CITY OF SANTA CLARITA
PLANNING COMMISSION MEETING

Tuesday, February 17, 2015
6:00 p.m.
City Council Chambers
23920 Valencia Boulevard
Santa Clarita, CA 91355

AGENDA

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Planning Division at (661) 255-4330. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. (28CFR 35.102-35.104 ADA Title II)

CALL TO ORDER

FLAG SALUTE

ROLL CALL

APPROVAL OF AGENDA

APPROVAL OF MINUTES OF THE JANUARY 20, 2015, STUDY SESSION AND REGULAR MEETING

COMMISSION SECRETARY ANNOUNCEMENT

A. PUBLIC HEARINGS

ITEM 1 MASTER CASE NO. 14-143, TENTATIVE TRACT MAP 73066, DEVELOPMENT REVIEW 14-012, OAK TREE PERMIT 14-014

Case Planner: Jason Smisko, Senior Planner

Applicant: PWP Properties, Inc., Ed Poulin, President

Location: 24982 Walnut Street (APN: 2855-011-055)

Request: The applicant is requesting a Tentative Tract Map and a Development Review for an 11-unit detached condominium subdivision on 1.1 acres in the Urban Residential 3 zone in the Newhall community. An Oak Tree Permit is for the encroachment into the protected dripline of seven oak trees and for the removal of one non-heritage oak tree.

Recommendation: Staff recommends that the Planning Commission adopt Resolution P15-03, approving Master Case 14-143 with the attached Conditions of Approval (Exhibit A).

B. PLANNING MANAGER'S REPORT

C. PLANNING COMMISSIONERS' REPORTS

D. PUBLIC BUSINESS FROM THE FLOOR

E. ADJOURNMENT

Complete packets are available for public inspection at the City Clerk's front counter and the Permit Center front counter. Any writings or documents distributed to a majority of the members of the Planning Commission regarding any open session item on this agenda will be made available for public inspection in the Permit Center located at 23920 Valencia Boulevard, Suite 140, during normal business hours. These writings or documents will also be available for review at the meeting. Thank you for attending your City Planning Commission meeting. If you have any questions or wish to know more about the City or the Community Development Department, please call (661) 255-4330 Monday through Thursday, 7:30 a.m. to 5:30 p.m. and Fridays 8:00 a.m. to 5:00 p.m.

CERTIFICATION

I, Jeff W. Hogan, do hereby certify that I am the duly appointed and qualified Planning Manager for the City of Santa Clarita, and that on February 13, 2015, between the hours of 9:00 a.m. and 5:00 p.m., the foregoing agenda was posted at City Hall, Valencia Library, and the Santa Clarita Sheriff's Station.

Jeff W. Hogan, AICP
Planning Manager
Santa Clarita, California

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MINUTES OF THE
STUDY SESSION OF THE PLANNING COMMISSION
OF THE CITY OF SANTA CLARITA

Tuesday
January 20, 2015
5:00 p.m.

CALL TO ORDER

The study session of the Planning Commission of the City of Santa Clarita was called to order by Chair Trautman at 5:03 p.m. in the Century Conference Room, 23920 Valencia Boulevard, Santa Clarita, California.

ATTENDANCE

Chair Trautman and Commissioners Burkhart, Eichman, Ostrom, and Heffernan were all present.

ITEM 1 2014 GENERAL PLAN REVIEW

Jason Crawford, Economic Development Manager, presented on economic indicators relating to vacancy rates, employment numbers, film, and tourism. Planning Manager Jeff Hogan presented the Planning Commission with a summary of significant development patterns that occurred within the City in 2014. This included highlighted accomplishments from the Community Development Department, Public Works Department, and Parks, Recreation, and Community Services Department, as well as anticipated projects for 2015.

PUBLIC BUSINESS FROM THE FLOOR

There was no business from the floor.

ADJOURNMENT

The meeting was adjourned by Chair Trautman at 5:50 p.m.

Diane Trautman

Diane Trautman, Chair
Planning Commission

Jeff Hogan, Planning Manager
Community Development

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MINUTES OF THE
REGULAR MEETING OF THE PLANNING COMMISSION
OF THE CITY OF SANTA CLARITA

Tuesday
January 20, 2015
6:00 p.m.

CALL TO ORDER

The meeting of the Planning Commission of the City of Santa Clarita was called to order by Chair Trautman at 6:01 p.m. in the City Council Chambers, 23920 Valencia Boulevard, Santa Clarita, California.

FLAG SALUTE

Commissioner Burkhart led the flag salute.

ROLL CALL

Chair Trautman, Vice Chair Ostrom, and Commissioners Eichman, Burkhart, and Heffernan were present.

APPROVAL OF AGENDA

A motion was made by Vice Chair Ostrom and seconded by Commissioner Burkhart to approve the agenda. Said motion was approved by a vote of 5-0.

APPROVAL OF THE MINUTES OF THE OCTOBER 21, 2014, REGULAR MEETING

A motion was made by Vice Chair Ostrom and seconded by Commissioner Heffernan to approve the minutes of the November 18, 2014, regular meeting. Said motion was approved by a vote of 5-0.

PUBLIC HEARING

ITEM 1 MASTER CASE NO. 14-019, CONDITIONAL USE PERMIT 14-002

David Koontz, Associate Planner, gave the staff report and computer slide presentation.

The public hearing was opened at 6:12 p.m.

Vance Pomeroy, the applicant, spoke in support of the project and was available for questions.

No written comment cards were received.

The public hearing was closed at 6:17 p.m.

A motion was made by Commissioner Burkhart and seconded by Commissioner Heffernan to adopt Resolution P15-01, adopting the Negative Declaration and approving Master Case No. 14-019, Conditional Use Permit 14-002 to allow for the installation and operation of a wireless telecommunications facility to be located on a former contractor storage lot at 22157 Placerita Canyon Road within the Mixed Use – Neighborhood (MX-N) zone (APN 2833-001-086), subject to the attached Conditions of Approval (Exhibit A). A roll call vote was taken. Said motion was carried by a vote of 5-0.

PLANNING MANAGER'S REPORT

Jeff Hogan, Planning Manager, gave the report. Mr. Hogan informed the Commissioners that their next meeting will be the Joint Budget Study Session with City Council.

PLANNING COMMISSIONERS' REPORTS

There were no reports.

PUBLIC BUSINESS FROM THE FLOOR

Sandy Logan informed the Commission of an ABC training for alcohol retailers she will be holding on Friday, January 23, to prevent the sale of alcohol to minors.

Dennis Conn spoke to the Commission about revenue for the City through hotels and tourism.

ADJOURNMENT

A motion was made by Vice Chair Ostrom and seconded by Commissioner Burkhart to adjourn the meeting. Said motion was approved by a vote of 5-0, and the meeting was adjourned at 6:24 p.m.

Diane Trautman

Diane Trautman, Chair
Planning Commission

Jeff W. Hogan AICP, Planning Manager
Community Development

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CITY OF SANTA CLARITA
STAFF REPORT
MASTER CASE NUMBER 14-143:
TENTATIVE TRACT MAP 73066, DEVELOPMENT REVIEW 14-012, OAK TREE PERMIT 14-014

DATE: February 17, 2015

TO: Chairperson Trautman and Members of the Planning Commission

FROM: Jeff W. Hogan, AICP, Planning Manager

CASE PLANNER: Jason Smisko, Senior Planner

APPLICANT: PWP Properties, Inc., Ed Poulin, President

LOCATION: 24982 Walnut Street (APN: 2855-011-055)

REQUEST: The applicant is requesting a Tentative Tract Map and a Development Review for an 11-unit detached condominium subdivision on 1.1 acres in the Urban Residential 3 zone in the Newhall community. An Oak Tree Permit is for the encroachment into the protected dripline of seven oak trees and for the removal of one non-heritage oak tree.

BACKGROUND

The property previously contained a single family residence until mid-2014 when a demolition permit was obtained from the City for the house removal. The applicant recently completed a City-approved lot line adjustment to add .18 acres to the rear/east of the project site. The subject property is currently vacant, flat land, with portions that have been disturbed for a previous residence. The project site is located at 24982 Walnut Street with 16th and 15th Streets as cross streets to its north and south. It is bordered by single and multi-family residential developments on three sides and by a flood control channel to the rear/east. The project originally proposed 12 units. After reviewing potential impacts to oak trees, staff worked with the applicant to reduce the project to 11 units and to re-orient one unit in order to minimize oak tree impacts.

PROJECT DESCRIPTION

The applicant, PWP Properties, Inc., is proposing the development of a 1.1 acre site with an 11-unit detached condominium subdivision on 1.1 acres in the Urban Residential 3 zone. The project does not propose to be gated. The proposal includes the following components:

- **Tentative Tract Map:** The project proposes creating a single-lot subdivision with 11 condominium air space parcels and one common area parcel for the common driveway and open space area.

- **Housing Units:** The project proposes 11 two-story, detached units, with a maximum proposed height of 25 feet. The unit sizes range from 1,632 square feet to 1,730 square feet. Each residence will also have a private yard in compliance with residential development requirements. All of the units will have four bedrooms. After review by the City's architectural consultant, the applicant made enhancements to the design of the proposed homes including extending veneer material of siding and stone, adding entry porch roofs, and increasing the variety amongst the available architectural styles for the development which now consist of Craftsman, Spanish, and Traditional.

- **Green Space:** The project proposes multiple common open areas totaling 4,925 square feet with one of them including a children's play area. Both common and private open space areas are consistent with Unified Development Code (UDC) requirements for multi-family standards.

- **Grading:** The site is flat and has been previously graded for the prior residence. Approximately 1,146 cubic yards of fill is required for the construction of the proposed units.

- **Oak Trees:** There are a total of eight oak trees impacted by the proposed project. Six are on-site and two are adjacent to the south. The applicant is requesting to remove one oak tree for the private driveway and additional utilities underground. This tree is in poor health per the project's submitted oak tree report. Encroachments will be made on the other seven oaks (five on site and two immediately adjacent to the south) with the approval of an Oak Tree Permit and consistent with UDC Oak Tree Permit standards and conditions. The applicant proposes to mitigate the oak tree impacts with the planting of six oak trees to the rear of the site.

- **Perimeter/Property Line Walls:** The project proposes to retain the existing perimeter fencing to the north and south of the project. Rear fencing will be wrought iron per adjacent flood control facility requirements. All other fencing will be 6' block wall as required by the UDC for multi-family development standards. Alternative fencing (wood and wrought iron) may be allowed in areas adjacent to oak trees in order to minimize impacts subject to the satisfaction of the Director of Community Development

GENERAL PLAN DESIGNATION AND ZONING

The General Plan designation for the subject property is Urban Residential 3 (UR3), which provides for neighborhoods of single-family attached and detached housing, and small scale attached dwellings. This zoning designation, as provided in Section 17.33.030 of the UDC, supports this housing type and others similar at a maximum density of eleven dwelling units per acre. The density of the proposed project is at ten units per acre.

The community in which the subject site is located is well-established with multi and single family developments that are decades-old. This infill project is consistent with the residential uses envisioned for the subject property and zone in which it is located. Approval of this proposal would not change the character of the residential community or surrounding properties.

The following table and attached General Plan/zoning map summarize the General Plan designations, zoning, and land uses surrounding the subject property:

Subject Property: 24982 Walnut Street

	General Plan	Zoning	Land Use
Project Site:	Urban Residential 3 (UR3)	Urban Residential 3 (UR3)	Vacant/Undeveloped
North:	Urban Residential 3 (UR3)	Urban Residential 3 (UR3)	Multi-Family Residential
East:	Community Commercial	Community Commercial	L. A. County Flood Control District facility
South:	Urban Residential 3 (UR3)	Urban Residential 3 (UR3)	Single & Multi-Family Residential
West:	Urban Residential 3 (UR3)	Urban Residential 3 (UR3)	Single & Multi-Family Residential

ANALYSIS

Land Use and Housing

This property is being developed in an already urbanized area with similar existing densities adjacent. A similar detached condominium project was approved by the Planning Commission and built just north of the project site on the same street in 2002. State zoning law (Government Code Section 65913.1) requires localities to zone sufficient vacant land for residential use with appropriate standards to meeting the housing needs identified in the housing element and other sections of the General Plan. Specifically, the Housing Element and Land Use Element of the General Plan includes the following goals, objectives, policies and programs that contemplate a development consistent with the proposed project:

> *Policy LU 1.1.5:* Increase infill development and re-use of underutilized sites within and adjacent to developed urban areas to achieve maximum benefit from existing infrastructure and minimize loss of open space, through redesignation of vacant sites for higher density and mixed use, where appropriate.
>
> *Policy LU 1.2.1:* In Newhall, provide opportunities for new business and housing by implementing the Downtown Newhall Specific Plan, provide incentives to promote infill development and re-use of underutilized sites, and continue to plan for the future development of North Newhall.
>
> *Goal H 1:* Provide adequate sites at a range of densities to accommodate future housing needs.

The proposed project complies with all requirements for residential development as identified by the UDC Sections 17.51 and 17.57. Residential structures will employ 360-degree architecture and be less than 35 feet tall. Common green space is provided and adequate parking is provided on-site for both residents and guests. Proposed landscaping meets requirements for both parking areas and for multi-family residential projects. As a result, all setbacks, heights, and building

forms within the proposed project are appropriate for the subject property in the Urban Residential 3 (UR3) land use designation.

Oak Tree

There are eight oak trees impacted by the proposed project, none of which are heritage. One oak tree (number 5, 19" diameter) is proposed for removal due to the proposed development and the location of the driveway access, its health and proximity to tree number four to the north. Sewer utilities will be placed under the proposed driveway access. The oak tree report for the project concludes that this oak tree proposed for removal has root rot, poor health, poor optimistic growth of the crown, and recommends removal. The value of the proposed oak to be removed is $4,214.00. For encroachment into the protected zone of the remaining seven oaks (five on site and two immediately adjacent to the south), specific mitigation measures are included in the oak tree report and the project's conditions of approval to lessen any impacts to these oak trees by installing protective fencing, minimizing grading activity, using hand tools, and having a monitor on site during construction. The value of the proposed mitigation plan and planting of six new oak trees, all greater than 24-inch boxes, exceeds the value of the requested oak tree removal by $1,886.00. A three-year, post-project monitoring plan, with reports submitted to the City every six months, is required of this project.

ENVIRONMENTAL STATUS

The project is exempt from the California Environmental Quality Act (CEQA) under Article 19 Categorical Exemptions, Section 15332 Class 32. A Class 32 categorical exemption includes projects that are less than five acres, consistent with the General Plan, no value as habitat for endangered/rare/threatened species, can be served by all utilities and not result in any significant effects relating to traffic, noise, air quality or water quality. This proposed project with the ultimate construction of 11 single family detached condominium units is consistent with this applicable CEQA exemption provision. Further, the applicant provided studies to document this.

NOTICING

All noticing requirements for a public hearing have been completed. A notice was placed in The Signal Newspaper on January 27, 2015. All property owners and multi-family tenants within 1,000 feet (approximately 450 residences) were also notified of the public hearing by mail and a sign was posted on-site on February 2, 2015.

RECOMMENDATION

Based on the project compliance with the City of Santa Clarita General Plan and UDC, staff recommends that the Planning Commission adopt Resolution P15-03, approving Master Case 14-143 with the attached Conditions of Approval (Exhibit A).

ATTACHMENTS

Resolution P15-03
Exhibit A: Conditions of Approval
Notice of Exemption
Vicinity Map
Tentative Tract Map
Site Plan
Oak Tree Map
Elevations and Renderings
Preliminary Landscape Plan
Oak Tree Report
Air Quality, Greenhouse Gas, Noise and Water Quality Analyses
Traffic Assessment

RESOLUTION NO. P15-03

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF SANTA CLARITA APPROVING MASTER CASE NO. 14-143 (TENTATIVE TRACT MAP 73066, DEVELOPMENT REVIEW 14-012, OAK TREE PERMIT 14-014) TO ALLOW FOR THE CONSTRUCTION OF 11 DETACHED CONDOMINUM UNITS LOCATED AT 24982 WALNUT STREET, ASSESSOR'S PARCEL NUMBERS 2855-011-055 AND 2855-012-038, IN THE CITY OF SANTA CLARITA, WITH THE ATTACHED CONDITIONS OF APPROVAL (EXHIBIT "A")

THE PLANNING COMMISSION OF THE CITY OF SANTA CLARITA DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. FINDINGS OF FACT. The Planning Commission does hereby make the following findings of fact:

A. An application for Master Case No. 14-143 (Tentative Tract Map 73066, Development Review 14-012, Oak Tree Permit 14-014) was filed by PWP Properties, Inc., Ed Poulin, President (hereinafter "Applicant") with the City of Santa Clarita on September 8, 2014. The property for which this application was filed is located at 24982 Walnut Street (APN: 2855-011-055) (hereinafter "Subject Site");

B. The applicant proposes a Tentative Tract Map and a Development Review for an 11-unit condominium complex on 1.1 acres in the Urban Residential 3 zone. An Oak Tree Permit is for the encroachment into the protected dripline of seven oak trees, and for the removal of one oak tree;

C. The zoning and General Plan designation for the subject site is Urban Residential 3;

D. The surrounding land uses include multi-family residential to the north, flood control facility to the east, single and multi-family residential to the south and west of the subject site;

E. On February 17, 2015, a duly noticed public hearing was held before the City of Santa Clarita Planning Commission at 6:00 p.m. at City Hall, Council Chambers, 23920 Valencia Boulevard, Santa Clarita; and

F. At this public hearing, the Planning Commission considered the staff report, staff presentation, applicant's presentation, and public testimony.

SECTION 2. CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS. Based upon the foregoing facts and findings, the Planning Commission hereby find as follows:

A. A Notice of Exemption for this project was prepared in compliance with the California Environmental Quality Act (CEQA);

B. This project is exempt per Article 19: Categorical Exemptions, Section 15332 of California Environmental Quality Act (CEQA) as a Class 32 exemption. A Class 32 categorical exemption includes projects that are less than five acres, consistent with the General Plan, no value as habitat for endangered/rare/threatened species, can be served by all utilities and not result in any significant effects relating to traffic, noise, air quality or water quality. This proposed project with the ultimate construction of 11 single family detached condominium units is consistent with this applicable CEQA exemption provision.

C. The documents and other materials that constitute the record of proceedings upon which the decision of the Planning Commission is based is the Master Case No. 14-143 project file and that this project file is located within the Community Department and is in the custody of the Director of Community Development; and

D. Based upon the findings set forth above, the Planning Commission hereby finds the Notice of Exemption for this project has been prepared in compliance with CEQA.

SECTION 3. GENERAL FINDINGS FOR MASTER CASE NO. 14-143. Based on the foregoing facts and findings for Master Case No. 14-143, the Planning Commission hereby determines as follows:

A. That the proposal is consistent with the General Plan;

The proposed tract map to allow for the subdivision of one 1.1 acre parcel into 11 condominium air space parcels is consistent with the goals, policies and objectives of the General Plan. Specifically, the Land Use Element of the General Plan designates the subject property as Urban Residential 3. The UR3 designation provides for neighborhoods of single-family attached and detached housing, and small scale attached dwellings. The site is currently vacant. Proposed development also does not exceed the maximum lot size established by the General Plan. The project is consistent with the following General Plan policies and goals.

Policy LU 1.1.5: Increase infill development and re-use of underutilized sites within and adjacent to developed urban areas to achieve maximum benefit from existing infrastructure and minimize loss of open space, through redesignation of vacant sites for higher density and mixed use, where appropriate.

Policy LU 1.2.1: In Newhall, provide opportunities for new business and housing by implementing the Downtown Newhall Specific Plan, provide incentives to promote infill development and re-use of underutilized sites, and continue to plan for the future development of North Newhall.

Goal H 1: Provide adequate sites at a range of densities to accommodate future housing needs.

B. The proposal is allowed within the applicable underlying zone and complies with all other applicable provisions of the UDC;

The proposed tentative tract map will subdivide one 1.1 acre parcel into 11 condominium air spaces and one common area parcel for the construction of 11 detached condominium units. The resulting development would comply with the UDC in terms of building heights, required parking, setbacks, garage provisions, landscaping, architecture, and requirements for residential and multi-family residential development.

C. The proposal will not endanger, jeopardize, or otherwise constitute a hazard to the public convenience, health, interest, safety, or general welfare, or be materially detrimental or injurious to the improvements, persons, property, or uses in the vicinity and zone in which the property is located; and

As proposed, project is consistent the with the City's General Plan and Unified Development Code. Further, the applicant produced studies demonstrating that the project can be served by all utilities and not result in any significant effects relating to traffic, noise, air quality or water quality. Therefore, the subdivision and development would not be detrimental to the public's health, safety, or welfare, nor would it be materially injurious to properties or improvements in the vicinity.

D. The proposal is physically suitable for the site. The factors related to the proposal's physical suitability for the site shall include, but are not limited to, the following:

1) The design, location, shape, size, and operating characteristics are suitable for the proposed use;

With the entitlement application, staff reviewed compliance with residential development standards including height, landscaping, architecture, setbacks, and parking. During the review process, the architecture of the proposed residences was reviewed, including building massing, colors and site design to ensure consistency with the City of Santa Clarita Architectural Design Guidelines. These comments were incorporated into the approved design of the buildings.

2) The highways or streets that provide access to the site are of sufficient width and are improved as necessary to carry the kind and quantity of traffic such proposal would generate;

Adequate roadway and right of way width exists. The site will be adequately served by a single driveway. Traffic impacts will be consistent with General Plan designation for the area.

3) Public protection services (e.g., Fire protection, Sheriff protection, etc.) are readily

available; and

The project site is located in a developed portion of the City that is served by public protection services. The proposed development is consistent with General Plan and UDC. The applicant will pay any inspection, mitigation, agency fees upon time of the tentative tract map being recorded and/or building permit acquisition. Therefore, the proposed project is not anticipated to generate additional demand on public protection services.

4) The provision of utilities (e.g., potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment, and disposal, etc.) is adequate to serve the site.

The project site is located in a developed portion of the City that is served by public facilities, services, and utilities. The proposed development is consistent with the General Plan and UDC. Therefore, the proposed project is not anticipated to generate additional demand on public facilities, services, and utilities.

SECTION 4, ADDITIONAL FINDINGS FOR TENTATIVE TRACT MAP 73066. Based on the foregoing facts and findings for Tentative Tract Map 73066, the Planning Commission hereby finds as follows:

A. The design of the subdivision or type of improvements will not conflict with easements, acquired by the public at large for access through or use of, property within the proposed subdivision.

There is no public property nor public easements on the proposed project site. Existing public property and easements in the area will not be impacted by this proposed development and subdivision.

SECTION 5, ADDITIONAL FINDINGS FOR OAK TREE PERMIT 14-014 Based on the foregoing facts and findings for Oak Tree Permit 14-014, the Planning Commission hereby finds as follows:

A. The condition of the tree(s) with respect to disease, danger of falling, proximity to existing lots, pedestrian walkways or interference with utility services, cannot be controlled or remedied through reasonable preservation and/or preventative procedures and practices.

There are eight oak trees impacted by the proposed project, none of which are heritage. One oak tree (number 5, 19” diameter) is proposed for removal due to its health, proximity to tree number four to the north, and the location of the driveway access. The oak tree report for the project concludes that this oak tree proposed for removal has root rot, poor health, poor optimistic growth of the crown, and recommends removal. For the remaining seven oaks (five on site and two immediately adjacent), specific mitigation measures are included in the oak tree report and the project’s conditions of approval to lessen any impacts to these

oak trees by installing protective fencing, minimizing grading activity, using hand tools, and having a monitor on site during construction. Sewer utilities will be placed under the proposed driveway access. The value of the proposed mitigation plan and planting of six new oak trees all greater than 24" box exceeds the value the requested oak tree removal.

SECTION 6. NOW, THEREFORE, BE IT RESOLVED, by the Planning Commission of the City of Santa Clarita, California, as follows:

Adopt Resolution 15-03 approving Master Case 14-143 consisting of Tentative Tract Map 73066, Development Review 14-012, Oak Tree Permit 14-014, to allow for an 11-unit detached single family condominium complex on 1.1 acres in the Urban Residential 3 zone, the encroachment into the protected dripline of oak trees, and for the removal of one oak tree subject to the attached conditions of approval (Exhibit A).

PASSED, APPROVED, AND ADOPTED this 17th day of February, 2015.

CHAIRPERSON TRAUTMAN
PLANNING COMMISSION

ATTEST:

JEFF W. HOGAN, SECRETARY
PLANNING COMMISSION

STATE OF CALIFORNIA
COUNTY OF LOS ANGELES
CITY OF SANTA CLARITA

I, Jeff W. Hogan, Planning Commission Secretary of the City of Santa Clarita, do hereby certify that the foregoing Resolution was duly adopted by the Planning Commission of the City of Santa Clarita at a regular meeting thereof, held on the 17th day of February, 2015, by the following vote of the Planning Commission:

AYES: COMMISSIONERS:

NOES: COMMISSIONERS:

ABSENT: COMMISSIONERS:

PLANNING COMMISSION SECRETARY

EXHIBIT A
RESOLUTION NO. P15-03
MASTER CASE NO. 14-143
CONDITIONS OF APPROVAL

GENERAL CONDITIONS

GC1. The approval of this project shall expire if the approved use is not commenced within two (2) years from the date of this approval, unless it is extended in accordance with the terms and provisions of the City of Santa Clarita's Unified Development Code (UDC).

GC2. To the extent the use approved with this project is a different use than previously approved for the property, the prior approval shall be terminated along with any associated vested rights to such use, unless such prior approved use is still in operation, or is still within the initial pre-commencement approval period. Once commenced, any discontinuation of the use approved with this project for a continuous period of one hundred eighty (180) calendar days or more shall terminate the approval of this use along with any associated vested rights to such use. The use shall not be re-established or resumed after the one hundred eighty (180) day period. Discontinuation shall include cessation of a use regardless of intent to resume.

