784.2244	0.0304	0.0000	784.8620
Total	0.3712	4.0995	1.6155	7.6100e-003		0.1217	0.1217		0.1217	0.1217	0.0000	784.2244	784.2244	0.0304	0.0000	784.8620

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0129	0.1311	0.1768	3.4000e-004	6.8400e-003	1.9200e-003	8.7700e-003	2.0600e-003	1.7700e-003	3.8300e-003	0.0000	30.8058	30.8058	2.3000e-004	0.0000	30.8106
Worker	0.0337	0.0497	0.5168	1.2000e-003	0.0616	8.7000e-004	0.0625	0.0170	8.0000e-004	0.0178	0.0000	88.5376	88.5376	4.8300e-003	0.0000	88.6390
Total	0.0465	0.1807	0.6937	1.5400e-003	0.0684	2.7900e-003	0.0712	0.0191	2.5700e-003	0.0217	0.0000	119.3435	119.3435	5.0600e-003	0.0000	119.4495

3.9 Building Construction 2 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3896	4.0668	1.7633	8.4700e-003		0.1220	0.1220		0.1220	0.1220	0.0000	873.2455	873.2455	0.0307	0.0000	873.8909
Total	0.3896	4.0668	1.7633	8.4700e-003		0.1220	0.1220		0.1220	0.1220	0.0000	873.2455	873.2455	0.0307	0.0000	873.8909

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0135	0.1341	0.1890	3.8000e-004	0.0108	2.0200e-003	0.0128	3.0600e-003	1.8600e-003	4.9200e-003	0.0000	33.7359	33.7359	2.5000e-004	0.0000	33.7412
Worker	0.0336	0.0502	0.5212	1.3300e-003	0.1050	9.4000e-004	0.1059	0.0279	8.7000e-004	0.0288	0.0000	94.9747	94.9747	4.9900e-003	0.0000	95.0795
Total	0.0471	0.1843	0.7102	1.7100e-003	0.1157	2.9600e-003	0.1187	0.0309	2.7300e-003	0.0337	0.0000	128.7106	128.7106	5.2400e-003	0.0000	128.8207

3.9 Building Construction 2 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3896	4.0668	1.7633	8.4700e-003		0.1220	0.1220		0.1220	0.1220	0.0000	873.2445	873.2445	0.0307	0.0000	873.8899
Total	0.3896	4.0668	1.7633	8.4700e-003		0.1220	0.1220		0.1220	0.1220	0.0000	873.2445	873.2445	0.0307	0.0000	873.8899

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0135	0.1341	0.1890	3.8000e-004	7.6200e-003	2.0200e-003	9.6400e-003	2.3000e-003	1.8600e-003	4.1600e-003	0.0000	33.7359	33.7359	2.5000e-004	0.0000	33.7412
Worker	0.0336	0.0502	0.5212	1.3300e-003	0.0686	9.4000e-004	0.0695	0.0190	8.7000e-004	0.0198	0.0000	94.9747	94.9747	4.9900e-003	0.0000	95.0795
Total	0.0471	0.1843	0.7102	1.7100e-003	0.0762	2.9600e-003	0.0792	0.0213	2.7300e-003	0.0240	0.0000	128.7106	128.7106	5.2400e-003	0.0000	128.8207

3.10 Paving 1 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0257	0.2023	0.1318	2.4000e-004		0.0123	0.0123		0.0115	0.0115	0.0000	20.0470	20.0470	4.3500e-003	0.0000	20.1382
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0257	0.2023	0.1318	2.4000e-004		0.0123	0.0123		0.0115	0.0115	0.0000	20.0470	20.0470	4.3500e-003	0.0000	20.1382

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-003	1.7700e-003	0.0184	4.0000e-005	3.3500e-003	3.0000e-005	3.3800e-003	8.9000e-004	3.0000e-005	9.2000e-004	0.0000	3.1494	3.1494	1.7000e-004	0.0000	3.1530
Total	1.2000e-003	1.7700e-003	0.0184	4.0000e-005	3.3500e-003	3.0000e-005	3.3800e-003	8.9000e-004	3.0000e-005	9.2000e-004	0.0000	3.1494	3.1494	1.7000e-004	0.0000	3.1530

3.10 Paving 1 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0257	0.2023	0.1318	2.4000e-004		0.0123	0.0123		0.0115	0.0115	0.0000	20.0469	20.0469	4.3500e-003	0.0000	20.1382
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0257	0.2023	0.1318	2.4000e-004		0.0123	0.0123		0.0115	0.0115	0.0000	20.0469	20.0469	4.3500e-003	0.0000	20.1382

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-003	1.7700e-003	0.0184	4.0000e-005	2.1900e-003	3.0000e-005	2.2200e-003	6.1000e-004	3.0000e-005	6.3000e-004	0.0000	3.1494	3.1494	1.7000e-004	0.0000	3.1530
Total	1.2000e-003	1.7700e-003	0.0184	4.0000e-005	2.1900e-003	3.0000e-005	2.2200e-003	6.1000e-004	3.0000e-005	6.3000e-004	0.0000	3.1494	3.1494	1.7000e-004	0.0000	3.1530

3.11 Architectural Coating 1 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4800e-003	0.0361	0.0308	5.0000e-005		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003	0.0000	4.2129	4.2129	4.4000e-004	0.0000	4.2222
Total	0.4916	0.0361	0.0308	5.0000e-005		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003	0.0000	4.2129	4.2129	4.4000e-004	0.0000	4.2222

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2300e-003	1.8100e-003	0.0188	4.0000e-005	3.4400e-003	3.0000e-005	3.4700e-003	9.1000e-004	3.0000e-005	9.4000e-004	0.0000	3.2266	3.2266	1.8000e-004	0.0000	3.2303
Total	1.2300e-003	1.8100e-003	0.0188	4.0000e-005	3.4400e-003	3.0000e-005	3.4700e-003	9.1000e-004	3.0000e-005	9.4000e-004	0.0000	3.2266	3.2266	1.8000e-004	0.0000	3.2303

3.11 Architectural Coating 1 - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4800e-003	0.0361	0.0308	5.0000e-005		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003	0.0000	4.2129	4.2129	4.4000e-004	0.0000	4.2222
Total	0.4916	0.0361	0.0308	5.0000e-005		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003	0.0000	4.2129	4.2129	4.4000e-004	0.0000	4.2222

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2300e-003	1.8100e-003	0.0188	4.0000e-005	2.2400e-003	3.0000e-005	2.2800e-003	6.2000e-004	3.0000e-005	6.5000e-004	0.0000	3.2266	3.2266	1.8000e-004	0.0000	3.2303
Total	1.2300e-003	1.8100e-003	0.0188	4.0000e-005	2.2400e-003	3.0000e-005	2.2800e-003	6.2000e-004	3.0000e-005	6.5000e-004	0.0000	3.2266	3.2266	1.8000e-004	0.0000	3.2303

3.12 Architectural Coating 2 - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.0852	0.0788	1.3000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	10.8514	10.8514	1.0300e-003	0.0000	10.8730
Total	0.4988	0.0852	0.0788	1.3000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	10.8514	10.8514	1.0300e-003	0.0000	10.8730

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8300e-003	4.2300e-003	0.0439	1.1000e-004	8.8500e-003	8.0000e-005	8.9300e-003	2.3500e-003	7.0000e-005	2.4200e-003	0.0000	8.0063	8.0063	4.2000e-004	0.0000	8.0151
Total	2.8300e-003	4.2300e-003	0.0439	1.1000e-004	8.8500e-003	8.0000e-005	8.9300e-003	2.3500e-003	7.0000e-005	2.4200e-003	0.0000	8.0063	8.0063	4.2000e-004	0.0000	8.0151

3.12 Architectural Coating 2 - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.0852	0.0788	1.3000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	10.8513	10.8513	1.0300e-003	0.0000	10.8730
Total	0.4988	0.0852	0.0788	1.3000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	10.8513	10.8513	1.0300e-003	0.0000	10.8730

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8300e-003	4.2300e-003	0.0439	1.1000e-004	5.7800e-003	8.0000e-005	5.8600e-003	1.6000e-003	7.0000e-005	1.6700e-003	0.0000	8.0063	8.0063	4.2000e-004	0.0000	8.0151
Total	2.8300e-003	4.2300e-003	0.0439	1.1000e-004	5.7800e-003	8.0000e-005	5.8600e-003	1.6000e-003	7.0000e-005	1.6700e-003	0.0000	8.0063	8.0063	4.2000e-004	0.0000	8.0151

3.13 Paving 2 - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1000e-003	0.0453	0.0368	6.0000e-005		2.2100e-003	2.2100e-003		2.0400e-003	2.0400e-003	0.0000	5.3917	5.3917	1.6800e-003	0.0000	5.4269
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.1000e-003	0.0453	0.0368	6.0000e-005		2.2100e-003	2.2100e-003		2.0400e-003	2.0400e-003	0.0000	5.3917	5.3917	1.6800e-003	0.0000	5.4269

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.8000e-004	1.8800e-003	0.0000	3.8000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3421	0.3421	2.0000e-005	0.0000	0.3424
Total	1.2000e-004	1.8000e-004	1.8800e-003	0.0000	3.8000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3421	0.3421	2.0000e-005	0.0000	0.3424

3.13 Paving 2 - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1000e-003	0.0453	0.0368	6.0000e-005		2.2100e-003	2.2100e-003		2.0400e-003	2.0400e-003	0.0000	5.3916	5.3916	1.6800e-003	0.0000	5.4269
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.1000e-003	0.0453	0.0368	6.0000e-005		2.2100e-003	2.2100e-003		2.0400e-003	2.0400e-003	0.0000	5.3916	5.3916	1.6800e-003	0.0000	5.4269

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.8000e-004	1.8800e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.3421	0.3421	2.0000e-005	0.0000	0.3424
Total	1.2000e-004	1.8000e-004	1.8800e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.3421	0.3421	2.0000e-005	0.0000	0.3424

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7034	2.1741	8.3411	0.0254	1.6868	0.0351	1.7219	0.4518	0.0324	0.4842	0.0000	1,787.4187	1,787.4187	0.0663	0.0000	1,788.8119
Unmitigated	0.7034	2.1741	8.3411	0.0254	1.6868	0.0351	1.7219	0.4518	0.0324	0.4842	0.0000	1,787.4187	1,787.4187	0.0663	0.0000	1,788.8119

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	1,301.88	1,301.88	1301.88	4,448,722	4,448,722
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	1,301.88	1,301.88	1,301.88	4,448,722	4,448,722

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted)	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530094	0.057664	0.178835	0.124843	0.039181	0.006319	0.017052	0.034445	0.002509	0.003148	0.003693	0.000531	0.001685

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	201.1033	201.1033	0.0116	2.4000e-003	202.0900
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	201.1033	201.1033	0.0116	2.4000e-003	202.0900
NaturalGas Mitigated	9.7500e-003	0.0833	0.0355	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003	0.0000	96.4961	96.4961	1.8500e-003	1.7700e-003	97.0833
NaturalGas Unmitigated	9.7500e-003	0.0833	0.0355	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003	0.0000	96.4961	96.4961	1.8500e-003	1.7700e-003	97.0833

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Congregate Care (Assisted Living)	1.80827e+006	9.7500e-003	0.0833	0.0355	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003	0.0000	96.4961	96.4961	1.8500e-003	1.7700e-003	97.0833
Total		9.7500e-003	0.0833	0.0355	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003	0.0000	96.4961	96.4961	1.8500e-003	1.7700e-003	97.0833

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Congregate Care (Assisted Living)	1.80827e+006	9.7500e-003	0.0833	0.0355	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003	0.0000	96.4961	96.4961	1.8500e-003	1.7700e-003	97.0833
Total		9.7500e-003	0.0833	0.0355	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003	0.0000	96.4961	96.4961	1.8500e-003	1.7700e-003	97.0833

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	875522	199.8399	0.0115	2.3800e-003	200.8204
Enclosed Parking with Elevator	5534.97	1.2634	7.0000e-005	2.0000e-005	1.2696
Total		201.1033	0.0116	2.4000e-003	202.0900

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	875522	199.8399	0.0115	2.3800e-003	200.8204
Enclosed Parking with Elevator	5534.97	1.2634	7.0000e-005	2.0000e-005	1.2696
Total		201.1033	0.0116	2.4000e-003	202.0900

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7059	0.0137	1.1817	6.0000e-005		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	1.9246	1.9246	1.8800e-003	0.0000	1.9642
Unmitigated	0.7059	0.0137	1.1817	6.0000e-005		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	1.9246	1.9246	1.8800e-003	0.0000	1.9642

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0837					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0361	0.0137	1.1817	6.0000e-005		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	1.9246	1.9246	1.8800e-003	0.0000	1.9642
Total	0.7059	0.0137	1.1817	6.0000e-005		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	1.9246	1.9246	1.8800e-003	0.0000	1.9642

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0837					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0361	0.0137	1.1817	6.0000e-005		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	1.9246	1.9246	1.8800e-003	0.0000	1.9642
Total	0.7059	0.0137	1.1817	6.0000e-005		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	1.9246	1.9246	1.8800e-003	0.0000	1.9642

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	36.3062	0.2439	6.1100e-003	43.3231
Unmitigated	36.3062	0.2440	6.1200e-003	43.3269

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	7.42756 / 4.68259	36.3062	0.2440	6.1200e-003	43.3269
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		36.3062	0.2440	6.1200e-003	43.3269

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	7.42756 / 4.68259	36.3062	0.2439	6.1100e-003	43.3231
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		36.3062	0.2439	6.1100e-003	43.3231

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	21.1151	1.2479	0.0000	47.3203
Unmitigated	21.1151	1.2479	0.0000	47.3203

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	104.02	21.1151	1.2479	0.0000	47.3203
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		21.1151	1.2479	0.0000	47.3203

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	104.02	21.1151	1.2479	0.0000	47.3203
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		21.1151	1.2479	0.0000	47.3203

9.0 Operational Offroad

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

10.0 Vegetation

APPENDIX C – NOISE WORKSHEETS

Site Number: 1			
Recorded By: Jessica Ditto			
Job Number: 151352			
Date: 4/26/2016			
Time: 10:59 a.m.			
Location: Silver Spur Road; approximately 70 feet southeast of Drybank Drive			
Source of Peak Noise: Street traffic on Drybank Drive, people talking, and construction at an adjoining property (south of Deep Valley Drive)			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
66.5	48.2	78.6	92.3

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	2548189	1/4/2016	
	Microphone	Brüel & Kjær	4189	2543364	1/4/2016	
	Preamp	Brüel & Kjær	ZC 0032	4265	1/4/2016	
	Calibrator	Brüel & Kjær	4231	2545667	1/4/2016	
Weather Data						
Est.	Duration: 15 minutes			Sky: ☀ Sunny		
	Note: dBA Offset = 0.01			Sensor Height (ft): 5 ft		
	Wind Ave Speed (mph / m/s)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	< 5 mph		64		low	

Photo of Measurement Location



2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		04/26/2016 10:59:17
End Time:		04/26/2016 11:14:17
Elapsed Time:		00:15:00
Bandwidth:		1/3-octave
Max Input Level:		138.73

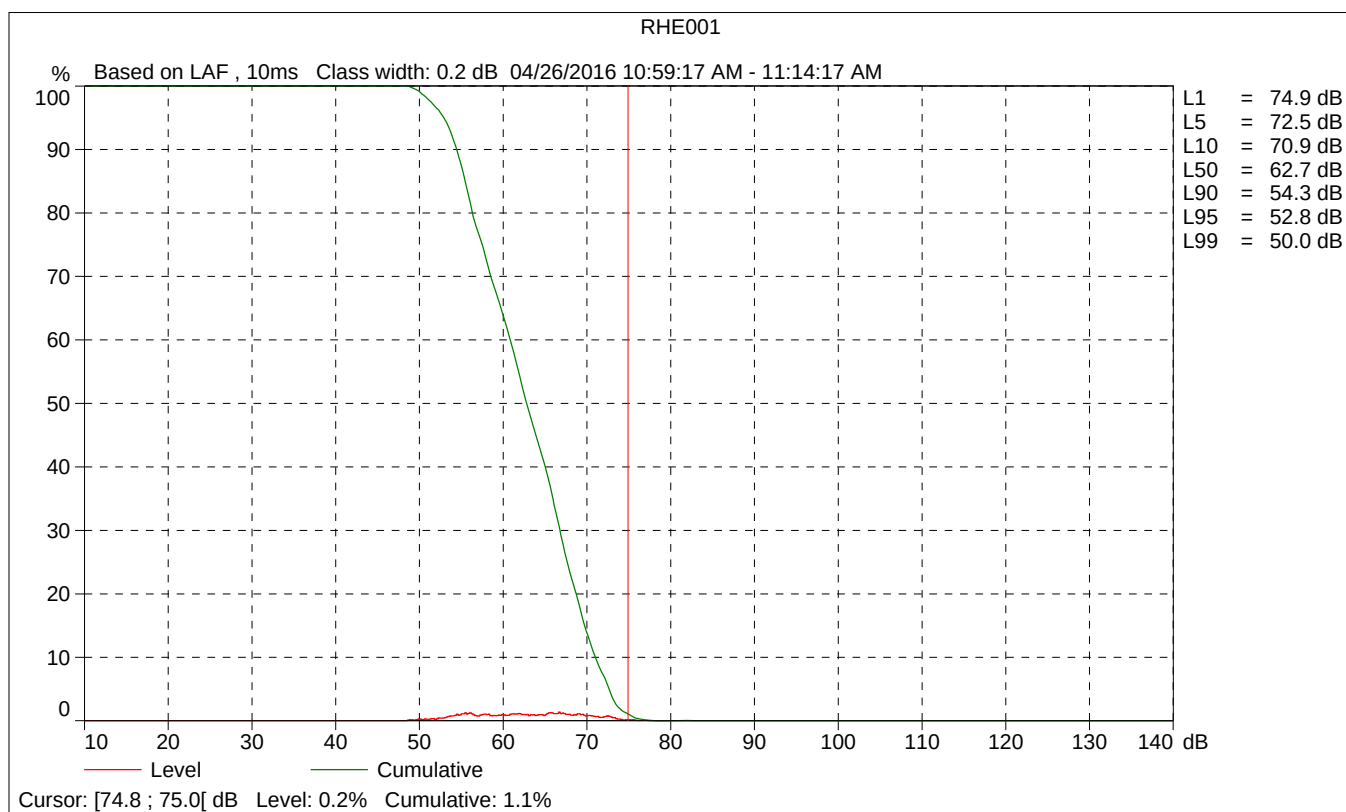
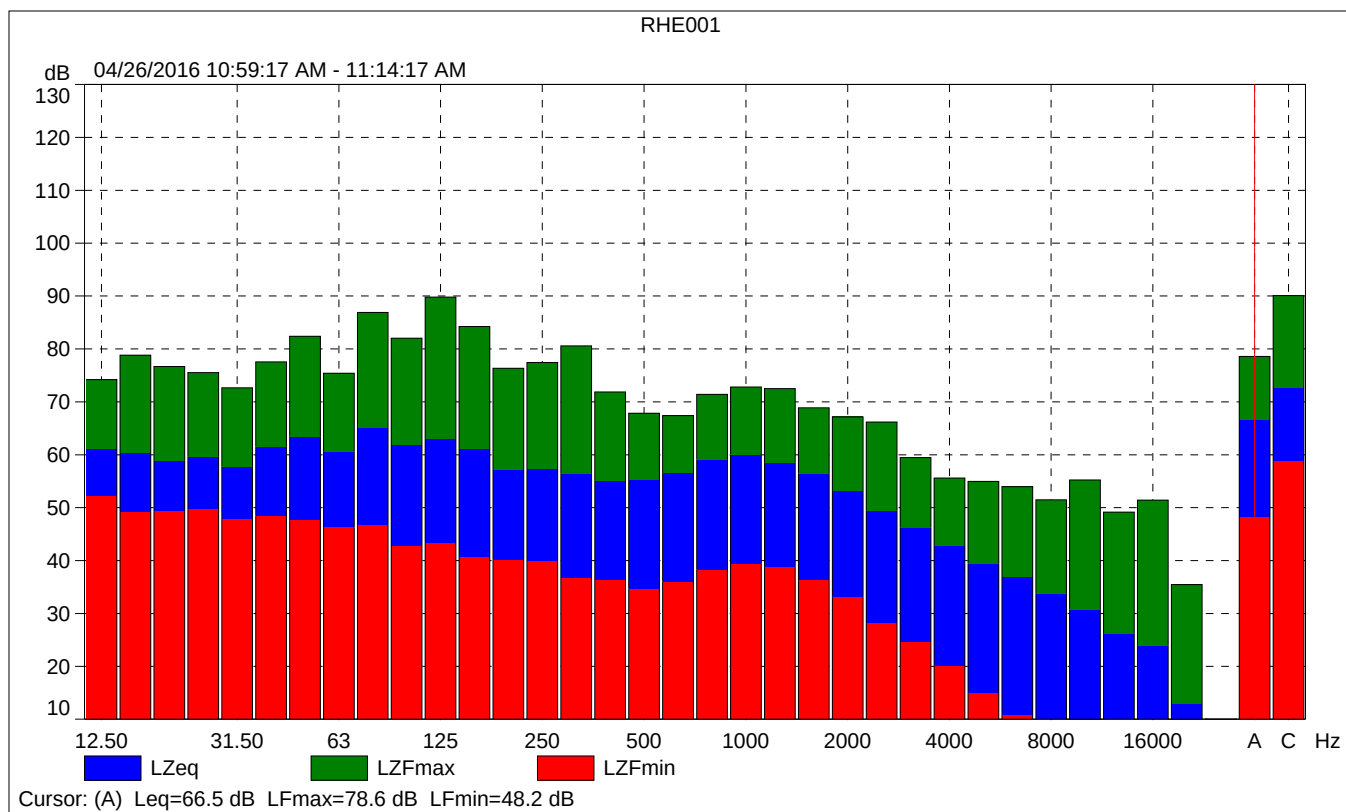
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

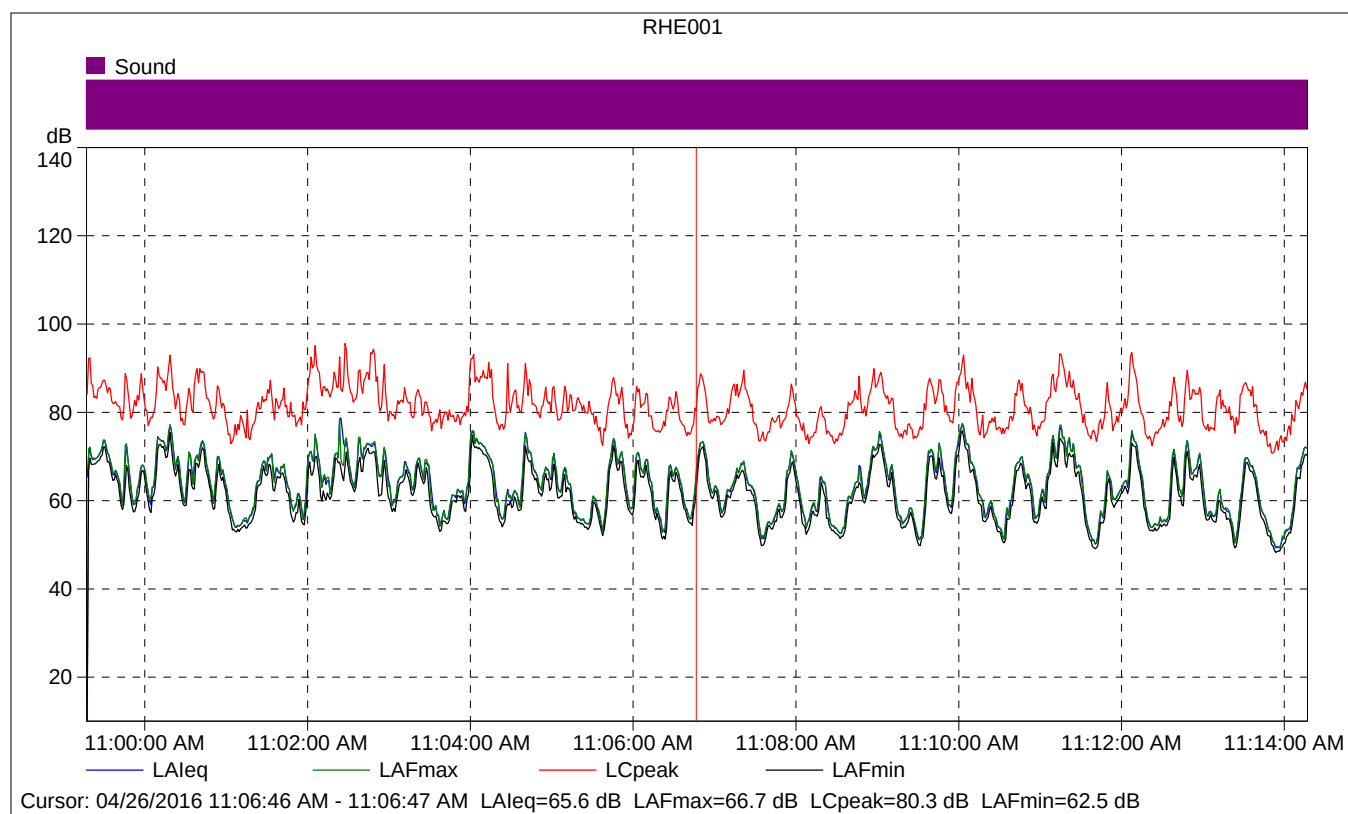
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Diffuse-field

Calibration Time:		04/25/2016 14:58:58
Calibration Type:		External reference
Sensitivity:		64.5262822508812 mV/Pa

RHE001

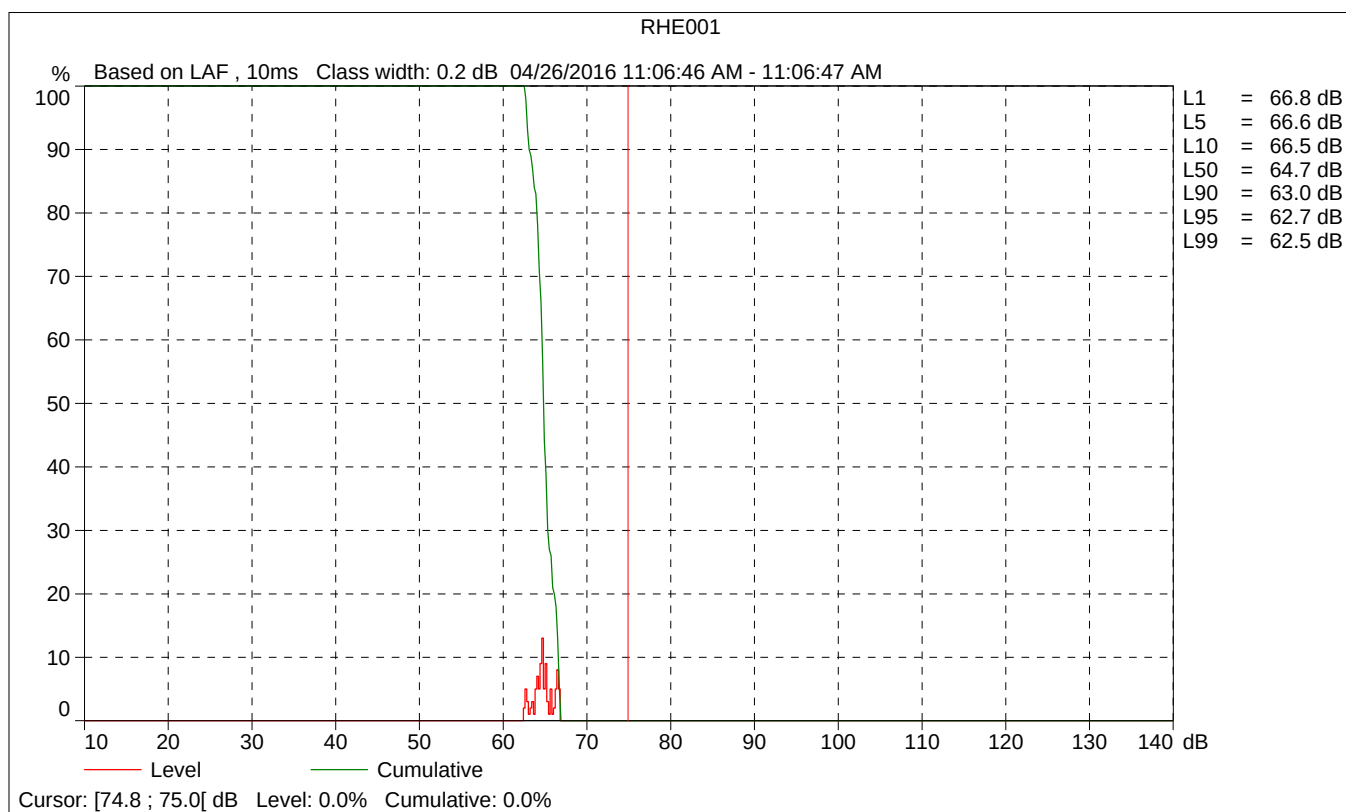
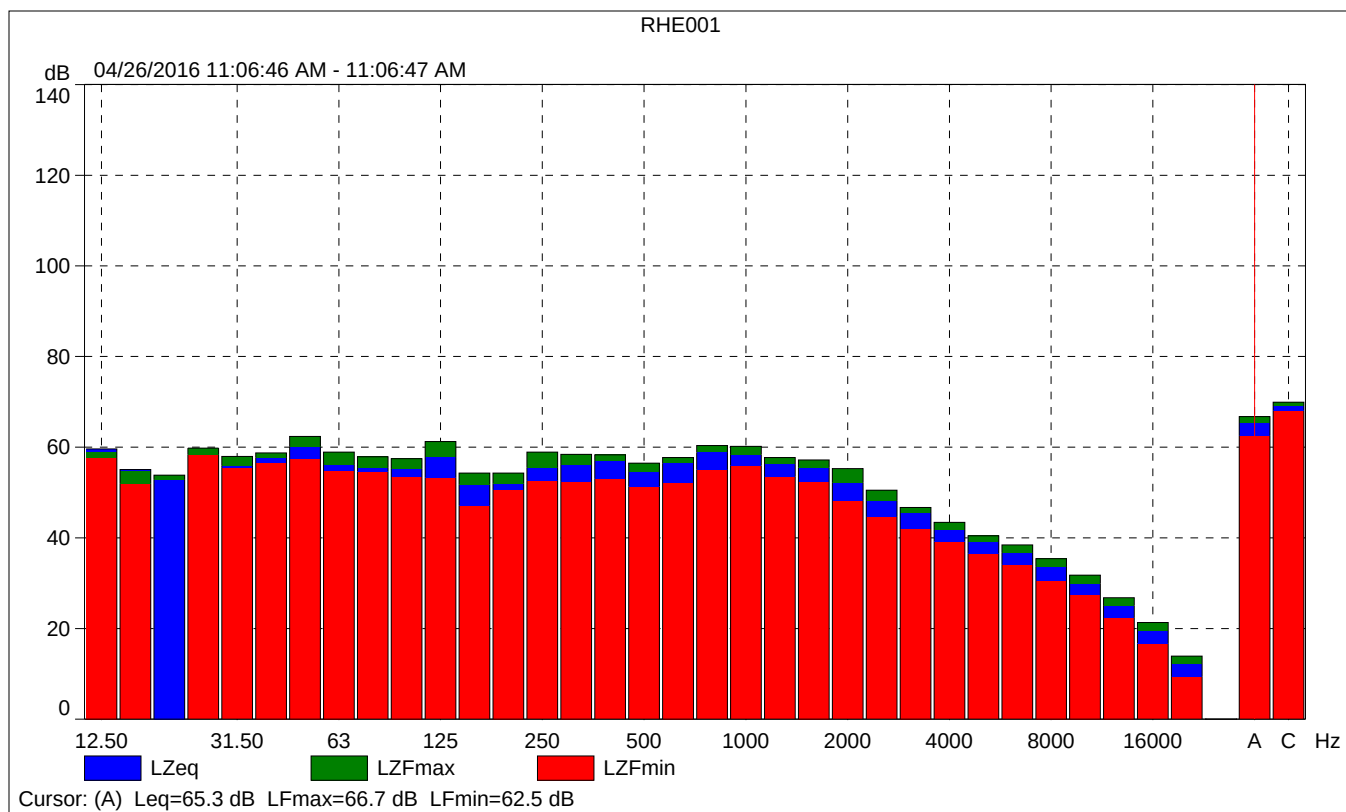
	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	66.5	78.6	48.2
Time	10:59:17 AM	11:14:17 AM	0:15:00				
Date	04/26/2016	04/26/2016					

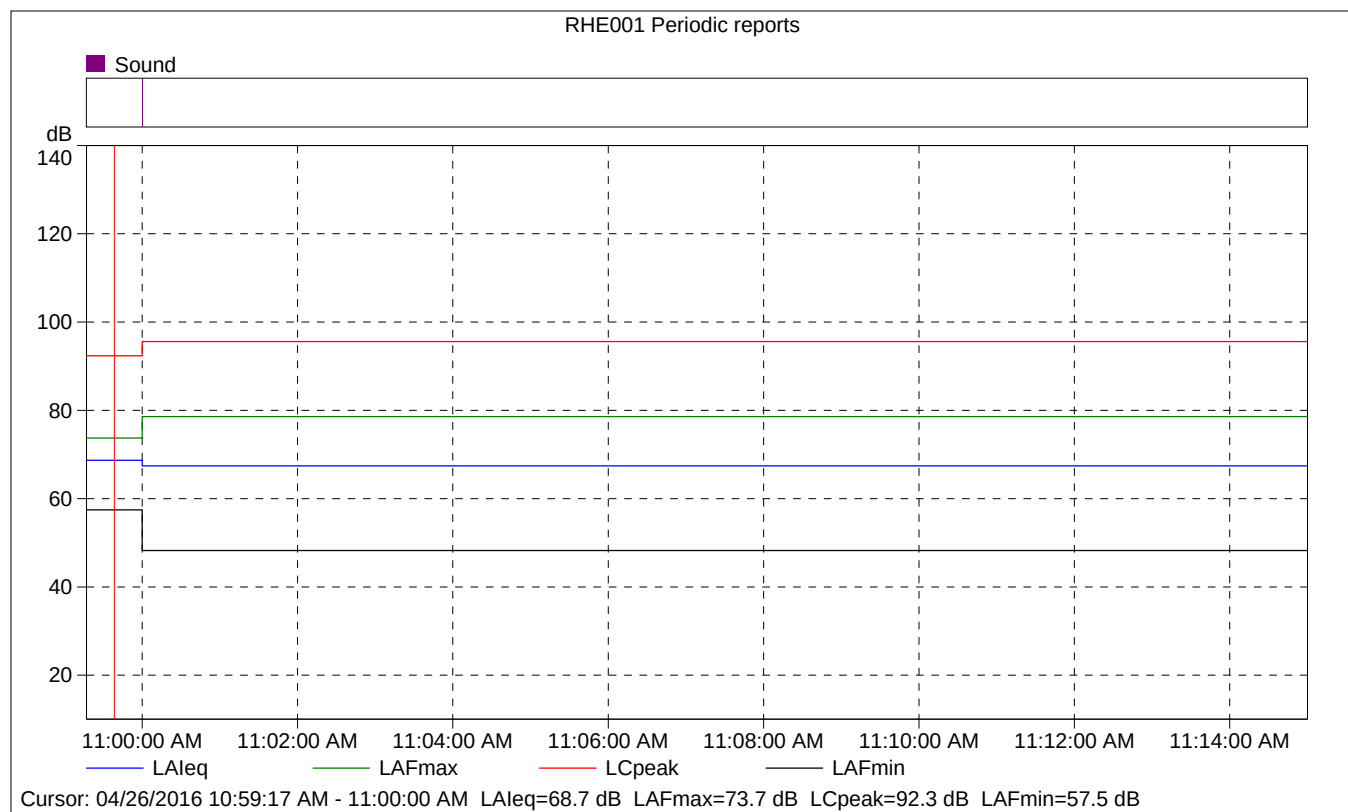




RHE001

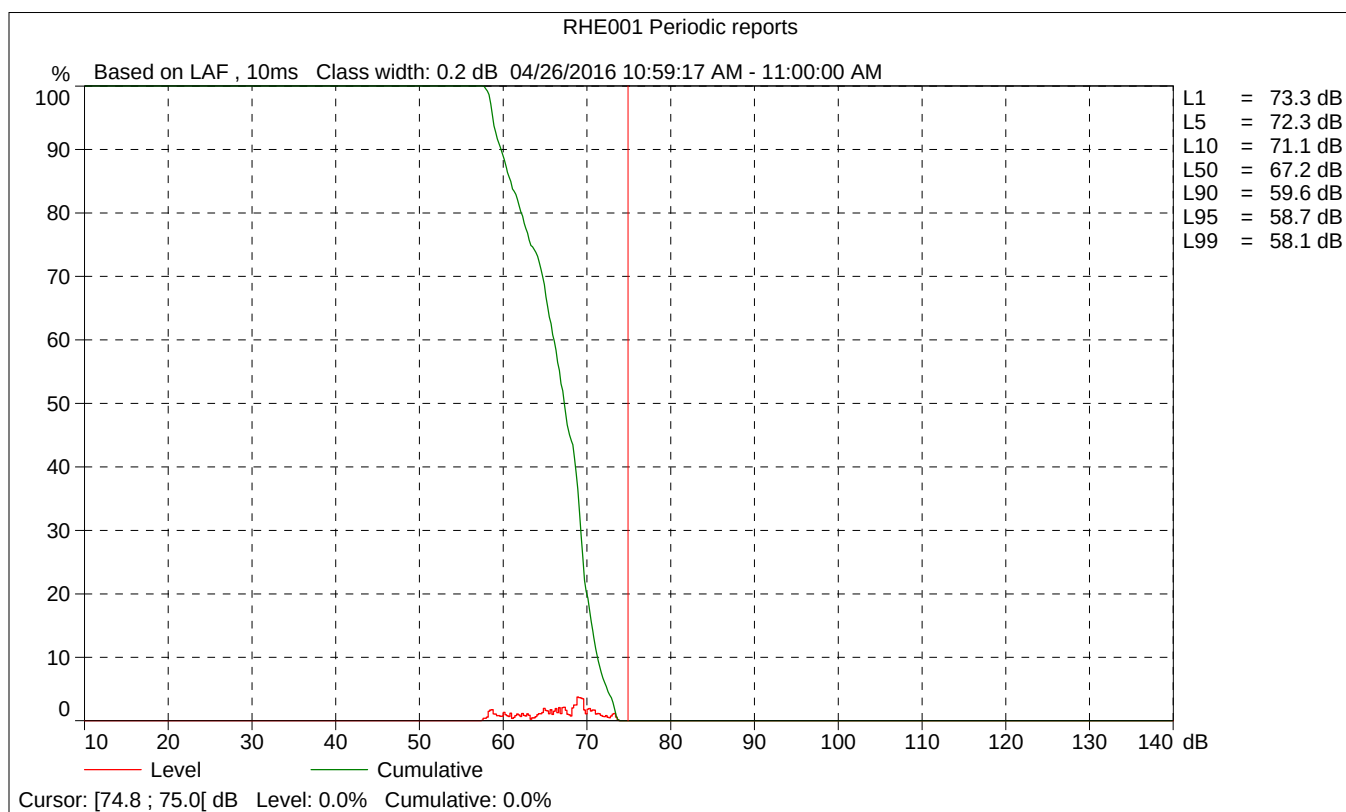
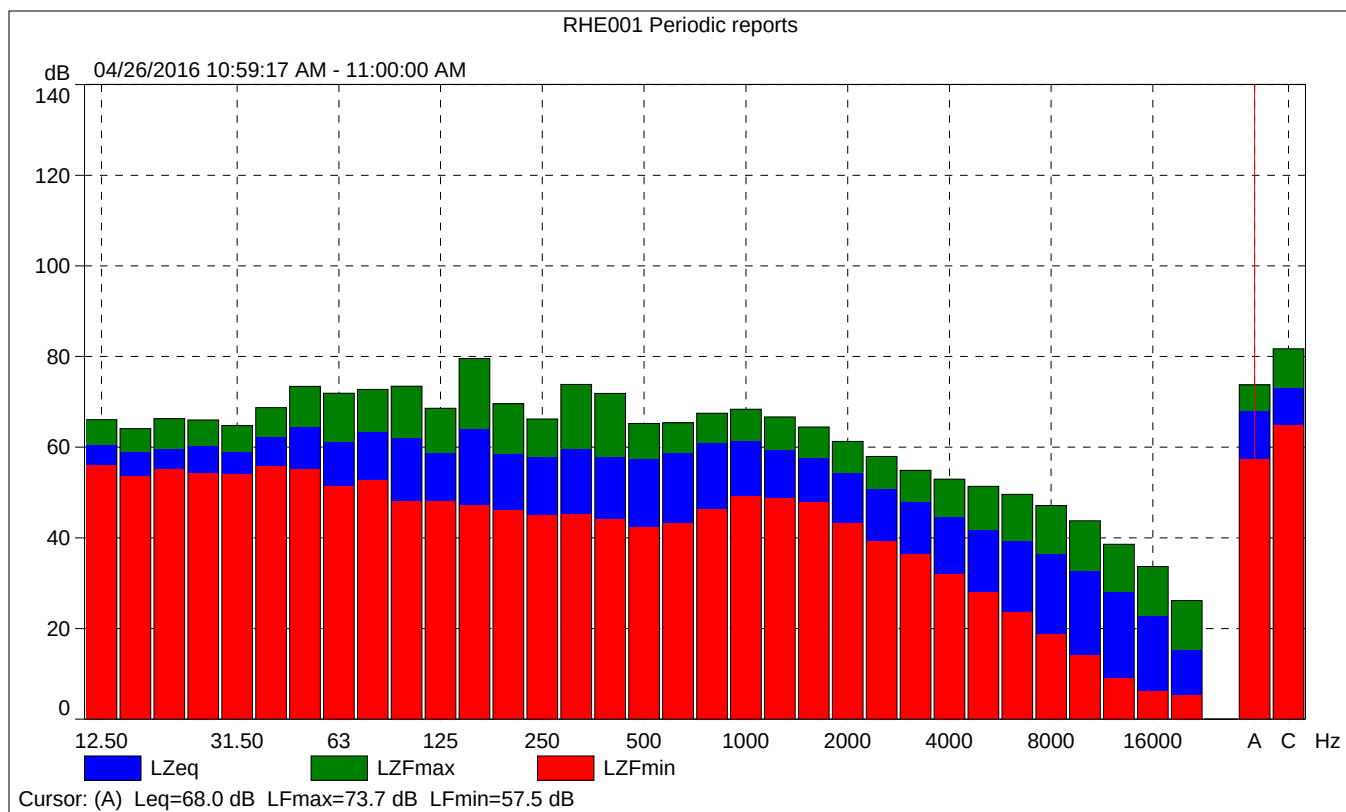
	Start time	Elapsed time	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			65.6	66.7	62.5
Time	11:06:46 AM	0:00:01			
Date	04/26/2016				

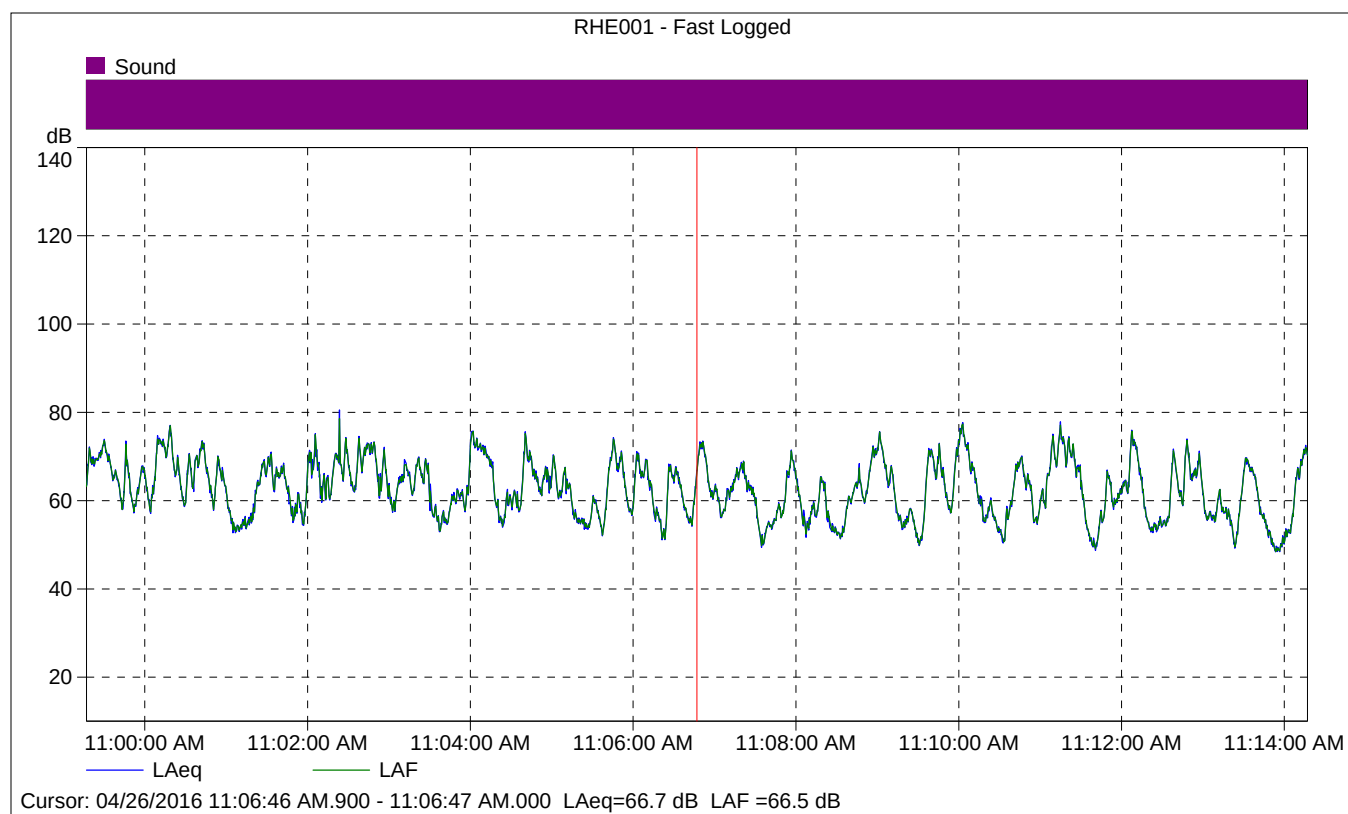




RHE001 Periodic reports

	Start time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	68.7	73.7	57.5
Time	10:59:17 AM	0:00:43				
Date	04/26/2016					





RHE001 - Fast Logged

	Start time	Elapsed time	LAeq [dB]
Value			66.7
Time	11:06:46 AM.900	0:00:00.100	
Date	04/26/2016		

Site Number: 2			
Recorded By: Jessica Ditto			
Job Number: 151352			
Date: 4/26/2016			
Time: 11:18 a.m.			
Location: Silver Spur Road near the Library entrance			
Source of Peak Noise: Street traffic on Silver Spur Road			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
66.3	47.6	77.9	92.9

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	2548189	1/4/2016	
	Microphone	Brüel & Kjær	4189	2543364	1/4/2016	
	Preamp	Brüel & Kjær	ZC 0032	4265	1/4/2016	
	Calibrator	Brüel & Kjær	4231	2545667	1/4/2016	
Weather Data						
Est.	Duration: 15 minutes			Sky: ☀ Sunny		
	Note: dBA Offset = 0.01			Sensor Height (ft): 5 ft		
	Wind Ave Speed (mph / m/s)	Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)		
	< 5 mph	64		low		

Photo of Measurement Location



2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		04/26/2016 11:18:20
End Time:		04/26/2016 11:33:20
Elapsed Time:		00:15:00
Bandwidth:		1/3-octave
Max Input Level:		138.73