GC3. The applicant may file for an extension of the conditionally approved project prior to the date of expiration. If such an extension is requested, it must be filed no later than sixty (60) days prior to expiration.

GC4. The applicant shall be responsible for notifying the Director of Community Development, in writing, of any change in ownership, designation of a new engineer, or change in the status of the developer, within thirty (30) days of said change.

GC5. Unless otherwise apparent from the context, the term "applicant" shall include the applicant and any other persons, corporation, or other entity making use of this grant. The applicant shall defend, indemnify, and hold harmless the City of Santa Clarita, its agents, officers, and employees from any claim, action, or proceeding against the City or its agents, officers, or employees to attack, set aside, void, or annul the approval of this project by the City, including any related environmental approvals. In the event the City becomes aware of any such claim, action, or proceeding, the City shall promptly notify the applicant. If the City fails to notify the applicant or if the City fails to cooperate fully in the defense, the applicant shall not thereafter be responsible to defend, indemnify, or hold harmless the City. Nothing contained in this condition prohibits the City from participating in the defense of any claim, action, or proceeding, if both of the following occur: 1) the City bears its own attorneys' fees and costs; and 2) the City defends the action in good faith. The applicant shall not be required to pay or perform any settlement unless the settlement is approved by the applicant.

GC6. The property shall be developed and maintained in substantial conformance with the approvals granted by the City. Any modifications shall be subject to further review by the City.

GC7. The applicant and property owner shall comply with all inspections requirements as deemed necessary by the City of Santa Clarita.

GC8. The owner, at the time of issuance of permits or other grants of approval agrees to develop the property in accordance with City codes and other appropriate ordinances including, but not limited to, the California Building Code (Building, Mechanical, Plumbing, Electrical, Green Building, and Energy Codes), Fire Code, Unified Development Code (Grading Code and Undergrounding of the Utilities Ordinance), Utilities Code (Sanitary Sewer and Industrial Waste Ordinance), and Highway Permit Ordinance.

GC9. This grant shall not be effective for any purpose until the applicant has filed with the Director of Community Development, their affidavit (Acceptance Form) stating that they are aware of, and agree to accept, all of the conditions of this grant.

GC10. Details shown on the site plan are not necessarily approved. Any details which are inconsistent with the requirements of state or local ordinances, general conditions of approval, or City policies and not modified by this permit must be specifically approved.

GC11. It is hereby declared and made a condition of this permit that if any condition hereof is violated, or if any law, statute, or ordinance is violated, the City may commence proceedings to revoke this approval.

Planning Division

PL1. The project shall be developed in substantial conformance with this approval. Any deviation from this approval shall require the approval of the Director of Community Development.

PL2. All requirements of the Unified Development Code and of the specific zoning of the subject property shall be complied with unless set forth in the permit.

PL3. Guest parking shall be provided as shown on the site plan with 11 spaces. Guest spaces shall not be rented out or specifically assigned.

PL4. Each unit shall have its own attached 2-car garage with a minimum interior dimension of 20 feet by 20 feet. All garage doorways throughout the development shall have a “roll-up” design with automatic garage door openers.

PL5. No gating of the drive aisle shall occur unless it is in conformance with Section 17.66.050 (Gating of Access or Roadways).

PL6. The applicant shall construct solid masonry walls along the southern property line. Existing perimeter fencing may remain to minimize impacts to oak trees and disturbance to neighboring parcels. Per flood control us standards, a wrought iron fence will be permitted along the eastern property line.

PL7. Signage is not approved as part of this application. If the applicant proposes to install entry signs, a separate permit for enhanced signage may need to be submitted to the Planning Division for review and approval.

PL8. The applicant shall pay all appropriate impact and service fees, including but not limited to the following: Library and Technology, Transit, Fire Facilities, Law Enforcement facilities, School, Water, Sanitation, Parkland, and Bridge and Thoroughfare.

PL9. Private and common open space areas are to be provided as shown on the site plan. The requirements are as follows (§ 17.57.030 E):

a. Single-family detached/townhome units—six hundred and fifty square feet;

b. Open space shall be split into required yard space and recreational facilities throughout the common areas of the development as prescribed in this section. A minimum of fifty percent (50%) of the open space shall be dedicated to the required yard for each residential unit. The remaining space may be used to fulfill additional recreational facilities as prescribed in this section, and/or may be applied to the required yard areas to the satisfaction of the Director of Community Development.

c. Land required for setbacks or occupied by buildings, streets, driveways or parking spaces may not be counted in satisfying this open space requirement; however, land occupied by any recreational buildings and structures may be counted as required open space.

As designed, the project complies with the above requirements.

PL10. The proposed site plans shows areas reserved for recreation. A requirement of multi-family residential development is to provide at a minimum, the following (§ 17.57.030 G) prior to the first occupancy:

a. Landscaped park like quiet area
b. Children's play area
c. Family picnic area

PL11. Building and architectural elevations are approved as shown and shall be constructed in substantial conformance with the submitted materials. The applicant shall use dimensional and asphalt roofing material. Traditional flat, three-tab asphalt roofing is prohibited.

PL12. Air conditioners shall be ground mounted in accordance with Unified Development Code residential standards 17.57.060

Landscape

LR1. Prior to issuance of grading permit(s) the applicant shall provide final landscape, lighting and irrigation plans (Landscape Document Package) for Planning Division review and

approval. The plan must be prepared by a California-registered landscape architect and shall be designed with the plant palette suitable for Santa Clarita (Sunset Western Garden Book Zone 18, minimum winter night temperatures typically 20º to 30º F; maximum summer high temperatures typically 105º F to 110º F). The landscape design plan shall meet the design criteria of the State Water Efficiency Landscape Ordinance as well as all other current Municipal Code / Unified Development Code requirements.

LR2. The applicant shall be aware that additional fees will be required to be paid by the applicant for the review of required landscape and irrigation plans by the City's landscape consultant based on an hourly rate. An invoice will be provided to the applicant at the completion of the review of the plans. The applicant will be required to pay all associated fees to the City of Santa Clarita prior to the release of the approved landscape and irrigation plans for the project.

LR3. The planting and irrigation plans shall be submitted to the City Arborist/Oak Tree Specialist for review and approval for compliance with the Oak Tree Preservation Ordinance (17.51.040).

LR4. *Required Landscape Plan Elements.* Final landscape plans shall contain all elements as listed in the checklist for preliminary landscape plans and shall conform to the Landscaping and Irrigation Standards (§17.51.030) in the Unified Development Code. The following elements need to be addressed on the final landscape plans.

(a) An appropriate mixture of evergreen and deciduous species shall be provided within the project.

(b) Landscape plans shall show at least one (1) 24" box tree per four (4) parking stalls in parking lots/areas, and 36" box trees in planters at the ends of parking aisles. The plans shall show tree species selection, distribution and spacing to provide 50% canopy coverage of all parking lots/areas within 5 years of planting.

(c) The applicant shall provide a minimum of 30 trees per gross acre of the site, 15% at minimum 48" box size or larger and 20% are required to be thirty-six (36) inch box size or larger. This number may be reduced depending on number of existing trees to remain on site.

(d) Prior to issuance of building permit, a homeowner's association (HOA) shall be formed to have responsibility and authority for all maintenance, including but not limited to landscaping, irrigation, and drainage devices.

(e) Landscape plans shall show plant material to screen at maturity all trash enclosures, transformer boxes, vault boxes, backflow devices, and other exterior mechanical equipment. Screening material may include trees, shrubs (15 gallon minimum size), clinging vines, etc. Masonry block (concrete masonry unit) trash enclosures shall be screened with both shrubs and clinging vines.

(f) Landscape plans shall show all lighting fixtures, base dimensions, and typical finish elevations.

(g) The applicant shall place water-conserving mulching material on all exposed soil in planting areas not covered by turfgrass. Mulching material may include, and is not limited to, shredded bark, river rock, crushed rock, pea gravel, etc., and must be at least two (2) inches deep.

(h) Prior to occupancy, the applicant shall install all proposed irrigation and landscaping, including irrigation controllers, staking, mulching, etc., to the satisfaction of the Director of Community Development. The Director may impose inspection fees for more than one landscape installation inspection.

(i) Prior to occupancy, the applicant shall submit to the Director of Community Development a letter from the project landscape architect certifying that all landscape materials and irrigation have been installed and function according to the approved landscape plans.

Engineering

General Requirements

EN1. At issuance of permits or other grants of approval, the applicant agrees to develop the property in accordance with City codes and other appropriate ordinances such as the Building Code, Plumbing Code, Grading Code, Highway Permit Ordinance, Mechanical Code, Unified Development Code, Undergrounding of Utilities Ordinance, Sanitary Sewer and Industrial Waste Ordinance, Electrical Code, and Fire Code.

EN2. Prior to issuance of building permits, a Tract Map prepared by or under the direction of a person licensed to practice land surveying in the State of California shall be filed in the Office of the County Recorder, in compliance with applicable City of Santa Clarita, County of Los Angeles, and State of California Codes.

EN3. At map check submittal, the applicant shall provide a preliminary Tract Map guarantee. A final Tract Map guarantee is required prior to Tract Map approval.

EN4. Prior to Tract Map approval, the applicant shall establish a Home Owners' Association (HOA), or similar entity, to ensure the continued maintenance of all shared/common lots and drainage devices not transferable to the County Flood Control District.

EN5. Prior to Tract Map approval, the applicant shall obtain approval from the City Engineer and the City Attorney for Covenants, Conditions, and Restrictions (CC&Rs) for this development. The applicant shall reimburse the City for the City Attorney's review and approval fee. The CC&Rs shall include a disclosure to comply with the Geologist's recommendations in the Geology Report.

EN6. Prior to Tract Map approval, the applicant shall grant an easement to neighboring property by separate document, as identified on the Plan. The easements shall be reviewed and approved by the City Engineer.

EN7. Prior to Tract Map approval, the applicant shall provide a Will Serve Letter from all necessary utilities, stating that service will be provided to this property.

Condominium/Lease Requirements

EN8. Prior to Tract Map approval, the applicant shall submit a notarized affidavit to the City Engineer, signed by all owners of record at the time of filing of the map with the City, stating that any proposed condominium building have not been constructed or that all buildings have not been occupied or rented and that said building will not be occupied or rented until after the filing of the map with the County Recorder.

Grading, Drainage & Geology Requirements

EN9. Prior to issuance of grading permit, the applicant shall submit a grading plan consistent with the approved site plan/tentative map, oak tree report and conditions of approval. The grading plan shall be based on a detailed engineering geotechnical report specifically approved by the geologist and/or soils engineer that addresses all submitted recommendations.

EN10. The site plan shows an import of 1,146 CY of dirt to the project.

A. Prior to issuance of a grading permit for this project, the applicant shall submit a copy of the grading permit for the export/receiving site and an exhibit of the proposed haul route. The applicant is responsible to obtain approval from all applicable agencies for the dirt hauling operation.

B. The applicant shall comply with the following requirements for the dirt hauling operation:

1. Obtain an encroachment permit for the work.
2. The hours of operation shall be between 8:30 am to 3:30 pm.
3. Provide non-stop street sweeping service on all City streets along the haul route during all hours of work to the satisfaction of the City Engineer.
4. Provide traffic control and flagging personnel along the haul route to the satisfaction of the City Engineer.

C. Prior to issuance of building final, the applicant shall repair any pavement damaged by the dirt hauling operation to the satisfaction of the City Engineer. The limits of the road repairs shall be consistent with the approved haul route.

EN11. Prior to grading permit, the applicant shall have approved by the City Engineer, a drainage study demonstrating that post-development flows from the site will not be increased from pre-development flows, or mitigate for the increase.

EN12. Prior to issuance of grading permits, the applicant shall acquire permits from the Army Corps of Engineers, California Department of Fish and Game, and the Regional Water Control Board for any work within any natural drainage course. A copy of the permits, or a response letter from each agency indicating a permit is not required, shall be submitted to the City prior to issuance of grading permits.

EN13. Prior to Tract Map approval, the applicant shall place a note on the map, prohibiting the lot

owners within this development from interfering with the established drainage and from erecting concrete block walls or similar solid constructions, except as approved by the City Engineer.

EN14. Prior to issuance of building permits, the applicant shall construct all grading and drainage facilities within the project site.

EN15. This project is a development planning priority project under the City's NPDES Municipal Stormwater Permit as a development with 10 or more dwelling units. Prior to issuance of grading permit, the applicant shall have approved by the City Engineer, an Urban Stormwater Mitigation Plan (USMP) that incorporates appropriate post construction best management practices (BMPs), maximizes pervious surfaces, and includes infiltration into the design of the project. Refer to the Standard Urban Stormwater Mitigation Plan (SUSMP) guide for details.

EN16. Under the provisions of the new Los Angeles County NPDES Stormwater (MS4) permit, development projects will be required to install Low-Impact Development BMPs (e.g. infiltration), and may be required to implement hydrologic control measures to address hydro-modification. This permit may impact the project, depending on grading permit issuance timeline. City is mandated to implement new permit requirements by May 2015.

EN17. This project will disturb one acre or more of land. Therefore, the applicant must obtain coverage under a statewide General Construction Activities Stormwater Permit (General Permit). In accordance with the General Permit, the applicant shall file with the State a Notice of Intent (NOI) for the proposed project. Prior to issuance of grading permit by the City, the applicant shall have approved by the City Engineer a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP shall include a copy of the NOI and shall reference the corresponding Waste Discharge Identification (WDID) number issued by the State upon receipt of the NOI.

Flood Plain/Hazard Area Requirements

EN18. A portion of the property is located in FEMA Flood Zone (A) in accordance with the Federal Flood Insurance Rate Maps (FIRMs). The applicant shall comply with requirements for construction of structures within a flood plain/hazard area. No structures are allowed within the floodway.

EN19. Prior to Tract Map approval, the applicant shall place a note of flood hazard on the Tract Map, delineating the areas subject to flood hazard, and dedicating to the City the right to restrict the erection of buildings and other structures in the flood hazard areas.

Street Improvement Requirements

EN20. Prior to any construction (including, but not limited to, drive approaches, sidewalks, curb and gutter, etc.), trenching or grading within public or private street right-of-way, the applicant shall submit a street improvement plan consistent with the approved site plan/tentative map, oak tree report and conditions of approval and obtain encroachment

permits from the Engineering Division.

EN21. Prior to building final, all new and existing power lines and overhead cables less than 34 KV within or fronting the project site shall be installed underground.

EN22. Prior to street plan approval, the applicant shall submit a street tree location plan to the City's Urban Forestry Division for review and approval. The location of the street trees shall not conflict with sewer or storm drain infrastructure. The plan shall include proposed sewer lateral locations and storm drain infrastructure for reference.

EN23. Prior to building final, the applicant shall replace abandoned driveways with standard curb, gutter, sidewalk, and pavement in accordance with APWA standards, to the satisfaction of the City Engineer.

EN24. Prior to building final, the applicant shall repair any broken or damaged curb, gutter and sidewalk, and refurbish the half section of pavement on streets within or abutting the project, to the satisfaction of the City Engineer.

Sewer Improvement Requirements

EN25. The on-site sewer main line shall be a publicly maintained sewer. Upon final submittal to Engineering, the applicant shall show the proposed sewer easement for the sewer line along the driveway.

EN26. Prior to Tract Map approval, the applicant shall dedicate all necessary sewer easements. The sewer plans shall be reviewed and approved by the Los Angeles County Department of Public Works (Sewer Maintenance Division), Los Angeles County Sanitation District, and the City Engineer.

EN27. Sewer laterals less than ten inches in size shall not connect directly into a manhole; six-inch and eight inch laterals shall connect to the mainline a minimum of five feet from the edge of the manhole.

EN28. Prior to issuance of building permits, the proposed building(s) shall be connected to the existing sewer main in Walnut Street (CI2520-M). Prior to issuance of building permits, the applicant shall coordinate with the Building and Safety Division regarding payment of additional annexation fees, if required, to annex the property into the County Sanitation District. The applicant shall provide the City's Building & Safety Division with written confirmation from the Sanitation District that the property has been annexed.

EN29. Prior to issuance of building permits, the applicant shall construct on-site sewer main line with separate laterals to serve each unit. Main-line sewers shall have a straight alignment, located five feet from either the northerly or the easterly sides of the centerlines of driveways or alleys.

EN30. Prior to sewer plan approval, the applicant shall provide a sewer area study in accordance

with City policies for review and approval by the City Engineer.

EN31. Prior to first building final, the applicant shall construct all sewer upgrades in accordance with the approved sewer area study, to the satisfaction of the City Engineer.

Traffic Engineering

TR1. Prior to issuance of building permits, the applicant shall pay the applicable Bridge and Thoroughfare (B&T) District Fee to implement the Circulation Element of the General Plan as a means of mitigating the traffic impact of this project. This project is located in the Via Princessa B&T District. The current rate for this District is $19,270. The B&T rate is subject to change and is based on the rate at the time of payment.

Condominium = the number of units (11) x the district rate ($19,270) x 0.8 minus credit for previously existing single family home ($19,270) = $150,306 until June 30, 2015.

Fire Department

FD1. Access shall comply with Section 503 of the Fire Code, which requires all weather access. All weather access may require paving.

FD2. Fire Department access shall be extended to within 150 feet distance of any exterior portion of all structures.

FD3. Where driveways extend further than 150 feet and are of a single access design, turnarounds suitable for fire protection equipment use shall be provided and shown on the final map. Turnarounds shall be designed, constructed and maintained to insure their integrity for Fire Department use. Where topography dictates, turnarounds shall be provided for driveways that extend over 150 feet in length.

FD4. Private driveways shall be indicated on the final map as "Private Driveway and Fire Lane" with widths clearly depicted and shall be maintained in accordance with the Fire Code. All required fire hydrants shall be installed, tested and accepted prior to construction.

FD5. The applicant shall provide Fire Department or City approved street signs and building access numbers prior to occupancy.

Building and Safety

BS1. Detailed construction plans shall be submitted to the Building and Safety Division for plan review and building permits. Supporting documentation, such as structural calcs, energy calcs and soil/geology reports shall be included in the plan submittal package.

BS2. Plans submitted for plan review shall show full compliance with the California Building Codes in effect at the time the building permit application is submitted. The current

California codes are: 2013 California Building, Mechanical, Plumbing, and Electrical Codes, and the 2013 California Energy Code.

BS3. Single Family Residences, detached one- and two-family dwellings, Duplex and townhomes shall also comply with the detailed architectural requirements of the 2013 California Residential Code and the 2013 California Green Building Standards Code.

BS4. The City of Santa Clarita has amended some portions of the California Building codes. A copy of these amendments is available at the Building and Safety public counter and on our website at: www.santa-clarita.com/Index.aspx?page=552.

BS5. Plans submitted to Building and Safety for plan review shall be 100% complete. The submitted plans shall include architectural and structural plans, structural and energy calculations, soil/geology report, and truss drawings and calcs if used. Plans shall be prepared by a licensed Design Professional (architect or engineer). Incomplete plans or plans prepared by unqualified individuals will delay the project.

BS6. All new residential buildings ('R' occupancies) shall have an automatic fire sprinkler system.

BS7. New multifamily dwellings shall comply with the Housing Accessibility requirements per Chapter 11A of the California Building Code. Multifamily dwellings include apartment buildings with 3 or more dwelling units per building. Ten percent of the dwelling units (but not less than one) shall have a fully accessible primary entry level. (CBC 1102A.3)

BS8. All disable access requirements including site accessibility information and details shall be part of the architectural plans (vs the civil plans) and will be reviewed by building and safety. Civil plans used for grading purposes are not reviewed or approved for site accessibility requirements.

BS9. The submitted plans to Building and Safety shall have a Building Code Analysis and floor area justification containing the following minimum information: types of construction, occupancy groups, occupant loads, height of building, number of stories, summary of any fire rated walls, dwelling unit separations.

BS10. Prior to submitting plans to Building and Safety, please contact a Permit Specialist at (661) 255-4935, for project addressing (for each building).

BS11. A complete soils and geology investigation report will be required for this project. The report shall be formally submitted to Development Services Division (Engineering) for review and approval. The recommendations of the report shall be followed and incorporated into the plans for the project. A copy of the report shall be submitted to Building & Safety at time of plan submittal.

BS12. Prior to issuance of building permits: any rough grading and/or re-compaction that are recommended in the soil/geology report must be completed and a final compaction report

and pad certification shall be submitted to and approved by the Development Services Division.

BS13. The submitted site plan shall show all lot lines, any easements, restricted use areas, flood hazard areas, etc. Any construction proposed in an easement shall obtain the easement holders written permission.

BS14. For an estimate of the building permit fees and the backlog time for plan review, please contact the Building and Safety division directly.

BS15. Each separate detached structure, such as trash enclosures, fences, retaining walls, shade structures require separate applications and building permits. These other structures need not be on separate plans, but may be part of the same plans for the main project.

BS16. Common use areas and public areas such as paths, walkways to public ways, recreation areas, pool and open areas shall be accessible for the disabled per chapter 11B of the Calif Building Code.

BS17. The footings for all new buildings and other structures, including retaining walls and fences, shall be setback from any adjacent ascending or descending slopes. See section 1808.7 CBC and/or the Slope Setback handout.

BS18. On-site drain, waste and sewer lines and laterals shall have a minimum 2% slope per the California Plumbing Code.

BS19. Prior to issuance of building permits, additional clearances from these agencies will be required:

a. Santa Clarita Environmental Services (Construction & Demo Plan deposit)
b. William S. Hart School and the Newhall Elementary School District,
c. Castaic Lake Water Agency,
d. L.A. County Fire Prevention Bureau,
e. L. A. County Sanitation District,

Clearances from additional agencies may be required and will be determined during the plan review process. An agency referral list is available at the Building and Safety public counter.

BS20. Portion of the parcel for this project is located within the FEMA Flood Zone. Clearly show the flood boundary on the plans and if there is any new construction within the FEMA Flood zone, it shall comply with the California Residential Code Section R322: FLOOD-RESISTANT CONSTRUCTION, all FEMA regulations and Development Services requirements. There is a BFE (Base Flood Elevation) on the property that ranges from 1301' to 1305'. The finish floor elevations shall be set one-foot above the BFE depending on the location of the building footprint. The submitted plans to Building & Safety shall show all Flood Zone requirements. For all Flood requirements and the exact BFE information please

contact: Gabrielle Koontz Assistant Engineer Phone: 661-255-4375, Email: GKOONTZ@santa-clarita.com

BS21. Upon final plan submittal package, the applicant shall include supporting documentation, such as structural calculations, energy calculations and soil/geology reports.

Parks Planning and Open Space

PR1. Prior to the recordation of an applicable final tract/parcel map, the applicant shall establish the required Park Dedication Fee equal to the value of the amount of land established per the City's General Plan, "Parks and Recreation Element." The applicant may be required to provide a certified MAI real estate appraisal to establish the fair market value (FMV) of an acre of land within this project. The applicant shall pay the required fees at Building Permit for each phase.

Environmental Services

ES1. The applicant shall provide individual unit trash service space for three 90-gallon trash carts, one each for trash, recycling, and greenwaste. Carts must be stored out of public view.

ES2. All demolition projects regardless of valuation and all new construction projects valuated greater than $500,000 must comply with the City's Construction and Demolition Materials (C&D) Recycling Ordinance.

ES3. The project shall comply with the City's C&D Materials Recycling Ordinance which includes the following requirements:

A. A Construction and Demolition Materials Management Plan (C&DMMP) must be prepared and approved by the Environmental Services Division prior to obtaining any grading or building permits.

B. A minimum of 50% of the entire project's inert (dirt, rock, bricks, etc.) waste and 50% of the remaining C&D waste must be recycled or reused rather than disposing in a landfill.

C. A deposit of 3% of the estimated total project cost or $25,000, whichever is less, is required. The full deposit will be returned to the applicant upon proving that 50% of the inert and remaining C&D waste was recycled or reused.

ES4. Per the California Green Building Standards Code, 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.

ES5. All projects within the City that are not self-hauling their waste materials must use one of the City's franchised haulers for temporary and roll-off bin collection services. Please contact

Environmental Services staff at 661-286-4098 for a complete list of franchised haulers in the City.

Transit Division

TR1. The Transit Impact Fee does apply to this project. Currently the rate is $200 per residential unit. The applicant is advised that the fee is currently under revision. Fee in place at the time of building permit issuance shall be paid.

Special Districts

SD 1. No on-site private property landscaping shall be maintained by the Landscape Maintenance District (LMD).

SD 2. The applicant shall annex the property into the City's Streetlight Maintenance District (SMD) to fund the operations and maintenance of street lights and traffic signals.

- Following the completed annexation, there will be an annual SMD assessment on the property tax bill. The current assessment, for FY 14/15, is $75.73 per EBU (equivalent benefit unit).

- Benefit units are based on land use. An 11-unit condominium complex would be assessed, approximately 6.75 EBU per parcel annually. Final assessment calculation is determined by the City's Assessment Engineer.

- A minimum of 120 days is required to process the annexation, which must be completed prior to final map approval or building permit issuance, whichever occurs first.

Urban Forestry

UF1. The applicant is advised that there is an existing parkway that fronts the project site. Parkway trees may be required for this application.

UF2. Additional landscape improvements may be required in the parkway and could include upgraded landscaping, parkway trees, irrigation, turf and / or shrubs.

UF3. Applicant shall be required to install and maintain all irrigation to any parkway tree(s) planted within the public right of way. An example irrigation specification for parkway trees has been provided in your packet.

UF4. All parkway landscape planters including but not limited to tree wells and ground level planters shall have approved lineal root barrier installed along the edge of all concrete. Lineal root barrier shall have a minimum overlap of 24 inches and shall be installed and sealed to manufacturer's specifications.