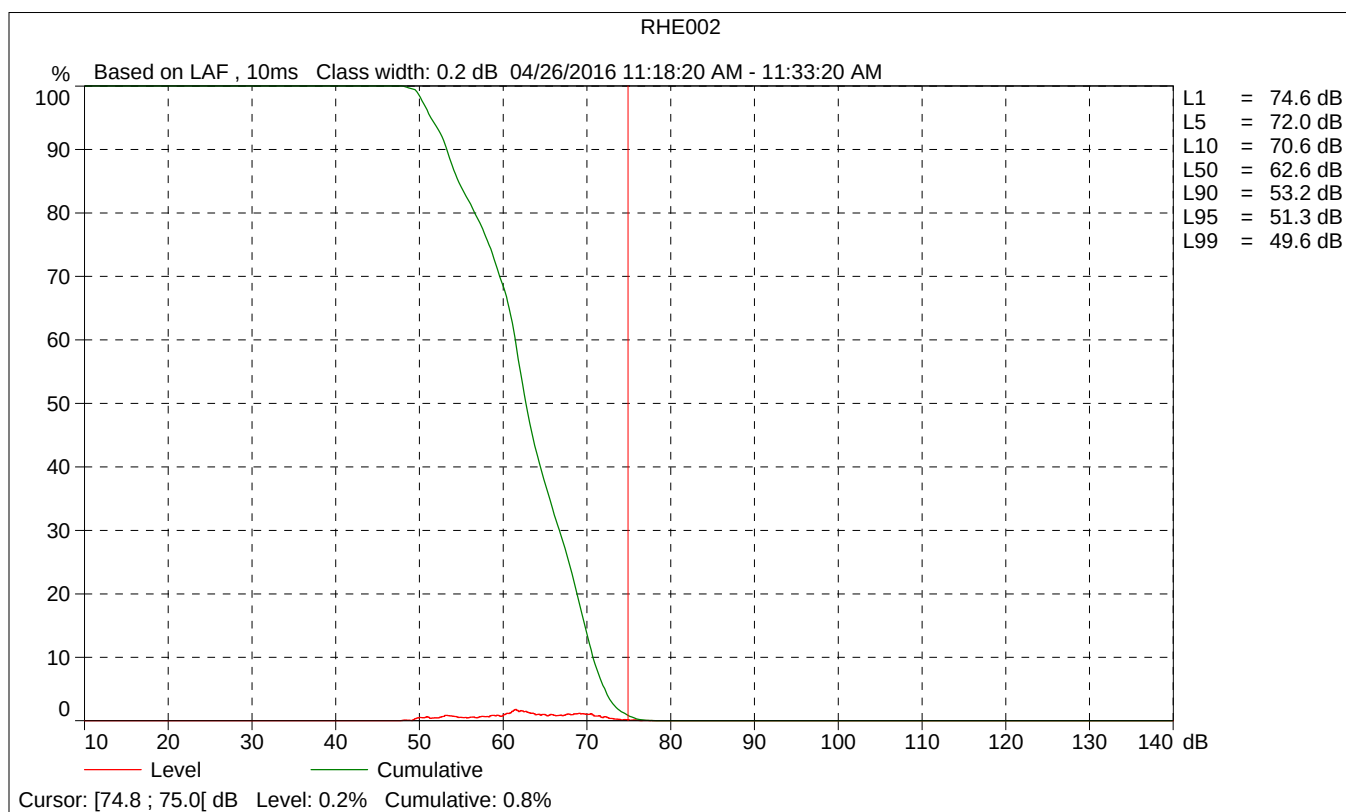
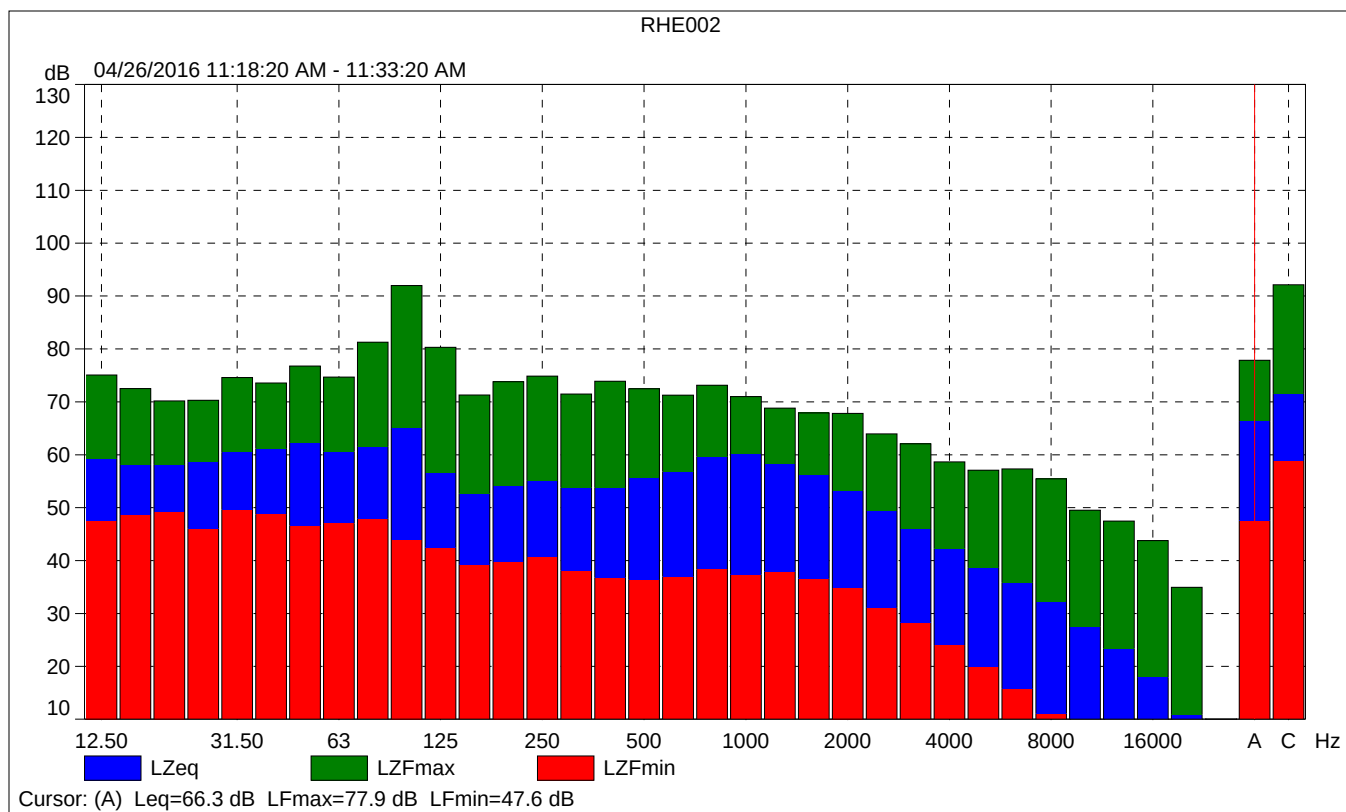
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Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

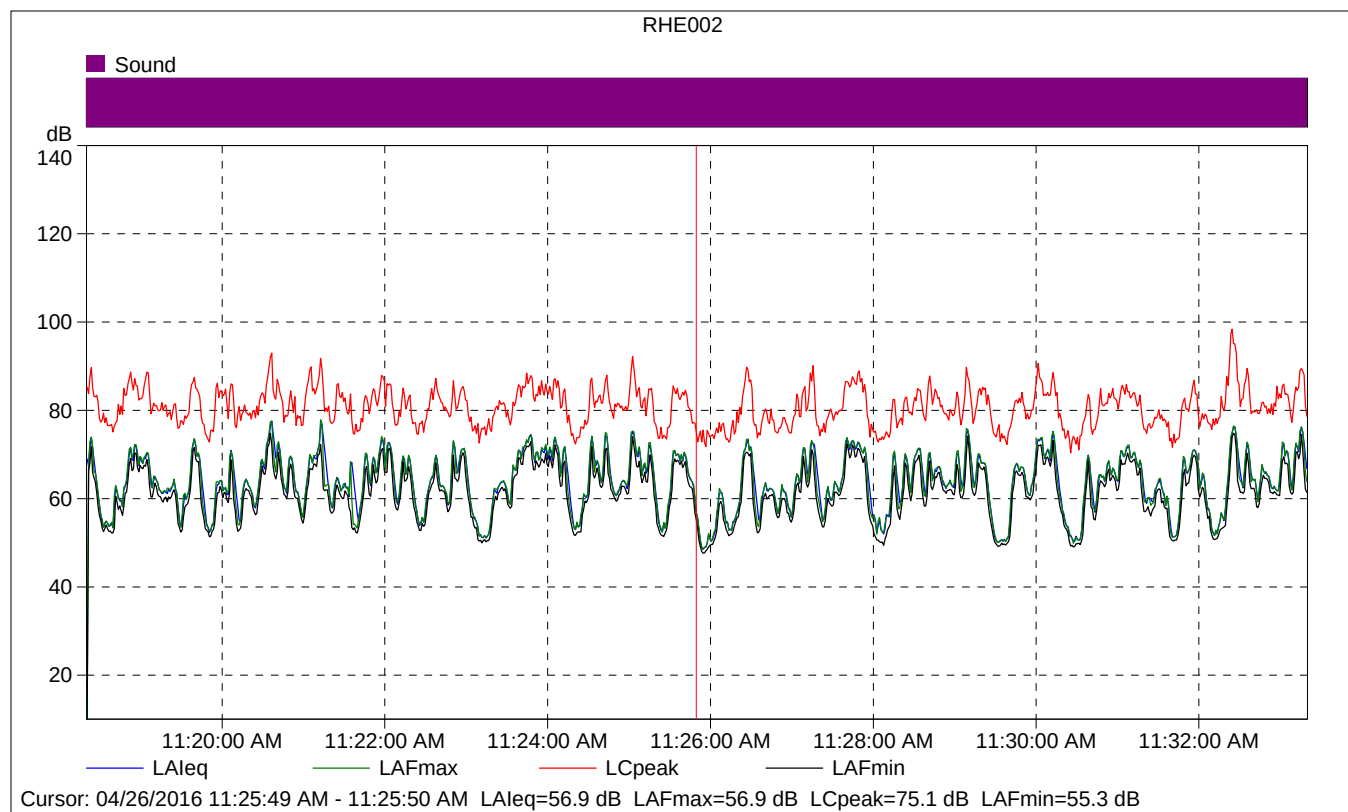
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Diffuse-field

Calibration Time:		04/25/2016 14:58:58
Calibration Type:		External reference
Sensitivity:		64.5262822508812 mV/Pa

RHE002

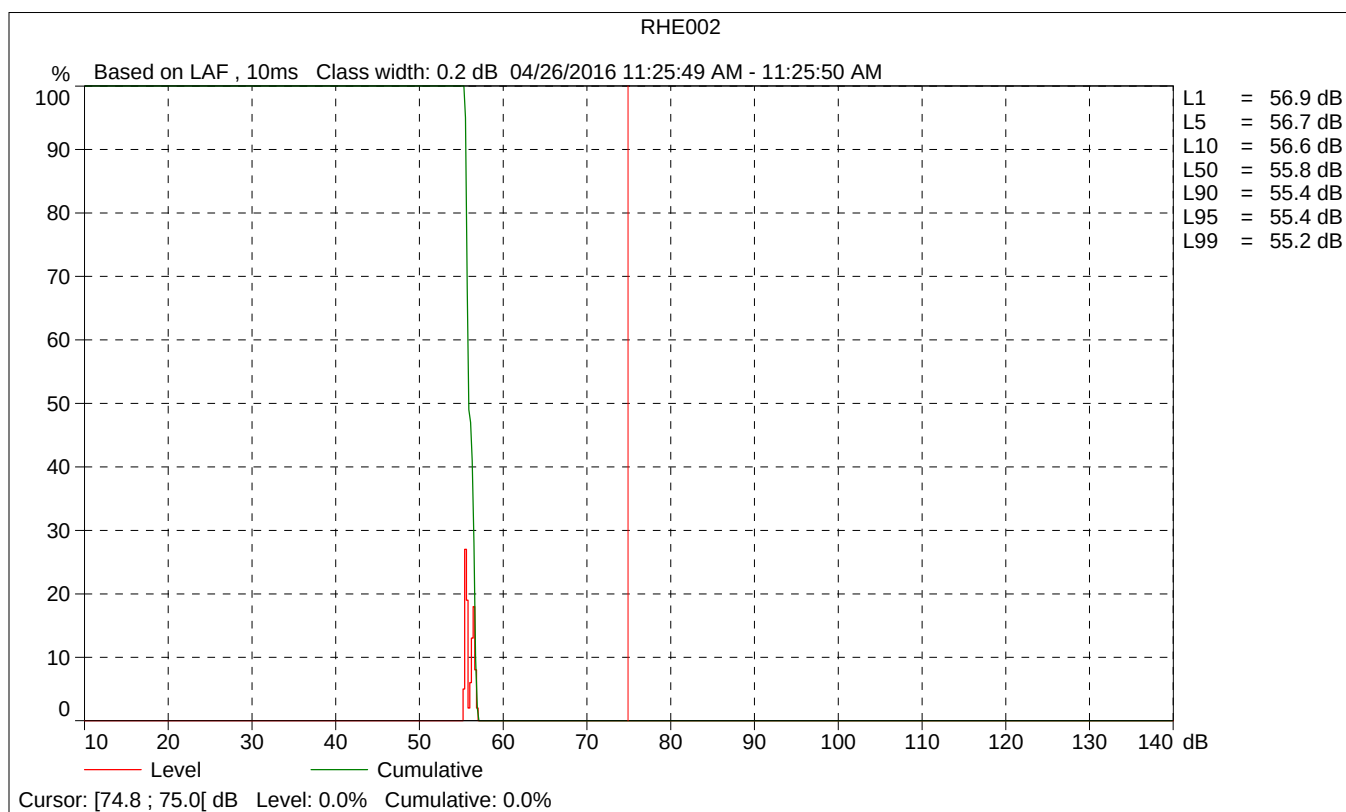
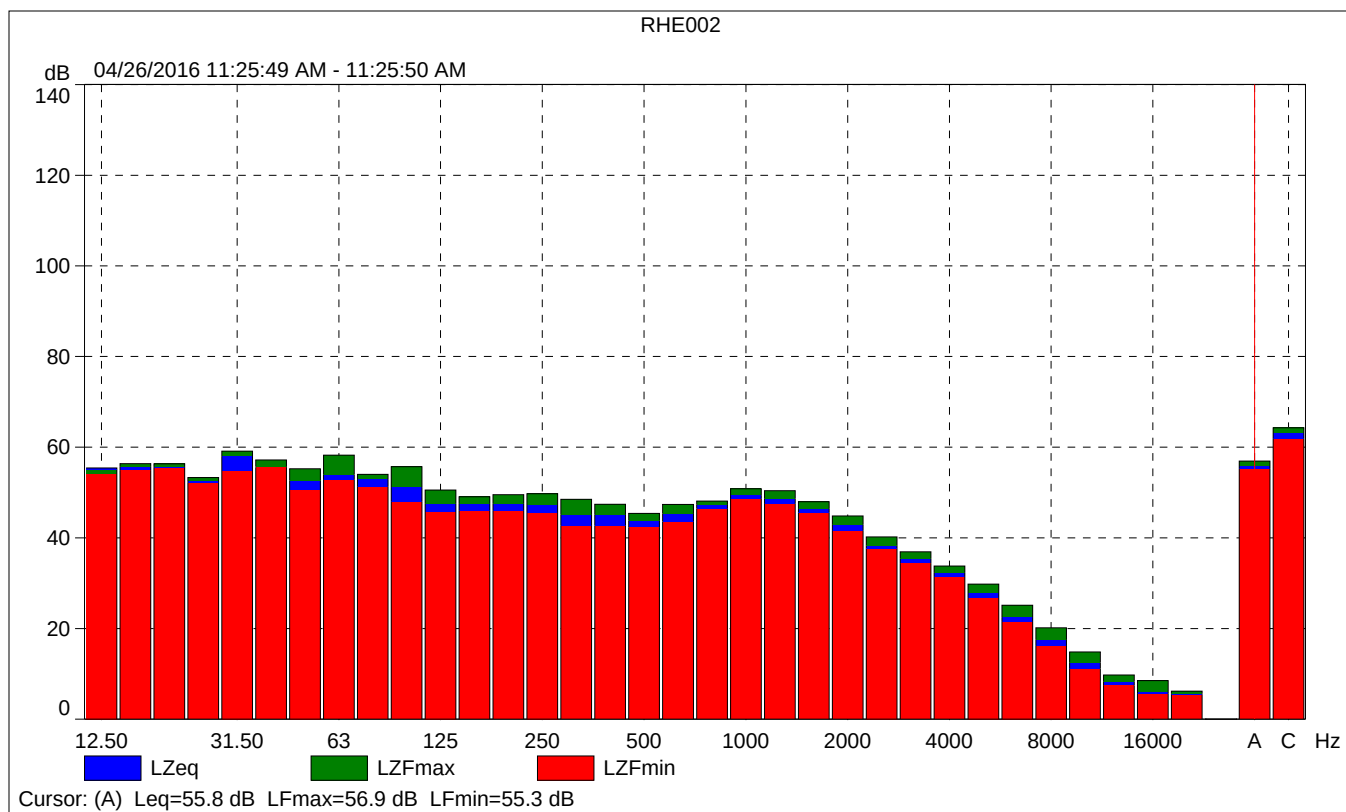
	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	66.3	77.9	47.6
Time	11:18:20 AM	11:33:20 AM	0:15:00				
Date	04/26/2016	04/26/2016					

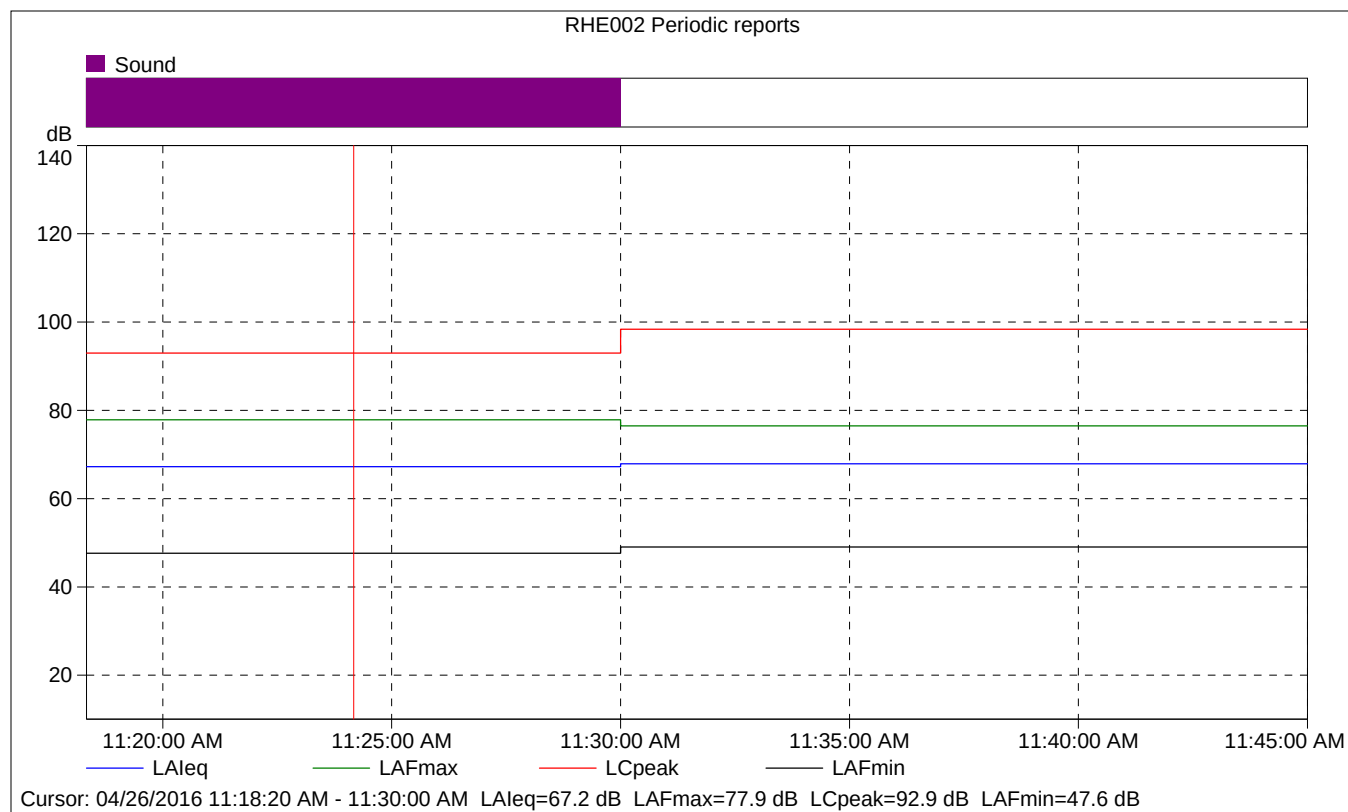




RHE002

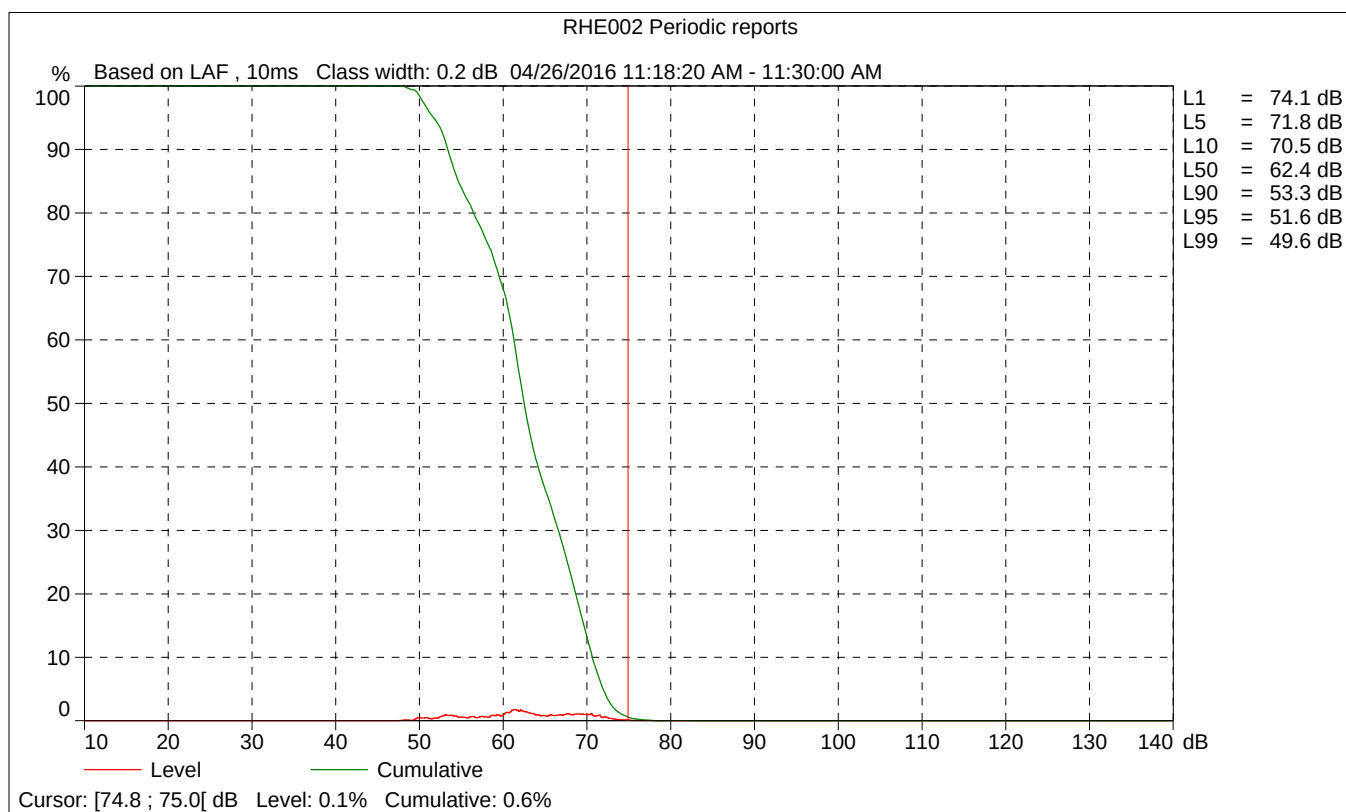
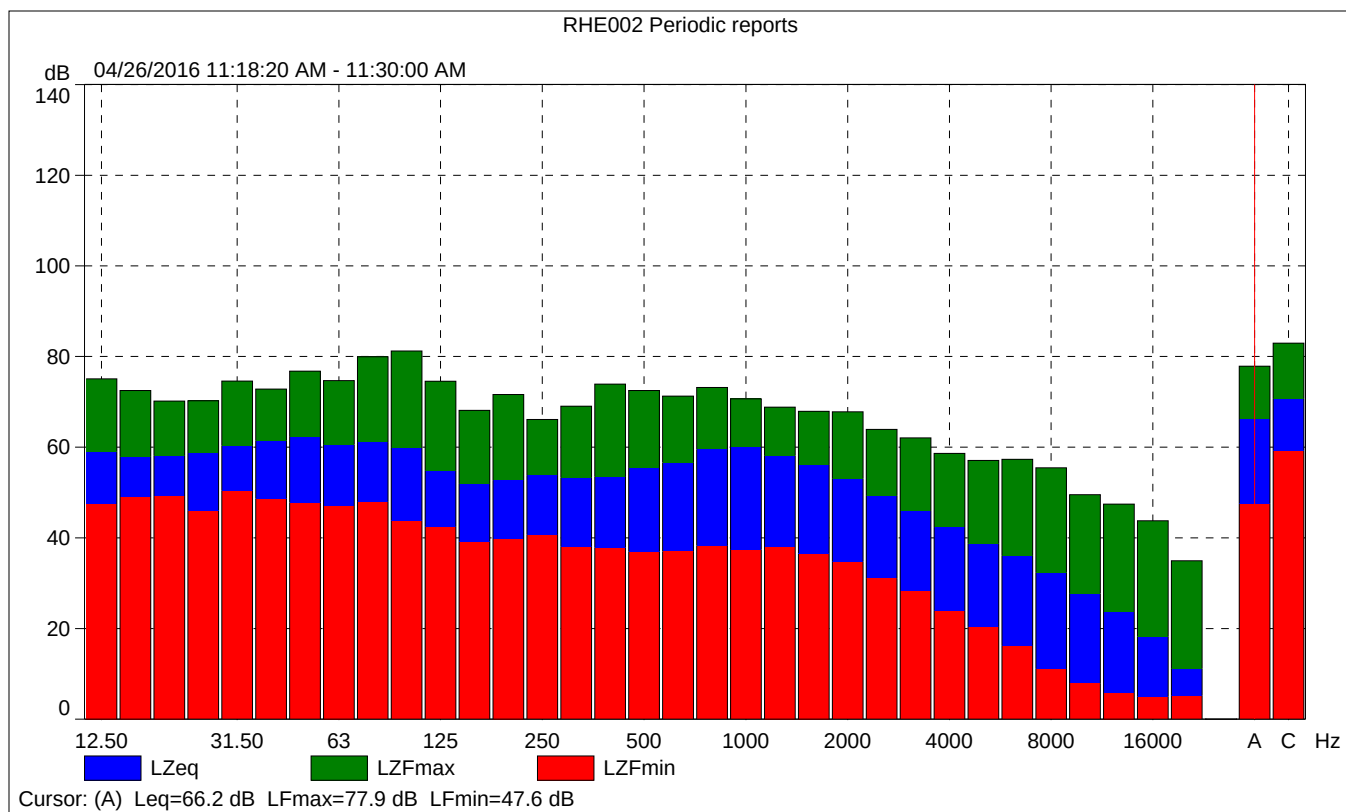
	Start time	Elapsed time	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			56.9	56.9	55.3
Time	11:25:49 AM	0:00:01			
Date	04/26/2016				

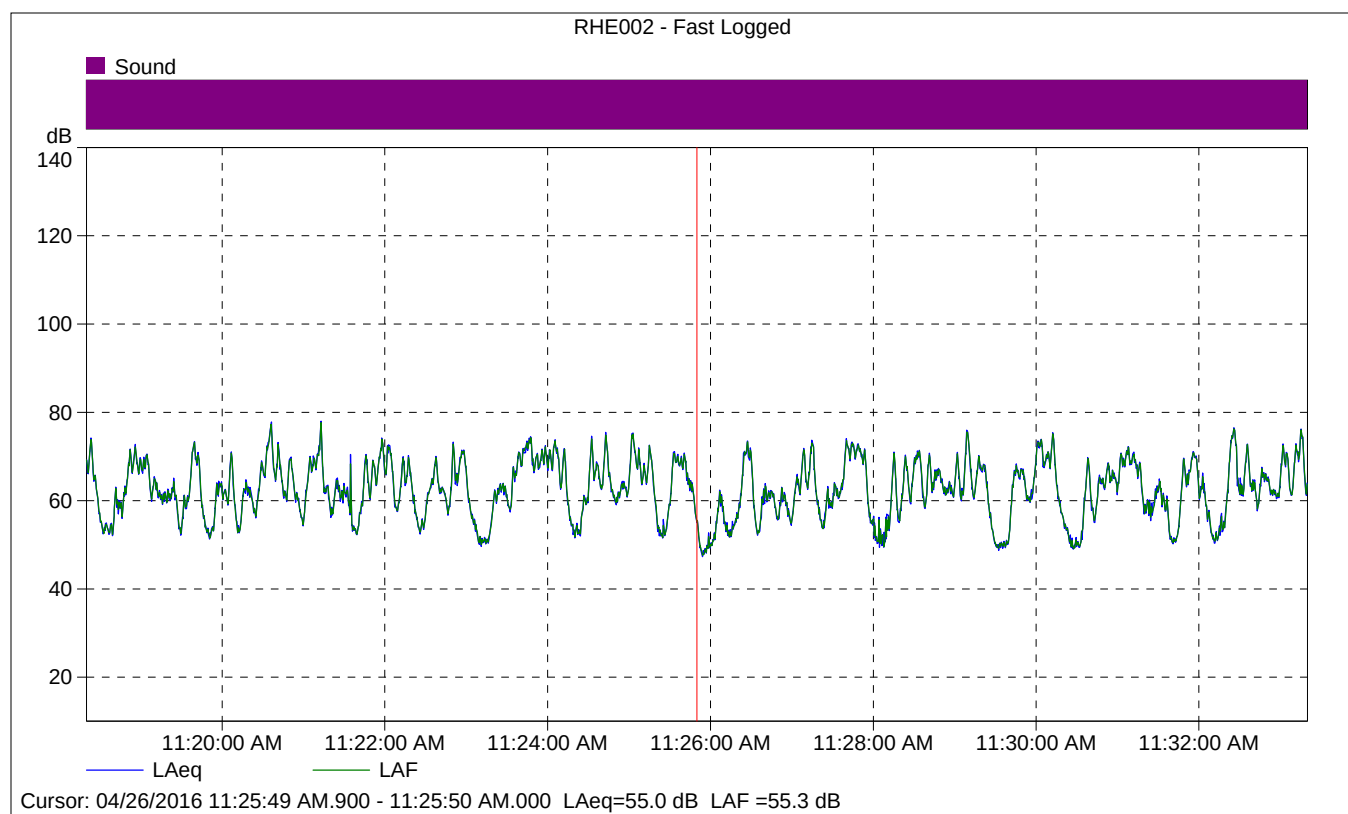




RHE002 Periodic reports

	Start time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	67.2	77.9	47.6
Time	11:18:20 AM	0:11:40				
Date	04/26/2016					





RHE002 - Fast Logged

	Start time	Elapsed time	LAeq [dB]
Value			55.0
Time	11:25:49 AM.900	0:00:00.100	
Date	04/26/2016		

Site Number: 3			
Recorded By: Jessica Ditto			
Job Number: 151352			
Date: 4/26/2016			
Time: 11:41 a.m.			
Location: Deep Valley Drive (near the Library)			
Source of Peak Noise: Street traffic along Deep Valley Drive and construction at an adjoining property across Deep Valley Drive			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
70.9	44.8	87.1	106.4

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	2548189	1/4/2016	
	Microphone	Brüel & Kjær	4189	2543364	1/4/2016	
	Preamp	Brüel & Kjær	ZC 0032	4265	1/4/2016	
	Calibrator	Brüel & Kjær	4231	2545667	1/4/2016	
Weather Data						
Est.	Duration: 15 minutes			Sky: ☀ Sunny		
	Note: dBA Offset = 0.01			Sensor Height (ft): 5 ft		
	Wind Ave Speed (mph / m/s)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	< 5 mph		64		low	

Photo of Measurement Location



2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		04/26/2016 11:40:54
End Time:		04/26/2016 11:55:54
Elapsed Time:		00:15:00
Bandwidth:		1/3-octave
Max Input Level:		138.73

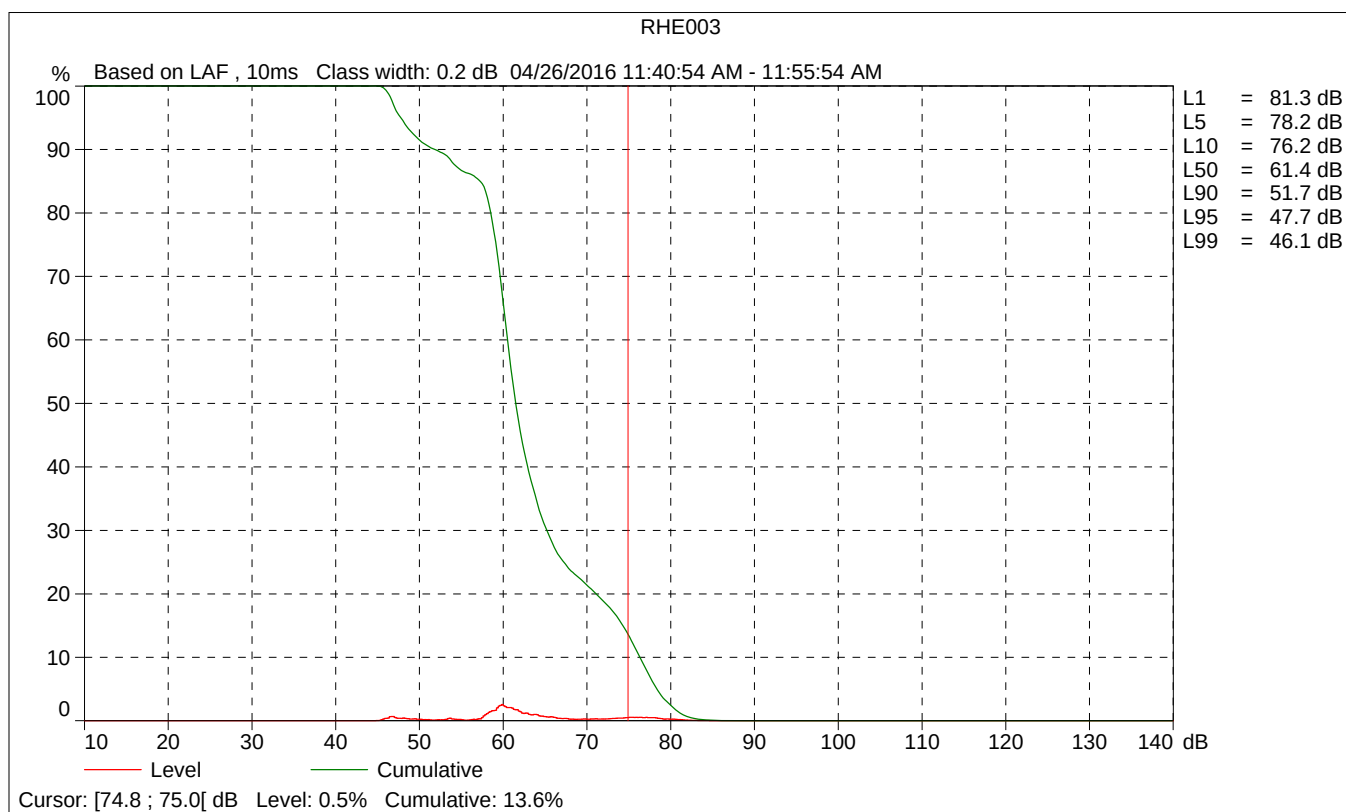
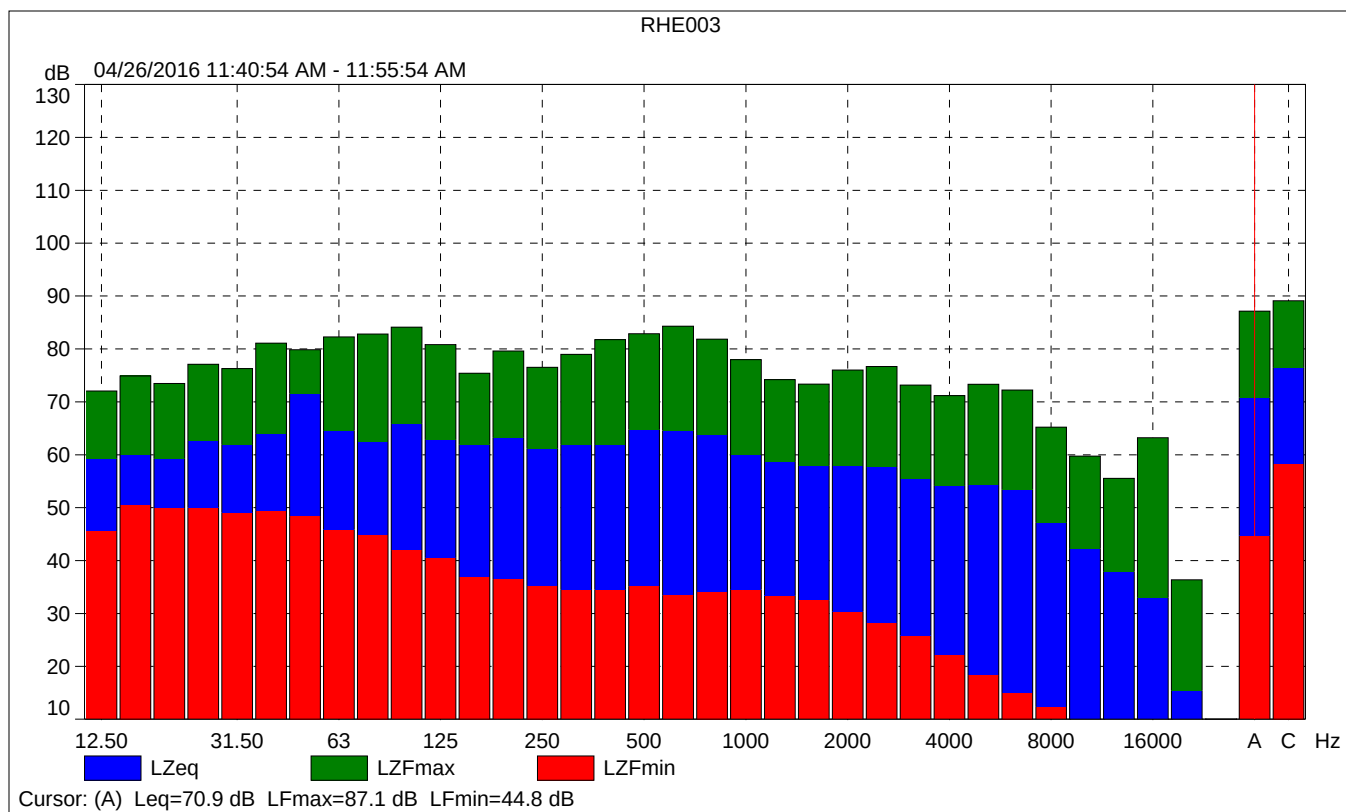
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

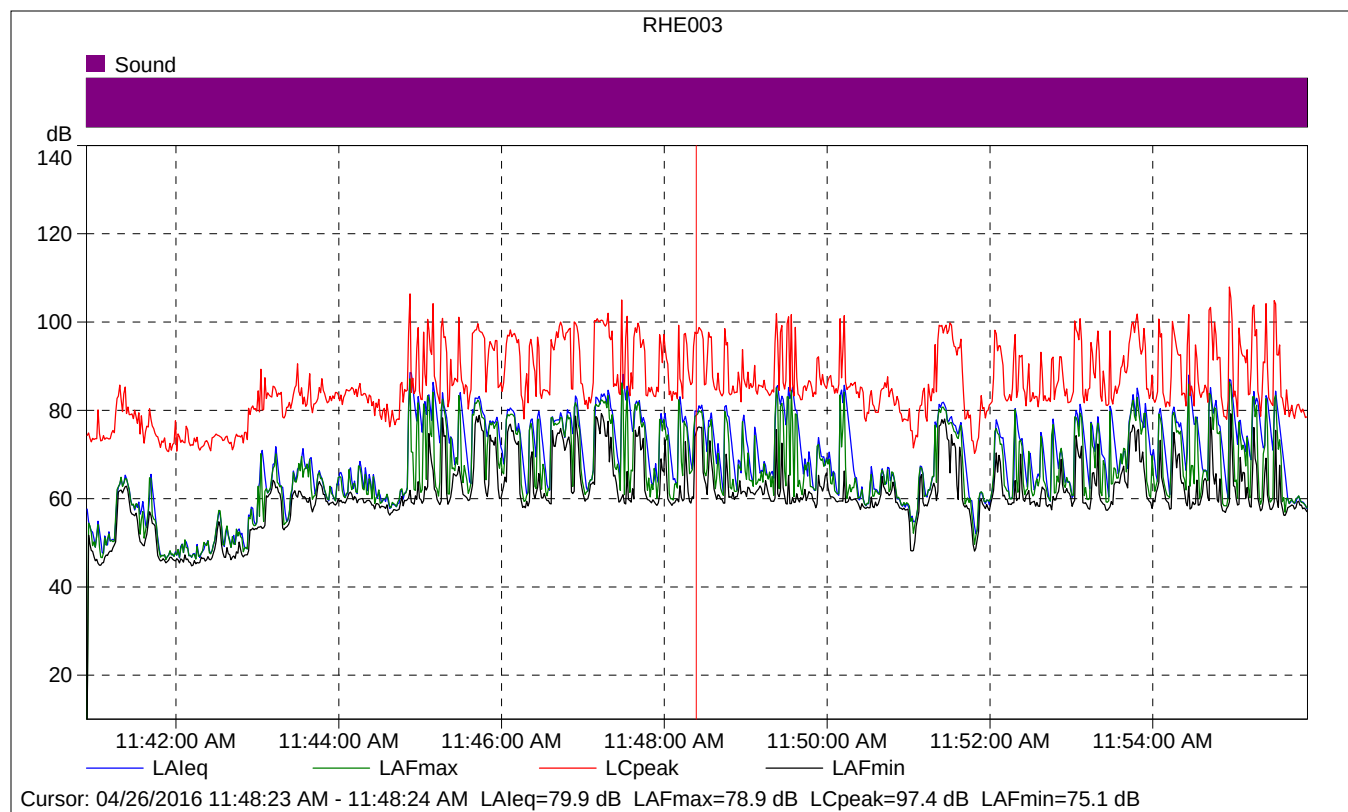
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Diffuse-field

Calibration Time:		04/25/2016 14:58:58
Calibration Type:		External reference
Sensitivity:		64.5262822508812 mV/Pa

RHE003

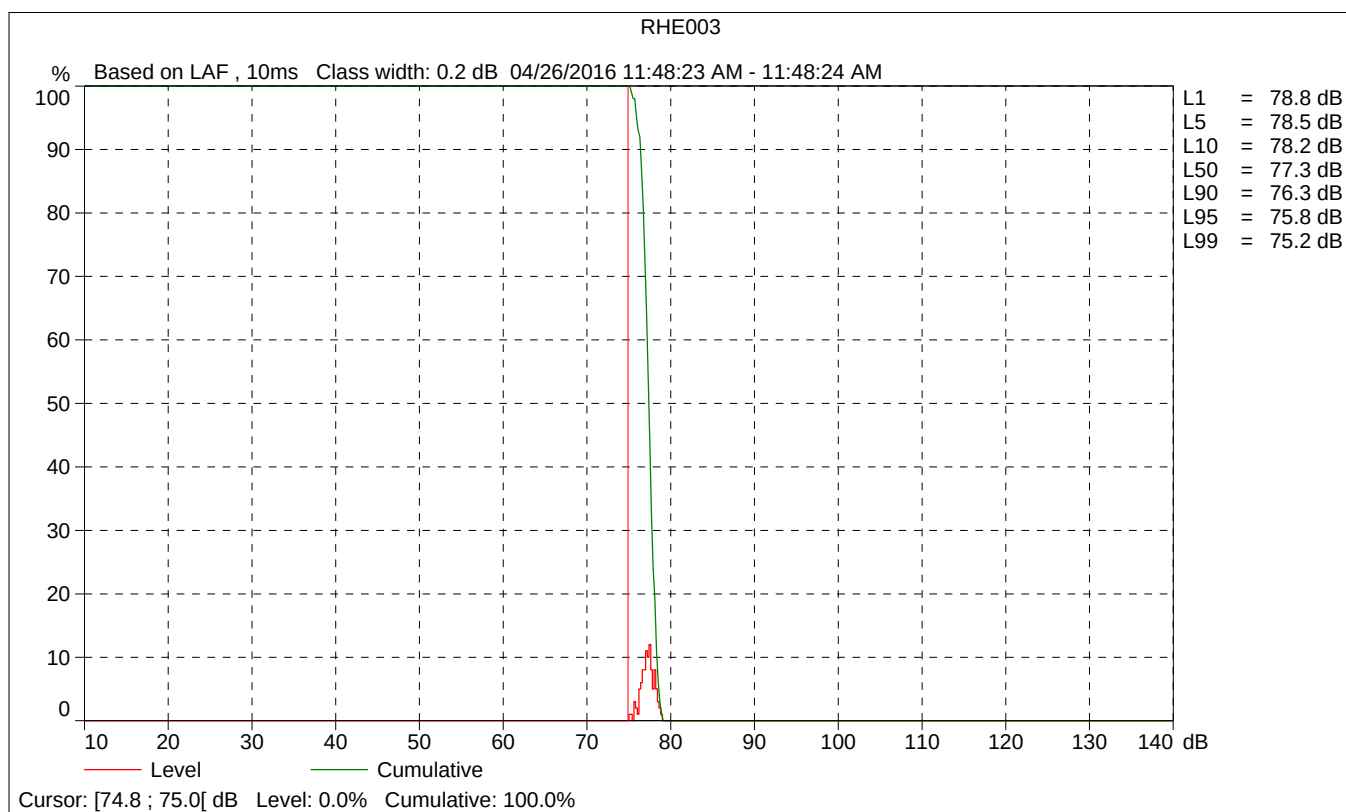
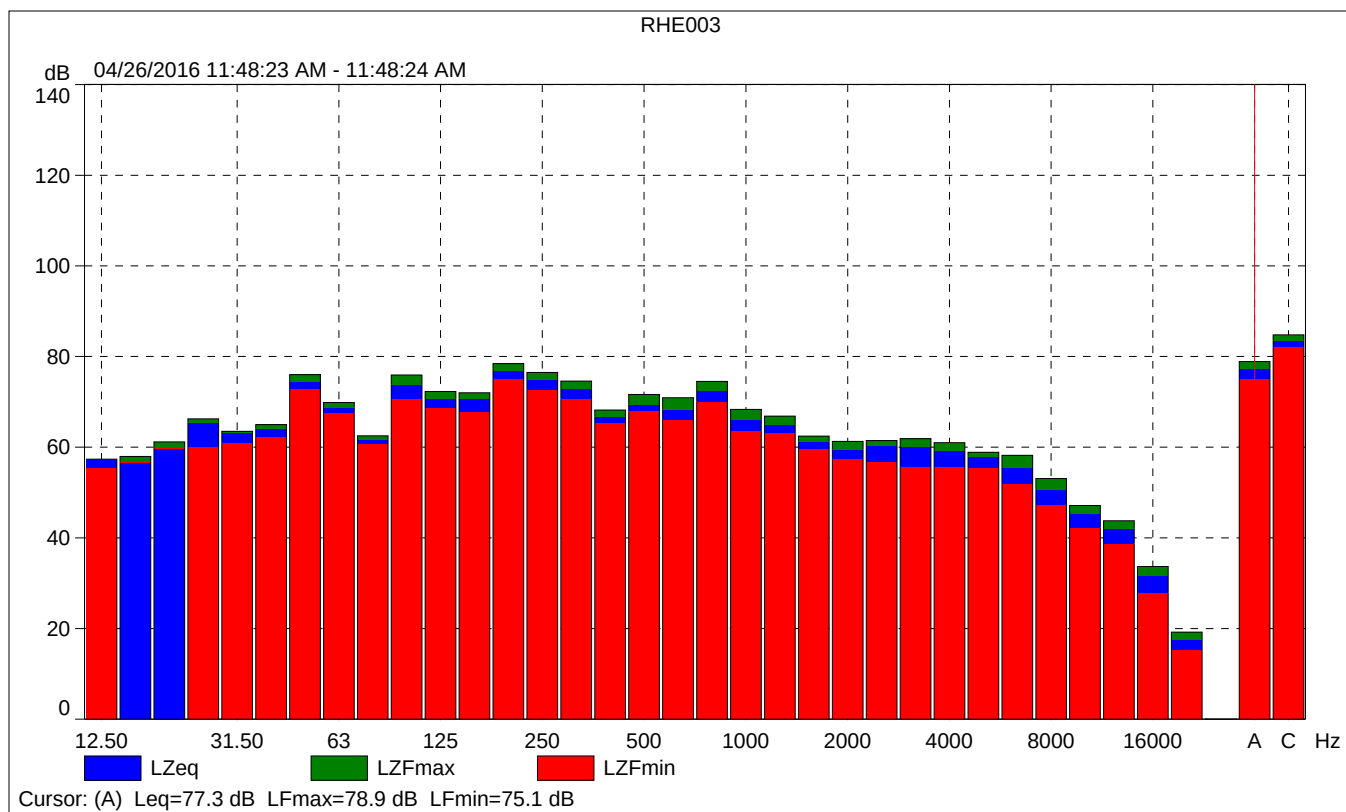
	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	70.9	87.1	44.8
Time	11:40:54 AM	11:55:54 AM	0:15:00				
Date	04/26/2016	04/26/2016					