UF5. Irrigation to parkway trees shall be installed so that the lateral line comes up from the bottom of the root barrier panel without having to puncture or cut holes through the panels.

UF6. All parkway trees shall be installed per the City of Santa Clarita Tree planting and Staking Detail Sheet. This sheet is available through LMD and Urban Forestry. Planting Specifications have been provided.

UF7. The current parkway tree for Walnut Avenue is the Chinese flame tree (*Koelrueteria bipinnata*).

UF8. Parkway trees installed within the public right of way shall be a minimum size 24" inch box container-grown tree. Parkway trees shall meet and / or exceed the California Department of Forestry and Fire Protection "Guidelines Specifications for Nursery Quality Trees".

UF9. Trees that are diseased, infested, have girdled root systems of have been topped or cut back beyond a lateral branch will not be accepted and shall be returned to the nursery at no cost to the City of Santa Clarita.

UF10. Prior to installation, all parkway trees and shrubs shall be inspected by an authorized representative of the City of Santa Clarita. Applicant shall give a minimum of 48 hours' notice prior to the delivery of any plant material proposed for the public right of way.

UF11. Upon next submittal or as required by Community Development, the applicant shall submit a final landscape plan that addresses all proposed landscape improvements within the Public Right of Way. Final Landscape Plan shall be approved and stamped by an authorized representative of LMD (Landscape Maintenance District) and / or Urban Forestry.

UF12. The applicant may contact the Special Districts Tree Specialist at (661) 286-4144 for any questions related to the above Conditions of Approval.

Oak Tree

OT1. Applicant shall comply with the City of Santa Clarita Oak Tree Ordinance and Oak Tree Preservation and Protection Guidelines at all times throughout the completion of project.

OT2. The applicant is required to obtain an Oak Tree Permit for the one (1) proposed oak tree removal and encroachments into the protected zone of five (5) on-site oak trees and two (2) off-site oak trees. All oak tree impacts are documented in the submitted oak tree report by Frank Madero dated May 26, 2014 and the addendum dated January 7, 2015.

a. One (1) On-Site Removal = Oak Tree Number 5.
b. Five (5) On-Site Encroachments = Oak Tree Number 1, 2, 3, 4, and 6.
c. Two (2) Off-Site Encroachments = Oak Tree Number 7 and 8.

OT3. The applicant is permitted to remove Oak Tree Number 5, which is a 19-inch diameter Valley Oak *(Quercus lobata)* in poor health and condition. Oak Tree Number 5 has an International Society of Arboriculture (ISA) tree value of $4,214.

OT4. The applicant is permitted to encroach into the Protected Zone of five (5) on-site Coast Live Oak trees *(Quercus Agrifolia)* and two (2) off-site Coast Live Oaks in order to build the eleven (11) proposed homes on project site. Encroachments and their impacts have been documented in the oak tree report submitted by Frank Madero and are considered to be minor to moderate in most situations and moderate to severe in one location.

OT5. The applicant is required to have all encroachments activities monitored by the Project Arborist. All encroachment activates shall be documented and complied in a report for submission to the City Oak Tree Specialist. Encroachment activities include, but not limited to, pruning and removal, grading and excavation, root pruning and trenching, and any other construction related activities that may encroach or impact the oak trees.

- Encroachment monitoring reports shall be submitted electronically as requested.
- Monitoring reports shall document and describe the type and severity of impact.
- All roots cut over one-inch in diameter shall be quantified and photographed.
- All trenching and major excavation within the PZ shall be photographed for report.
- Additional reporting information may be requested by the City Oak Tree Specialist.

OT6. The applicant shall be required to perform post construction monitoring on all impacted oak trees for a period of three (3) years. Oak Tree Monitoring Reports shall be submitted every six months by a qualified Oak Tree Consultant. All reports shall be submitted to the City Oak Tree Specialist by e-mail.

OT7. The applicant is required to mitigate for the removal of Oak Tree Number 5 in the amount of $4,214. The City approves the proposed mitigation plan for the planting of an assortment of replacement oak trees. The proposed replacement value of $6,100 is above and beyond the required mitigation and the ISA tree value for Oak Tree Number 5. The additional mitigation value will offset other oak tree impacts from project encroachments.

The quantity, nursery size, species, and installed cost shall be as follows according to the proposed mitigation plan;

- One 48" box *Quercus lobata* valued at $1,800.
- One 48" box *Quercus agrifolia* valued at $1,800.
- Two 36: box *Quercus agrifolia* Valued at $900 each for a Total of $1,800
- Two 24" box *Quercus agrifolia* valued at $350 each - for a Total of $700
- This is a Grand Total Mitigation Value of $6,100

OT8. The mitigation oak trees shall be planted onsite as detailed in the submitted Oak Tree Exhibit produced by Hahn and Associates and dated January 6, 2015.

OT9. The applicant shall be responsible for a maintenance and preservation plan for the continued health and salvation of the impacted oak trees. The maintenance and monitoring plan shall include pruning, watering and fertilization on an as needed basis for the duration of the three year post construction phase of the project. At minimum all impacted oaks shall be fertilized once a year for the three years.

OT10. The final fencing plan within the Oak Tree Protected Zone shall be approved by the City Oak Tree Specialist. This includes the type of proposed fencing and the proximity of footings.

OT11. The applicant is required to install Oak Tree Protective Fencing prior to the start of grading. Protective fencing shall be inspected and approved by the City Oak Tree Specialist.

OT12. The applicant is advised to contact the neighboring property owner at 24796 Walnut Street about the need to perform tree maintenance on the two neighboring oak trees that will be affected from the project.

NOTICE OF EXEMPTION

TO:

[X] County Clerk
County of Los Angeles
12400E Imperial Hwy., Rm. 2001
Norwalk, CA 90650

[ ] Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

FROM:
City of Santa Clarita
Community Development
23920 Valencia Boulevard, Suite #302
Santa Clarita, CA 91355

DATE: February 18, 2015

PROJECT NAME: Master Case No. 14-143, Tentative Tract Map 73066, Development Review 14-012, Oak Tree Permit 14-014

PROJECT APPLICANT: PWP Properties, Inc., Ed Poulin, President

PROJECT LOCATION: 24982 Walnut Street (APN: 2855-011-055 and 2855-012-038)

PROJECT DESCRIPTION: The applicant is requesting a Tentative Tract Map and a Development Review for an 11 unit condominium complex on 1.1 acres in the Urban Residential 3 zone. An Oak Tree Permit is for the encroachment into the protected dripline of oak trees, and for the removal of one oak tree.

This is to advise that the [ ] Director of Community Development [X] Planning Commission [ ] City Council of the City of Santa Clarita has approved the above project on February 17, 2015. Review of the project by the Department of Community Development found that the project is exempt from the provisions of the California Environmental Quality Act.

EXEMPT STATUS: Based upon California Code of Regulations Title 14 Section 15332 (California Environmental Quality Act Guidelines), the project meets the requirements and parameters for an infill project described below. In order to qualify for this exemption, a project must: (1) be consistent with the applicable General Plan designation and policies, and the applicable zoning designation and regulations; (2) occur within city limits on a site no larger than 5 acres that is substantially surrounded by urban uses; (3) be located on a site with no value as habitat for endangered, rare or threatened species; (4) not result in any significant effects relating to traffic, noise, air quality or water quality; and, (5) be adequately served by all required utilities and public services. In addition, the applicant has provided substantial evidence in the form of technical studies authored by qualified environmental consultants that have been prepared to demonstrate the absence of significant environmental impacts to traffic, noise, air quality and water quality.

This is to certify that the Notice of Exemption and record of project approval is available for public review at:

City of Santa Clarita
Community Development Department
23920 Valencia Boulevard, Suite 140
Santa Clarita, California 91355
(661) 255-4330

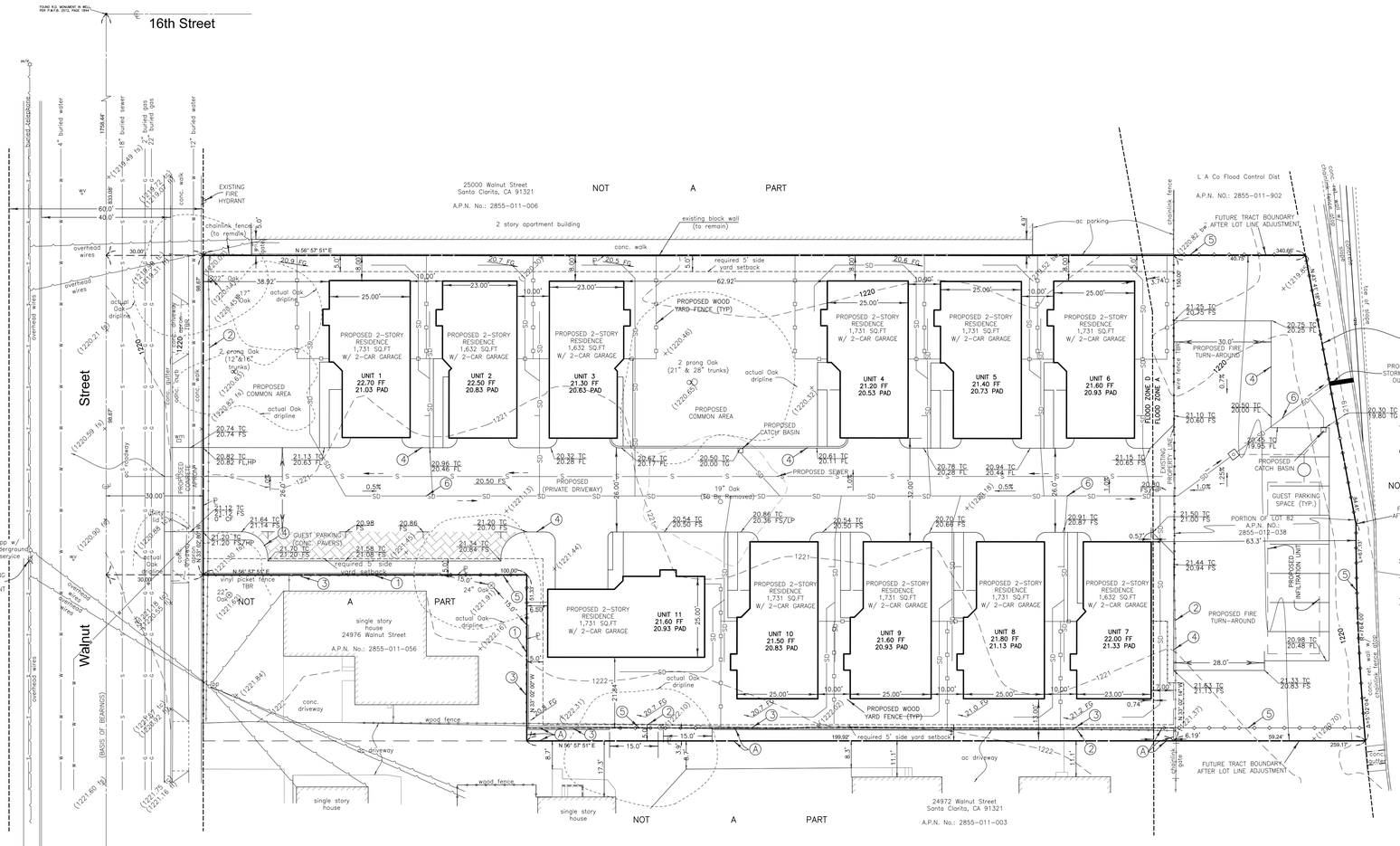
Contact Person/Title: Jason Smisko, Senior Planner

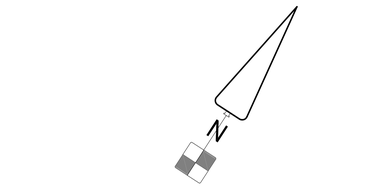
Signature: _____


Master Case 14-143
Subject Property
RAILROAD AV
WALNUT ST
CHESTNUT ST
NEWHALL AV
15TH ST

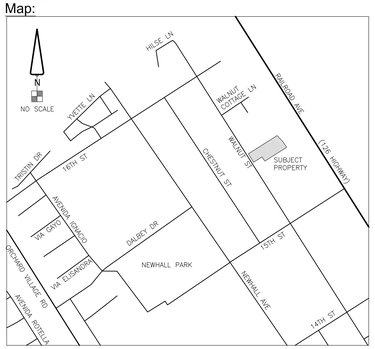
VESTING TENTATIVE TRACT NO. 73066

BEING A SUBDIVISION OF LOTS 73 & 82 TRACT 5844
IN THE CITY OF SANTA CLARITA, COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 69 PAGE
41–42 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER.





Vicinity Map:



Legend:

ac = asphalt concrete
bs = bottom step
bw = bottom wall
conc. = concrete
cor. = corner
fh = fire hydrant
fl = flowline
fs = finish surface
gm = gas meter
hp = high point
pl = property line
pm = power meter
pp = power pole
ret. = retaining
sl = street light
tc = top of curb
tr = top of roof
ts = top of step
tw = top of wall
TBR = to be removed
wh = water heater
w.i. = wrought iron
wm = water meter
wv = water valve
nly = northerly
sly = southerly
wly = westerly
ely = easterly
= property line
= centerline
= overhead wires
s = buried sewer
w = buried water
g = buried gas
t = buried telephone
( ) = existing elevation
= existing countour
= direction of surface flow
= direction of storm drain/sewer flow

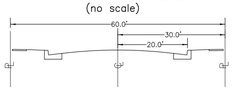
OWNER:
PWP PROPERTIES, INC.
24868 APPLE STREET, SUITE 102
NEWHALL, CA 91321

SURVEYOR:
HAHN AND ASSOCIATES, INC.
26074 AVENUE HALL, SUITE 2
SANTA CLARITA, CA 91355

SOILS/GEOLOGY:
SOUTHWEST GEOTECHNICAL, INC
21704 WEST GOLDEN TRIANGLE ROAD, SUITE 425
SANTA CLARITA, CA 91350

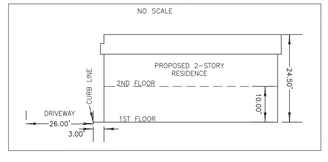
CIVIL ENGINEER:
ALLIANCE LAND PLANNING & ENGINEERING INC
2248 FARADAY AVE
CARLSBAD, CA 92008

WALNUT STREET
TYPICAL STREET SECTION–EXISTING
(no scale)



PROPOSED DRIVEWAY
TYPICAL SECTION–PROPOSED
(no scale)

TYPICAL ELEVATION
NO SCALE



① WOOD FENCE (TO BE REMOVED)
② CHAINLINK FENCE (TO BE REMOVED)
③ PROPOSED BLOCK WALL
④ PROPOSED CONCRETE CURB
⑤ PROPOSED WROUGHT IRON FENCE
⑥ PROPOSED STORM DRAIN
Ⓐ PROPOSED 4.00' WIDE EASEMENT TO NEIGHBOR FOR INGRESS AND EGRESS

PREPARED BY:

HAHN AND ASSOCIATES, INC.
26074 AVENUE HALL, SUITE 2
SANTA CLARITA, CA 91355
(661) 775–9500

HAHN AND ASSOCIATES, INC.

DATE OF PLAN: DECEMBER 4, 2014

DATE OF FIELD SURVEY: JANUARY 21, 2014

ADDRESS: 24982 WALNUT STREET, SANTA CLARITA, CA 91321

APN: 2855–011–055 & 2855–011–038

ZONING: UR–3 (URBAN RESIDENTIAL – 11 DWELLING UNITS/ACRE)

THOMAS GUIDE PAGE: 4550–H–7

AREA: 47,725 SQUARE FEET, 1.10 ACRES

LEGAL DESCRIPTION:
THE NORTHWESTERLY 150.00 FEET OF LOTS 73 AND 82 OF TRACT NO. 5844, AS PER MAP RECORDED IN BOOK 69, PAGES 41 AND 42 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THEREFROM THE SOUTHEASTERLY 51.33 FEET OF THE SOUTHWESTERLY 100.00 FEET OF SAID LOT 73.

ALSO, EXCEPT THEREFROM THE LAND LYING NORTHEASTERLY OF THE SOUTHWEST LINE OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL NO.48A IN THE DEED TO LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, RECORDED JULY 28, 1977 AS INSTRUMENT NO. 77–820496, OFFICIAL RECORDS OF SAID COUNTY.

BENCH MARK: 1231.109 ON BENCH MARK NO. 6065 (DPW TAG IN E CB 40' E/O C/L SAN FERNANDO RD @ C/L PROD 15TH ST) NAVD 1988 DATUM, 2009 ADJUSTMENT, AS SHOWN IN LOS ANGELES COUNTY PUBLIC WORKS SURVEY SECTION (NEWHALL QUAD)

FLOOD ZONE: THIS PROPERTY LIES WITHIN ZONE "A" (NO BASE FLOOD ELEVATIONS DETERMINED) & ZONE "D" (AREAS IN WHICH FLOOD HAZARDS ARE UNDETERMINED, BUT POSSIBLE) AS SHOWN ON FIRM MAP COMMUNITY PANEL NUMBER OF 06037C0820F DATED SEPTEMBER 26, 2008 (REVISED TO REFLECT LOMC EFFECTIVE: AUGUST 9, 2013)

FLOOD ZONE DIVIDING LINES PLOTTED PER CITY OF SANTA CLARITA GEOGRAPHICAL INFORMATION SYSTEMS DATA.

NOTE:
- PROPOSED SINGLE LOT SUBDIVISION WITH 11 FREE STANDING CONDOMINIUM UNITS
- BOUNDARY SHOWN HEREON IS PER FIELD MEASUREMENTS
- EXISTING SITE IMPROVEMENTS TO BE REMOVED
- PROPOSED STRUCTURES SHOWN HEREON ARE APPROXIMATE
- OAK TREES EXIST ON THE SITE, PLEASE SEE TREE REPORT AND TREE MAP.
- COMMUNITY DRIVEWAY TRASH COLLECTION.
- SEWERS ARE IN AND AVAILABLE
- UTILITY INFORMATION SHOWN HEREON IS PER RECORD DATA OBTAINED FROM LOS ANGELES COUNYT SUBSTRUCTURE MAPE NH–15 AND IS ONLY AS ACCURATE AS SAID DATA.
- NOT IN A GEOLOGIC/FLOOD/SPECIAL HAZARD AREA EXCEPT AS NOTED

HAHN JOB NO.: 0095–13–003–C

Existing/Proposed Zoning: RM
Land Use: UR-3

1 Site Plan
1/16" = 1'-0"

FIRE DEPARTMENT REQUIREMENTS :

1. PROVIDE AS INDICATED ON SITE PLANS, FIRE DEPT. ACCESS OR VEHICULAR TURN-AROUND WITH A MINIMUM, UNOBSTRUCTED WIDTH OF 15 FEET CLEAR TO THE SKY, VEHICULAR ACCESS TO WITHIN 150 FEET OF ALL PORTIONS OF THE EXTERIOR WALLS. ACCESS MUST BE ALL WEATHER SURFACE WITH GRADES OF 10% OR MORE TO BE PAVED.
2. VEHICULAR ACCESS MUST BE PROVIDED AND MAINTAINED SERVICEABLE THROUGHOUT CONSTRUCTION.
3. PROVIDE A 1-HOUR FIRE RESISTIVE OCCUPANCY SEPARATION BETWEEN THE U-1 GARAGE AND THE R-3 HOUSE
4. FIRE RESISTIVE ASSEMBLIES FOR PROTECTION OF OPENINGS TO COMPLY WITH CURRENT BUILDING CODE .
5. WIDTH AND HEIGHT OF REQUIRED EXIT DOORWAY TO COMPLY WITH CURRENT BUILDING CODE.
6. BUILDING ADDRESS NUMBERS TO BE PROVIDED ON THE FRONT OF ALL BUILDINGS AND SHALL BE VISIBLE AND LEGIBLE FROM THE STREET FRONTING THE PROPERTY. SAID NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND.
7. COMPLY WITH TITLE 24, REGARDING FIRE WARNING SYSTEMS. SMOKE DETECTORS TO BE HARD WIRED WITH BATTERY BACK-UP.
8. COMPLY WITH TITLE 24 SEC. 310.4 REGARDING ACCESS.
9. ALL ROOF COVERING SHALL BE OF FIRE RETARDANT CLASS A AS SPECIFIED IN TITLE 24, 1504.1 WOOD-SHINGLE AND WOOD SHAKE ROOFS ARE PROHIBITED REGARDLESS OF CLASSIFICATION UNDER UBC STANDARD 15-2. BLDG. CODE 6403.2.
10. PROVIDE SPARK ARRESTERS USED WITH CHIMNEYS OR HEATING APPLIANCES IN WHICH SOLID OR LIQUID FUEL IS USED. OPENINGS SHALL NOT EXCEED 1/2".
11. CLEARANCE OF BRUSH AND VEGETATIVE GROWTH WILL BE MAINTAINED PER CURRENT FIRE CODES.
12. DETACHED PATIO COVERS, DECKS, CARPORTS, TRELLISES AND OTHER SIMILAR ACCESSORY STRUCTURES LOCATED 20' OR MORE FROM A HABITABLE STRUCTURE, AND OF WOOD CONSTRUCTION, SHALL UTILIZE LUMBER NOT LESS THAN 2" NOMINAL IN WIDTH AND DEPTH.
13. THE REQUIRED FIRE FLOW FOR PUBLIC HYDRANTS AT THIS LOCATION IS 1250 GALLONS PER MINUTE AT 20 P.S.I. FOR A DURATION OF 2 HOURS, OVER AND ABOVE MAXIMUM DAILY DOMESTIC DEMAND.
14. EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
15. EXTERIOR WINDOWS, CURTAIN AND WINDOW WALLS, SKYLIGHTS, AND EXTERIOR DOORS SHALL UTILIZE MULTI-GLAZED PANELS.
16. THIS PROJECT IS LOCATED IN THE FIRE HAZARD ZONE. THE FOLLOWING SHALL APPLY:
    A. ROOF GUTTERS SHALL BE PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER.
    B. ALL WOOD TRIMS SHALL BE FIRE RETARDANT TREATED.
    C. ROOF EAVES SHALL BE ENCLOSED OF AN APPROVED NONCOMBUSTIBLE OR IGNITION RESISTANT MATERIAL
    D. EXTERIOR WINDOWS AND GLAZED DOORS SHALL BE A MINIMUM OF DUAL PANE UNITS WITH A MINIMUM OF ONE TEMPERED PANE OR HAVE A FIRE RESISTANCE RATING OF NOT LESS THAN 20 MINUTES.
    E. GARAGE DOORS SHALL BE NONCOMBUSTIBLE OR FIRE RETARDANT TREATED WOOD.

Project Data:

Total Site Area:	47725 SF / 1.10 Acres
Driveway / Parking:	13876 SF
Common Landscape:	14477 SF (Min. 325 SF/Unit x 11-Units = 3575 SF)
Private Yard Area:	7195 SF (Min. 325 SF Private Yard at each Unit)
House Footprints:	12177 SF
Individual Trash Area:	T = Trash Area located behind gated fence area at each unit
A/C Condensor Unit:	A/C = A/C Location

Unit Data:

Unit	1st Floor	2nd Floor	Total SF	Garage	Porch	Private Yard (Min. 325 sf)
1	679 sf	1051 sf	1730 sf	443 sf	58 sf	665 sf - 125 sf = 540 sf
2	624 sf	1008 sf	1632 sf	443 sf	39 sf	490 sf - 115 sf = 375 sf
3	624 sf	1008 sf	1632 sf	443 sf	39 sf	640 sf - 115 sf = 525 sf
4	679 sf	1051 sf	1730 sf	443 sf	58 sf	665 sf - 125 sf = 540 sf
5	679 sf	1051 sf	1730 sf	443 sf	58 sf	505 sf - 125 sf = 380 sf
6	679 sf	1051 sf	1730 sf	443 sf	58 sf	665 sf - 125 sf = 540 sf
7	624 sf	1008 sf	1632 sf	443 sf	39 sf	560 sf - 115 sf = 445 sf
8	679 sf	1051 sf	1730 sf	443 sf	58 sf	515 sf - 125 sf = 390 sf
9	679 sf	1051 sf	1730 sf	443 sf	58 sf	515 sf - 125 sf = 390 sf
10	679 sf	1051 sf	1730 sf	443 sf	58 sf	515 sf - 125 sf = 390 sf
11	679 sf	1051 sf	1730 sf	443 sf	58 sf	1460 sf - 242 sf =1218 sf

KHA Architecture

Kevin Haub & Associates
24868 Apple Street, Unit 201-B
Santa Clarita, CA 91321
T-661 294-7899 / F-866 272-2789

Architect Stamp

Licensed Architect
Kevin Max Haub
No. C24023
Renewal Date: 07-31-2015
State of California

Structural Engineer:

Truss Design:

Title 24 Compliance:

Soils Engineer:

Owner:
P.W.P. PROPERTIES, INC.
24868 Apple Street, Ste 102
Newhall, CA 91321
T- 661 255-8000
F- 661 255-8008
Contact: Ed Poulin

Project Name:

Walnut Park Cottages

24982 Walnut Street
Newhall, CA
APN: 2855-011-005
(11 UNITS)

No.	Description	Date

Master Case 14-032
One Stop 14-003
Permit No. : BLD14-00000

Site Plan

Project number	2014-01
Date	13 JAN 2015
Drawn by	KH
Checked by	KH

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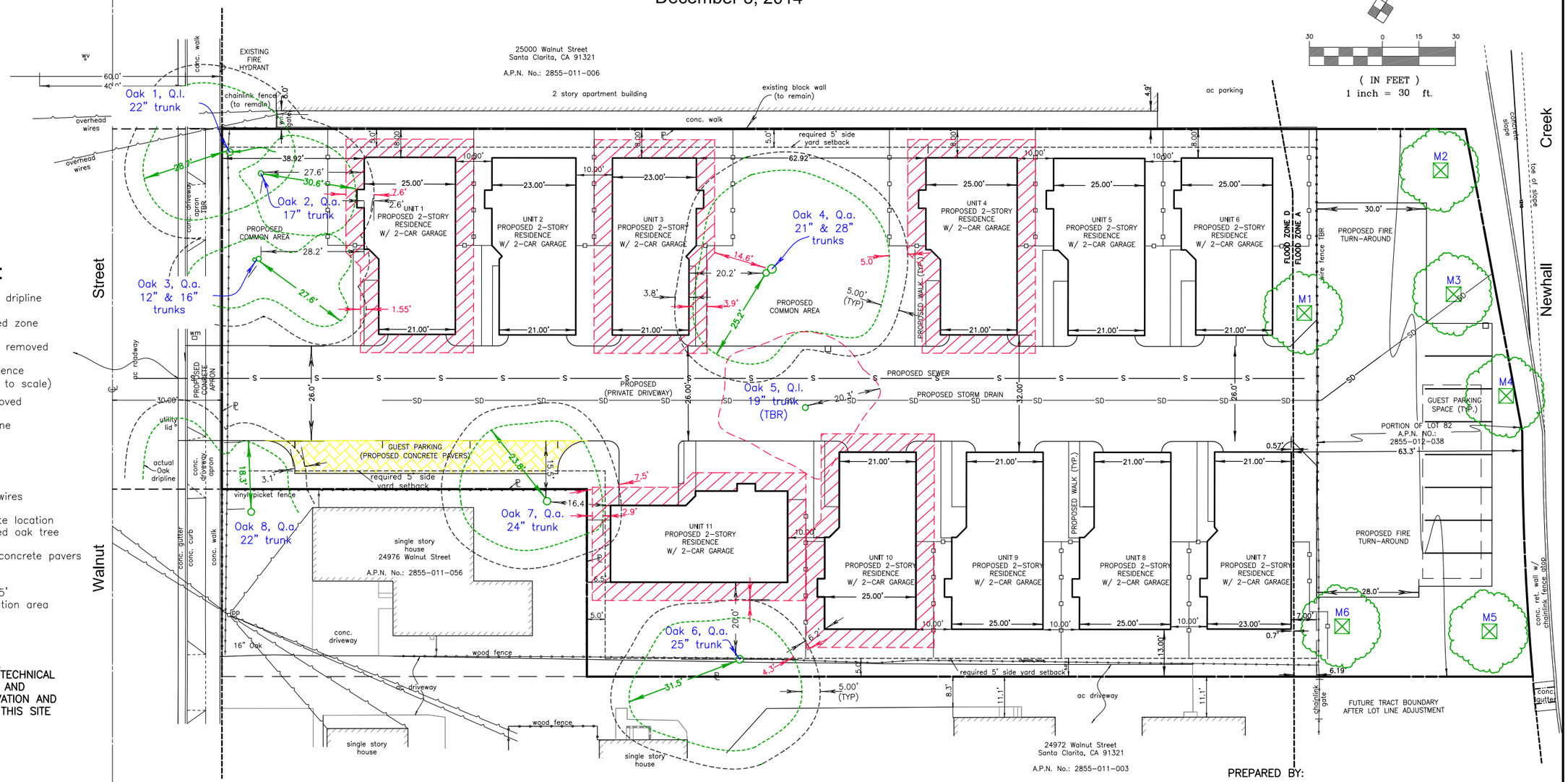
Oak Tree Exhibit

December 3, 2014



Legend:

- = actual oak dripline
- = 5' protected zone
- = tree to be removed
- = proposed fence (posts not to scale)
- TBR = to be removed
- = property line
- = centerline
- = overhead wires
- = approximate location of proposed oak tree
- = proposed concrete pavers
- = proposed 5' overexcavation area

OVEREXCAVATION NOTE:
PLEASE REFER TO GEOTECHNICAL PLANS FOR LOCATIONS AND DEPTHS OF OVEREXCAVATION AND RECOMPACTION WITHIN THIS SITE

Oak Mitigation Table

	Box Size	Species	Cost
M1	48"	Q.a.	$
M2	48"	Q.a.	$
M3	48"	Q.a.	$
M4	48"	Q.a.	$
M5	48"	Q.a.	$
M6	48"	Q.a.	$
5	TBR	Q.l.	$

OWNER:
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SANTA CLARITA, CA 91355

SOILS/GEOLOGY:
SOUTHWEST GEOTECHNICAL, INC
21704 WEST GOLDEN TRIANGLE ROAD, SUITE 425
SANTA CLARITA, CA 91350

CIVIL ENGINEER:
ALLIANCE LAND PLANNING & ENGINEERING INC
2248 FARADAY AVE
CARLSBAD, CA 92008

DATE OF FIELD SURVEY: NOVEMBER 25, 2014

ADDRESS: 24982 WALNUT STREET, SANTA CLARITA, CA 91321

APN: 2855-011-055 & 2855-011-038

ZONING: UR-3 (URBAN RESIDENTIAL - 11 DWELLING UNITS/ACRE)

THOMAS GUIDE PAGE: 4550-H-7

AREA: 47,725 SQUARE FEET, 1.10 ACRES

PREPARED BY:

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26074 AVENUE HALL, SUITE 2
SANTA CLARITA, CA 91355
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HAHN AND ASSOCIATES, INC.

WALNUT PARK COTTAGES

11 DETACHED SINGLE FAMILY CONDOMINIUM HOMES

24982 WALNUT AVENUE
NEWHALL, CALIFORNIA 91321

Plan 23-A - Traditional

Plan 23-B - Spanish

Plan 23-C - Craftsman

Plan 25-A - Traditional

Plan 25-B - Spanish

Plan 25-C - Craftsman

Plan 25-C-ALT - Craftsman

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Architect Stamp

Licensed Architect
Kevin Max Haub
No. C24023
Renewal Date: 07-31-2015
State of California

Structural Engineer:

Truss Design:

Title 24 Compliance:

Soils Engineer:

Owner:
P.W.P. PROPERTIES, INC.
24868 Apple Street, Ste 102
Newhall, CA 91321
T- 661 255-8000
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Project Name:

Walnut Park Cottages

24982 Walnut Street
Newhall, CA
APN: 2855-011-005
(11 UNITS)

No.	Description	Date

Master Case 14-032

One Stop 14-003

Permit No. : BLD14-00000

Cover Sheet

Project number	2014-01
Date	13 JAN 2015
Drawn by	KH
Checked by	KH

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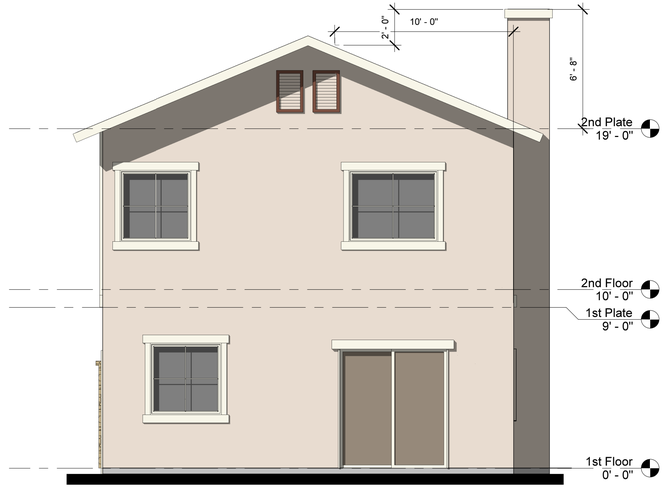
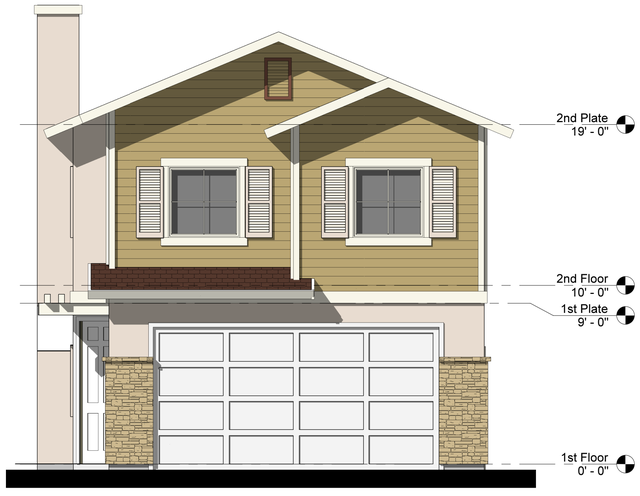
4 Plan 23-A - Right Side Elevation
1/4" = 1'-0"



3 Plan 23-A - Rear Elevation
1/4" = 1'-0"

2 Plan 23-A - Left Side Elevation
1/4" = 1'-0"



1 Plan 23-A - Front Elevation
1/4" = 1'-0"

KHA Architecture

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Santa Clarita, CA 91321
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Architect Stamp

Licensed Architect
Kevin Max Haub
No. C24023
Renewal Date: 07-31-2015
State of California

Structural Engineer:

Truss Design:

Title 24 Compliance:

Soils Engineer:

Owner:
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24868 Apple Street, Ste 102
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Contact: Ed Poulin

Project Name:

Walnut Park Cottages

24982 Walnut Street
Newhall, CA
APN: 2855-011-005
(11 UNITS)

No.	Description	Date

Master Case 14-032
One Stop 14-003
Permit No. : BLD14-00000

Plan 23-A - Elevations (Traditional)

Project number	2014-01
Date	13 JAN 2015
Drawn by	KH
Checked by	KH

A1.2

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4 Plan 23-B - Right side Elevation
1/4" = 1'-0"

3 Plan 23-B - Rear Elevation
1/4" = 1'-0"

2 Plan 23-B - Left Side Elevation
1/4" = 1'-0"

1 Plan 23-B - Front Elevation
1/4" = 1'-0"

KHA Architecture

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Santa Clarita, CA 91321
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Architect Stamp

Licensed Architect
Kevin Max Haub
No. C24023
Renewal Date: 07-31-2015
State of California

Structural Engineer:

Truss Design:

Title 24 Compliance:

Soils Engineer:

Owner:
P.W.P. PROPERTIES, INC.
24868 Apple Street, Ste 102
Newhall, CA 91321
T- 661 255-8000
F- 661 255-8008
Contact: Ed Poulin

Project Name:

Walnut Park Cottages

24982 Walnut Street
Newhall, CA
APN: 2855-011-005
(11 UNITS)

No.	Description	Date

Master Case 14-032
One Stop 14-003
Permit No. : BLD14-00000

Plan 23-B - Elevations (Spanish)

Project number	2014-01
Date	13 JAN 2015
Drawn by	KH
Checked by	KH

A1.3

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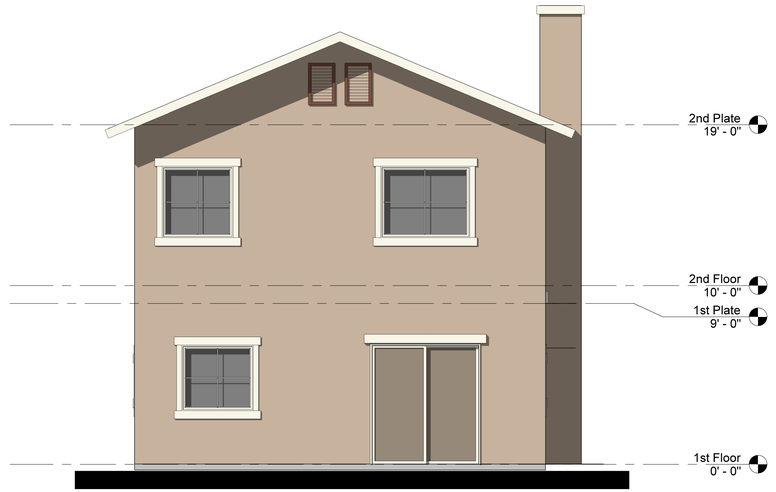
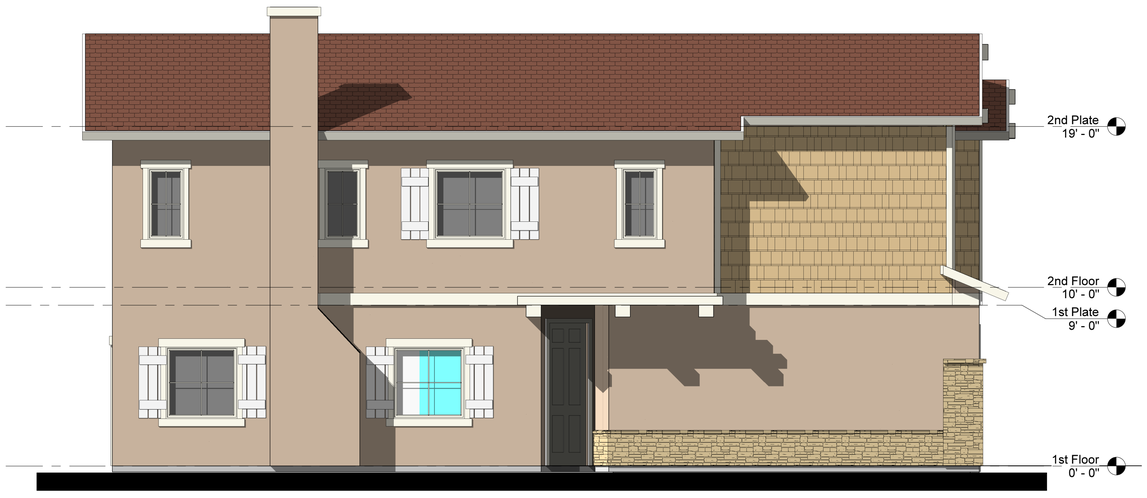
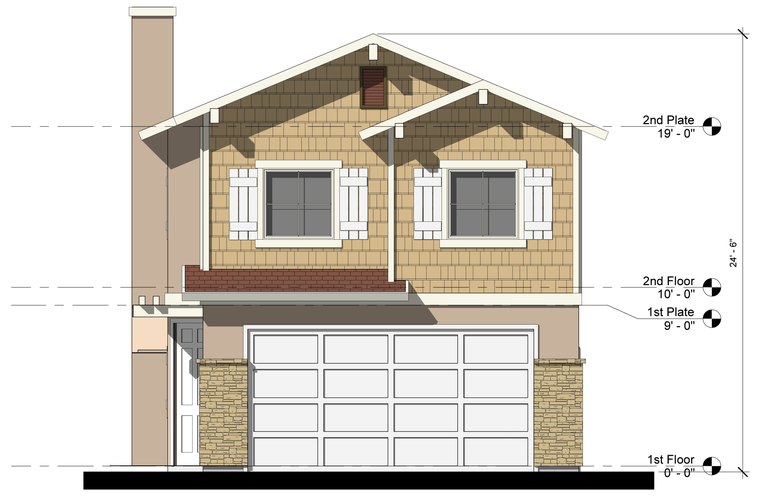
4 Plan 23-C - Right Elevation
1/4" = 1'-0"



3 Plan 23-C - Rear Elevation
1/4" = 1'-0"



2 Plan 23-C - Left Elevation
1/4" = 1'-0"



1 Plan 23-C - Front Elevation
1/4" = 1'-0"

KHA Architecture

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Santa Clarita, CA 91321
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Architect Stamp

Licensed Architect
Kevin Max Haub
No. C24023
Renewal Date: 07-31-2015
State of California

Structural Engineer:

Truss Design:

Title 24 Compliance:

Soils Engineer:

Owner:
P.W.P. PROPERTIES, INC.
24868 Apple Street, Ste 102
Newhall, CA 91321
T- 661 255-8000
F- 661 255-8008
Contact: Ed Poulin

Project Name:

Walnut Park Cottages

24982 Walnut Street
Newhall, CA
APN: 2855-011-005
(11 UNITS)

No.	Description	Date

Master Case 14-032
One Stop 14-003
Permit No. : BLD14-00000

Plan 23-C - Elevations (Craftsman)

Project number	2014-01
Date	13 JAN 2015
Drawn by	KH
Checked by	KH

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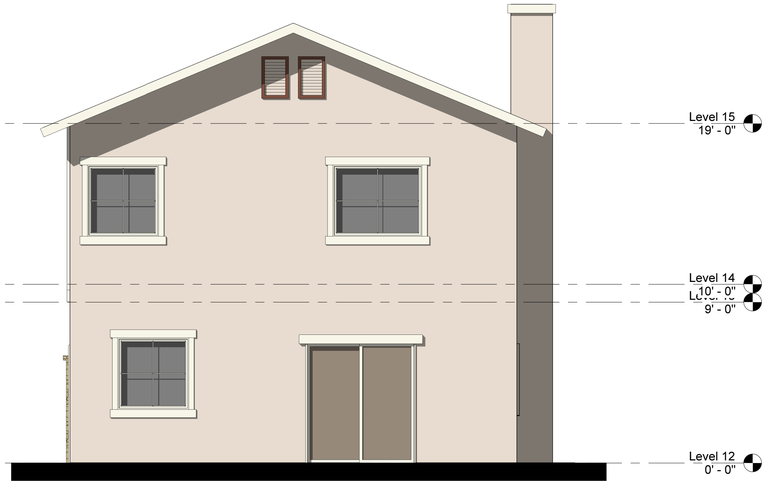
4 Plan 25-A - Right Elevation
1/4" = 1'-0"



3 Plan 25-A- Rear Elevation
1/4" = 1'-0"

2 Plan 25-A - Left Elevation
1/4" = 1'-0"

1 Plan 25-A - Front Elevation
1/4" = 1'-0"

KHA Architecture

Kevin Haub & Associates
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Santa Clarita, CA 91321
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Architect Stamp

Licensed Architect
Kevin Max Haub
No. C24023
Renewal Date
07-31-2015
State of California

Structural Engineer:

Truss Design:

Title 24 Compliance:

Soils Engineer:

Owner:
P.W.P. PROPERTIES, INC.
24868 Apple Street, Ste 102
Newhall, CA 91321
T- 661 255-8000
F- 661 255-8008
Contact: Ed Poulin

Project Name:

Walnut Park Cottages

24982 Walnut Street
Newhall, CA
APN: 2855-011-005
(11 UNITS)

No.	Description	Date

Master Case 14-032
One Stop 14-003
Permit No. : BLD14-00000

Plan 25-A - Elevations (Traditional)

Project number	2014-01
Date	13 JAN 2015
Drawn by	KH
Checked by	KH

A2.2

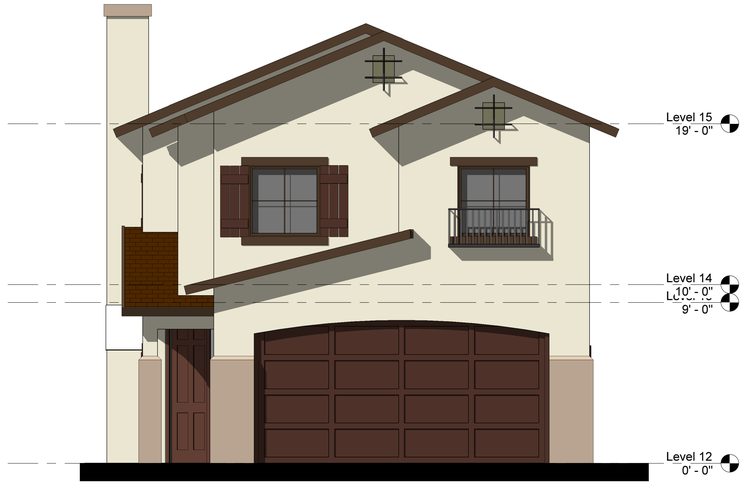
Sheet of

2/7/2015 11:30:46 PM

4 Plan 25-B - Right Elevation
1/4" = 1'-0"

3 Plan 25-B - Rear Elevation
1/4" = 1'-0"

2 Plan 25-B - Left Elevation
1/4" = 1'-0"



1 Plan 25-B - Front Elevation
1/4" = 1'-0"

KHA Architecture

Kevin Haub & Associates
24868 Apple Street, Unit 201-B
Santa Clarita, CA 91321
T-661 294-7899 / F-866 272-2789

Architect Stamp

Licensed Architect
Kevin Max Haub
No. C24023
Renewal Date
07-31-2015
State of California

Structural Engineer:

Truss Design:

Title 24 Compliance:

Soils Engineer:

Owner:
P.W.P. PROPERTIES, INC.
24868 Apple Street, Ste 102
Newhall, CA 91321
T- 661 255-8000
F- 661 255-8008
Contact: Ed Poulin

Project Name:

Walnut Park Cottages

24982 Walnut Street
Newhall, CA
APN: 2855-011-005
(11 UNITS)

No.	Description	Date

Master Case 14-032
One Stop 14-003
Permit No. : BLD14-00000

Plan 25-B - Elevations (Spanish)

Project number	2014-01
Date	13 JAN 2015
Drawn by	KH
Checked by	KH

A2.3

Sheet of

2/7/2015 11:32:22 PM

4 Plan 25-C - Right Elevation
1/4" = 1'-0"

3 Plan 25-C - Rear Elevation
1/4" = 1'-0"

2 Plan 25-C - Left Elevation
1/4" = 1'-0"

1 Plan 25-C - Front Elevation
1/4" = 1'-0"

KHA Architecture

Kevin Haub & Associates
24868 Apple Street, Unit 201-B
Santa Clarita, CA 91321
T-661 294-7899 / F-866 272-2789

Architect Stamp

Licensed Architect
Kevin Max Haub
No. C24023
Renewal Date
07-31-2015
State of California

Structural Engineer:

Truss Design:

Title 24 Compliance:

Soils Engineer:

Owner:
P.W.P. PROPERTIES, INC.
24868 Apple Street, Ste 102
Newhall, CA 91321
T- 661 255-8000
F- 661 255-8008
Contact: Ed Poulin

Project Name:

Walnut Park Cottages

24982 Walnut Street
Newhall, CA
APN: 2855-011-005
(11 UNITS)

No.	Description	Date

Master Case 14-032
One Stop 14-003
Permit No. : BLD14-00000

Plan 25-C - Elevations (Craftsman)

Project number	2014-01
Date	13 JAN 2015
Drawn by	KH
Checked by	KH

A2.4

Sheet of

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4 Plan 25-C-Alt - Lot 11 Right
1/4" = 1'-0"

3 Plan 25-C-Alt - Lot 11 Rear
1/4" = 1'-0"

2 Plan 25-C-Alt - Lot 11 Left
1/4" = 1'-0"

1 Plan 25-C-Alt - Lot 11 Front
1/4" = 1'-0"

KHA Architecture

Kevin Haub & Associates
24868 Apple Street, Unit 201-B
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Architect Stamp

Licensed Architect
Kevin Max Haub
No. C24023
Renewal Date
07-31-2015
State of California

Structural Engineer:

Truss Design:

Title 24 Compliance:

Soils Engineer:

Owner:
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24868 Apple Street, Ste 102
Newhall, CA 91321
T- 661 255-8000
F- 661 255-8008
Contact: Ed Poulin

Project Name:

Walnut Park Cottages

24982 Walnut Street
Newhall, CA
APN: 2855-011-005
(11 UNITS)

No.	Description	Date

Master Case 14-032
One Stop 14-003
Permit No. : BLD14-00000

Plan 25-C-Alt - Elevations (Craftsman)

Project number	2014-01
Date	13 JAN 2015
Drawn by	KH
Checked by	KH

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OAK TREE MITIGATION TABLE

OAK TREE #	BOX SIZE	SPECIES
M1	24"	QUERCUS AGRIFOLIA
M2	48"	QUERCUS AGRIFOLIA
M3	36"	QUERCUS AGRIFOLIA
M4	36"	QUERCUS AGRIFOLIA
M5	48"	QUERCUS LOBATA
M6	24"	QUERCUS AGRIFOLIA

PLANT SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	CONT	QTY	REMARKS
	ACACIA GERRARDII	GRAY THORN ACACIA	24"BOX	3	
	QUERCUS AGRIFOLIA	COAST LIVE OAK	N/A	5	MITIGATION / REFER TO OAK TREE TABLE
	QUERCUS LOBATA	VALLEY OAK	48"BOX	1	MITIGATION / REFER TO OAK TREE TABLE

SHRUBS	BOTANICAL NAME	COMMON NAME	CONT	QTY	REMARKS
	ACHILLEA MILLEFOLIUM `WHITE`	COMMON YARROW	1 GAL	60	
	AGAPANTHUS AFRICANUS	LILY OF THE NILE	1 GAL	16	
	ASPARAGUS DENSIFLORUS `MYERS`	MYERS ASPARAGUS	5 GAL	9	
	CALLISTEMON CITRINUS `LITTLE JOHN`	DWARF BOTTLE BRUSH	5 GAL	7	
	CAREX BARBERAE	SANTA BARBARA SEDGE	1 GAL	71	
	CORDYLINE X `ELECTRIC PINK`	PINK CORDYLINE	5 GAL	8	
	FURCRAEA FOETIDA `MEDIOPICTA`	MAURITIUS HEMP	5 GAL	5	
	KECKIELLA CORDIFOLIA	CLIMBING PENSTEMON	1 GAL	21	
	LIGUSTRUM JAPONICUM	JAPANESE PRIVET	5 GAL	11	
	LIRIOPE MUSCARI `VARIEGATA`	VARIEGATED LILY TURF	1 GAL		65
	MAHONIA AQUIFOLIUM `COMPACTA`	COMPACT OREGON GRAPE	5 GAL		42
	MUHLENBERGIA CAPILLARIS `REGAL MIST` TM	MUHLY	5 GAL		35
	MYRICA CALIFORNICA	PACIFIC WAX MYRTLE	5 GAL		47
	NANDINA DOMESTICA `GULF STREAM` TM	HEAVENLY BAMBOO	5 GAL		58

GROUND COVERS	BOTANICAL NAME	COMMON NAME	CONT	SPACING	QTY	REMARKS
	CAMPANULA PERSICIFOLIA `ALBA`	PEACHLEAF BELLFLOWER	1 GAL	24" o.c.	2,158 SF	
	LANTANA CAMARA	LANTANA	FLAT	18" o.c.	524 SF	

Underground Service Alert
Call: TOLL FREE 1-800 227-2600
TWO WORKING DAYS BEFORE YOU DIG

NORTH
1"=16'-0"
16' 0' 8' 16' 32'

Drawing: Z:\0_LDI\0_DESIGN JOBS\Poulin\Walnut Park Cottages\WORKING DRAWINGS\LDI_Walnut Park_PLANTING_Rendering.dwg
Layout: PL-1
Jan 20, 2015, 8:28am

Design Studios
Landscape Development
www.landscapedevelopment.com
28447 Witherspoon Pkwy,
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WALNUT PARK COTTAGES
24982 WALNUT STREET
NEWHALL, CA
APN:2855-011-005

P.W.P. PROPERTIES, INC.
24868 APPLE STREET, STE. 102
NEWHALL, CA 91321
(661) 250-8000

NOTES:	REVISION:	DATE:	CHK'BY:
CONCEPTUAL PLANTING PLAN	-	10/15/14	-
REVISED CONCEPT PER CLIENT	-	11/24/14	-
REVISED CONCEPT PLANTING PLAN	-	12/09/14	-
REVISED CONCEPT PLAN	-	01/19/15	-

DRAWING TITLE:
PLANTING PLAN

REGISTERED LANDSCAPE ARCHITECT
RICHARD M. DESANTO
4827
JANUARY 19, 2015
Date
APRIL 30, 2015
Exp. Date
STATE OF CALIFORNIA

DATE: 01/19/15
SCALE: 1:16
DRAWN BY: RD/PL
JOB NUMBER: 1366300
SHEET:
LP-1
SHEET X OF X

APN: 2855-011-005- WALNUT PARK COTTAGES-11 UNITS

Oak Tree Evaluation

Prepared for:

Mr. Ed Poulin
24868 Apple Street, Suite 102
Newhall, CA 91321

By

Frank A. Madero

Certified Arborist # WE - 3811A

May 26, 2014 & January 7, 2015

24307 Magic Mountain Parkway # 505, Valencia, CA 91355
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January 7, 2015

Mr. Ed Poulin
24868 Apple Street, Suite 102
Newhall, CA 91321

Subject: Oak Tree Impact Report for 24982 Walnut Street and Addendum dated January 7, 2015:

Dear Mr. Poulin,

As requested, I evaluated the Oak tree's that may be impacted by your proposed construction on the referenced property.