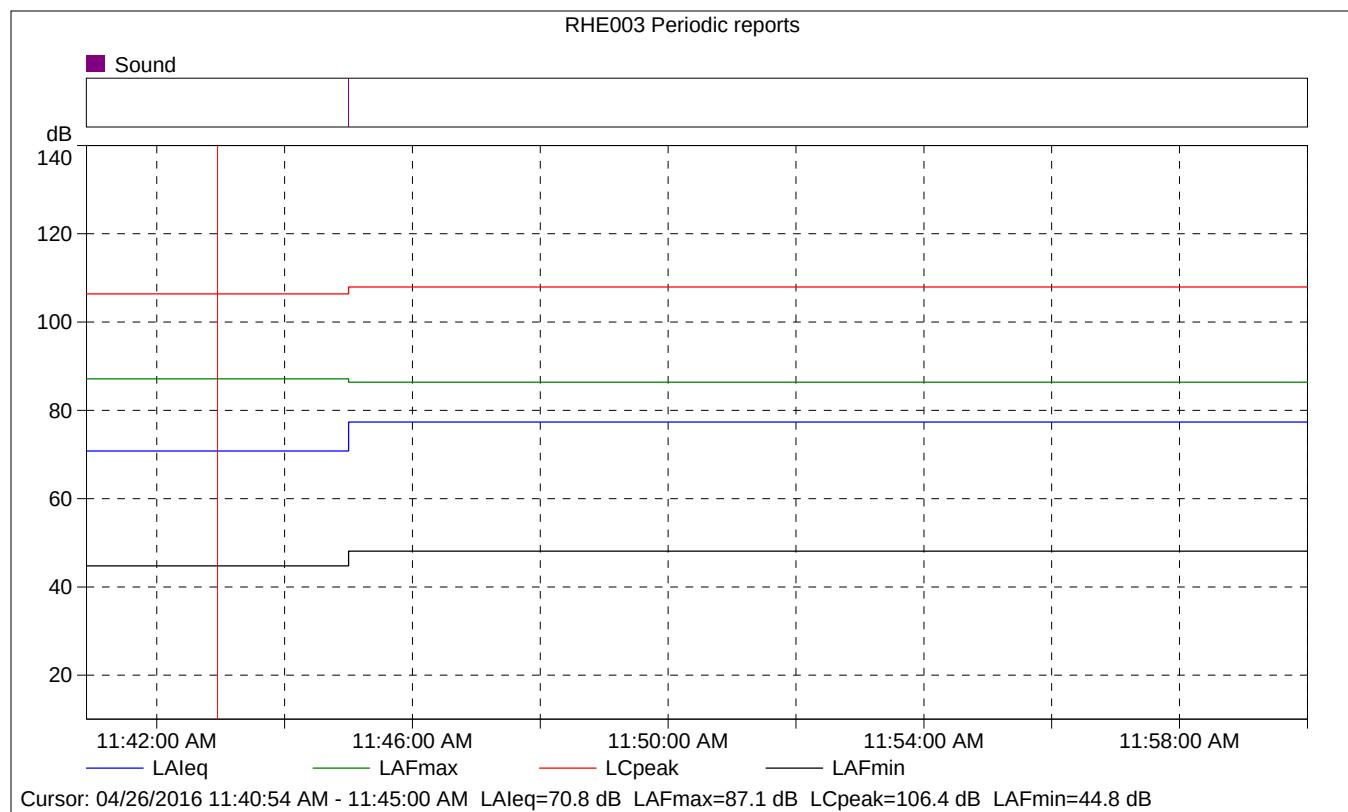




RHE003

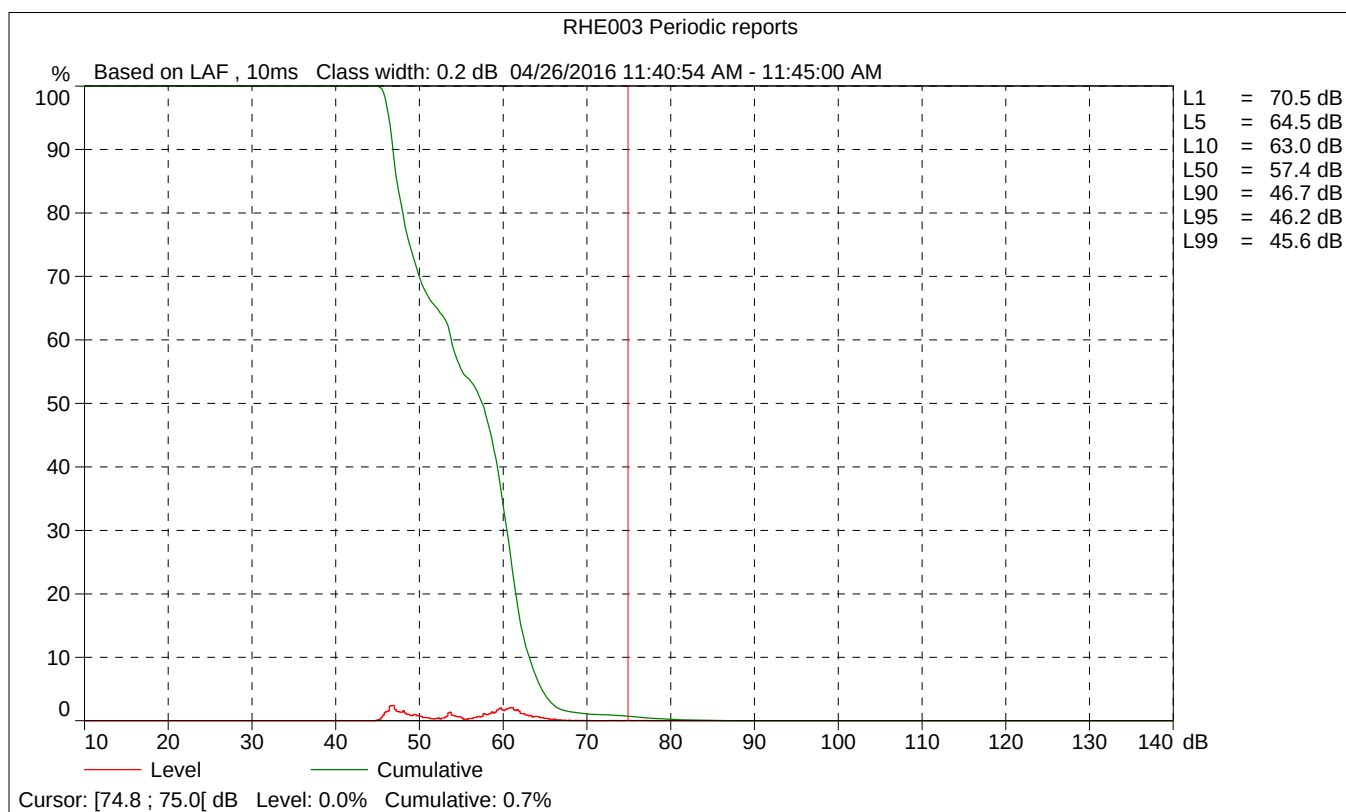
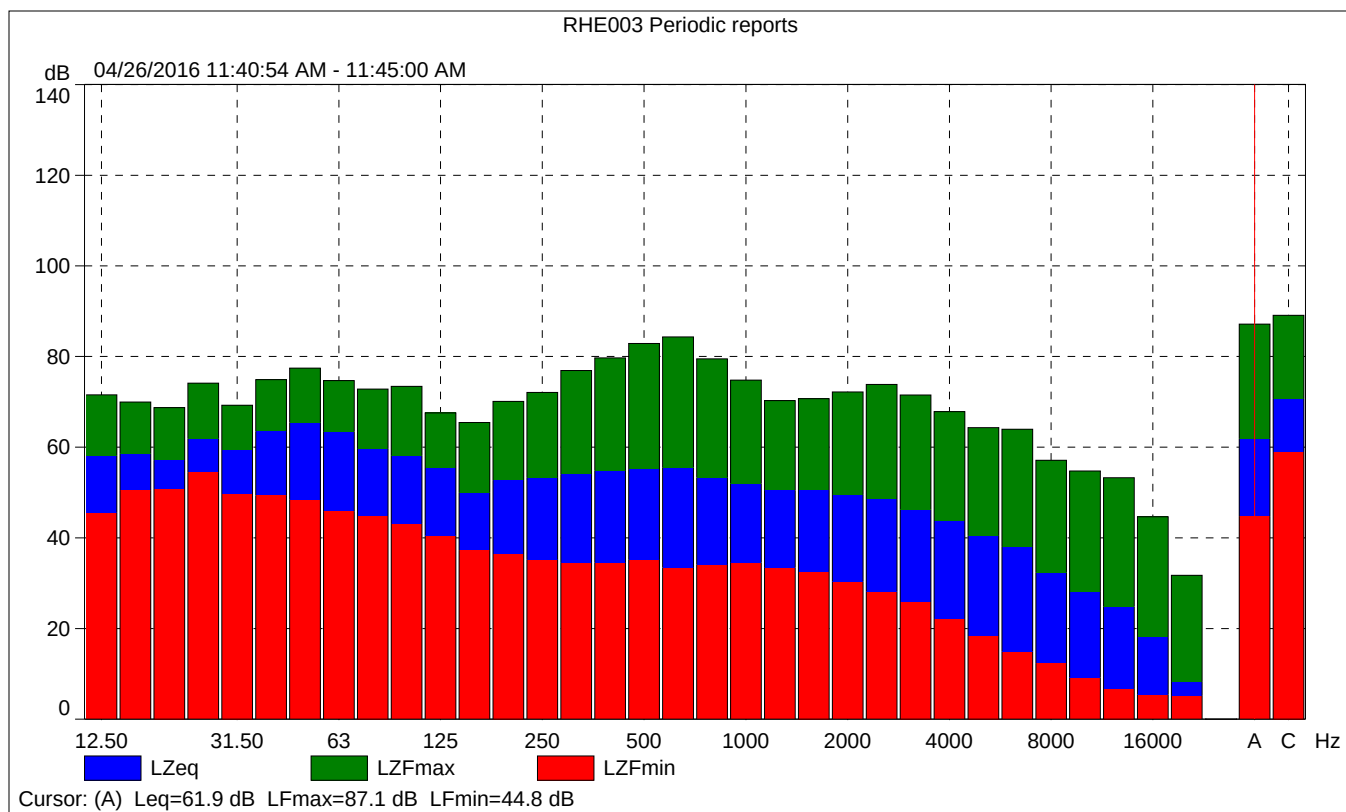
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Date	04/26/2016				

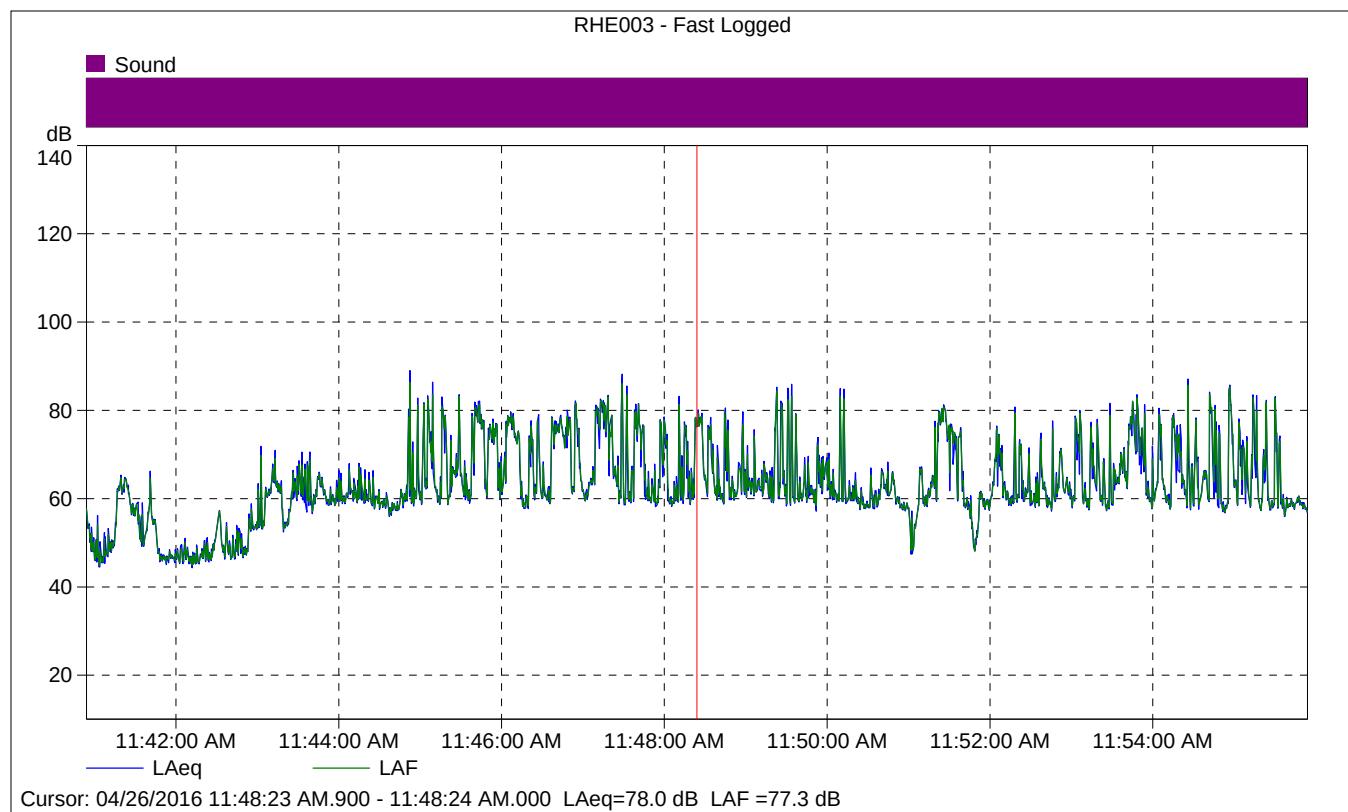




RHE003 Periodic reports

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Value			0.00	70.8	87.1	44.8
Time	11:40:54 AM	0:04:06				
Date	04/26/2016					





RHE003 - Fast Logged

	Start time	Elapsed time	LAeq [dB]
Value			78.0
Time	11:48:23 AM.900	0:00:00.100	
Date	04/26/2016		

Site Number: 4			
Recorded By: Jessica Ditto			
Job Number: 151352			
Date: 4/26/2016			
Time: 12:03 p.m.			
Location: Drybank Drive; approximately 145 feet northeast of Deep Valley Drive			
Source of Peak Noise: Street traffic on Deep Valley Drive and construction across Deep Valley Drive			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
59.6	45.0	78.8	100.6

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	2548189	1/4/2016	
	Microphone	Brüel & Kjær	4189	2543364	1/4/2016	
	Preamp	Brüel & Kjær	ZC 0032	4265	1/4/2016	
	Calibrator	Brüel & Kjær	4231	2545667	1/4/2016	
Weather Data						
Est.	Duration: 15 minutes			Sky: ☀ Sunny		
	Note: dBA Offset = 0.01			Sensor Height (ft): 5 ft		
	Wind Ave Speed (mph / m/s)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	< 5 mph		64		low	

Photo of Measurement Location



2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		04/26/2016 12:03:18
End Time:		04/26/2016 12:18:18
Elapsed Time:		00:15:00
Bandwidth:		1/3-octave
Max Input Level:		138.73

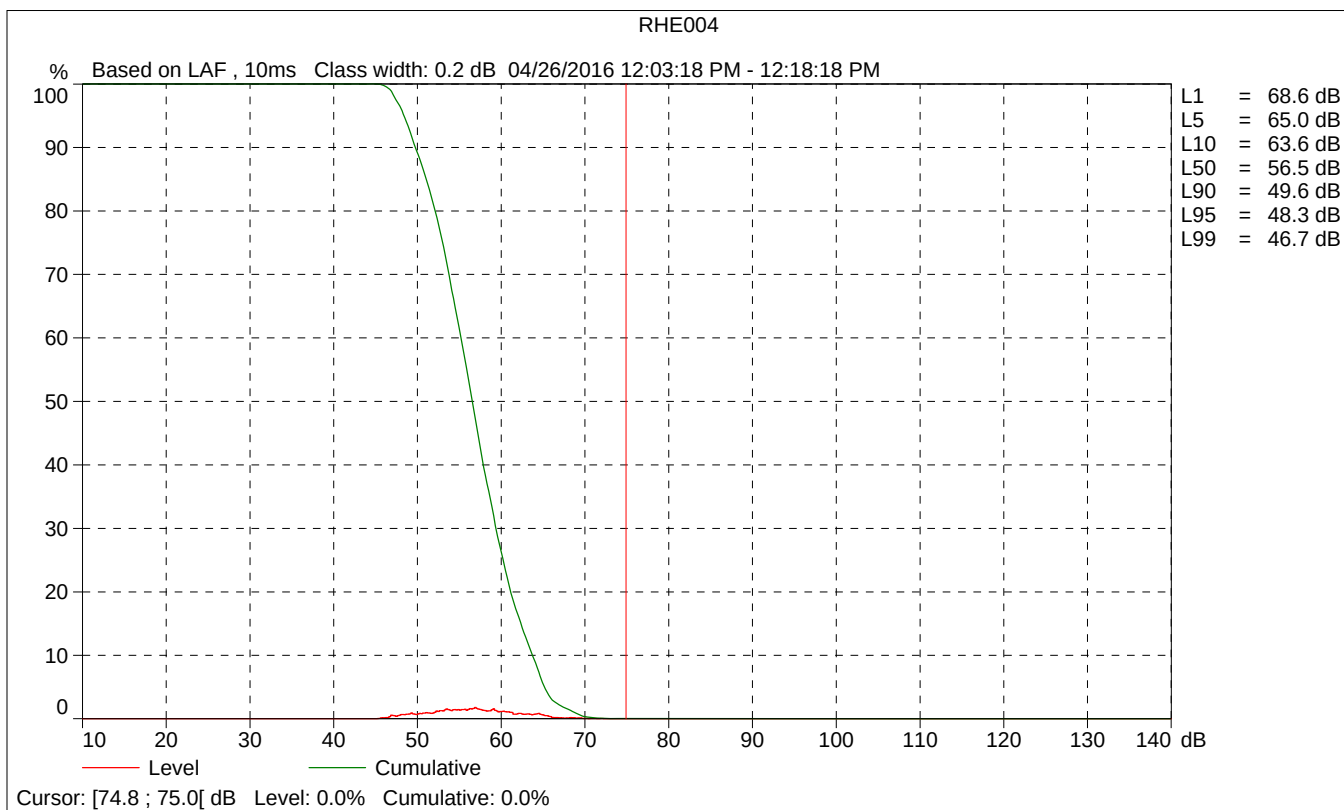
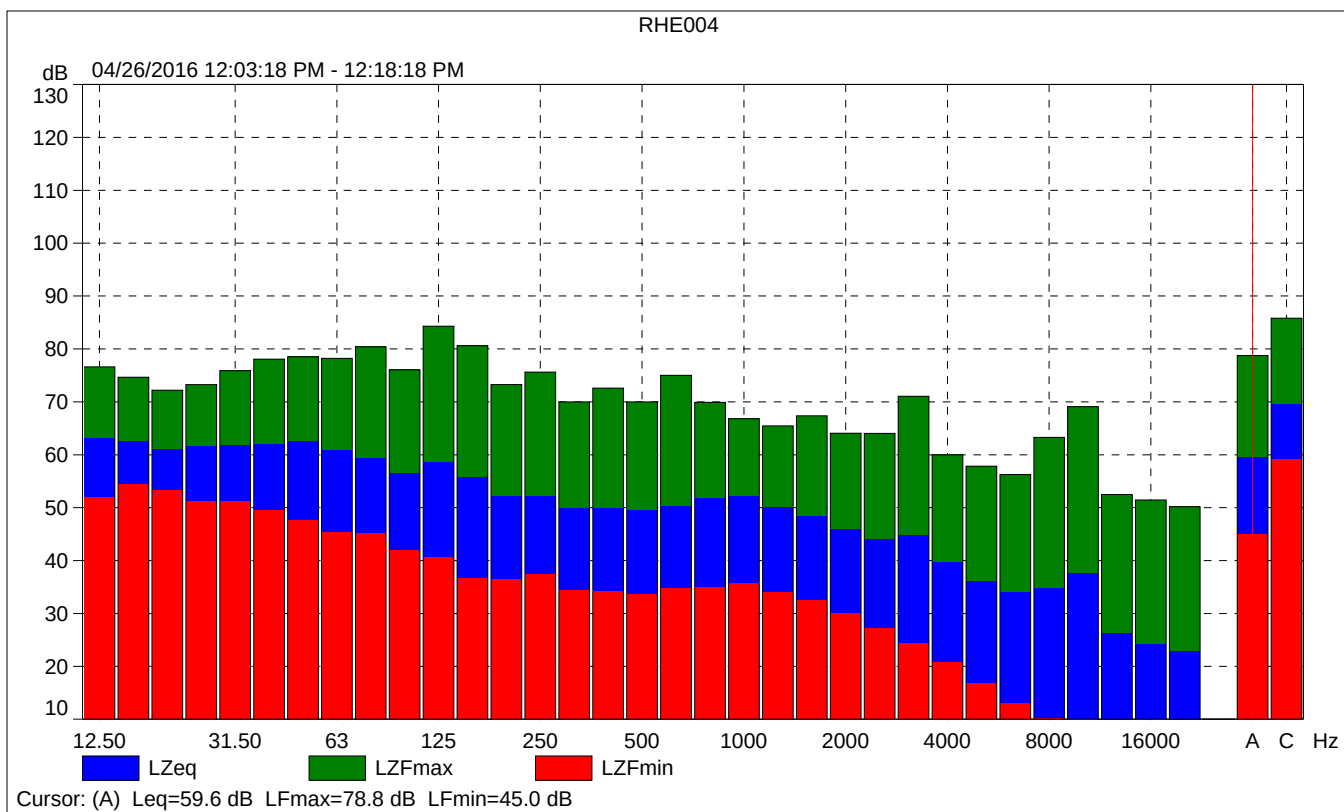
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Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

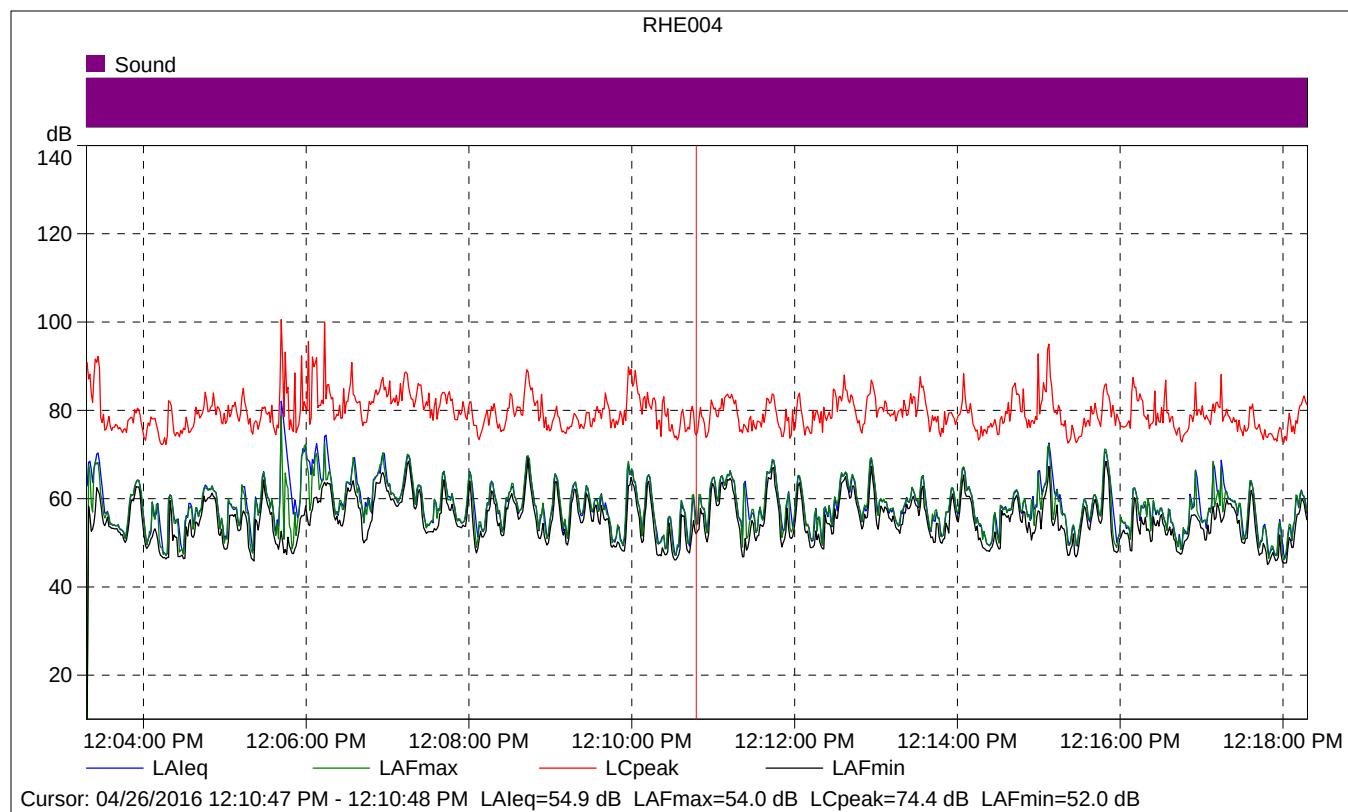
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Diffuse-field