The purpose of this report is to establish whether there will be an impact on the existing, Valley Oak *(Quercus lobata)*, and Coast Live Oak *(Quercus agrifolia)* trees during and after construction of 12 detached single family townhomes.

This report includes; current health status, assessment of potential hazards presented by the health related issues with proposed plans, the current site conditions, GIS map location, and site plan. Tree Protection Specifications, and photographs of the subject trees are included. In addition, an appraisal, as requested by Robert Sartain of the City of Santa Clarita, of the Valley Oak tree on the site.

Inspections are visual, from a ground survey, walking 360° degrees around the tree. No aerial evaluation was performed for the subject trees.

My initial assessment occurred on May 8, 2014 and included my assessments, observations, and recommended mitigation where needed.

An addendum to the primary report dated May 26, 2014 is included in this report. The recent evaluation occurred on January 5, 2015. The addendum includes two additional "off-site" oak trees. These trees are adjacent to the proposed construction and may incur impacts. These trees were assessed visually from the Walnut Park Cottage property. No aerial or root evaluation was completed. Also; one dwelling was removed from the original plan to reduce potential impacts to Tree numbers 6 and 7.

Furthermore; a mitigation plan with table will be enclosed in this addendum report and the Oak Tree Exhibit. An Oak Tree Impact Table, explaining impacts to the existing, and "off-site" trees are included along with their photographs.

If you have, any questions regarding this report or if I can be of further assistance, please do not hesitate to call.

Sincerely,

Frank A. Madero

Frank A. Madero

Certified Arborist # WE- 3811A
Contractor License # 922587

Table of Contents

Tree # 1 Observations:

1. Site Location:

a. The subject tree was located on the northwest corner of the property. The property line fence on the north side of this tree is a distance of 7 feet.

b. Tree number 2 is located on the eastern aspect of 10 feet.

c. At the trees west aspect, there is a sidewalk; the sidewalk is approximately 1 foot away from the tree trunk. The tree is growing on the property line fence on the west side, (See Appendix B - Photo 1)

d. Walnut Street is located at 12 ½ feet to the west side of this tree.

e. On the north side, there is an apartment complex that has an irrigated front shrub bed. The neighbor, told us the shrubs are watered daily; this area is within 10 feet of this trees root zone.

2. Tree Description:

a. Tree Species: Valley Oak (*Quercus lobata*)

b. Diameter at Breast Height (DBH); was measured from 4 1/2 feet from grade, its dimension was 22 ¼ inches.

c. Spread of the Dripline; measurements taken from the parent trunk to the **drip line** at (8) eight major compass points; they are as follows:

- The north bearing, 13 feet
- Northeast side, 23 ½ feet
- East side, 17 feet
- Southeast side, 20 feet
- Southside, 23 feet
- Southwest side, 23 ½ feet
- West side, 22 ½ feet
- Northwest side, 19 feet

d. Height and Form:

1. The height of the subject tree, measured by the use of a **clinometer**, measures at approximately 52 feet.

2. The form of the tree shows significant asymmetry and suppression. Tree number 2 on the east side is suppressing the growth of this tree.

3. Tree Condition:

a. Letter Grade of Health: Based on the following grading scale; (A) Excellent, (B) Good, (C) Fair, (D) Poor and (E) Failing / Dying.

Letter Grade of Health for the subject tree was (D) Poor.

b. Foliage Condition:

1. The foliage color exhibits slight **chlorosis**.

2. Leaf sizes were small for this species.

3. The annual shoot growth was weak.

4. The growth density was poor.

5. The **crown** density is 40% to 45% overall.

c. Insects:

1. The tree is still emerging from a **dormant** phase, so the **foliage** and twigs of the tree are very clean of infestations.

2. There were some minor amounts of **flatheaded borer** activity noted on the trunk.

3. Oak Gall Wasps, *(Cynipid spp)*; This tiny wasp produces a **larva** inside the **gall**. Galls do not harm the tree. No control is known, except pruning. (University of California, 1994)

d. Diseases:

1. Currently, no diseases were confirmed.

e. Pruning History:

1. The tree was recently pruned on February 24, 2014.

f. Tree Defects:

1. There is a **codominant stem** facing towards the northeast side of the tree. It has a sharp angle of attachment to the trunk at 2 ½ feet from grade. The distance of this scaffold branch to the main trunk is 4 inches.

2. **Included bark** is present, and there is a crack that extends from the southeast side along the trunk to the east side of the trunk. This crack appears to extend on both sides of the tree. I noted a fissure on the northwest side of the trunk also.

3. There is a gopher hole noted while digging on the east side of the trees **trunk flare**.

4. On the north, northeast side of the lower trunk, there is a flat contour to the trunk. Usually indicates a **girdling root**; we could not find anything while excavating down to approximately 12 inches below grade.

5. There are codominant branching structures up in the crown.

6. There were boulders piled around the **critical root zone (CRZ)** and the **tree protection zone (TPZ)**.

Conclusion:

1. The subject tree presently reveals no signs of **Armillaria Root Rot** *(Armillaria mellea)*. These native pathogens infect and kill **cambium** tissue, causing significant roots and the trunk near the ground to die. (Dreistadt, Clark & Flint, 1994)

2. The proposed construction will not impact this subject tree.

Recommendations for Tree # 1:

Based on my site observations and evaluation of the subject tree as referenced above, I recommend the following:

1. Removal of boulders from around the CRZ and the TPZ. The weight compacts the soil along with diminishing the airspace. Roots need the air to live and grow.

Soil compaction commonly results from vehicle, foot traffic, and construction-related activities. Surface loading from such sources causes soil aggregates to collapse (loss of soil structure), reducing the air filled porosity. (Costello, Hagen & Jones, 2011)

2. Install organic wood mulch within the TPZ at 2 - 3 inches thick. Do not pile mulch around the trunk flare. Wood mulch should consist of organic woods 1/2 - 2 inches in size. This mulch reduces moisture evaporation and improves soil conditions. It minimizes weed competition, water use, reduces soil erosion, and improves soil aeration. The soil will be kept warmer in the winter, and cooler in the summer. The most beneficial advantage is that the organic matter is added to the soil as they decompose, enhancing soil fertility.

3. Adhere to Tree Protection Specifications enclosed in (Appendix - D).

4. Recently, the City of Santa Clarita has observed a Foamy Bark Canker Disease on Coast Live Oak *(Quercus agrifolia)* trees during and after pruning trees along with land development. Symptoms occurring on the trunk and primary branches include wet discoloration seeping through entry holes caused by the western oak bark beetle. (Costello et al., 2012)

If these symptoms start to appear, it is suggested that a **bark-band treatment** should be implemented to support tree well-being.

5. It would increase the tree's health to remove the chain link fence and provide an additional fence to allow the tree to grow without impediment.

Tree # 2 Observations:

1. Site Location:

a. The subject tree is located 10 feet from Tree number 1 in a northwest direction.

b. The north property line fence is at a distance of 12 ½ feet.

c. There is an existing asphalt driveway to the trees south aspect at 5 feet.

d. To the trees, west aspect, there is an existing sidewalk at 10 feet.

e. Walnut Street is also located to the west side of the tree at 29 feet.

f. On the north side apartment complex, the irrigated front shrub bed has been watering daily; this area is within 10 feet of this trees root zone.

2. Tree Description:

a. Tree Species: Coast Live Oak (*Quercus agrifolia*)

b. The DBH; measured from 4 1/2 feet from grade, was 17 inches.

c. Spread of the Dripline; measurements taken from the parent trunk to the drip line at (8) eight major compass points; they are as follows:

- The north bearing, 8 feet
- Northeast side, 19 feet
- East side, 24 feet
- Southeast side, 19 feet
- Southside, 17 feet
- Southwest side, 5 feet
- West side, 5 ½ feet
- Northwest side, 16feet

d. Height and Form:

1. The height of the subject tree, measured by the use of a clinometer, measures at approximately 54 feet.

2. The form of the tree shows significant asymmetry and is suppressed. Tree number 1 on the west side is suppressing Tree number 2 on the west view, (See Appendix B - Photo 2).

3. The tree is leaning towards the east and northeast side at approximately 15° degrees.

3. Tree Condition:

a. Letter Grade of Health: Based on the following grading scale;
(A) Excellent, (B) Good, (C) Fair, (D) Poor and (E) Failing / Dying.

Letter Grade of Health for the subject tree was (D) Poor.

b. Foliage Condition:

1. The foliage color was typical.

2. Leaf sizes throughout the crown were small.

3. The annual shoot growth was weak.

4. The growth density was poor.

5. The crown density presents 40% to 45%.

c. Insects:

1. Oak ribbed casemaker, *(Bucculatrix albertiella)*.
Larvae are up to ¼ inch long and feed on leaf surfaces. Etched damage usually turns brown.

2. There was a minor amount of boring exit holes found in the main trunk; this is caused by the Oak Bark Beetle *(Pseudopityophthorus spp.)* Some of the boring holes have fine boring dust, but minor in quantity. These insects rarely kill trees, but their presence indicates that the tree is in stress and can succumb to an unhealthy state if proper cultural care is not provided.

3. Stanford whitefly, *(Tetraleurodes stanfordi)*. Identified by dark oval bodies, or *(nymphs)*, about 1/16 inch long on the underside of leaves, often with white, waxy fringe.

4. Aphids, (*Myzocallis spp.)*, this tiny, green / yellow insect, feed on leaves by sucking leaf juices. High populations cause leaves to turn yellow, curl, or drop early. Honeydew and sooty mold is created by heavy feeding that attracts ants.

d. Diseases:

1. The subject tree presently shows no signs of Armillaria Root Rot.

2. **Bacterial wetwood** is noticed on the trunk on the south side at approximately 7 feet from grade.

e. Pruning History:

1. The tree was recently pruned on February 24, 2014 along with Tree number 1.

f. Tree Defects:

1. **Epicormic growth** is approximately 40 % of the crown density of this tree.

2. The tree is leaning towards the southeast side at 15° degrees.

3. There was a small number of older flush pruning cuts noted on the tree.

4. Codominant branching structure is observed on the tree. One in particular at 6 ½ feet from grade with included bark.

5. The tree is buried in excess soil of approximately 8 inches to 1 foot.

6. The trees northeast CRZ are surrounded by boulders.

Conclusion:

1. The subject tree presently shows no signs of Armillaria Root Rot.

2. The proposed construction will have a minor amount of impact located on the northeast perimeter of the protected root zone of this subject tree.

Recommendations for Tree # 2:

Based on my site observations and evaluation of the subject tree as referenced above, I recommend the following:

1. Removal of the boulders from around the CRZ.

2. Install organic wood mulch within the TPZ.

3. Adhere to Tree Protection Specifications enclosed in (Appendix - D); specifically the subtext (Root Pruning).

4. As indicated in Tree number 1, bark-band treatment should be implemented to support tree well-being if symptoms of foamy canker occur.

Tree # 3 Observations:

1. Site Location:

a. The subject tree is located to the south of Tree number 2 across the existing asphalt driveway at 22 feet.

b. The north property line fence is at a distance of 36 feet.

c. The existing driveway, in which the tree is located on the south aspect, is at a distance of 6 feet.

d. On the northwest aspect of this tree, there is an old pine tree stump. The stump is located at approximately 5 feet to the tree. The diameter of this stump at the base is 3 feet, (See Appendix B - Photo 4).

e. The sidewalk along Walnut Street is located to the west side of this tree, its distance was 8 ½ feet.

f. Walnut Street is on the west side of this tree at a distance of 19 feet.

g. There was no source's of irrigation around this tree; however, there are healthy, green weeds observed around the trees immediate root zone.

h. On the southeast side of the trees dripline, there is a hose bib that has been installed; it is at a distance of 21 feet.

2. Tree Description:

a. Tree Species: Coast Live Oak (*Quercus agrifolia*)

b. The DBH; was measured from 4 1/2 feet from grade. The tree is a low branching, two trunk tree; it branches off at a distance from grade at 2 ½ feet. The DBH on the south facing the trunk was 11 ¾ inches, and the DBH on the east facing trunk was 16 ¼ inches.

c. Spread of the Dripline; measurements taken from the parent trunk to the drip line at (8) eight major compass points; they are as follows:

- The north bearing, 7 feet
- Northeast side, 22 feet
- East side, 26 feet
- Southeast side, 27 feet
- Southside, 14 feet
- Southwest side, 21 feet
- West side, 9 ½ feet
- Northwest side, 5 feet

d. Height and Form:

1. The height of the subject tree, measured by the use of a clinometer, measures at approximately 25 feet.

2. The form of the tree displays major asymmetry, most of the growth is on the east and west sides of the tree. The other two compass points have little growth, (See Appendix B - Photo 3).

3. The east trunk was at an angle of 15° degrees.

4. The southwest facing trunk had a degree of angle of 20° degrees.

3. Tree Condition:

a. Letter Grade of Health: Based on the following grading scale;
(A) Excellent, (B) Good, (C) Fair, (D) Poor and (E) Failing / Dying.

Letter Grade of Health for the subject tree was (D) Poor.

b. Foliage Condition:

1. The foliage color throughout the crown was average.

2. Leaf sizes were average.

3. The annual shoot growth was poor to average.

4. The growth density was average to poor; the growth density of the crown was 50%.

c. Insects:

1. Oak ribbed casemaker, *(Bucculatrix albertiella)*.
Larvae are up to (¼" inch) long and feed on leaf surfaces. Etched damage usually turns brown.

2. Sycamore Borer, *(Synanthedon resplendens)*.
The larvae are up to (3/4"inches) long, with brown head. They tunnel through wood and roughen the bark on the lower trunk.

3. Stanford whitefly, *(Tetraleurodes stanfordi)*. Identified by dark oval bodies, or *(nymphs)*, about 1/16 inch long on the underside of leaves, often with white, waxy fringe.

4. There was a minor amount boring holes found in the main trunk; this is caused by Oak Bark Beetle's *(Pseudopityophthorus spp.)*. Some of the boring holes have fine boring dust, but minor in quantity. These insects rarely kill trees, but their presence indicates that the tree is in stress and can succumb to an unhealthy state if proper cultural care is not provided.

d. Diseases:

1. There were no signs of Armillaria Root Rot.

2. There was unusual cracking on the bark of this tree facing to the west side, and to the southeast, facing trunk. **Brown rot** is seen within some of the crevices and old wounds, (See Appendix B - Photo 4).

3. There were decayed stubs and old decayed flush cuts noted.

4. There was a small amount of deadwood noted within the crown of the tree.

5. **Sounding with a mallet**, there is a slight hollow sound at approximately 5 ½ feet from grade. In addition, the bark is a different texture at the buttress, and this could indicate a root decay issue, (See Appendix B - Photo 3).

6. On the east side of the trees immediate root zone, there are boulders stacked here.

e. Pruning History:

1. The tree was recently pruned on February 24, 2014 along with Tree number's 1 & 2.

f. Tree Defects:

1. As referenced in Diseases, item # (2), there was cracking on the trunk, this tree appears to have had the crown lifted by pruning at one time, this could be sun damage.

2. Bark borer activity was more pronounced on the east side of the lower trunk. On the east facing stem at approximately 15 feet from grade, there is activity of bark borer exit holes.

3. As indicated in Diseases, item number 5, the buttress might have problems with root rot, this is due to the different texture of bark below the existing grade.

4. The lean of the tree on the south and southeast side was heavy compared to the other side of the tree,(See Appendix B - Photo 3)

5. There were boulders piled around the CRZ and the TPZ on the east periphery, (See Appendix B - Photo 3).

6. As referenced in Site Location, letter (h), the southeast side of the trees dripline appears to have a new hose bib installed; it is at a distance of 21 feet.

Conclusion:

1. The subject tree presently reveals no signs of Armillaria Root Rot.

2. The proposed construction will have a minor amount of impact located on the northeast, east, and southeast perimeter of the protected root zone of this subject tree.

Recommendations:

Based on my site observations and evaluation of the subject tree as referenced above, I suggest the following:

1. Removal of boulders from around the critical root zone.

2. Install organic wood mulch within the protected root zone.

3. Adhere to Tree Protection Specifications enclosed in Appendix - D.); specifically the subtext (Root Pruning).

4. As indicated in Tree number 1, bark-band treatment should be implemented to support tree well-being. The amount of bark borer activity is crucial, I recommend treatment of this tree.

Tree # 4 Observations:

1. Site Location:

a. The subject tree is located in the north, northwest direction from Tree number 3 at 140 feet.

b. The property line fence located from the tree is in a northeast direction at 69 feet.

c. At the northwest side of the tree, there is a property line block wall; it was located at 38 feet.

2. Tree Description:

a. Tree Species: Coast Live Oak (*Quercus agrifolia*)

b. The DBH; was measured from 4 1/2 feet from grade. The two trunk, low branching tree, forks at 3 ½ feet from grade. The trunk on the southwest aspect measured at 21 ¼ inches, and the trunk on the north side was 28 ¼ inches.

c. Spread of the Dripline; measurements taken from the parent trunk to the drip line at (8) eight major compass points; they are as follows:

- The north bearing, 31 feet
- Northeast side, 30 feet
- East side, 23 feet
- Southeast side, 22 feet
- Southside, 23 feet
- Southwest side, 17 feet
- West side, 22 feet
- Northwest side, 27 feet

d. Height and Form:

1. The height of the subject tree, measured by the use of a clinometer, measures at approximately 46 feet.

2. The form of the tree shows minor asymmetry.

3. Tree Condition:

a. Letter Grade of Health: Based on the following grading scale;
(A) Excellent, (B) Good, (C) Fair, (D) Poor and (E) Failing / Dying.

Letter Grade of Health for the subject tree was (C) Fair.

b. Foliage Condition:

1. The foliage color throughout was average.

2. Leaf sizes were small to average throughout the crown.

3. The annual shoot growth was poor to fair.

4. The growth density was poor to average, I observed the crown be approximately 70% thick throughout.

c. Insects:

1. Oak ribbed casemaker, *(Bucculatrix albertiella)*.
Larvae are up to (¼" inch) long and feed on leaf surfaces. Etched damage usually turns brown.

2. Sycamore Borer, *(Synanthedon resplendens)*.
The larvae are up to (3/4"inches) long, with brown head. They tunnel through wood and roughen the bark on the lower trunk.

3. Stanford whitefly, *(Tetraleurodes stanfordi)*.
Blackening of foliage is seen from sooty mold that is produced by dark oval bodies *(nymphs)*, about (1/16") inch long on the underside of leaves, often with white, waxy fringe.

4. There was a minor amount bark borer activity observed by Oak Bark Beetle's *(Pseudopityophthorus spp.)*.

d. Diseases:

1. No signs of Armillaria Root Rot were found at the trunk flare.

e. Pruning History:

1. The tree was recently pruned on February 24, 2014 along with Tree number's 1, 2 & 3.

f. Tree Defects:

1. The foremost weakness is the sharp angle of attachment of the two stems. The defect is exacerbated by included bark.

2. There was a minor amount of decayed stubs, flush pruning cuts, and **cavities** noted within the crown.

3. Epicormic growth is seen in small amounts throughout.

4. The trees trunk flare is buried in 1 foot of excess soil.

5. There were boulders piled around the CRZ and the tree protection zone on the east periphery, (See Appendix B - Photo 5).

6. There is another hose bib that looks fairly new; it is located on the south side of the tree at 15 feet.

Conclusion:

1. The subject tree presently reveals no signs of Armillaria Root Rot around its trunk flare region.

2. The proposed construction will impact this subject tree. Encroachment impacts depend on the width of the proposed driveway, along with over excavation and compaction for Unit 3. One of the projected plans is to install the driveway between Tree number's 4 and 5. With only 36 feet between the two trees, an installed driveway in the middle would encroach into both their tree protection zones, therefore, impacting both trees, (See Appendix B - Photo 6).

3. Another option is to remove one of the trees in order to lessen the impact of the remaining tree. As a result, encouraging continued existence.

4. This subject tree is in good health, compared to Tree number 5. If Tree number 5 were to be removed, the driveway plan would be designed on the periphery of the tree protection zone of Tree number 4, again, decreasing damaging impacts.

5. The proposed construction will have a moderate amount of impact located in the west, southwest, and southeast perimeter of the protected root zone of this subject tree.

Recommendations:

Based on my site observations and evaluation of the subject tree as referenced above, I recommend the following:

1. Removal of boulders from around the CRZ.

2. Install organic wood mulch within the protected root zone.

3. Adhere to Tree Protection Specifications enclosed in Appendix - D; specifically the subtext (Root Pruning).

   On the day of my evaluation, I noticed a truck and a tractor parked underneath the TPZ, (See Appendix B - Photo 5), avoid heavy equipment parking, and operation around this protected zone.

4. As indicated in Tree number 1, bark-band treatment should be implemented to support tree well-being.

5. The letter grade of health and structure of this tree is a better-quality than Tree number 5; therefore, it should remain. The proposed driveway plan is suggested to be outside of the trees protected root zone.

6. Monitoring while forming and installation of the driveway is recommended.

Tree # 5 Observations:

1. Site Location:

a. The subject tree was located in a southeast direction from Tree number 4 at 36 feet.

b. The northeast property line fence was located at 69 feet.

c. Walnut Street, which was located west of Tree number 5, is 154 feet.

To the northwest side of the tree, there is a block wall, its distance measures 75 feet.

d. The southeast side fence measures at 68 feet to the tree.

2. Tree Description:

a. Tree Species: Valley Oak (*Quercus lobata)*

b. The DBH; measured from 4 1/2 feet from grade, was 19 inches.

c. Spread of the Dripline; measurements taken from the parent trunk to the drip line at (8) eight major compass points; they are as follows:

- The north bearing, 20 feet
- Northeast side, 21 feet
- East side, 15 feet
- Southeast side, 20 feet
- Southside, 16 feet
- Southwest side, 24 feet
- West side, 25 feet
- Northwest side, 26 feet

d. Height and Form:

1. The height of the subject tree, measured by the use of a clinometer, measures at approximately 48 feet.

2. The form of the tree displays major asymmetry. The crown density of this tree was around 15%.

3. Tree Condition:

a. Letter Grade of Health: Based on the following grading scale;
(A) Excellent, (B) Good, (C) Fair, (D) Poor and (E) Failing / Dying.

Letter Grade of Health for the subject tree was (D) Poor, moving to (E) Failing/Dying.

b. Foliage Condition:

1. Epicormic growth is 75% of the trees crown.

2 . Leaf size was small for this period.

4. This tree is buried in 1 foot of excess soil. Due to the lack of water in this area, this tree has succumbed to the drought conditions.

5. Examining the **buttress roots** of this tree, it looks like signs of pre-Armillaria. There are questionable areas of the inconsistency of the cambium tissue. It is darker than normal, and there are minor signs Armillaria. The lack of significant damage can be due to the lack of moisture, along with the sandy soil profile.

Conclusion:

1. The subject tree presently reveals minor signs of Armillaria Root Rot.

2. The tree will be impacted by the positioning of the proposed driveway.

3. The poor health and lack of optimistic growth of the crown are related to the depth of the trunk flare and the drought conditions.

Recommendations:

Based on my site observations and evaluation of the subject tree as referenced above, I recommend the following:

1. Design the driveway towards the east, northeast perimeter of the protected root zone of Tree number 4.

2. I recommend removing Tree number 5 due to its poor health and proximity to Tree number 4. This mitigation will lessen the impact on Tree number 4.

Tree # 6 Observations:

1. Site Location:

a. The subject tree is located to the south, southwest direction from Tree number 5; it's at a distance of 70 feet.

b. This tree is located right on the property line on the south side of Tree number 5.

c. The trees southeast and southwest perimeters are surrounded by asphalt from the driveway of the adjacent property, (See Appendix B - Photo 7).

d. At the southwest side of the tree, another dwelling measures 27 feet.

e. At the south side of the tree, there is a wooden fence which is a perimeter fence of another property; it is located at 40 feet.

2. Tree Description:

a. Tree Species: Coast Live Oak (*Quercus agrifolia)*

b. The DBH was measured from 4 ½ feet from grade; it was 25 inches.

c. Spread of the Dripline; measurements taken from the parent trunk to the drip line at (8) eight major compass points; they are as follows:

- The north bearing, 17 feet
- Northeast side, 12 feet
- East side, 24 feet
- Southeast side, 28 feet
- Southside, 25 feet
- Southwest side, 26 feet
- West side, 23 feet
- Northwest side, 17 feet

d. Height and Form:

1. The height of the subject tree, measured by the use of a clinometer, measures at approximately 40 feet.

2. The form of the tree displays minor asymmetry of the crown. The tree is leaning towards the southwest side. The degree of lean is approximately 10° degrees, and the crown density is 65%.

3. Tree Condition:

a. Letter Grade of Health: Based on the following grading scale;
(A) Excellent, (B) Good, (C) Fair, (D) Poor and (E) Failing / Dying.

Letter Grade of Health for the subject tree was (C) Fair.

b. Foliage Condition:

1. The foliage color exhibits a slight chlorosis.

2. Leaf size was small to average in its entirety.

Tree # 7 Observations:

1. Site Location:

a. The subject tree is found "off-site" of the Walnut Park Cottages property in the neighbor's yard at 24982 Walnut Street.

b. This tree is located in a southeast aspect of the dwelling at 24982 Walnut Street, and in a northwest direction from Tree # 6 at 70 feet.

c. To the trees' northeast, north and northwest aspect is a wooden fence. To the northeast side of the tree, the fence measures 10 feet and 2 feet on the northwest side.

d. There are turf and flowers along with solar lights around the perimeter of the tree; see photo attached in .

e. Supporting the wooden fence are 4x4 wooden posts. The closest 4 x 4 post, located on the north side of the tree, is at a 3 foot distance from the tree trunk.

f. On the southwest side of the tree, underneath the dripline, is a trampoline apparatus; it is approximately 16 feet away from the tree.

g. At 3:00 pm it I observed that irrigation came on, and the water is wetting the northeast side of the trunk.

2. Tree Description:

a. Tree Species: Coast Live Oak (*Quercus agrifolia)*

b. The DBH was estimated to be approximately 25 inches.

c. Spread of the Dripline; measurements taken from the parent trunk to the drip line at (8) eight major compass points; they are as follows:

- The north bearing, 21 feet
- Northeast side, 19 feet
- East side, 17 feet
- Southeast side, 19 feet
- Southside, 18 feet
- Southwest side, 19 feet
- West side, 23 feet

- Northwest side, 20 feet

d. Height and Form:

1. The height of the subject tree, measured by the use of a clinometer, measures at approximately 45 feet.

2. The form of the tree displays minor asymmetry towards the northeast side.

3. There are two co-dominate stems attached to the trunk of this tree. The lowest stem is facing to the west side and is at a sharp angle of attachment at approximately 10' feet up from grade of the trunk of the tree.

4. On the northeast stem, at approximately 5 feet up the tree trunk, there is another sharp angled codominant stem.

3. Tree Condition:

a. Letter Grade of Health: Based on the following grading scale;
(A) Excellent, (B) Good, (C) Fair, (D) Poor and (E) Failing / Dying.

Letter Grade of Health for the subject tree was (C) Fair.

*Note: I was not able to examine the buttress roots of this tree due to its inaccessibility.

b. Foliage Condition:

1. The color of the foliage on the south and southwest perimeter of the tree is chlorotic.

2. Leaf size was small overall.

3. The annual shoot growth is poor to average.

4. The growth density of the crown is 40 - 45 percent.

c. Insects:

1. The insects are similar to the other trees in this area; nothing injurious.

d. Diseases:

1. I cannot confirm the condition of the buttress roots, however; no conditions were found in the tree trunk, branches, or foliage.

e. Pruning History:

1. The pruning history is the same as Tree numbers 1 to 6 referenced.

f. Tree Defects:

1. The main weakness is the turf and flowers planted around the tree; along with the irrigation hitting the tree trunk, (See Appendix B - Photo 9).

2. There is codominant branching structure.

3. The lower tree trunk exhibits a flattened side facing the northeast section; it could be an indication of a girdling root.

Conclusion:

1. I am unable to determine if the subject tree has any Armillaria Root Rot at the trunk flare due to the location of this tree being located on private property next to 24982 Walnut Street, Newhall, CA.

2. The subject tree will have a moderate amount of impact based on the design of the over excavation and compaction located on the southwest aspect of Unit 11. Additionaly; the proposed guest parking area, located on the west and southwest perimeter of the tree, will be composed of concrete pavers.

Recommendations:

Based on my site observations and evaluation of the subject tree as referenced above, I recommend the following:

1. Pull back the ring from the tree, along with the flowers, expand the tree ring to 6 feet in diameter and install organic wood mulch; see Tree Protection Specifications, subtext (Mulch).

2. Adjust the irrigation heads so water does not hit the trunk of the tree.

3. Monitor tree while over excavation and pavers are implemented; see Tree Protection Specifications, subtext (Root Pruning).

4. Adhere to Tree Protection Specifications enclosed in (Appendix - D).

5. Monitor for symptoms occurring on the trunk and primary branches of wet discoloration seeping through entry holes caused by the western oak bark beetle. If these symptoms start to appear, it is suggested that a bark-band treatment should be implemented to support tree well-being.

Tree # 8 Observations:

1. Site Location:

a. The subject tree is found "off-site" of the Walnut Park Cottages property in the neighbor's yard at 24976 Walnut Street.

b. This tree is located in the front west corner of 24976 Walnut Street, Newhall, CA. It is sited approximately 15 feet from the dwelling.

c. The tree is located at the edge of the sidewalk along Walnut Street.

d. On northwest perimeter of the tree, which is in the Walnut Park Cottage property; there is an existing asphalt driveway. The edge of this path is to the northwest side of the tree at an average of 7 feet.

e. There is a telephone pole located on the trees south side at approximately 25 feet. There are electrical wires coming from the top of this pole to the west corner of the private property. These wires go through the canopy of the east and southeast interior crown of the tree.

2. Tree Description:

a. Tree Species: Coast Live Oak (*Quercus agrifolia)*

b. The DBH was measured from 4 ½ feet from grade; it was 27 1/2 inches.

c. Spread of the Dripline; measurements taken from the parent trunk to the drip line at (8) eight major compass points; they are as follows:

- The north bearing, 12 feet
- Northeast side, 11 feet
- East side, 30 feet
- Southeast side, 28 feet

- Southside, 24 feet
- Southwest side, 34 feet
- West side, 32 feet
- Northwest side, 24 feet

d. Height and Form:

1. The height of the subject tree, measured by the use of a clinometer, measures at approximately 46 feet.

2. The form of the tree displays minor asymmetry. The north side of the tree shows weak growth compared to the rest of the trees crown.

3. There are three stems/trunks that meet at one place on the tree. There is included bark noted at these unions.

3. Tree Condition:

a. Letter Grade of Health: Based on the following grading scale;
(A) Excellent, (B) Good, (C) Fair, (D) Poor and (E) Failing / Dying.

Letter Grade of Health for the subject tree was (C) Fair.

*Note: I was not able to examine the buttress roots of this tree due to its inaccessibility.

b. Foliage Condition:

1. The leaf condition is average, similar to the others.

2. Leaf size was small to average.

3. The annual shoot growth was reduced throughout the canopy.

4. The growth density of the crown is approximately 45%.

c. Insects:

1. The insects are similar to the other trees in this area.

d. Diseases:

1. I cannot confirm the condition of the buttress roots, however; no diseases were found in the tree trunk, branches, or foliage.

e. Pruning History:

1. The pruning history is the same as Tree numbers 1 to 7.

f. Tree Defects:

1. The main weakness is the minor asymmetry of the crown in growth; it is weak in growth on the north side of the tree, and it is heavy on the other aspects of the tree.

2. The trunk flare is at the surface of the soil. However, the current owner of the property has installed boulders on the west and northwest side of the tree at approximately 1 foot away from the tree trunk. The weight of the boulders compacts the air space around the immediate root zone.

Conclusion:

1. I am unable to determine if the subject tree has any Armillaria Root Rot at the trunk flare due to the location of this tree being located on private property next to 24982 Walnut Street, Newhall, CA.

2. This subject tree will have a minor amount of impact when they remove the driveway on the northwest perimeter of this trees root plate.

Recommendations:

Based on my site observations and evaluation of the subject tree as referenced above, I recommend the following:

1. Monitor tree while demo of driveway is in progress; see Tree Protection Specifications, subtext (Root Pruning).

2. Adhere to Tree Protection Specifications enclosed in (Appendix - D).

3. Monitor for symptoms occurring on the trunk and primary branches of wet discoloration seeping through entry holes caused by the western oak bark beetle. If these symptoms start to appear, it is suggested that a bark-band treatment should be implemented to support tree well-being.

4. Remove boulders from around the base of the tree and install mulch throughout the drip line.

Glossary

air excavator	A device that blows air at high force; used to remove soil from the root zone of trees.
ANSI A300 Standards	Industry-developed standards of practice for tree care; acronym for American National Standards Institute.
Armillaria root rot	A fungus that infects and kills the cambium tissue, causing major roots and the trunk near the ground to die.
bacterial wetwood	Infections are characterized by a copious, wet, foul-smelling exudation (fermented sap) flowing from the wounds and cracks in the bark.
bark-band treatment	Insecticide spraying of the lower trunk to deter bark borers.
brown rot	Cellulose and hemicellulose are quickly degraded, while the lignin remains relatively unchanged. Affected wood tends to be dry, crumbly, and blocky (cubical) in structure due to longitudinal and transverse cracking.
buds	Small lateral or terminal protuberance on the stem of a plant that may develop into a flower or shoot; undeveloped flower or shoot.
buttress roots	Roots at the base of the trunk; trunk flare.
cambium	Layer's of meristematic cells that give rise to the phloem and xylem and allow for diameter increase in a tree.
cavities	An open wound or hollow within a tree, usually associated with decay.
chlorosis	Yellowish discoloration caused by a lack of chlorophyll.
clinometer	An instrument for measuring angles of elevation.
codominant stems	Forked branches of nearly the same size in diameter and lacking a normal union.

critical root zone (CRZ)	Defines the area of the root system nearest the trunk that is critical for the stability and vitality of the tree. The area is decided by allowing 1.5 feet of root radius of each inch of trunk diameter at breast height or Diameter at Breast Height (DBH).
crown	The above ground canopy of a tree.
dormant	State of reduced physiological activity in the organs of the tree.
drip line	Perimeter of the area under a tree delineated by the crown.
epicormic growth	Arising from latent or adventitious buds.
flatheaded borer	Whitish larvae with enlarged head that tunnel under bark and in deadwood.
foliage	The leaves of a plant.
gall	Swelling of plant tissues; frequently caused by insects, nematodes, fungi, or bacteria.
girdling root	Root that grows around a portion of the trunk of a tree, causing inhibition of the flow of water and nutrients by choking vascular elements.
included bark	Bark that becomes embedded in a crotch between branch and trunk or between codominant stems and causes a weak structure.
larvae	Immature life stage of an insect.
soil probe	A device for removing cores of soil for inspecting or testing.
sounding with a mallet	Striking a tree with a mallet and listen for tone change where hollows or loose bark occur.
tree protection zone	A protected root zone of a tree recommend that the radius of the tree protection zone (in feet) be 0.5 to 1.5 times the diameter of the trunk (in inches) measured 4.5 feet above ground.
trunk flare	Major roots at the base of a tree trunk.

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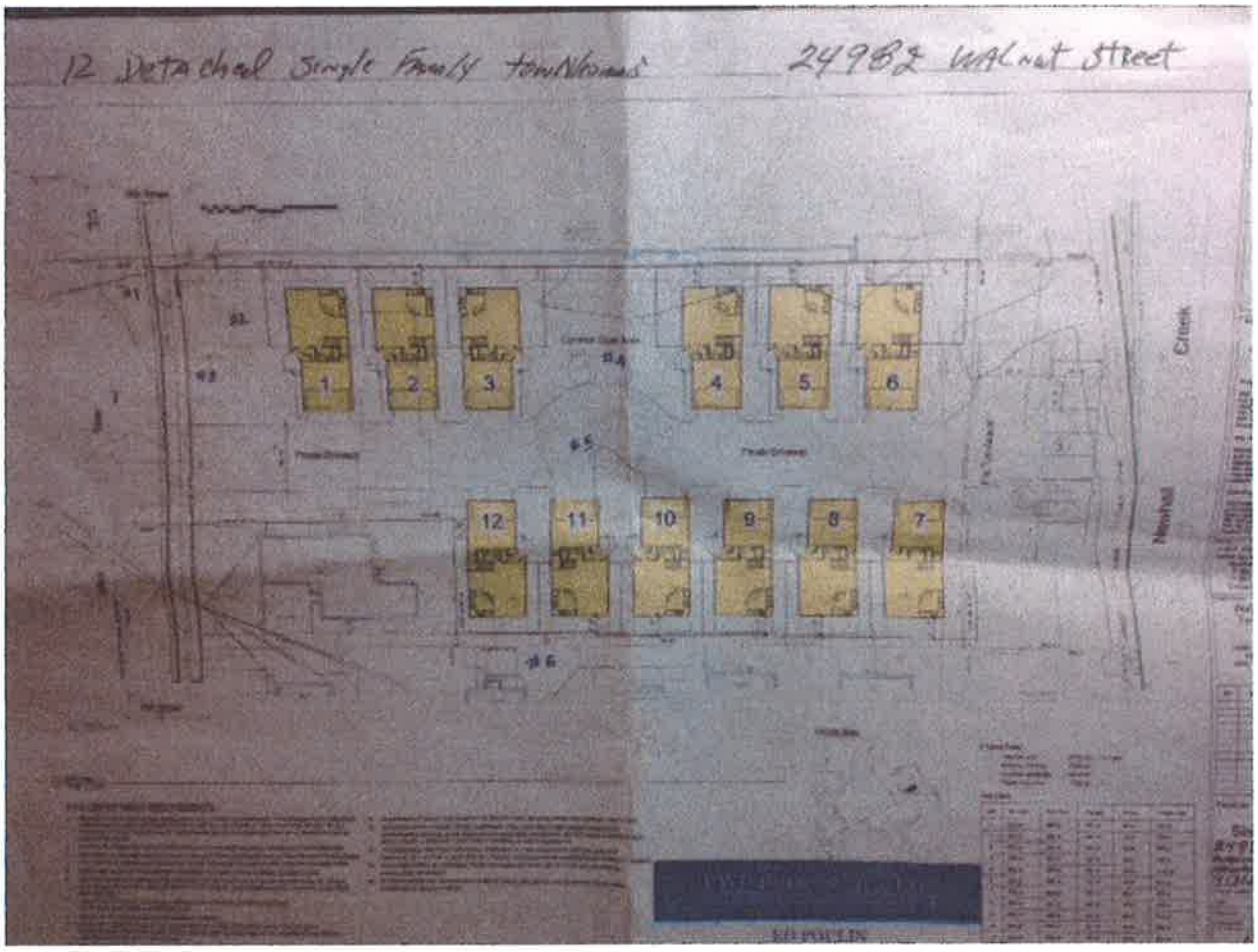
Appendix A - Site Plan (Not to Scale)



Appendix B - Photographs

Photo 1:

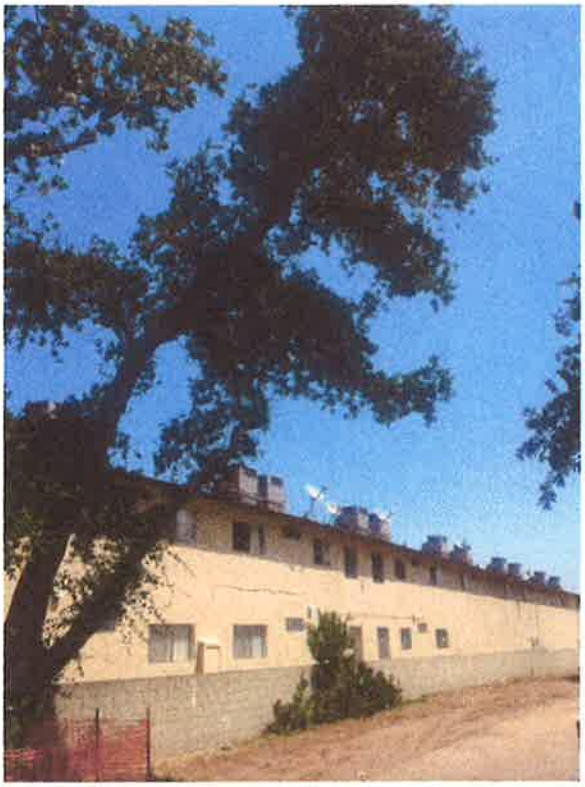
Tree # 1

Chain Link Fence growing into tree trunk

Appendix B - Photographs

Photo 2:

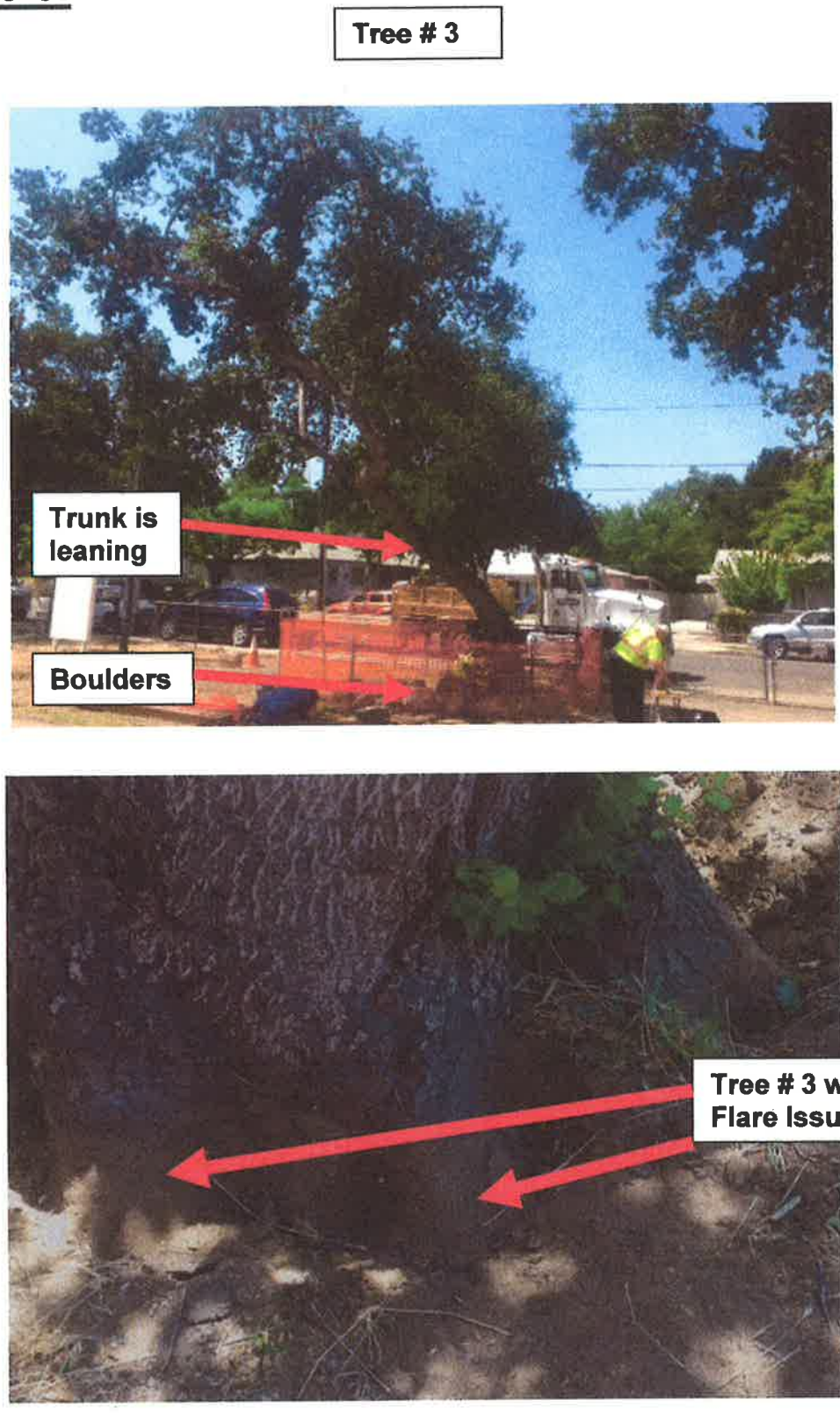
Tree # 2



Tree # 2 Boulders

Appendix B - Photographs

Photo 3:



Appendix B - Photographs

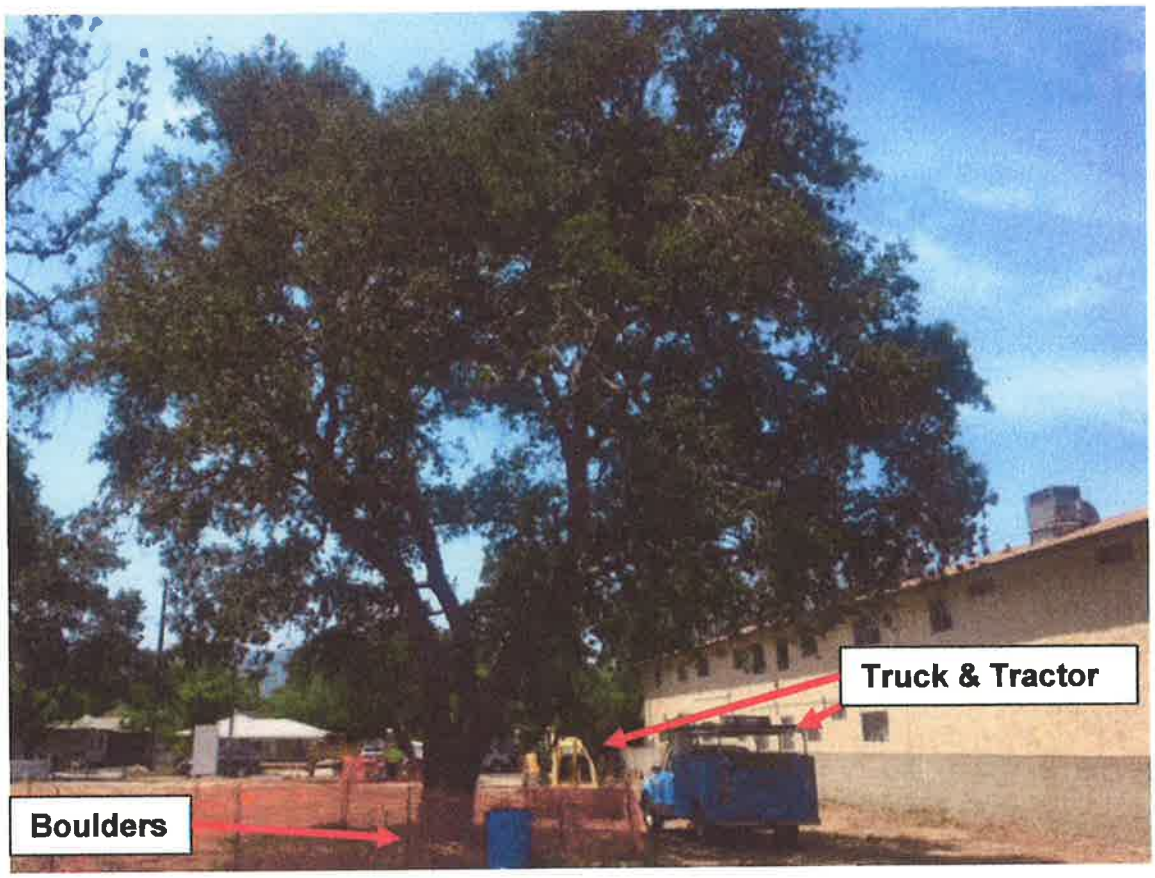
Photo 4:

Tree # 3

Appendix B - Photographs

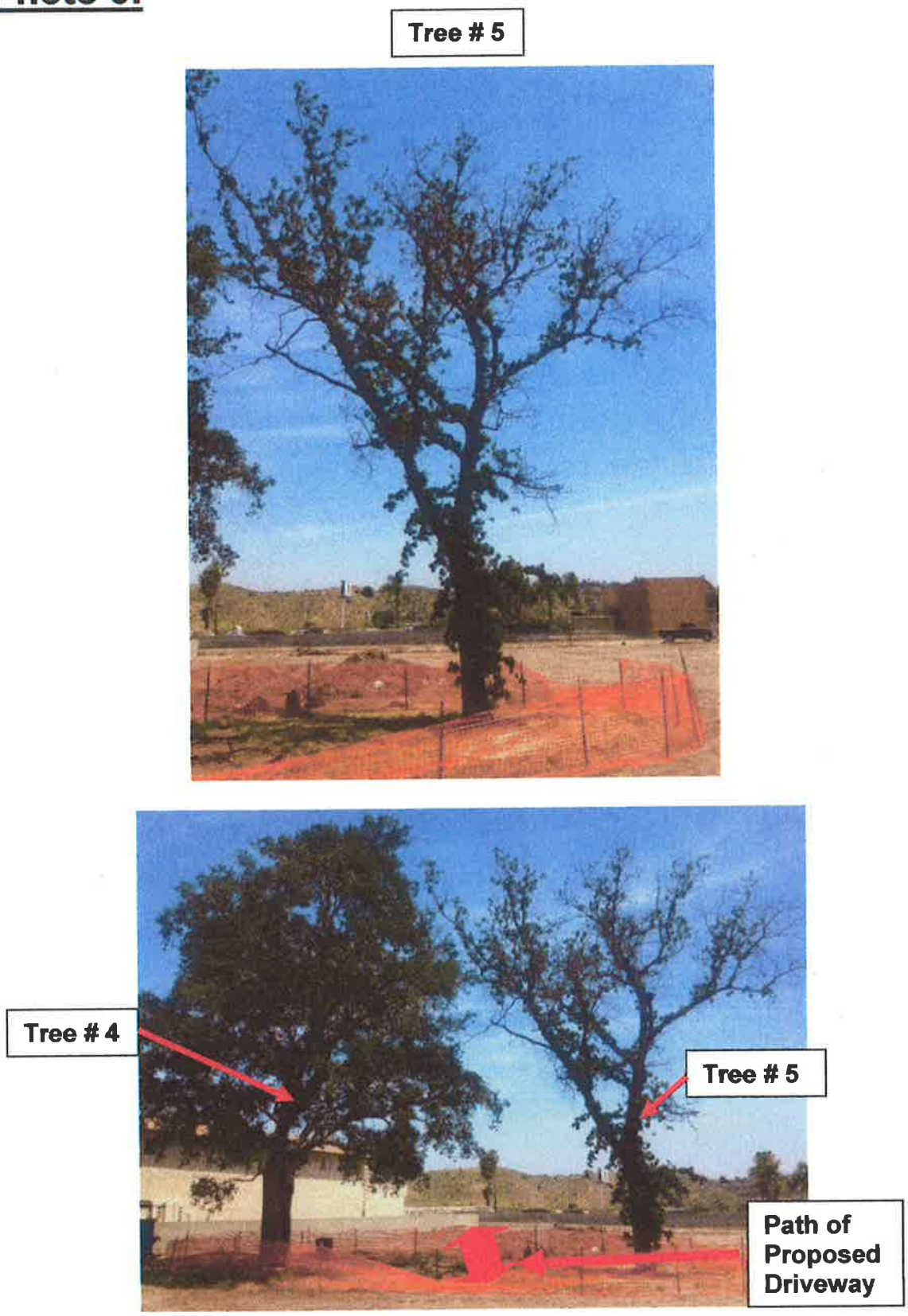
Photo 5:

Tree # 4



Appendix B - Photographs

Photo 6:



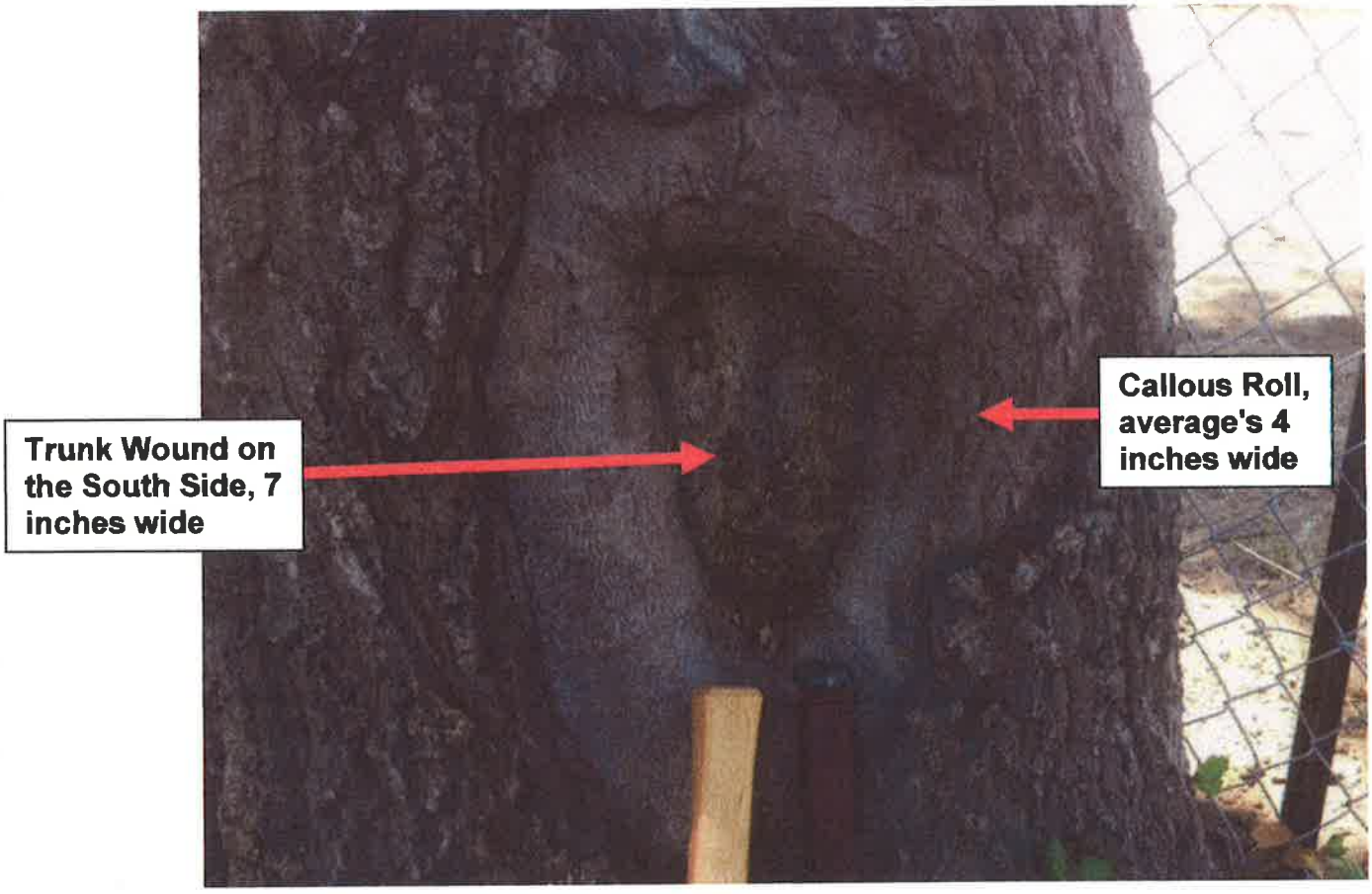
Appendix B - Photographs

Photo 7:

Appendix B - Photographs

Photo 8:

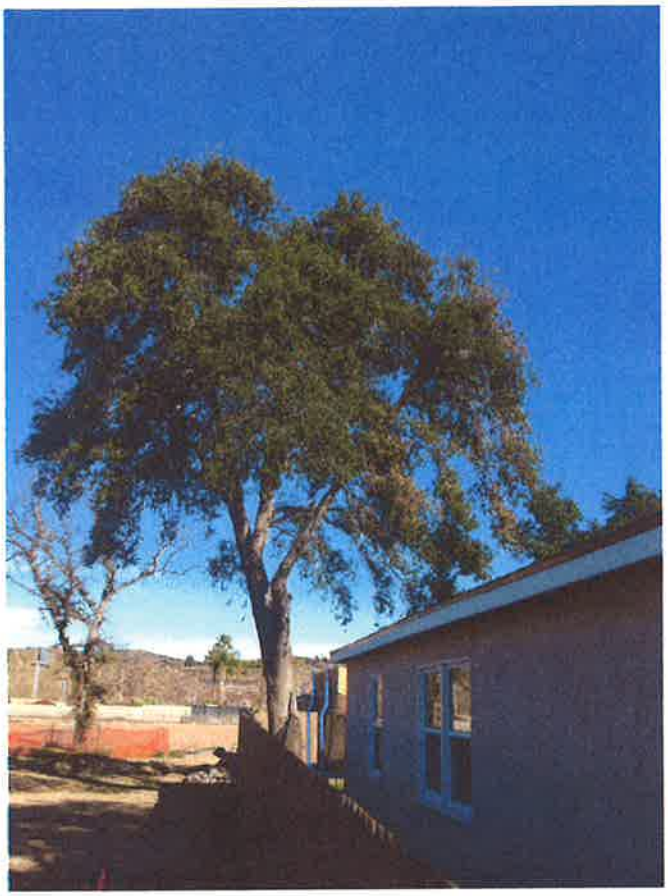
Tree # 6



Appendix B - Photographs

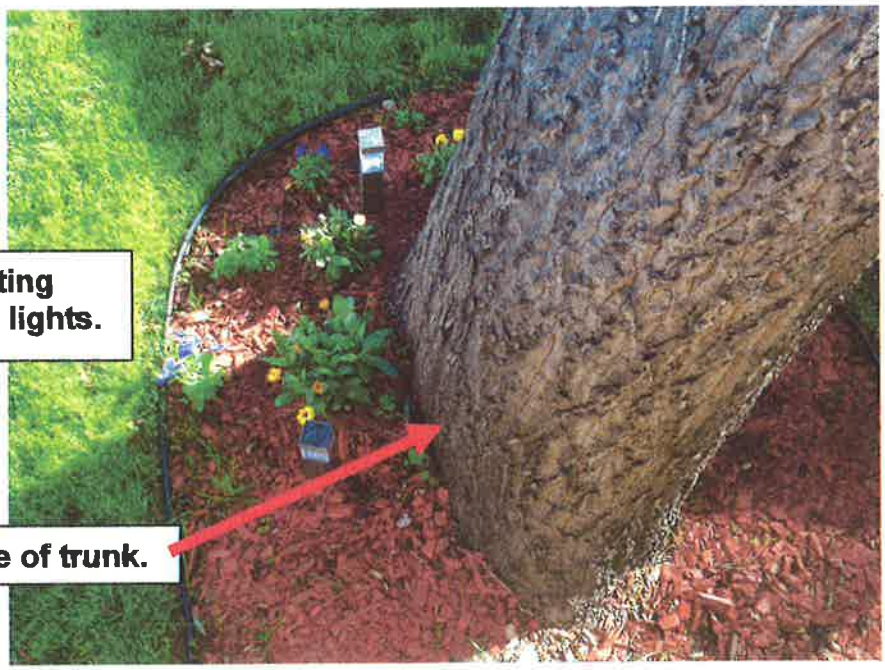
Photo 9:

Tree # 7 SW view



Tree # 7 - Illustrating flowers, turf, and lights.

Flattened NE side of trunk.



Appendix B - Photographs

Photo 10:

Tree # 8 SE view

Boulders on SW side of root zone.

Appendix C - Assumptions & Limiting Conditions

1. Care has been taken to obtain all information from reliable sources. All data had been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of the information provided by others.

2. The Consultant shall not be required to give testimony or to attend court by reason of this report unless following contractual arrangements are made, including payment of an additional fee for such services as described in the Service Agreement.

3. Loss or alteration of any part of this report invalidates the entire report.

4. Possession of this report or a copy thereof does not imply a right of publication or use for any purpose by any other than the person to whom it is addressed, without prior expressed written or verbal consent of the consultant.

5. This report represents the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

6. Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be so construed as engineering or architectural reports or surveys.

7. Unless expressed otherwise, information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants, trees or property in question may not arise in the future.

8. Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek further advice.

9. Arborists cannot detect every condition that could lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period. Likewise, remedial treatments, like any remedy cannot be guaranteed.

Trees can be managed, but they cannot be controlled. To live, congregate and gather near trees is to accept some degree of risk.

Appendix D - Tree Protection Specifications

Assignment:

The tree protection measures set forth in this document pertain to 6 Oak trees located at 24982 Walnut Street, Newhall, CA. Based on a site assessment of the trees, and a review of the proposed development plan to construct 12 detached single family townhomes

This protection plan proposes, as a general guideline, a Tree Protection Zone TPZ at 1 foot of diameter from the trunk for each inch of trunk diameter, the Diameter at Breast Height (DBH) of the subject tree is measured at 4 1/2 feet from grade.

Note: Consideration is recognized by the limited space existing. Limit storage area for equipment, soil, and construction materials. Specify areas for cement washout. This area should be outside of the TPZ of the tree.

Tree Protection Measures Prior To Demolition and Construction:

Prior to any demolition and construction activity, the subject tree shall be protected by fencing to the limits of the canopy drip line or TPZ, again; consideration is recognized by the limited space existing. All members of the construction crew shall be made aware of the tree protection measures.

Fencing:

A 4 foot high, orange-webbing, polypropylene barricade fence shall be erected around the tree to be preserved. The protective fence shall be installed at the TPZ on the demolition and construction site. This will delineate the TPZ and prevent unwanted activity in and around the trees in order to reduce soil compaction in the root zone of the trees and other damage from heavy equipment. The fence webbing shall be secured to a 6 foot, heavy gauge t-bar line posts, pounded in the ground a minimum of 18 inches and spaced 8 feet on-center. Fence webbing will be attached to t-bar posts with a minimum 14 gauge wire fastened to the top, middle, and bottom of each post. Contractor and owner shall maintain the fence to keep it upright, taut, and aligned at all times. Fencing shall be removed only after all demolition and construction activities are complete.

Protection and Maintenance during Demolition and Construction:

Equipment Operation and Storage:

Avoid heavy equipment operation around the trees. Operating heavy machinery around the root zone of the trees increases soil compaction; which decreases soil aeration and subsequently reduces water penetration in the soil. All heavy equipment and vehicles shall stay out of the fenced TPZ.

Storage and Disposal:

Do not store or discard any supplies or materials within the TPZ. Remove all foreign debris within the TPZ. Avoid draining or leakage of equipment fluids near the trees. Keep equipment parked at least 15 feet away from the TPZ to avoid the possibility of leakage of equipment fluids into the soil.

Activity within the TPZ:

Removal of hardscapes surfaces within 15 feet of the TPZ (sidewalks & driveways) shall be conducted using methods sensitive to tree root protection. These surfaces shall be "peeled" back and carefully removed. Heavy equipment shall not be permitted within the TPZ.

Grade Changes:

Grade changes, including adding fill, are not permitted within the TPZ. Lowering the grade within this area will necessitate cutting main support and absorption roots, jeopardizing the health and structural integrity of the trees. Adding soil, even temporarily, on top of the existing grade will compact the soil, decrease both water, and air availability to the tree roots.

Trenching:

Any trenching deemed necessary within the TPZ should be conducted using practices which are sensitive to root structure and tree health. Trenching within the TPZ shall utilize an **air excavator** or "Air-Spade", tunneling, or shall be dug by hand.

Moving / Demolition and Construction Materials:

Care will be taken when moving equipment or supplies near the trees, especially overhead. Avoid damaging the trees when transporting or moving demolition and construction materials, and working around the trees (even outside of the fenced TPZ. Above ground tree parts that could be damaged (e.g., low limbs & trunks) should be flagged with surveyors tape. If contact with the tree crown is unavoidable, the conflicting branches shall be pruned using American National Standards Institute **(ANSI A300 Standards)**.

Root Pruning:

All trenching should be outside of the fenced TPZ. Roots primarily extend in a horizontal direction forming a support base to the tree, similar to the base of a wineglass. Where root pruning is necessary in areas that contain tree roots, deep water the TPZ area 3 days prior to excavation for root pruning. All pruning cuts should be clean and sharp, to minimize ripping, tearing, and fracturing of the root system. The root crown soil excavation shall be no deeper than necessary. Roots shall be exposed by hand digging or use of an air excavator or "Air-Spade".

Do not leave roots exposed to the atmosphere any longer than necessary to perform root pruning. If roots are exposed longer than required, cover root zone with a burlap tarp and keep it moist to avoid roots from desiccation. Any roots larger than (2") inches in diameter requiring pruning should have the monitoring of the site Arborist and the end cut should be wrapped with a damp cloth, tied on with jute twine and kept moist until the area is covered up.

Irrigation:

If any trees are designated to be root pruned, it will require irrigation 3 days prior to pruning activity. After pruning, the subject tree shall be watered according to the following specifications; deep water every three to four weeks during the summer and once a month during the winter (adjust accordingly with rainfall). In addition, thoroughly soak the root zone of the tree to a depth of 3 feet. Avoid keeping a consistently wet soil. Check soil moisture with a **soil probe** before irrigating. Irrigation is best accomplished by installing a temporary above ground soaker hose that will distribute water slowly (to avoid runoff) and evenly throughout the TPZ.

Mulch:

Organic wood mulch should be applied within the TPZ at 2 - 3 inches thick. Mulch should not be piled around the trunk flare. Wood mulch should consist of organic woods 1/2 - 2 inches in size. This mulch reduces moisture evaporation and improves soil conditions. It minimizes weed competition (and thus water use), reduces soil erosion, and can improve soil aeration. The soil will be kept cooler in the summer and warmer in the winter. The most beneficial advantage is that they add organic matter to the soil as they decompose, enhancing soil fertility.

Appendix E - Appraisal Worksheets and Certificate

24982 Walnut Street, Newhall, CA

Tree # 5

CONDITION %

1 Extreme Problems
2 Major problems
3 Minor problems
4 No apparent problems

	Structure	Health	
Factor 1 (Roots*)			
Root anchorage	3	3	
Collar/flare soundness	3	3	
Mechanical injury	3	3	
Girdling/kinked roots	3	3	
Compaction/waterlogged roots	3	3	
Toxic gasses/chemical symptoms	4	4	
Presence of insects or disease	3	2	
Mushrooms	4	4	
TOTALS:	26	25	
AVERAGE	2.75	2.75	
SUBTOTAL:			**5.50**
Factor 2 (Trunk*)			
Sound bark and wood	3	3	
Cavities	3	3	
Mechanical or fire injury	3	3	
Cracks (frost or other)	3	3	
Swollen or sunken areas	3	3	
Presence of insects or disease	3	3	
Conks	4	4	
TOTALS:	22	22	
AVERAGE	3.00	3.00	
SUBTOTAL:			**6.00**
Factor 3 (Scaffold Branches*)			
Strong attachments	3	3	
Smaller diameter than trunk where attached	3	3	
Vertical branch distribution	3	3	
Free of included bark	3	3	
Free of decay and cavities	3	3	
Well pruned	1	2	
Well proportioned/proper taper	3	3	
Wound closure	3	3	
Deadwood or fire injury	2	2	
Insects or disease	3	3	
TOTALS:	27	28	
AVERAGE	2.30	2.10	
SUBTOTAL:			**4.40**

Appendix E - Appraisal Worksheets and Certificate Continued:			
Factor 4 (Small Branches and Twigs)			
Vigor of current shoots		2	
Well distributed through canopy		2	
Appearance of buds		2	
Presence of insects or disease		3	
Presence of weak or dead twigs		2	
TOTALS:		11	
AVERAGE		2.20	
SUBTOTAL:			**2.20**
Factor 5 (Foliage and/or Buds)			
Size of foliage/buds		2	
Coloration of foliage		3	
Nutrient status		3	
Herbicide, chemical pollution injury		4	
Wilted or dead leaves		2	
Dry buds		2	
Presence of insects or disease		3	
TOTALS:		19	
AVERAGE		3.14	
SUBTOTAL:			**3.14**
SUBTOTAL FOR FIVE FACTORS:			**21.2**
Divide subtotal points by 32 (total points)			
and multiply by 100 to obtain the			
Condition Rating:			**66**

****Note No Structure on Factor 4 & 5**

Appendix E - Appraisal Worksheets and Certificate Continued:

24982 Walnut Street, Newhall, CA

Rating Range: 10 to 100 %

LOCATION
Tree # 5

Description	(A) (F) or (P)	Aesthetic(A)	Functional (F)	Placement(P)
Accent Structures	A & P	75		50
Aesthetic Values (growth habit, bark texture,/color, foliage color/texture, flower odor/color/size, fruit prominence/duration, fruit size/use, fruit color/odor	A & P	25		50
Air Purification	F &P		25	50
Allergenic properties (pollen and derma toxins)	F & P		25	10
Cleanliness (flowers, fruit, leaves, twigs, duration of leaf fall)	A, F & P	50	25	25
Creates vistas	A & P	25		50
Defines Space	A & P	25		25
Dirt and Dust Absorption	F & P		25	25
Erosion control	A, F & P	10	10	10
Frames view	A & P	25		25
Historical, rare or unusual specimen	A & P	25		25
Light and glare shield	F & P		25	25
Noise attenuation	F & P		25	25
Safety barrier	F & P		25	25
Screens undesirable views	A, F & P	25	25	25
Sun radiation and reflection control	F & P		25	25
Traffic control	F & P		10	10
Transpiration cooling	F & P		25	25
Unusually attractive plant features	A & P	25		50
Wildlife Attraction	A, F & P	25	25	50
Wind control	F & P		25	10
TOTALS:		335	320	615
AVERAGE:		30	23	29

Divide total (A) by 11 factors
Divide total (F) by 14 factors
Divide total (P) by 21 factors

Contribution % = (A)+(F)/ 2= 26%

Landscape Consultant

ISA Certified Arborist #WE – 3811A PCA # 71916 QAL # 97292

Certificate of Appraisal

May 26, 2014

PREMISES:

I, Frank A. Madero, CERTIFY to the best of my knowledge and belief:

1.) That the statements of fact contained in the tree appraisal are true and correct.

2.) That the appraisal analysis, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and that they are my personal, unbiased professional analysis, opinions, and conclusions.

3.) That I have no present or prospective interest in the trees that is the subject of this appraisal, and that I have no personal interest or bias with respect to the parties involved.

4.) That my compensation is not contingent upon a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event.

5.) That my analysis, opinions, and conclusions were developed, and this appraisal has been prepared, in conformity with the *Guide for Plant Appraisal* (9th edition, 2000) authored by the Council of Tree & Landscape Appraisers.

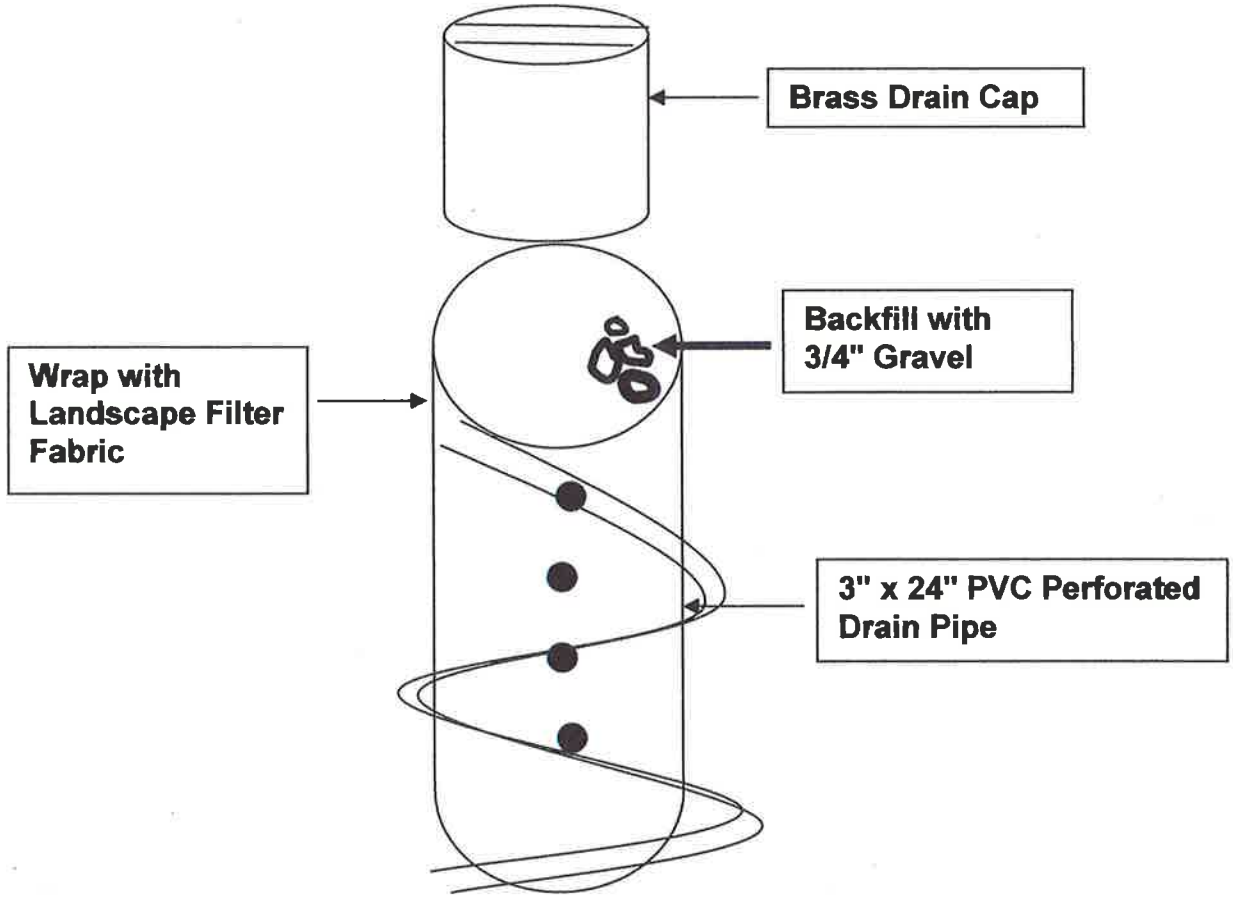
6.) That method(s) found in this appraisal are based on a request to determine the value of trees considering reasonable factors of tree appraisal.