Calibration Time:		04/25/2016 14:58:58
Calibration Type:		External reference
Sensitivity:		64.5262822508812 mV/Pa

RHE004

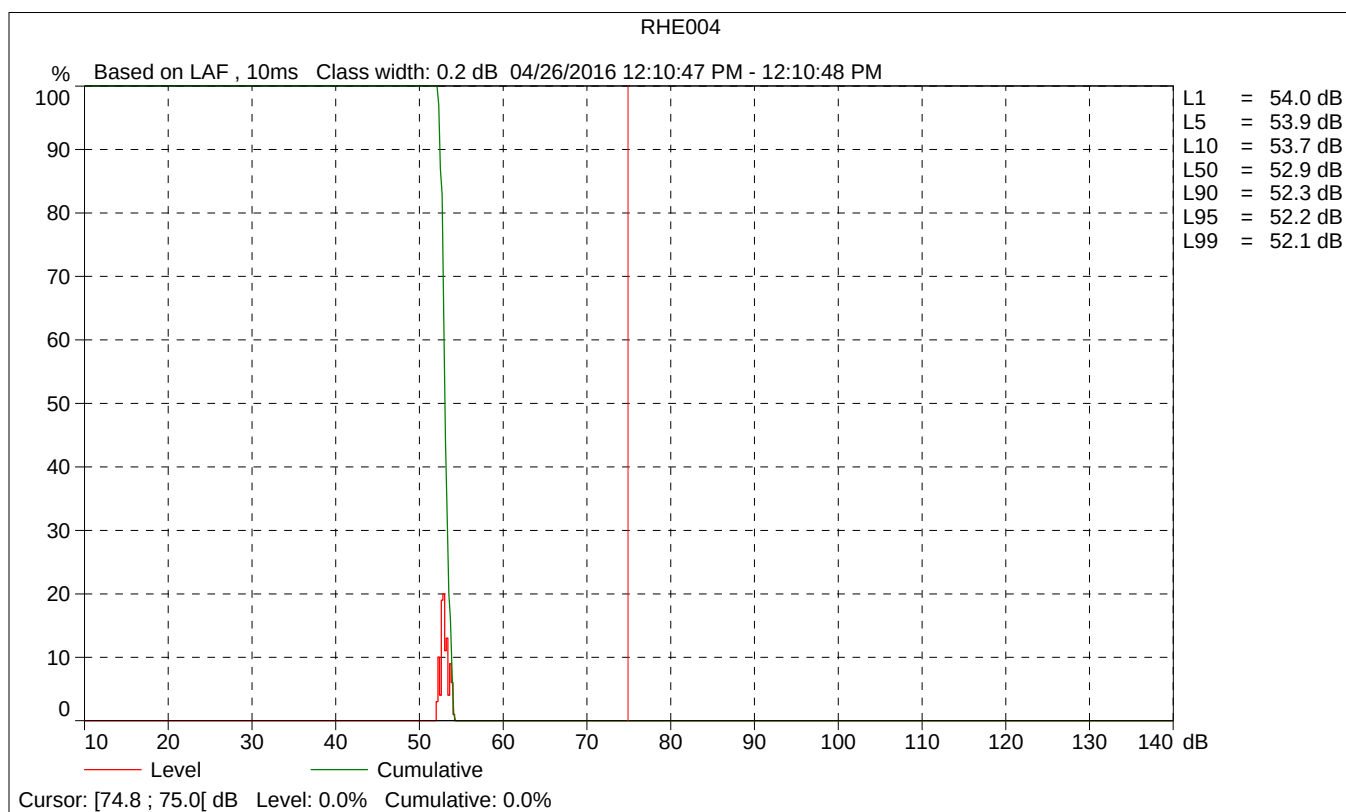
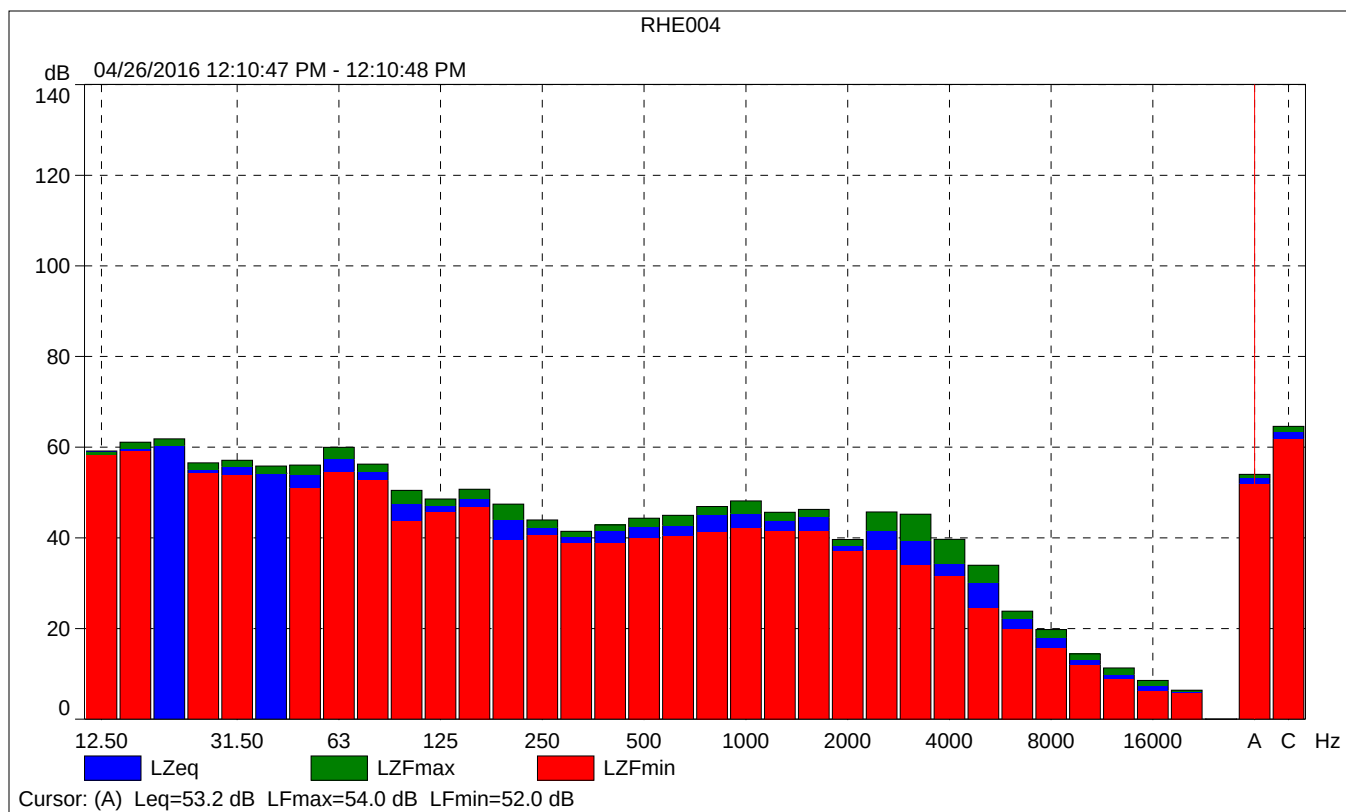
	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	59.6	78.8	45.0
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Date	04/26/2016	04/26/2016					

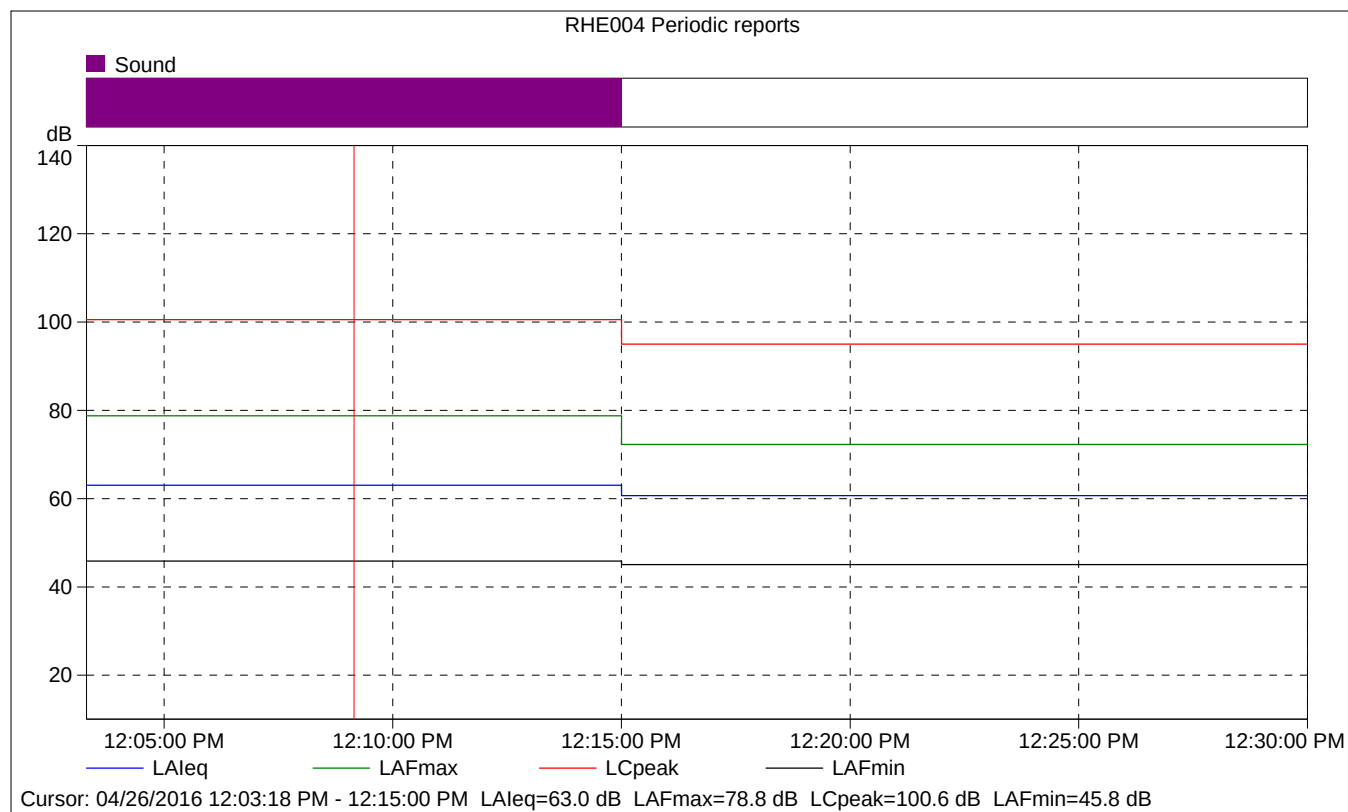




RHE004

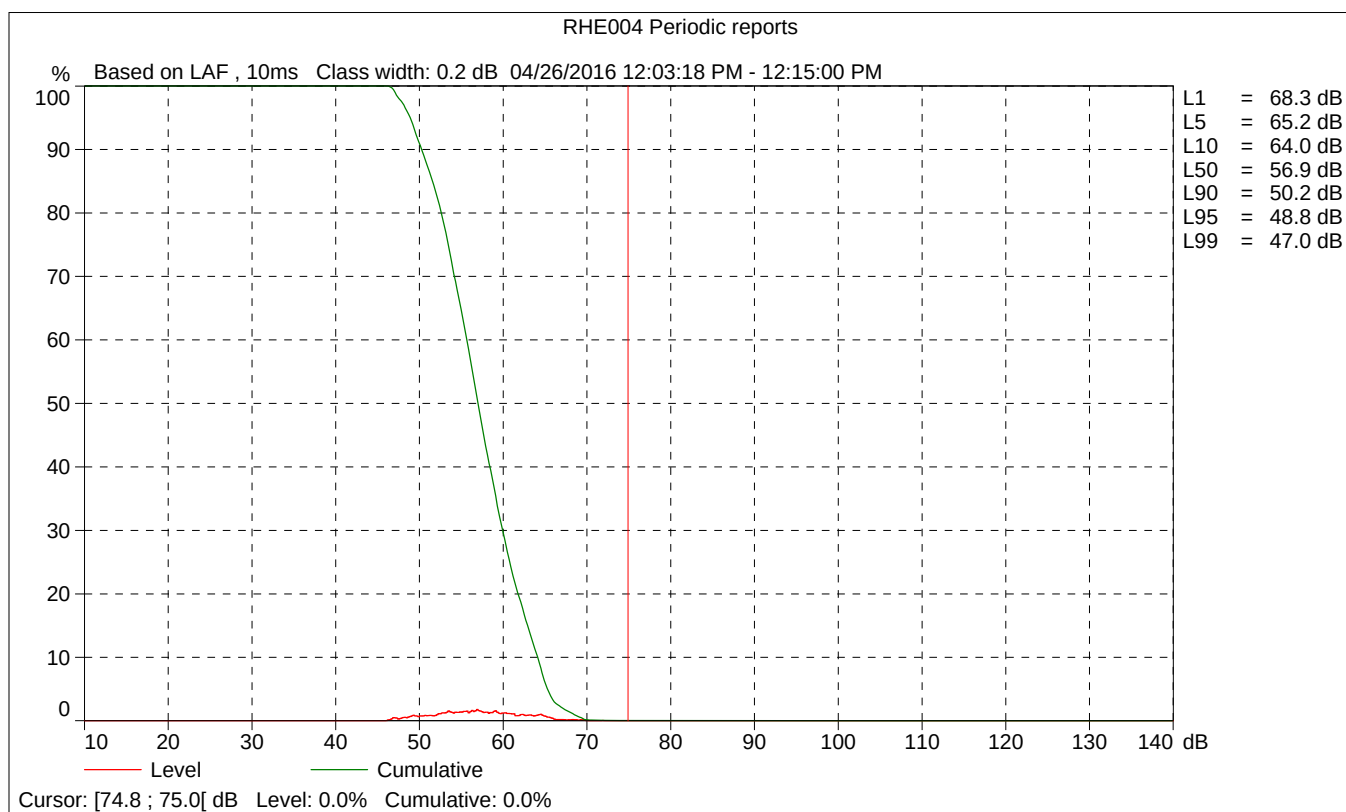
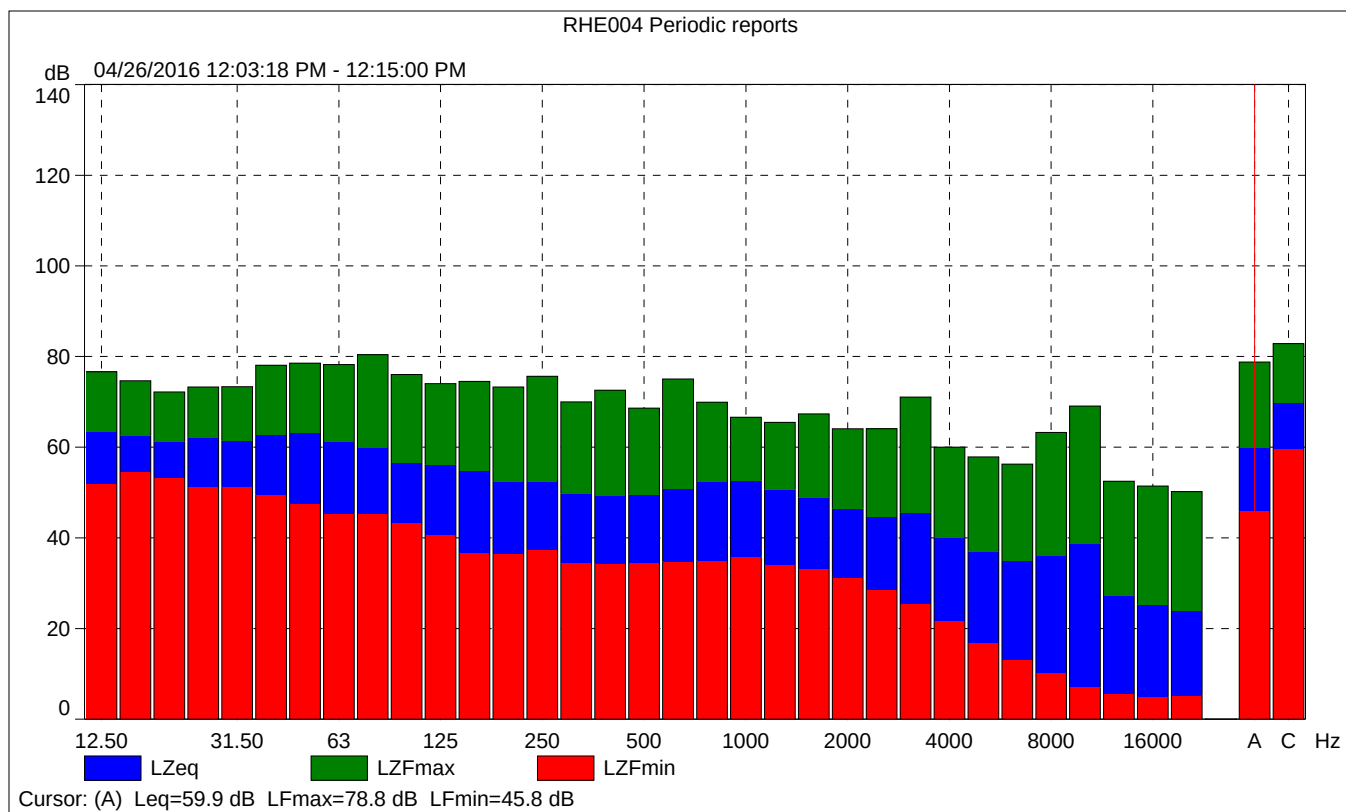
	Start time	Elapsed time	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
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Time	12:10:47 PM	0:00:01			
Date	04/26/2016				

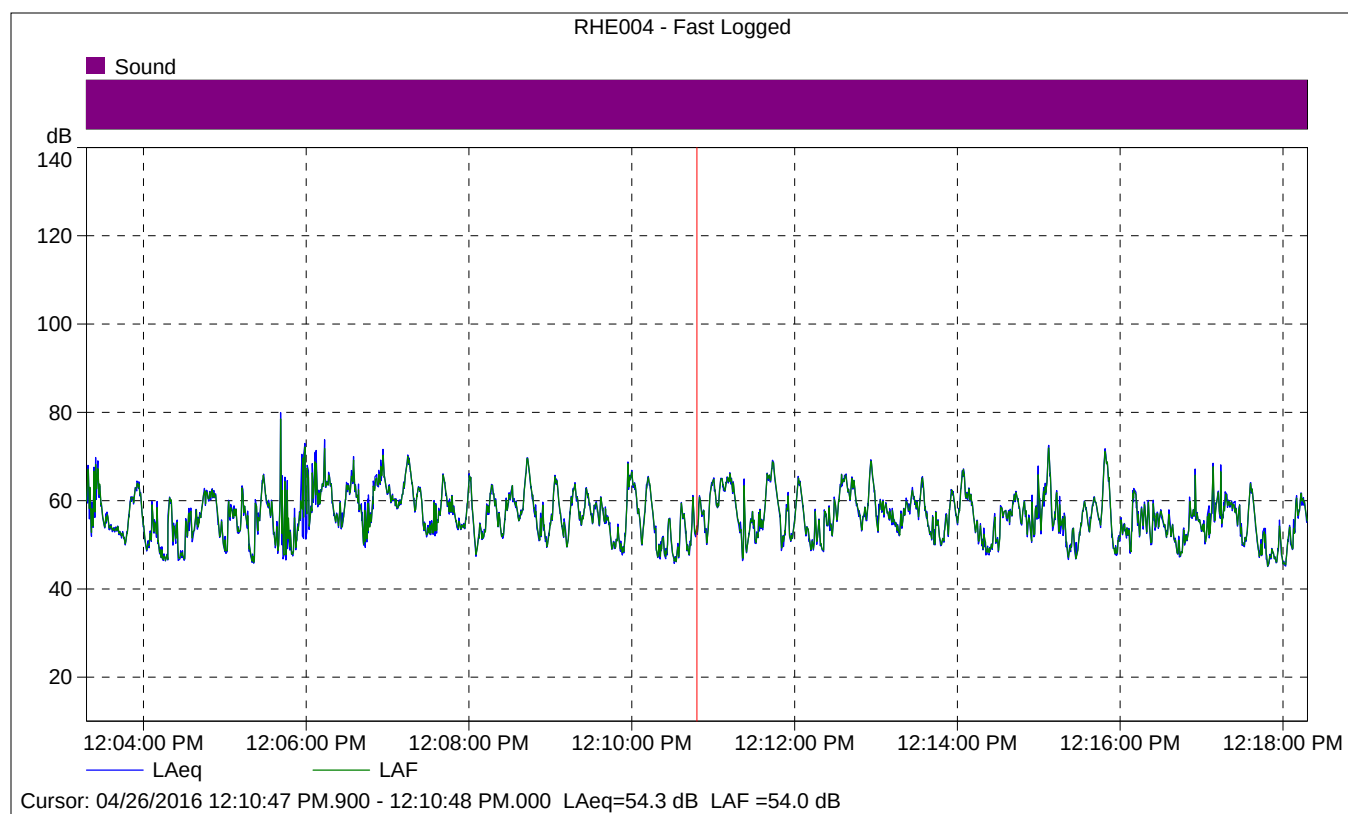




RHE004 Periodic reports

	Start time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	63.0	78.8	45.8
Time	12:03:18 PM	0:11:42				
Date	04/26/2016					





RHE004 - Fast Logged

	Start time	Elapsed time	LAeq [dB]
Value			54.3
Time	12:10:47 PM.900	0:00:00.100	
Date	04/26/2016		

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Existing Conditions

Project Number: 1A

Project Name: Merrill Gardens (Rolling Hills Estates)

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
 Source of Traffic Volumes: Fehr and Peers
 Community Noise Descriptor: $L_{dn} = \frac{x}{CNEL}$

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway				
						Medium Trucks	Heavy Trucks	Ldn at 100 Feet	70 Ldn	Distance to Contour 65 Ldn	60 Ldn	55 Ldn
Hawthorne												
Palos Verdes to Silver Spur	4	15	16,408	45	0.5	1.8%	0.1%	62.3	-	67	143	309
Silver Spur to west	4	5	9,424	35	0.5	1.8%	0.1%	57.1	-	-	64	137
Crenshaw												
Palos Verdes to Silver Spur	4	5	18,728	45	0.5	1.8%	0.1%	62.8	-	72	155	333
Silver Spur to west	4	5	7,872	45	0.5	1.8%	0.1%	59.1	-	-	87	187
Silver Spur												
Hawthorne to north	3	0	3,464	25	0.5	1.8%	0.1%	49.2	-	-	-	41
Hawthorne to Silver Arrow	4	5	10,248	35	0.5	1.8%	0.1%	57.4	-	-	67	145
Silver Arrow to Norris	4	15	10,824	35	0.5	1.8%	0.1%	57.7	-	-	71	152
Norris to Drybank	4	15	10,368	35	0.5	1.8%	0.1%	57.5	-	-	69	148
Drybank to Beachgate	4	15	8,040	35	0.5	1.8%	0.1%	56.4	-	-	58	125
Beechgate to Crenshaw	4	15	10,384	35	0.5	1.8%	0.1%	57.6	-	-	69	148

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Existing Plus Project Conditions

Project Number: 1B

Project Name: Merrill Gardens (Rolling Hills Estates)

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.

Source of Traffic Volumes: Fehr and Peers

Community Noise Descriptor: $L_{dn} = \frac{x}{CNEL}$

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway				
						Medium Trucks	Heavy Trucks	Ldn at 100 Feet	70 Ldn	Distance to Contour		
									65 Ldn	60 Ldn	55 Ldn	
Hawthorne												
Palos Verdes to Silver Spur	4	15	16,376	45	0.5	1.8%	0.1%	62.3	-	66	143	309
Silver Spur to west	4	5	9,416	35	0.5	1.8%	0.1%	57.1	-	-	64	137
Crenshaw												
Palos Verdes to Silver Spur	4	5	18,632	45	0.5	1.8%	0.1%	62.8	-	72	154	332
Silver Spur to west	4	5	7,864	45	0.5	1.8%	0.1%	59.1	-	-	87	187
Silver Spur												
Hawthorne to north	3	0	3,448	25	0.5	1.8%	0.1%	49.1	-	-	-	41
Hawthorne to Silver Arrow	4	5	10,168	35	0.5	1.8%	0.1%	57.4	-	-	67	144
Silver Arrow to Norris	4	15	10,744	35	0.5	1.8%	0.1%	57.7	-	-	70	151
Norris to Drybank	4	15	10,280	35	0.5	1.8%	0.1%	57.5	-	-	68	147
Drybank to Beachgate	4	15	7,944	35	0.5	1.8%	0.1%	56.4	-	-	57	124
Beechgate to Crenshaw	4	15	10,280	35	0.5	1.8%	0.1%	57.5	-	-	68	147

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Cumulative No Project Conditions

Project Number: 2A

Project Name: Merrill Gardens (Rolling Hills Estates)

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
 Source of Traffic Volumes: Fehr and Peers
 Community Noise Descriptor: $L_{dn} = \frac{1}{3} \times \text{CNEL}$

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway				
						Medium Trucks	Heavy Trucks	Ldn at 100 Feet	70 Ldn	Distance to Contour 65 Ldn	60 Ldn	55 Ldn
Hawthorne												
Palos Verdes to Silver Spur	4	15	17,304	45	0.5	1.8%	0.1%	62.6	-	69	149	320
Silver Spur to west	4	5	9,880	35	0.5	1.8%	0.1%	57.3	-	-	66	141
Crenshaw												
Palos Verdes to Silver Spur	4	5	19,712	45	0.5	1.8%	0.1%	63.1	-	74	160	345
Silver Spur to west	4	5	8,344	45	0.5	1.8%	0.1%	59.3	-	-	90	194
Silver Spur												
Hawthorne to north	3	0	3,544	25	0.5	1.8%	0.1%	49.3	-	-	-	41
Hawthorne to Silver Arrow	4	5	10,672	35	0.5	1.8%	0.1%	57.6	-	-	69	149
Silver Arrow to Norris	4	15	11,256	35	0.5	1.8%	0.1%	57.9	-	-	73	156
Norris to Drybank	4	15	10,792	35	0.5	1.8%	0.1%	57.7	-	-	70	152
Drybank to Beachgate	4	15	8,368	35	0.5	1.8%	0.1%	56.6	-	-	60	128
Beechgate to Crenshaw	4	15	10,760	35	0.5	1.8%	0.1%	57.7	-	-	70	152

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Cumulative Plus Project

Project Number: 2B

Project Name: Merrill Gardens (Rolling Hills Estates)

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.

Source of Traffic Volumes: Fehr and Peers

Community Noise Descriptor: $L_{dn} = \frac{1}{24} \sum_{i=1}^{24} L_i$ CNEL: $\frac{1}{24} \sum_{i=1}^{24} L_i$

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway				
				Speed (mph)		Medium Trucks	Heavy Trucks	Ldn at 100 Feet	70 Ldn	Distance to Contour		
										65 Ldn	60 Ldn	55 Ldn
Hawthorne												
Palos Verdes to Silver Spur	4	15	17,272	45	0.5	1.8%	0.1%	62.6	-	69	148	320
Silver Spur to west	4	5	9,872	35	0.5	1.8%	0.1%	57.3	-	-	66	141
Crenshaw												
Palos Verdes to Silver Spur	4	5	19,616	45	0.5	1.8%	0.1%	63.0	-	74	160	344
Silver Spur to west	4	5	8,336	45	0.5	1.8%	0.1%	59.3	-	-	90	194
Silver Spur												
Hawthorne to north	3	0	3,528	25	0.5	1.8%	0.1%	49.2	-	-	-	41
Hawthorne to Silver Arrow	4	5	10,592	35	0.5	1.8%	0.1%	57.6	-	-	69	148
Silver Arrow to Norris	4	15	11,176	35	0.5	1.8%	0.1%	57.9	-	-	72	155
Norris to Drybank	4	15	10,704	35	0.5	1.8%	0.1%	57.7	-	-	70	151
Drybank to Beachgate	4	15	8,272	35	0.5	1.8%	0.1%	56.6	-	-	59	127
Beechgate to Crenshaw	4	15	10,656	35	0.5	1.8%	0.1%	57.7	-	-	70	151

APPENDIX D – HAZARDOUS MATERIALS DOCUMENTS



BEC

REMEDIAL ACTION PLAN

Prepared for:

Continental Development Corporation

Site Name/Location:

The Village
627 Silver Spur Road
Rolling Hills Estates, California

March 14, 2014

Bowyer Environmental Consulting
17011 Beach Boulevard, Suite 900
Huntington Beach, CA 92647
T: 877-232-4620
F: 714-840-4963

REMEDIAL ACTION PLAN
The Village
627 Silver Spur Road
Rolling Hills Estates, California

BEC Project No.: 070040017

March 14, 2014

Prepared For:
Mr. Bruce DeJong
Continental Development Corporation
2041 Rosecrans Avenue, Suite 200
El Segundo, CA 90245

Prepared by:
Bowyer Environmental Consulting, Inc.
17011 Beach Boulevard, Suite 900
Huntington Beach, California 92647
T: 877.232.4620
F: 714.840.4963

The material and data in this report were prepared by and/or under the supervision and direction of the undersigned.

 Date 3-14-14
Brett H. Bowyer, P.G.
Principal
Bowyer Environmental Consulting, Inc.

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1.0 INTRODUCTION

This Remedial Action Plan (RAP) has been prepared by Bowyer Environmental Consulting, Inc. (BEC) at the request of Continental Development Corporation (Continental). This RAP describes the objectives and scope of a planned remedial and management procedures designed to address subsurface volatile organic compounds (VOC) at the property referred to as “*The Village*.” The Village is located at 627 Silver Spur Road, in Rolling Hills Estates, California (“Property”). The Property location is shown on Figure 1.

1.1 PURPOSE

It is our understanding that Continental is seeking either to (i) sell the Property so that it can be utilized to develop a new assisted-living facility; or (ii) remodel the property and resell units for commercial or retain use. Given this, the primary objectives of this RAP are to:

- Remove VOC mass present in soil and soil vapor beneath a dry cleaning operation (Courtesy Cleaners);
- Reduce levels in the subsurface to help facilitate closure and subsequent demolition and redevelopment; and
- Provide soil management procedures to be taken during redevelopment to facilitate remediation to an unrestricted use standard.

1.2 REPORT ORGANIZATION

This Report is organized into the following primary sections:

- Section 1 describes the program objectives and summarizes the organization of the RAP;
- Section 2 provides a general description of the Property, describes area geology/hydrogeology, and summarizes the scope of previous environmental investigations;
- Section 3 describes the scope of the planned remediation and management efforts;

- Section 4 presents schedule of activities associated with the activities presented in this RAP;
- Section 5 describes the limitation associated with this documents; and
- Section 6 presents a list of referenced documents.

2.0 PROPERTY BACKGROUND

The Property is located near the middle of a coastal upland area known as the *Palos Verdes Peninsula*. It is located within a relatively narrow northwest to southeast trending canyon. The floor of the canyon, which dips towards the southeast, is occupied by commercial businesses, and residential dwellings are located on the higher ground associated with the canyon walls. As shown on Figure 2, the Property is bordered by streets and commercial businesses.

The Property consists of approximately 1.5-acre of land with two existing buildings. The Property is part of a currently-existing commercial development known as *The Village*. The Property configuration and location of the referenced facilities are shown on Figure 3.

A dry cleaner operates in one of the units and a gasoline service station was formerly present on the northwestern portion of the property. The general operations at the dry cleaning facility are shown on Figure 4.

2.1 REGIONAL GEOLOGY/HYDROGEOLOGY

The Palos Verdes Peninsula is an uplifted (surface elevations of greater than 1,000 feet above mean sea level) belt of hills consisting of Tertiary bedrock materials (MACTEC, July 25, 2005). It is characterized by elongate northwest-trending ridges separated by straight-sided sediment-filled valleys.

A limited amount of groundwater is reported to be present in some of the valley alluvial within the Palos Verdes Peninsula. However, this water is not used for any known purpose and it is separated from the groundwater aquifers of the Los Angeles Basin by several miles and the known active Palos Verdes Fault.

Groundwater has been reported to be present at various depths in the valley alluvial at and near the Property. For instance, measurements taken from wells located approximately 1,000 feet east of the Property (at a former Arco service station) reported groundwater to be present at depths of approximately 7.0 to 25.0 on October 26, 2011 (Arcadis, February 16, 2012).

During recently implemented drilling and soil sampling at the Property, silty clay was observed to depths of 15 feet. The silty clay was soft and the color ranged from olive brown to black. No groundwater was observed to depths of 15 feet.

2.2 HISTORICAL ENVIRONMENTAL INVESTIGATIONS

A limited soil sampling effort was implemented at the dry cleaning facility in 2004 (ADR Environmental Group, Inc., January 11, 2004). This investigation showed that relatively low levels of tetrachloroethene (PCE) and trichloroethene (TCE) were present in shallow soil beneath the dry cleaner. An additional soil and soil gas investigation conducted by BEC between November 2012 and April of 2013 confirmed the presence of PCE and related daughter products including TCE, cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride. Low levels of other chlorinated and aromatic VOCs were also observed in collected vapor and soil samples. The soil results suggest that the vertical extents of impacts are limited (Approximately 15 feet). The soil vapor results increase with depth, but this may be a result of greater levels of ambient air exchange in the shallow subsurface. The locations of soil and soil vapor sampling locations are shown on Figure 5.

Only PCE, TCE and vinyl chloride was observed in soil vapor samples in excess of conservative screening criteria. These three compounds were observed at concentrations in excess of California Human Health Screening Levels (CHHSLs) for commercial/industrial land use. Further evaluations were performed to estimate the potential health risks posed by the observed vapor concentrations using the latest version of the Johnson and Ettinger model (The Advanced Soil Gas Model -USEPA 2003a; model last modified February 2004, which was further modified to include California EPA toxicity factors). Based on these evaluations, soil vapor samples collected from the dry cleaning facility exhibit concentrations that exceed unrestricted use criteria (incremental lifetime cancer risks of greater than 1×10^{-6}) but do not exceed criteria that is typically acceptable for commercial/industrial purposes (incremental lifetime cancer risks of greater than 1×10^{-5}) based on carcinogenic risk. In addition, the non-carcinogenic risks did not exceed unrestricted use criteria (Hazard Quotient of less than 1).

Based on a summary provided in a Phase I Report (MACTEC, July 25, 2005), the gasoline service station located at the northwestern corner of the Property was the subject of several historical investigation and remediation efforts in the 1980s and 1990s. Based on these efforts, the Los Angeles Area Regional Water Quality Control Board (RWQCB) closed the gasoline station in 1999.

3.0 SCOPE OF WORK

In order to reduce the chemical mass of PCE and daughter products in the subsurface at the Courtesy Cleaners facility, a soil vapor extraction program will be implemented. It is anticipated that the implementation of a soil vapor extraction program for a six month period will significantly reduce PCE mass in the subsurface and should allow for the redevelopment activities to be implemented for its intended uses. Environmental monitoring activities will be conducted during future demolition and grading activities in order to address any residual VOC's that remain following the implementation of the vapor extraction program. If, during future development activities, residual VOCs are observed at levels of concern, removal activities will be conducted to address these conditions.

The descriptions provided in the following subsections summarize the vapor extraction program and soil management procedures that will be implemented at the Property.

3.1 SVE SYSTEM INSTALLATION, START UP AND OPERATION

SVE technology utilizes a vacuum applied through wells near the source of contamination within the soil. Vapor is drawn towards the extraction wells by applying a vacuum to the extraction wells with the use of a vacuum blower. Prior to discharge to the atmosphere, the extracted vapor is treated to reduce chemical concentrations. Treatment options vary, but for this type of project treatment will most likely involve passing the extracted vapor through a series of treatment vessels that contain activated carbon and potassium permanganate impregnated zeolite. The chemicals absorb to the carbon and potassium permanganate impregnated zeolite within the treatment vessels and treated vapor is safely released (per South Coast Air Quality Management District Permit) to the atmosphere. Once the activated carbon and potassium permanganate impregnated zeolite within the vessels reaches a saturated state, they are replaced with new materials. Monitoring is conducted on a regular basis to measure the mass absorbed, and to verify that breakthrough (saturation) has not taken place. The treatment materials are placed in series so that individual vessels are changed out following breakthrough without discharge to the atmosphere at concentrations that exceed permit limits.

3.1.1 Drilling and Well Installation

Given the presence of relatively fine grained soil, and the apparent chemical distribution of VOCs at the Property (primarily the upper 15 feet in close proximity to

the dry cleaning machine), five vapor extraction wells will be installed inside the existing building, as shown on Figure 6.

The planned total depth of the pilot borings drilled in advance of the vapor extraction wells is approximately 20 feet. The wells will be installed using hollow-stem auger, limited access drilling equipment. During drilling, soil will be sampled at a minimum of every 5.0 feet in order to evaluate the lithologic profile and to collect samples for potential chemical testing. Soil will be retained from target sampling depths in 6-inch sleeves. A six-inch sleeve from each target interval will be capped with Teflon and plastic caps. The sleeves will be placed in a new Ziploc bag and set on ice in a laboratory provided cooler. Subsamples will also be collected in order to properly preserve samples for analysis. Two soil samples collected from each well at selected target intervals will be analyzed for VOCs by EPA Method 8260B.

Soil will be described utilizing the Unified Soil Classification System (USCS) and ASTM-D2488. In addition, field headspace readings will be measured from each sampled soil interval with a photoionization detector (PID). Lithologic, headspace and other pertinent information will be recorded on boring logs prepared by a qualified engineer/scientist, supervised by a state of California Professional Geologist.

Following the completion of soil sampling activities, the monitoring wells will be constructed. The wells will consist of approximately 10 feet of 2-inch diameter, 0.02 inch slotted screened casing, overlaid by 3 to 5 feet of 2-inch blank PVC casing. The annular space will be filled with No. 3 sand (adjacent to the screened interval), and hydrated bentonite seal material (approximately 2 feet to 5 feet). The bottom section of the boring (the portion beneath the screened interval) will be backfilled with hydrated bentonite. The blank casing will extend above ground surface to allow it to be connected to above-ground soil vapor extraction conveyance piping.

3.1.2 Treatment System Description

The Treatment System will most likely consists of a knockout pot, blower, two 2,000 pound granular activated carbon vessels, one 4,000 pound vessel containing potassium permanganate impregnated zeolite, associated conveyance piping, sampling ports, pressure gauges and air flow instrumentation. The knockout pot will be used to remove entrained liquids from the extracted vapor stream. Water from the knockout pot will be pumped into a 55-gallon drum adjacent to the Treatment System and temporarily stored on site, pending removal and proper offsite disposal. An air dilution valve will be used to add ambient air to the system to regulate the system flow rate. The three treatment vessels will be installed in-series on the influent side of the blower. Vapors will be routed through the vessels for treatment, and then vented to the atmosphere. The Treatment System will be located inside the suite, and the exhaust will be piped to above the roof line of the building. It is anticipated that the dry cleaner

currently present at the Property will be removed by the time the vapor extraction program is implemented.

As previously described PVC piping will connect the vapor extraction wells to the Treatment System. Each vapor extraction well will have a discretely valved pipeline to regulate vacuum/air flow, along with individual sampling ports. The Treatment System will also have sample ports for both influent and effluent monitoring.

3.1.3 SVE Start Up and Routine System Monitoring

Initial startup activities will consist of daily site visits for the first week of operation. During this time, radius of influence (ROI) and initial extracted concentrations will be monitored repeatedly to determine stable initial operating conditions. It is important to understand the stable initial operating conditions in order to confirm that all systems are operating appropriately, and to ensure that sufficient treatment is in place to allow the system to operate for longer periods of time without concern that breakthrough conditions will occur. During this time period, a field photoionization detector (calibrated before each visit to a hexane standard) will be utilized to measure extracted concentrations from each of the five extraction wells and from the influent and effluent of the Treatment System on a daily basis. Vacuum measurements will also be collected from each of these locations on a daily basis. Near the end of the initial startup activities, a series of vapor samples will be collected from each well, and from the influent and effluent of the Treatment System. These samples will be retained in a dark container and delivered to the analytical laboratory for analysis. Each of these samples will be analyzed for VOCs by EPA Method 8260B. The result of these laboratory analyses will be used to verify the results of the field measurements.

Following the completion of the initial startup activities, routine (weekly) monitoring activities will be conducted. Field measurements, identical to those described previously, will be obtained during each of these weekly monitoring visits. In addition, a full round of vapor samples (one from each extraction well and one from the influent and one from the effluent) will be collected on a monthly basis during the routine monitoring program. General system maintenance such as change out of the carbon units and flushing the knockout drum will be done on an as-needed basis.

3.1.4 SVE Rebound Evaluation and Confirmation Sampling

The influent extraction concentrations will be monitored over time. In most cases initial extracted concentrations start relatively high, but decrease rapidly over the first few weeks as initial pore volumes of air are extracted from the subsurface and replaced with lower concentration air emanating from more distal locations. Following this initial period, extracted concentrations are a function of desorption rate that can be obtained based on the induced pressure associated with the vapor extraction system. The

desorption rate for VOCs is governed by a number of factors including soil type (and associated air permeability), variability and/or layering associated with the subsurface soils, moisture content and organic content. This slower desorption-rate limited process at small size sites with relatively fine grained soils typically take six months to one year to complete. During this six month to one year process, the extracted concentrations are plotted over time to determine when extraction is no longer resulting in a decrease in the extracted concentration (referred to as the asymptotic level). Once the asymptotic level is achieved, a series of test are performed to evaluate rebound concentrations. If rebound is determined to be minimal, then a series of subsurface soil vapor confirmation samples are collected in order to evaluate if the residual concentrations are at levels that could represent a risk to future site workers and/or residents, depending on the intended use of the property.

Following the achievement of asymptotic levels at the Site, baseline subsurface soil vapor samples will be collected from a series of existing wells and/or vapor points (Sampling Field) directly following shutdown. Additional samples will be collected from the Sampling Field approximately two weeks, one month and two months following system shutdown. An evaluation of the data will be conducted to determine if rebound is occurring. This data will also be used to evaluate the scope of any necessary additional investigation/remediation efforts.

3.2 Soil Management Activities During Construction

During future demolition, grading and redevelopment activities, properly trained and qualified field personnel will conduct continuous environmental monitoring whenever there is a possibility for the disturbance of soil. The environmental monitoring will consist of a three-tiered process, which will include:

- Visual monitoring by qualified field personnel of all exposed soil for obvious staining or other visual impact;
- Olfactory monitoring of all exposed soil for noticeable odors; and
- Field screening with a flame ionization and photoionization detector (FID/PID), in order to document soil that exhibit elevated readings of VOCs.

When soil that exhibits one or more of the three monitoring criteria is observed, the soil will be determined to be potentially impacted and the area will be classified as an Area of Concern (AOC). Based on the dimensions of the AOC, a decision will be made in the field to either:

1. Sample the soil in situ as described in the proceeding section; or
2. Excavate the soil and create a stockpile of potentially impacted soil.

The latter procedure will only be implemented if maintaining the AOC in situ will be detrimental to the construction worker safety or overall progress of the demolition and/or grading program.

3.2.1 Testing/Evaluation of Areas of Concern

During in situ sampling, attempts will be made to collect at least one sample from the areas that exhibit the highest degree of potential impact based on the field monitoring procedures at each AOC.

As historical operational information and recent investigation results indicate that VOCs are the chemicals of concern at the Property, each of the in situ AOC samples collected will be analyzed for VOCs by EPA 8260B.

3.2.2 Remedial Response Activities

AOC sampling results will be compared to conservative screening criteria, such as EPA Region IX Regional Screening Levels (RSLs) and California Human Health Screening Levels (CHHSLs) for the intended use of the property. If these criteria are exceeded, a removal action (excavation, off-site disposal and confirmation sampling) will be implemented. In addition, Continental may elect to excavate impacted soil even if the above criteria are not exceeded as a conservative mitigation effort.

Following the excavation efforts associated with any necessary removal action, confirmation soil samples will be implemented as follows:

- One sample will be collected at approximately each 25 foot length of linear feature exhibiting field indication for the presence of potential impacts;
- One sample will be collected from each wall at approximately every 25 foot length and at no less than one sample per each 10 foot height section of each wall;
- One sample will be collected at approximately each 625 square foot (25 by 25 foot) flat area exhibiting field indication for the presence of potential impacts; and

Each of the confirmation samples will be analyzed for VOCs by EPA Method 8260B.

3.2.3 *Characterization Sampling of Stockpiles*

In order to characterize stockpiles that were excavated without first collecting in situ samples, representative samples will be collected. The number of samples to be collected from each stockpile will be calculated based on the following:

- For stockpiles that are less than 1,000 cubic yards (CYs) in size, one sample will be collected from every 250 CYs;
- For stockpiles that are between 1,000 CYs and 5,000 CYs, four samples will be collected from the first 1,000 CYs, and an additional sample will be collected for each additional 500 CYs; and
- For stockpiles that are greater than 5,000 CYs, twelve samples will be collected from the first 5,000 CYs, and an additional sample will be collected for each additional 1,000 CYs.

The stockpiles will be divided into sectors of approximately equal size. The number of sectors will be based on the number of samples that need to be collected, as per the methods described above. Efforts will be made to collect the samples from the center point of each sector.

For stockpiles that are generated without the benefit of in situ data, each of the collected samples will be analyzed for VOCs by EPA Method 8260B, and any other analysis required by the permitted off-site disposal facility.

3.2.4 *Other Permitting Requirements During Construction*

Continental's construction contractor will be in compliance to the State Water Resources Control Board, Division of Water Quality, National Pollution discharge Elimination System (NPDES), *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-009-DWQ, NPDES No. CAS000002 (General Construction Storm Water Permit). As such, the contractor will prepare the appropriate Storm Water Pollution Prevention Plan (SWPPP), and maintain the appropriate Best Management Practices (BMPs). Continentals will also contract to have inspections and reporting activities performed for the General Construction Storm Water Permit requirements.

The South Coast Air Quality Management District (SCAQMD) Rule 1166 regulates VOC emissions from VOC-contaminated soil resulting from any excavating, grading, handling and any soil treatment practices. VOC-contaminated soil is defined as a soil which registers a concentration of 50 parts per million (ppm) or greater of VOCs as measured with a FID/PID, calibrated with hexane, at a distance of no more than three

inches from the surface of the excavated soil. Based on the fact that a soil vapor extraction program will have been implemented in advance of the demolition and redevelopment activities, these conditions are not likely to occur. However, qualified personnel will collect data during soil disturbances and soil stockpiling efforts to document the lack of elevated VOC concentrations. If 50 ppm, or greater, concentrations are observed, appropriate Rule 1166 procedures will be implemented. These procedures will include covering the impacted soil with visqueen to help control VOC emissions to the atmosphere. In addition, the SCAQMD Executive Officer will be notified within 24 hours, and soil that exceeds 50 ppm will be disposed of off-site within 30 days of excavation.

Continental's construction contractor will also adhere to the SCAQMD Rule 402 Nuisance (odor control) and SCAQMD 403 Fugitive Dust requirements. In order to verify this, qualified personnel will take measurements to monitor dust on a regular basis through demolition and earth moving activities.

3.3 *REPORTING*

An initial report summarizing well installation, vapor extraction system installation, and initial start-up activities will be prepared. This report will confirm the vertical extent of soil impacts, describe the vapor extraction treatment system and summarize initial operational parameters. Following this, quarterly reports will be prepared that summarize the vapor extraction program. Following the shutdown of the vapor extraction system, and the completion of confirmation sampling, a vapor extraction completion report will be prepared.

With respect to the soil management activities conducted during the property redevelopment, a final completion report will be prepared that summarizes the monitoring activities and documents any associated removal actions.

4.0 SCHEDULE OF ACTIVITIES

Upon approval by the lead agency, BEC will commence field work at the earliest possible date. Following approval from the lead agency, the well installation and vapor extraction system installation efforts will be implemented over a one month period. Following this, the vapor extraction program will be implemented over a six month to one year period, followed by a two month rebound and confirmation sampling period, followed by the preparation of the vapor extraction completion report. Based on this schedule, it is anticipated that the vapor extraction completion report will be provided nine to fifteen months following the lead agencies authorization to proceed.

5.0 *LIMITATIONS*

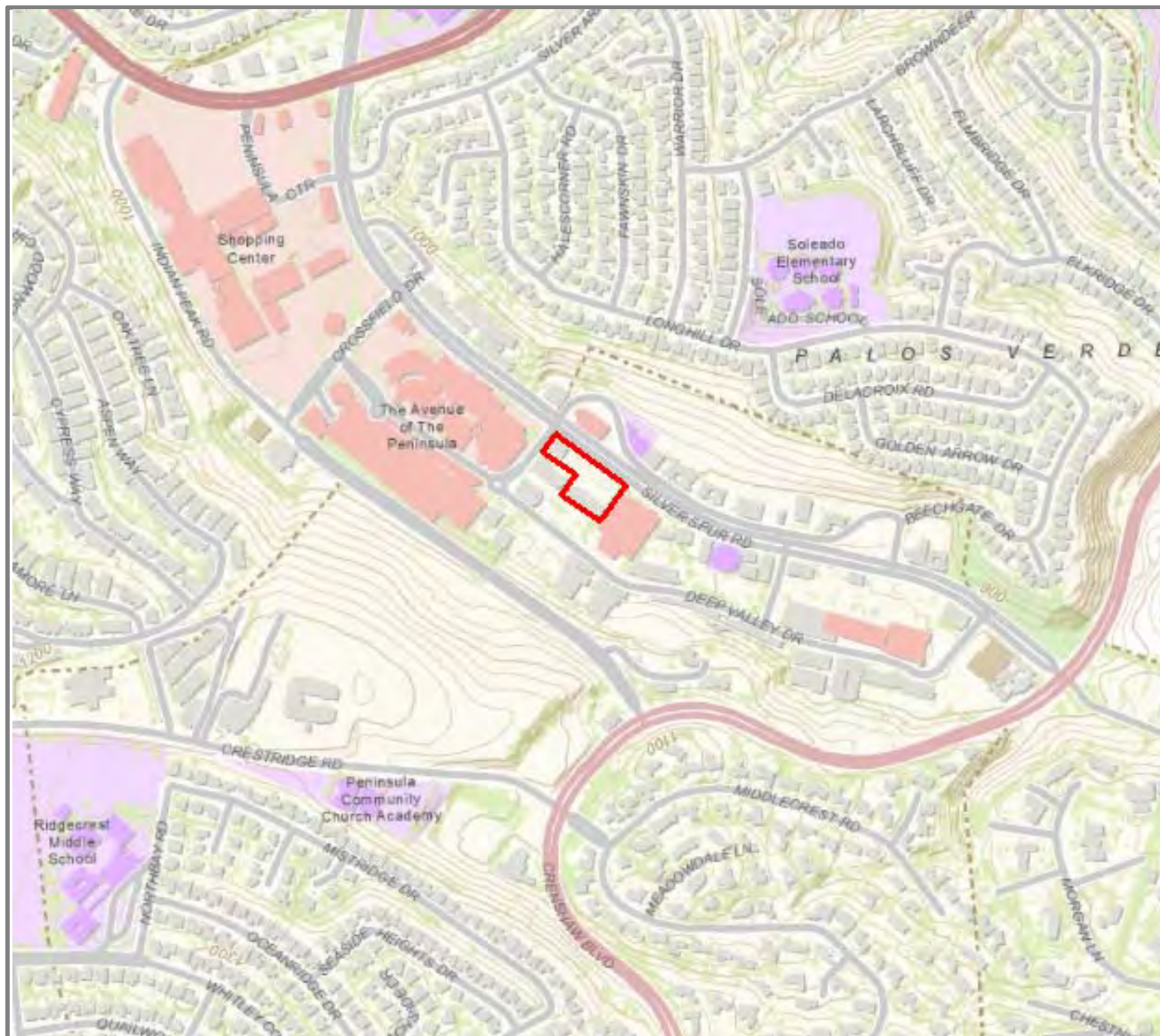
Property conditions, as well as local, state, tribal and federal regulations can change significantly over time. Therefore, the findings and conclusions presented as a result of this RAP apply strictly to the environmental regulations and property conditions existing at the time the study was performed. Information has been collected and available information has been analyzed using currently accepted assessment techniques and it is believed that the inferences made are reasonably representative of the property. However, the scope of the investigations was limited, and it is possible that other and/or additional sources of contamination are present at the Property that have not been assessed. The findings and conclusions were based solely on the available data. Additional and/or new information could have a significant impact on the findings, conclusions and recommendations. BEC makes no warranty, expressed or implied, except that the services have been performed in accordance with generally accepted environmental investigation practices applicable at the time and location of the work performed as summarized in this RAP.

6.0 REFERENCES

1. ADR Environmental Group, Inc. 2004. *Report of Subsurface Investigation – 627 Silver Spur Road, Suite 102, Rolling Hills Estates, California 90274.*
2. ARCADIS U.S. Inc. (ARCADIS). February 16, 2012. *Site Investigation Report – Former ARCO Station No. 06087 – 828 Silver Spur Road, Rolling Hills Estates, California 90274.*
3. Bowyer Environmental Consulting, Inc. March 18, 2013. *Limited Site Investigation. The Village – 627 Silver Spur Road, Rolling Hills Estates, California 90274.*
4. California Department of Water Resources, 2006, *California Groundwater - Bulletin 118.*
5. California Department of Toxic Substances Control (DTSC). 2011. *Final – Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance).*
6. California Environmental Protection Agency - Office of Environmental Health Hazard Assessment (OEHHA). 2005. *Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soil.*
7. Human and Ecological Risk Division (HERD), 2005. HERD HHRA Note Number 1, Recommended DTSC Default Exposure Factors for Use in Risk Assessment at California Military Facilities. October 27.
8. Johnson, P. C. and R. A. Ettinger. 1991. Heuristic Model for Predicting the Intrusion Rate of Contaminant Vapors into Buildings. *Environmental Science and Technology* 25:1445-1452.
9. MACTEC Engineering and Consulting, Inc. (MACTEC). 2005. *Report of Phase I Environmental Site Assessment – 601 Silver Spur Road, Rolling Hills Estates, California.*
10. Phase One Inc. 1993. *Phase I Environmental Assessment for Westwood Financial Corporation – Site: 627 Silver Spur Road, Rolling Hills Estates, CA 90274.*
11. U.S. Environmental Protection Agency (EPA), 2002. *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites.* Office of Solid Waste and Emergency Response. OSWER 9355.4-24. December.
12. U.S. Environmental Protection Agency (EPA), 2003. Draft. *User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings.* Office of Emergency and Remedial Response. Washington, D.C. March 14.
13. U.S. Environmental Protection Agency (EPA) Region IX. April 2012. *Regional Screening Levels (RSL).*

Figures





Legend

■ Site Boundary



Approximate Scale
0 500
In Feet

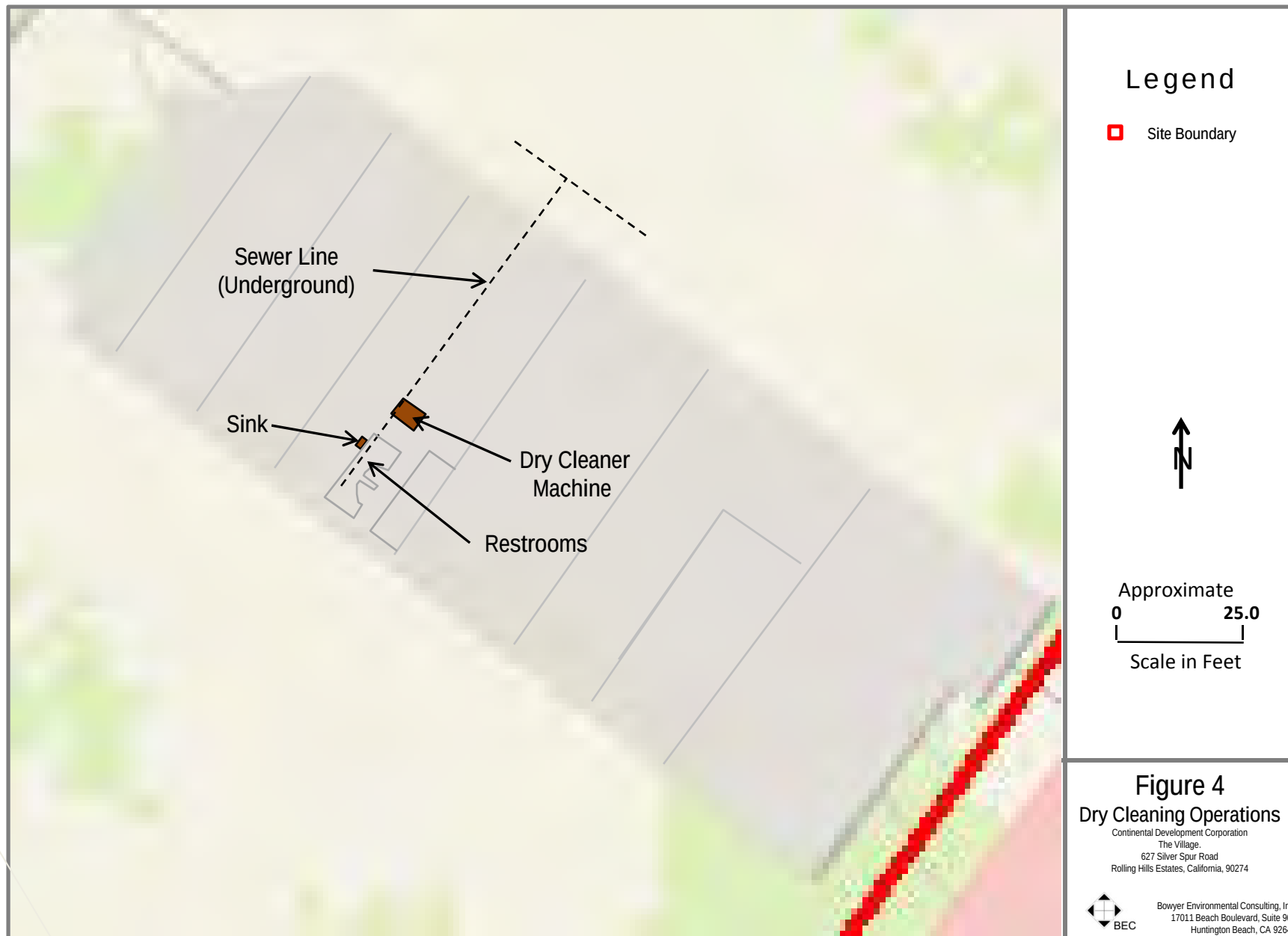
Figure 2 Property Vicinity

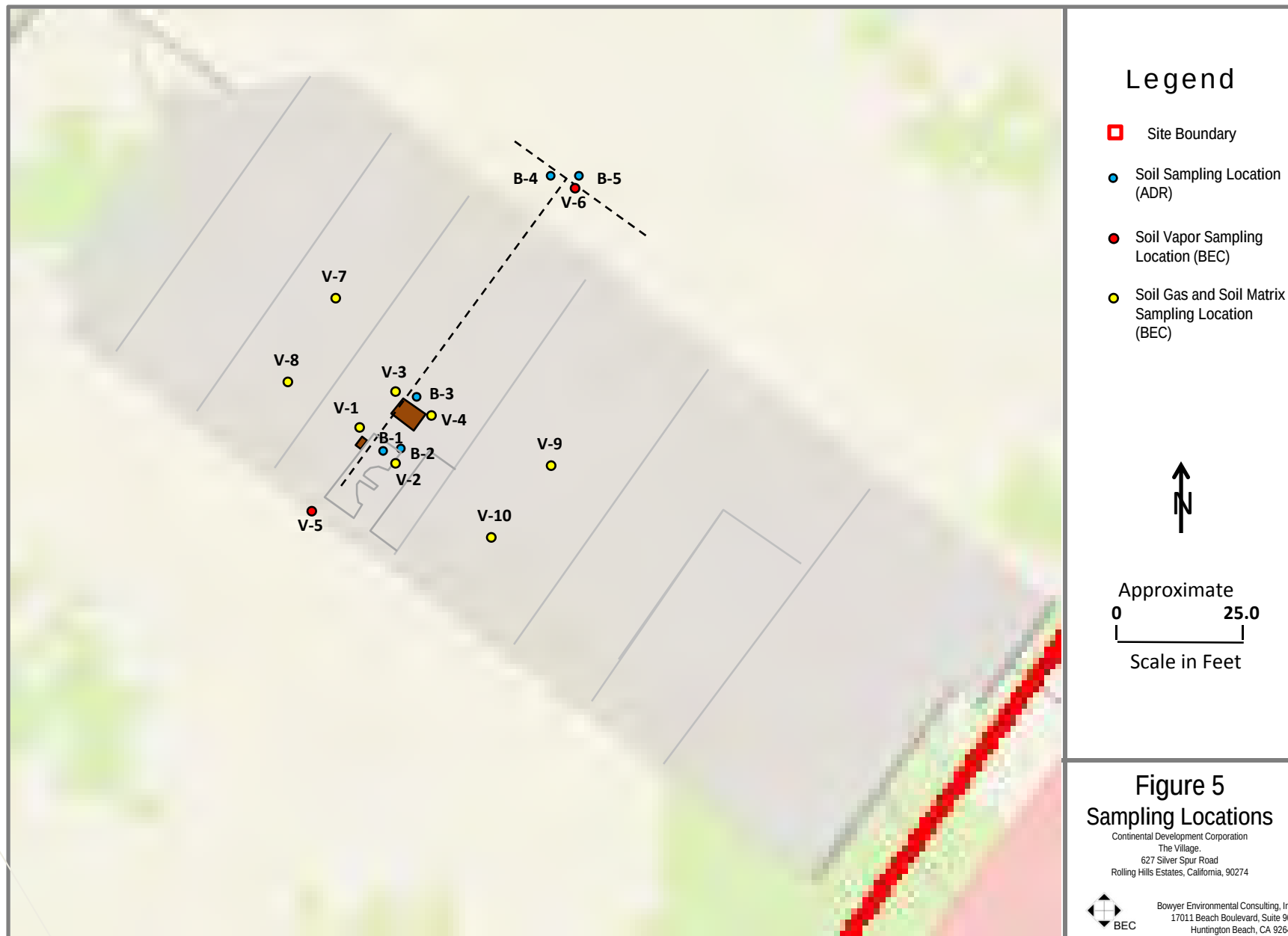
Continental Development Corporation
The Village
627 Silver Spur Road
Rolling Hills Estates, California, 90274

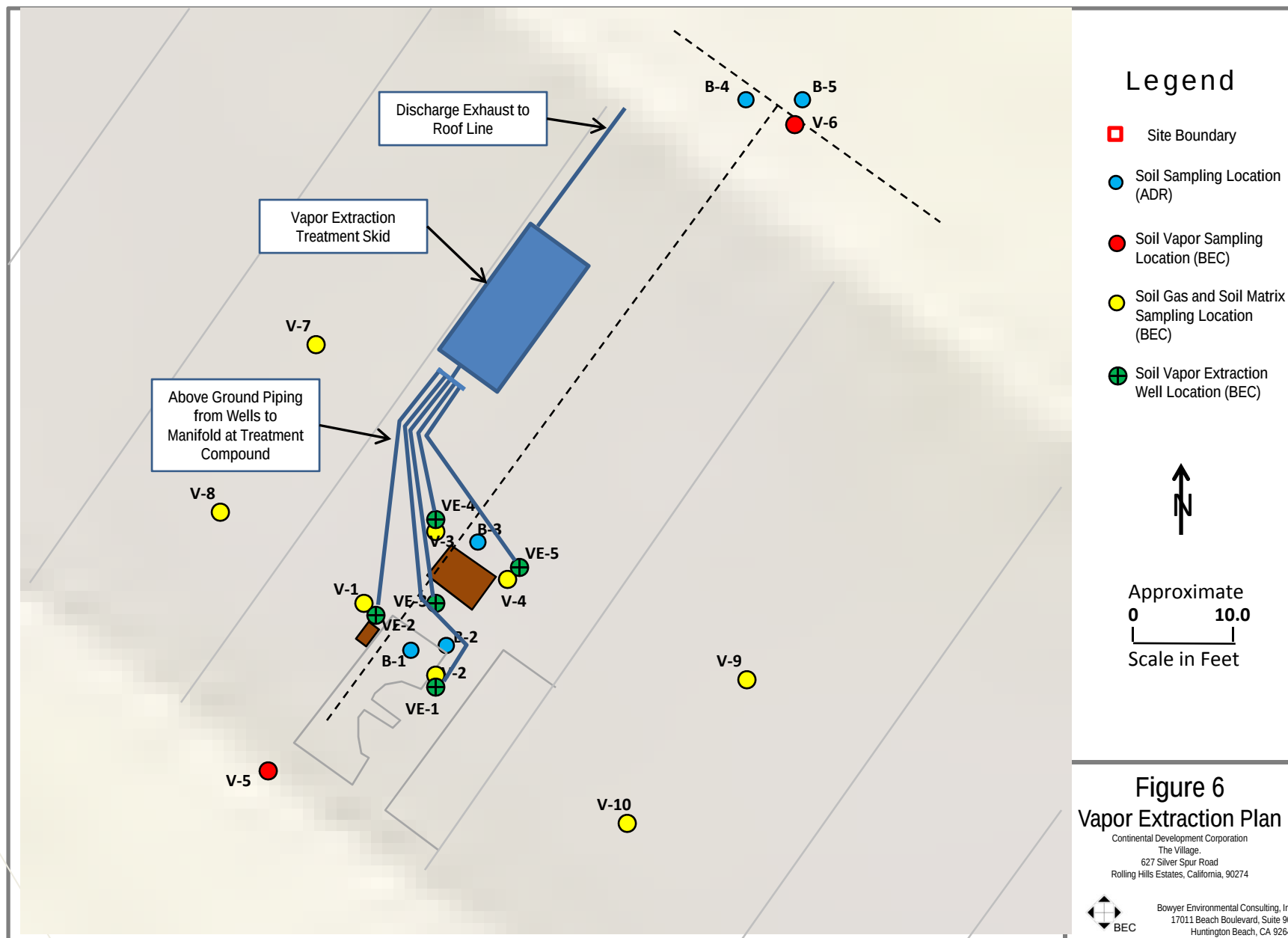


Bowyer Environmental Consulting, Inc.
17011 Beach Boulevard, Suite 900
Huntington Beach, CA 92647











COUNTY OF LOS ANGELES
FIRE DEPARTMENT

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

Refer reply to
Health Hazardous Materials Division
5825 Rickenbacker Rd.
Commerce CA 90040-3027

July 13, 2004

Larry Stern
331 Victoria Company
11440 San Vicente Blvd., Suite 200
Los Angeles, CA 90049

Dear Mr. Stern:

**COURTESY CLEANERS, 627 SILVER SPUR ROAD, SUITE 102, ROLLING HILLS ESTATES,
CA 90274 (SMU FILE #04-608/RO0000107)**

This Department has completed a review of the "Additional Subsurface Investigation Report", dated June 8, 2004, submitted by your consultant, ADR Environmental Group. Based on information provided in the report and with the provision that the information was accurate and representative of existing conditions, we concur with your consultant that the low concentrations of tetrachloroethene detected at the subject site do not represent an environmental or public health threat. The Site Mitigation Unit of this Department has no further requirement or restriction relating to this site at this time.

This letter, however, does not relieve you of any liability under the California Health and Safety Code, the State Water Code, or other applicable laws and regulations for past, present or future operations at this site. Nor does it relieve you of responsibility for any additional or unidentified conditions at the site that could threaten public health or the environment. If you have any questions, please feel free to call Kim Clark at (323) 890-4114.

Very truly yours,

SHAHIN NOURISHAD, SUPERVISOR
SITE MITIGATION UNIT
HEALTH HAZARDOUS MATERIALS DIVISION

SN:kc

cc: Kevin Gallagher, ADR Environmental Group

B-451

CITY OF RANCHO PALOS VERDES
CITY MANAGER'S OFFICE
ADMINISTRATION

21 July 2016

VIA ELECTRONIC AND U.S. MAIL

Jeannie Naughton, AICP, Senior Planner
City of Rolling Hills Estates
4045 Palos Verdes Dr. N.
Rolling Hills Estates, CA 90274

SUBJECT: Comments in Response to the Notice of Intent to Adopt a Mitigated Negative Declaration for "The Village/Merrill Gardens" Project at 601 Silver Spur Road/600 Deep Valley Drive (PA No. 05-16)

Dear Ms. Naughton:

The City of Rancho Palos Verdes appreciates the opportunity to comment upon the proposed Mitigated Negative Declaration (MND) for the above-mentioned project. We have reviewed the MND and project exhibits, and offer the following comments:

1. The discussion of Aesthetic impacts in the Initial Study (pp. 51-54) identifies a less-than-significant impact with regards to substantial light or glare, and states that the project's proposed architectural materials are not anticipated to have an adverse effect on neighboring properties with respect to glare and reflectivity. Staff requests that this determination be reconsidered to reflect a less-than-significant impact with mitigation incorporated, and suggests the incorporation of a mitigation measure to ensure that all roof, deck and parking structure surfaces employ colors that blend with the built environment and have low reflectivity values so as to avoid impacts to neighboring residential properties and recreational trail users that overlook the project site.
2. The discussion of Land Use Planning impacts in the Initial Study (pp. 46-48) identifies a "No Impact" determination, in reference to potential conflicts with a habitat conservation plan, stating that there is no habitat conservation plan on the site or in the surrounding area. For clarification purposes, the City of Rancho Palos Verdes has a Natural Communities Conservation Plan (NCCP) and it includes a City-owned property (APN 7589-013-907), located to the west of the subject property between Indian Peak Road and Crestridge Road, as nature preserve area (Vista del Norte Reserve). As such, Staff recommends that the Initial Study be revised to include the review of the City's NCCP (available at <http://www.rpvca.gov/490/Palos-Verdes-Nature-Preserve-NCCP-PUMP-H>) and update the Initial Study accordingly, since there is a designated nature preserve in close proximity to the project site.
3. The discussion of Noise impacts in the Initial Study (pp. 74-79) identifies a less-than-significant impact with mitigation incorporated. Staff agrees that the proposed project

seems unlikely to result in significant construction-related impacts to surrounding properties if mitigation measures are incorporated. As such, Staff requests a mitigation measure be included that requires the applicant and/or City of Rolling Hills Estates to contact property owners within a 500-foot radius, notifying them of the commencement of construction 15 days in advance. Additionally, the City would ask to be kept apprised of project status as it moves through the building permit process so that the City can advise our residents and City Council about the project's construction status, and to refer residents to the appropriate contacts in the event of any construction-related complaints.

In regards to the long-term operational noise related to the proposed project, Staff would recommend that the Study assess potential noise impacts caused by on-site emergency/ambulatory care vehicles associated with the proposed assisted-care facility, as the noise may impact adjacent residential uses located within the City of Rancho Palos Verdes. In addition, Staff recommends that long-term noise associated with on-site deliveries and mechanical equipment comply with Section 17.12.030(f) of the Rancho Palos Verdes Municipal Code. More specifically, this Code section requires that all deliveries of commercial goods and suppliers; trash pick-up, including the use of parking lot trash sweepers; and the operation of machinery or mechanical equipment which emits noise levels in excess of 65 dBA, only be allowed on commercial properties which abut a residential district between the hours of 7:00 AM and 7:00 PM daily.

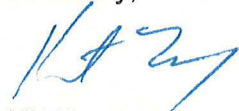
4. The City's Public Works Department offers the following comments:
 - a. With respect to the analysis of Hydrology and Water Quality impacts (pp. 95-98), we offer the following comments:
 - i. With respect to the responses to Sections XI a, c & f, these Sections should also explain how Rolling Hills Estates proposes to monitor contractor activities and achieve Wet Weather BMP compliance. Please explain how the proposed development could include "Green Streets" technology to improve water quality and perhaps reduce site runoff, and reasons "Green Streets" technology is not being used/required for this development.
 - ii. With respect to the responses to Sections XI d & e, a drainage study is needed to clarify the path and volume of pre- and post-development runoff. Provide a map showing the route of runoff, including storm drains where runoff will travel, detailing if runoff travels out of and/or into neighboring cities. Provide information on the ownership, operation and responsibility for maintenance of the storm drain system that services the proposed development.

Jeannie Naughton
21 July 2016
Page 3

- b. With respect to the analysis of Transportation/Traffic impacts (pp. 55-61), we offer the following comments on the traffic study that was included as an appendix:
- i. Page 6: In describing the nearby study area, it should be noted that it includes intersections located in the cities of Rolling Hills Estates and Rancho Palos Verdes (not just Rolling Hills Estates). In describing the existing street system, it should be noted that Silver Spur Road, Hawthorne Boulevard, Crenshaw Boulevard and Indian Peak Road run through the jurisdictional boundaries of both Rancho Palos Verdes and Rolling Hills Estates.
 - ii. Page 12: In Figure 5 and all references thereafter, the street name "Palos Verdes Drive" should be "Palos Verdes Drive North."
 - iii. Page 23: In the list of related projects, some of the projects listed in the table are not actual, foreseeable projects, and some of the projects are incorrectly described. Please contact the City of Rancho Palos Verdes' Public Works Department at (310) 544-5252 to get accurate descriptions of the related projects in Rancho Palos Verdes. Based upon corrected information, the cumulative impact analysis should be recalculated.

Again, thank you for the opportunity to comment upon this project. If you have any questions or need additional information, please feel free to contact me at (310) 544-5226 or via e-mail at kitf@rpvca.gov.

Sincerely,



Kit Fox, AICP
Senior Administrative Analyst

cc: Mayor Ken Dyda and City Council
Doug Willmore, City Manager
Gabriella Yap, Deputy City Manager
Ara Mihanian, Director of Community Development
Michael Throne, Director of Public Works