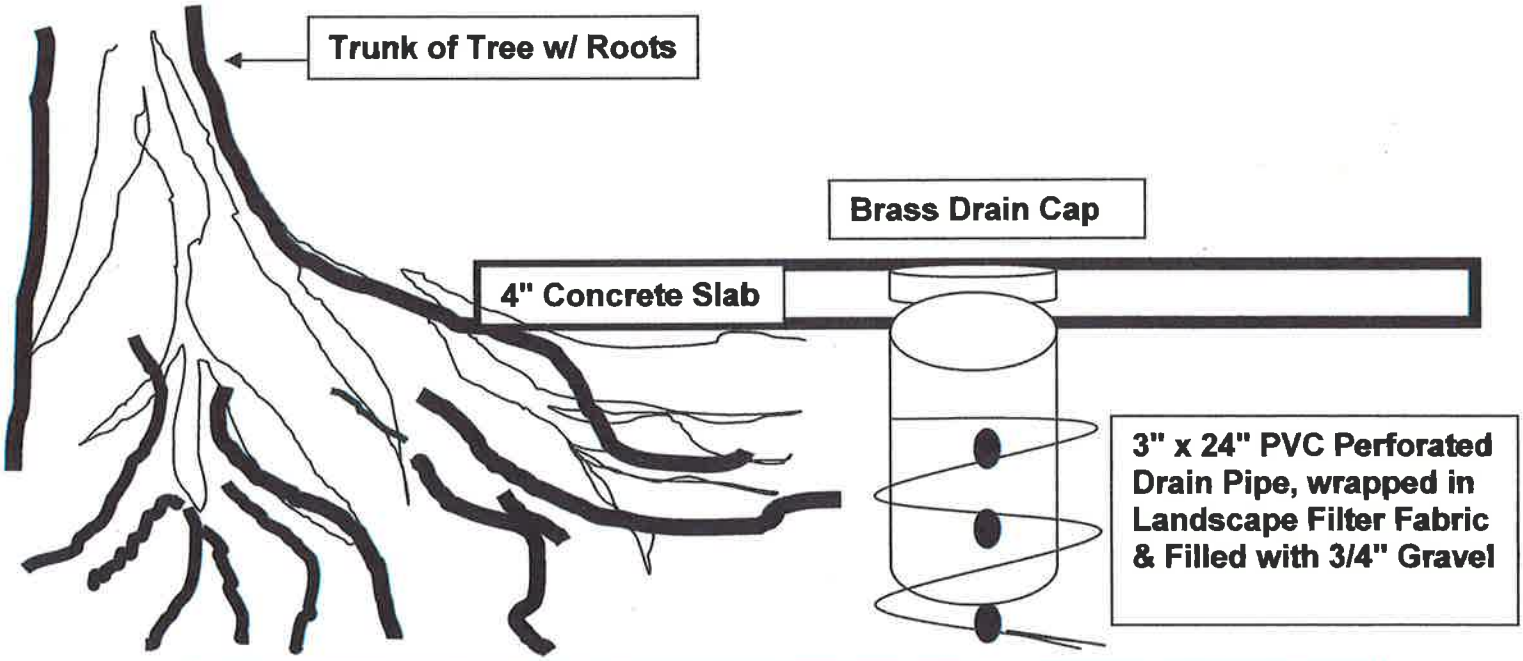
7.) That my appraisal is based on the information known to me at this time. If more information is disclosed, I may have further opinions.

8.) That, as a result of my examinations, investigations, and analysis of the tree and all of the data pertinent thereto, and in light of my experience, the value of Tree # 5 as of **May 26, 2014**, was estimated to be **$4,214.00**

Appendix F - Vertical Pipe Installation Photos

Appendix G - (VDP) Vertical Drain Pipe Detail:





OAK TREE IMPACT TABLE
WALNUT PARK COTTAGES
24982 Walnut Street, Newhall, CA

Oak Tree #	Diameter	Species	Level of Impact	Type of Impact	Locaton of Impact to Tree
1	22 1/4"	Q.A.	Minor	Root injury from trenching for over excavation and compaction on the SW side	Northeast side of the protected root zone
2	17"	Q.A.	Minor	Root injury from trenching for over excavation and compaction on the SW side	North, northeast, and east side of the protected root zone
3	S: 11 3/4" & E: 16 1/4"	Q.A.	Minor	Root injury from trenching for over excavation and compaction on the SW side	North, northeast, and east side of the protected root zone
4	SW: 21 1/4" & N: 28 1/4"	Q.A.	Moderate	excavation and compaction on the NE side of Unit 3	North, northeast, and east side of the drip line and protected root zone
5	19"	Q.L.	Severe	TBR	TBR
6	25"	Q.A.	Minor	Root injury from trenching for over excavation and compaction adjacent to	West, northwest, and the north side of the drip line and protected root zone
7	25"	Q.A.	Moderate to Severe	Root injury from trenching for over excavation and compaction adjacent to Unit 11	Construction of Guest Parking on the west aspect, and over excavation on the NE side
8	27 1/2"	Q.A.	Minor	Root injury from demo of new driveway and compaction	West, northwest, and north of the drip line and protected root zone

Legend for Spec Q.L. = Quercus Lobata
Q.A. = Quercus Agrifolia
TBR = To Be Removed

OAK TREE MITIGATION TABLE
WALNUT PARK COTTAGES
24982 Walnut Street, Newhall, CA

Oak Tree #	Box Size	Species	Estimated Installed Cost	Tree # 5 Appraised Value	Justification for Removal/Location of Installation
M1	24"	Q.A.	$350.00		Northeast boundary of the property
M2	48"	Q.A.	$1,800.00		Northeast boundary of the property
M3	36"	Q.A.	$900.00		Northeast boundary of the property
M4	36"	Q.A.	$900.00		Northeast boundary of the property
M5	48"	Q.L.	$1,800.00		Northeast boundary of the property
M6	24"	Q.A.	$350.00		Northeast boundary of the property
5	TBR	Q.A.		$4,214.00	Declining health due to depth of buttress roots. Poor tree location to proposed driveway, sewer, storm drain, and proximity to Tree # 4.
TOTALS:			**$6,100.00**	**$4,214.00**	

Legend for Species: Q.L. = Quercus Lobata
Q.A. = Quercus Agrifolia
TBR = To Be Removed

Air Quality, Greenhouse Gas, Noise, and Water Quality Analyses for the Walnut Park Cottages Project

24982 Walnut Street, Santa Clarita, California 91321

Prepared for:

City of Santa Clarita
Community Development Department
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Santa Clarita, California 91355
Attn: Jason Smisko

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January 20, 2015

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Appendices

1.0 INTRODUCTION & SUMMARY

The Project proposes the development of 11 single-family detached condominium homes with surface parking on 1.10 acres at 24982 Walnut Street in the City of Santa Clarita. This report consists of air quality, greenhouse gas, noise, and water quality analyses in support of the Project's Categorical Exemption (CE) in accordance with Section 15332 of the State CEQA Guidelines. Specifically, a Class 32 exemption consists of projects characterized as in-fill development meeting the conditions of Section 15332(a) through Section 15332(e). This report focuses on Section 15332(d) which states: "Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality." Traffic impacts were found to be less than significant under separate cover.[1] The following analyses confirm Project impacts would be less than significant with respect to air quality, greenhouse gases, noise, and water quality.

2.0 PROJECT OVERVIEW

The Project Site is located at 24982 Walnut Street in the City of Santa Clarita (City). See Figure 1, Aerial Photograph of the Project Site. The Project Site is approximately 1.10 acres in size and has a zoning and general plan designation of Urban Residential 3 (UR3). The UR3 designation allows for up to 11 dwelling units per acre. The Project proposes the development of 11 single-family detached condominium homes with surface parking on 1.10 acres. Vehicle access to the Project Site would be provided through a driveway off Walnut Street, which is approximately 850 feet north of 15th Street. See Figure 2, Project Site Plan.

Property in the surrounding area is classified as Urban Residential 2 (UR2), UR3, and Community Commercial (CC). The neighborhood surrounding the Project Site is made up of a mix of one- and two-story single- and multi-family residential uses. Specifically, adjacent to the Project Site on the northwest boundary is an existing 2-story multi-family residential use, and adjacent to the Project Site on the southeast boundary are existing 1-story single-family residences.

[1] *See Traffic Assessment Potential Technical Memorandum – Trip Generation, Walnut Park Cottages Project, Newhall, California, prepared by Fehr & Peers, December 23, 2014.*

Project Site

0 100 200

Approximate Scale (feet)

N

Aerial source: Google Earth 2014.

POMEROY ENVIRONMENTAL SERVICES

Figure 1
Aerial Photograph of the Project Site

Source: KHA Architecture, December 2014.

POMEROY ENVIRONMENTAL SERVICES

Figure 2
Project Site Plan

3.0 AIR QUALITY ANALYSIS

Consistent with Appendix G of the State CEQA Guidelines, a significant impact may occur if a project would:

a) Conflict with or obstruct implementation of the applicable air quality plan;
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
d) Expose sensitive receptors to substantial pollutant concentrations; and/or
e) Create objectionable odors affecting a substantial number of people.

a) A significant air quality impact may occur if a project is not consistent with the applicable Air Quality Management Plan (AQMP), or would in some way represent a substantial hindrance to employing the policies, or obtaining the goals, of that plan.

The Project proposes the development of 11 single-family detached condominium homes with surface parking on 1.10 acres in the City's UR3 Zone, which allows for up to 11 dwelling units per acre. Thus, the Project would be consistent with the existing zoning and would not have the potential to conflict with regional growth projections utilized in the formulation of the AQMP. In addition and further discussed herein, the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Thus, the Project would not have the potential to conflict with or obstruct impair implementation of the AQMP, and this impact would be less than significant.

b) A project may have a significant impact if project-related emissions would exceed federal, state, or regional standards or thresholds, or if project-related emissions would substantially contribute to an existing or projected air quality violation. The Project Site is located in the South Coast Air Basin (Basin). The South Coast Air Quality Management District (SCAQMD) is the air pollution control agency for the Basin. To address potential impacts from construction and operational activities, the SCAQMD currently recommends that impacts from projects with mass daily emissions that exceed any of the thresholds outlined in Table 1, SCAQMD Thresholds of Significance, be considered significant. The City defers to these thresholds for the evaluation of construction and operational air quality impacts.

Table 1
SCAQMD Thresholds of Significance

Pollutant	Construction Thresholds (lbs/day)	Operational Thresholds (lbs/day)
Volatile Organic Compounds (VOC)	75	55
Nitrogen Oxides (NO_x)	100	55
Carbon Monoxide (CO)	550	550
Sulfur Oxides (SO_x)	150	150
Particulate Matter (PM_{10})	150	150
Fine Particulate Matter ($PM_{2.5}$)	55	55

Note: lbs = pounds.
Source: SCAQMD CEQA Handbook (SCAQMD, 1993), SCAQMD Air Quality Significance Thresholds, website: http://aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2; accessed November 2014.

Regional Construction Emissions

For purposes of analyzing impacts associated with air quality, this analysis assumes a construction schedule of approximately 7 months. This assumption is conservative and yields the maximum daily impacts. Construction activities associated with the Proposed Project would be undertaken in two main steps: (1) grading/site preparation, and 2) building construction.

Grading/site preparation would occur for approximately one month and would require the import of 1,320 cubic yards of fill. Building construction would occur for approximately six months over two phases. Phase one would include the complete build-out of the six northerly homes over approximately three months, and phase two would include the build-out of the six southerly homes over approximately three months. As part of the final month of the building construction phases, connection of utilities, laying irrigation for landscaping, architectural coatings, paving, and landscaping activities would be completed. See Appendix A to this report for additional details regarding construction assumptions.

These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. Construction activities involving grading and site preparation would primarily generate $PM_{2.5}$ and PM_{10} emissions. Mobile sources (such as diesel-fueled equipment onsite and traveling to and from the Project Site) would primarily generate NO_x emissions. The application of architectural coatings would primarily result in the release of ROG emissions. The amount of emissions generated on a daily basis would vary, depending on the amount and types of construction activities occurring at the same time. The analysis of daily construction emissions has been prepared utilizing the California Emissions Estimator Model (CalEEMod 2013.2.2) recommended by the SCAQMD. Due to the construction time frame and the normal day-to-day variability in construction activities, it is difficult, if not impossible, to precisely quantify the daily emissions associated with each phase of the proposed construction activities. Nonetheless, Table 2, Estimated Peak Daily Construction Emissions, identifies daily emissions that are estimated to occur on peak construction days for each construction phase.

Table 2
Estimated Peak Daily Construction Emissions

Emissions Source	Emissions in Pounds per Day					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Grading/Site Preparation Phase						
Fugitive Dust	--	--	--	--	2.38	1.29
Off-Road Diesel Equipment	2.70	28.69	18.38	0.02	1.55	1.43
On-Road Diesel (Hauling)	0.17	2.58	1.95	0.01	0.18	0.08
Worker Trips	0.04	0.06	0.58	0.01	0.09	0.02
Total Emissions	***2.91***	***31.33***	***20.91***	***0.04***	***4.20***	***2.82***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00	55.00
Significant Impact?	No	No	No	No	No	No
Building Construction Phase						
Building Construction Off-Road Diesel Equipment	2.68	21.41	12.64	0.02	1.38	1.31
Building Construction Vendor Trips	0.04	0.41	0.53	0.01	0.03	0.01
Building Construction Worker Trips	0.05	0.07	0.72	0.01	0.11	0.03
Architectural Coatings	7.76	--	--	--	--	--
Architectural Coating Off-Road Diesel Equipment	0.41	2.57	1.90	0.01	0.22	0.20
Architectural Coatings Worker Trips	0.01	0.01	0.14	0.01	0.02	0.01
Paving Off-Road Diesel Equipment	1.40	14.60	9.17	0.01	0.89	0.82
Paving Off-Gas	0.04	--	--	--	--	--
Paving Worker Trips	0.05	0.07	0.72	0.01	0.11	0.03
Total Emissions	***12.44***	***39.14***	***25.82***	***0.08***	***2.76***	***2.41***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00	55.00
Significant Impact?	No	No	No	No	No	No

Note: Calculations assume compliance with SCAQMD Rule 403 – Fugitive Dust. In addition, this analysis is based on the development of 12-units, per the original site plan. However, the Project Applicant has revised the Project Site Plan to remove unit number 12 and revise the layout of lot 11 to minimize potential disturbance to an existing oak tree. The modeling for 12-units herein is considered conservative and worst-case, and would not alter the less-than-significant impacts identified. Calculation sheets are provided in Appendix A to this report.

These calculations assume that appropriate dust control measures would be implemented as part of the project during each phase of development, as required by SCAQMD Rule 403 - Fugitive Dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes (up to three times per day), applying soil binders to

uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site, and maintaining effective cover over exposed areas. As shown in Table 2, construction-related daily emissions associated with the project would not exceed any regional SCAQMD significance thresholds for criteria pollutants during the construction phases. Therefore, regional construction impacts are considered to be less than significant.

Regional Operational Emissions

The Project Site is currently vacant and this analysis assumes no existing air quality emissions. This is conservative as it assumes all air quality emissions would be considered new emissions associated with the Project. Operational emissions generated by area sources, motor vehicles and energy demand would result from normal day-to-day activities of the Project. The analysis of daily operational emissions associated with the project has been prepared utilizing CalEEMod 2013.2.2 recommended by the SCAQMD. The results of these calculations are presented in Table 3, Estimated Daily Operational Emissions. As shown, the operational emissions generated by the Project would not exceed the regional thresholds of significance set by the SCAQMD. Therefore, impacts associated with regional operational emissions from the Project would be less than significant.

Table 3
Estimated Daily Operational Emissions

Emissions Source	Emissions in Pounds per Day					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Summertime (Smog Season) Emissions						
Area Sources	0.80	0.01	1.01	<0.01	0.02	0.02
Energy Demand	0.01	0.09	0.04	<0.01	<0.01	<0.01
Mobile (Motor Vehicles)	0.49	1.42	5.85	0.01	0.85	0.24
Total Project Emissions	**1.30**	**1.52**	**6.90**	**0.01**	**0.88**	**0.27**
SCAQMD Thresholds	55.00	55.00	550.00	150.00	150.00	55.00
Potentially Significant Impact?	No	No	No	No	No	No
Wintertime (Non-Smog Season) Emissions						
Area Sources	0.80	0.01	1.01	<0.01	0.02	0.02
Energy Demand	0.01	0.09	0.04	<0.01	<0.01	<0.01
Mobile (Motor Vehicles)	0.51	1.50	5.81	0.01	0.85	0.24
Total Project Emissions	**1.32**	**1.60**	**6.86**	**0.01**	**0.88**	**0.27**
SCAQMD Thresholds	55.00	55.00	550.00	150.00	150.00	55.00
Potentially Significant Impact?	No	No	No	No	No	No

Note: Column totals may not add due to rounding from the model results. Assumes all hearth would be natural gas. In addition, this analysis is based on the development of 12-units, per the original site plan. However, the Project Applicant has revised the Project Site Plan to remove unit number 12 and revise the layout of lot 11 to minimize potential disturbance to an existing oak tree. The modeling for 12-units herein is considered conservative and worst-case, and would not alter the less-than-significant impacts identified.
Calculation sheets provided in Appendix A to this report.

c) A significant impact may occur if a project would add a considerable cumulative contribution to federal or State non-attainment pollutant. Because the South Coast Air Basin is currently in nonattainment for ozone, nitrogen dioxide (NO_2), PM_{10} and $PM_{2.5}$, related projects may exceed an air quality standard or contribute to an existing or projected air quality exceedance. With respect to determining the significance of the Project contribution, the SCAQMD neither recommends quantified analyses of construction and/or operational emissions from multiple development projects nor provides methodologies or thresholds of significance to be used to assess the cumulative emissions generated by multiple cumulative projects. Instead, the SCAQMD recommends that a project's potential contribution to cumulative impacts be assessed utilizing the same significance criteria as those for project specific impacts. Furthermore, the SCAQMD states that if an individual development project generates less-than-significant construction or operational emissions impacts, then the development project would not contribute to a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

As discussed above, the mass daily construction and operational emissions generated by the Project would not exceed any of thresholds of significance recommended by the SCAQMD. Also, as discussed below, localized emissions generated by the Project would not exceed the SCAQMD's Localized Significance Thresholds (LSTs). Therefore, the Project would not contribute a cumulatively considerable increase in emissions for the pollutants which the Basin is in nonattainment. Thus, cumulative air quality impacts associated with the Project would be less than significant.

d) A significant impact may occur if a project were to generate pollutant concentrations to a degree that would significantly affect sensitive receptors. Land uses that are considered more sensitive to changes in air quality than others are referred to as sensitive receptors. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential uses are considered sensitive because people in residential areas are often at home for extended periods of time, so they could be exposed to pollutants for extended periods. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on the human respiratory function. The nearest sensitive receptors to the Project Site are adjacent residential uses.

Localized Emissions

Emissions from construction activities have the potential to generate localized emissions that may expose sensitive receptors to harmful pollutant concentrations. The SCAQMD has developed localized significance threshold (LST) look-up tables for project sites that are one, two, and five acres in size to simplify the evaluation of localized emissions at small sites. LSTs are provided for each Source Receptor Area (SRA) and various distances from the source of emissions.

In the case of this analysis, the Project Site is located within SRA 13 covering Santa Clarita Valley area. The nearest sensitive receptors to the Project Site are the adjacent residential uses. The closest receptor distance in the SCAQMD's mass rate look-up tables is 25 meters. Projects that are located closer than 25 meters to the nearest receptor are directed to use the LSTs for receptors located within 25 meters. As mentioned previously, the Project Site is 1.10 acres in size. Therefore, the LSTs for a one-acre site in SRA 13 with receptors located within 25 meters have been used to address the potential localized NOx, CO, PM_{10}, and $PM_{2.5}$ impacts to the area surrounding the Project Site.

As shown in Table 4, Localized On-Site Peak Daily Construction Emissions, peak daily emissions generated within the Project Site during construction activities for each phase would not exceed the applicable construction LSTs for a one-acre site in SRA 13. Therefore, localized air quality impacts from Project construction activities on the off-site sensitive receptors would be less than significant.

Table 4
Localized On-Site Peak Daily Construction Emissions

Construction Phase [a]	Total On-site Emissions (Pounds per Day)			
	NO_x [b]	CO	PM_{10}	$PM_{2.5}$
Grading/Site Preparation Emissions	**28.69**	**18.38**	**3.93**	**2.72**
SCAQMD Localized Thresholds	*114.00*	*590.00*	*4.00*	*3.00*
Potentially Significant Impact?	No	No	No	No
Building Construction Emissions	**38.58**	**23.71**	**2.49**	**2.33**
SCAQMD Localized Thresholds	*114.00*	*590.00*	*4.00*	*3.00*
Potentially Significant Impact?	No	No	No	No

Note: Calculations assume compliance with SCAQMD Rule 403 – Fugitive Dust. Building construction emissions include paving and architectural coatings.
[a] The Project Site is 1.10 acres. As such, the localized thresholds for all phases are based on a one-acre site with a receptor distance of 25 meters (82 feet) in SCAQMD's SRA 13.
[b] The localized thresholds listed for NO_x in this table takes into consideration the gradual conversion of NO_x to NO_2, and are provided in the mass rate look-up tables in the "Final Localized Significance Threshold Methodology" document prepared by the SCAQMD. As discussed previously, the analysis of localized air quality impacts associated with NO_x emissions is focused on NO_2 levels as they are associated with adverse health effects.
Calculation sheets are provided in Appendix A to this report.

With regard to localized emissions from motor vehicle travel, traffic congested roadways and intersections have the potential to generate localized high levels of carbon monoxide (CO). The SCAQMD suggests conducting a CO hotspots analysis for any intersection where a project would worsen the Level of Service (LOS) from A-C to any level below C, and for any intersection rated D or worse where the project would increase the V/C ratio by two percent or more. Based on a review of the Project's traffic assessment, the Project would generate approximately 8 a.m. peak hour trips and 11 p.m. peak hour trips, and thus would not have the potential to meet the SCAQMD criteria at any of the intersections in the Project vicinity. Therefore, the Project would not have the potential to cause or contribute to an exceedance of the California one-hour or eight-hour CO standards of 20 or 9.0 ppm, respectively; or generate an incremental increase equal to or greater than 1.0 ppm for the California

one-hour CO standard, or 0.45 ppm for the eight-hour CO standard at any local intersection. Therefore, impacts with respect to localized CO concentrations would be less than significant.

Toxic Air Contaminants (TAC)

As the Project consists of single-family residences, the Project would not include any land uses that would involve the use, storage, or processing of carcinogenic or non-carcinogenic toxic air contaminants and no toxic airborne emissions would typically result from Project implementation. In addition, construction activities associated with the Project would be typical of other development projects in the City, and would be subject to the regulations and laws relating to toxic air pollutants at the regional, State, and federal level that would protect sensitive receptors from substantial concentrations of these emissions. Therefore, impacts associated with the release of toxic air contaminants would be less than significant.

e) A project-related significant adverse effect could occur if construction or operation of the proposed project would result in generation of odors that would be perceptible in adjacent sensitive areas. According to the SCAQMD *CEQA Air Quality Handbook*, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. The Project involves the construction and operation of single-family residences, which are not typically associated with odor complaints. Potential sources that may emit odors during construction activities include equipment exhaust. Odors from these sources would be localized and generally confined to the immediate area surrounding the Project. The Project would use typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. As the Project involves no operational elements related to industrial projects, no long-term operational objectionable odors are anticipated. Therefore, potential impacts associated with objectionable odors would be less than significant.

4.0 GREENHOUSE GAS ANALYSIS

Consistent with Appendix G of the State CEQA Guidelines, a significant impact may occur if a project would:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

a-b) Gases that trap heat in the atmosphere are called greenhouse gases (GHGs), since they have effects that are analogous to the way in which a greenhouse retains heat. Greenhouse gases are emitted by both natural processes and human activities. The accumulation of greenhouse gases in the atmosphere regulates the earth's temperature. The State of California has undertaken initiatives designed to address the effects of greenhouse gas emissions, and to establish targets and emission reduction strategies for greenhouse gas emissions in California. Activities associated with the Project, including construction and operational activities, would have the potential to generate greenhouse gas emissions.

The principal GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H_2O). CO_2 is the reference gas for climate change because it is the predominant greenhouse gas emitted. To account for the varying warming potential of different GHGs, GHG emissions are often quantified and reported as CO_2 equivalents (CO_2e).

California has enacted several pieces of legislation that relate to GHG emissions and climate change, much of which sets aggressive goals for GHG reductions within the state. Per Senate Bill 97, the California Natural Resources Agency adopted amendments to the CEQA Guidelines, which address the specific obligations of public agencies when analyzing GHG emissions under CEQA to determine a project's effects on the environment. However, neither a threshold of significance nor any specific mitigation measures are included or provided in these CEQA Guideline amendments.

Assembly Bill 32 (Statewide GHG Reductions)

The California Global Warming Solutions Act of 2006, widely known as AB 32, requires the California Air Resources Board (CARB) to develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed to set a statewide GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner. The heart of the bill is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020.

The CARB AB 32 Scoping Plan (Scoping Plan) contains the main strategies to achieve the 2020 emissions cap. The Scoping Plan was developed by CARB with input from the Climate Action Team (CAT) and proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve the environment, reduce oil dependency, diversify energy sources, and enhance public health while creating new jobs and improving the State economy. The GHG reduction strategies contained in the Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

CARB has adopted the First Update to the Climate Change Scoping Plan.[2] This update identifies the next steps for California's leadership on climate change. The first update to the initial AB 32 Scoping Plan describes progress made to meet the near-term objectives of AB 32 and defines California's climate change priorities and activities for the next several years. It also frames activities and issues facing the State as it develops an integrated framework for achieving both air quality and climate goals in California beyond 2020.

In the original Scoping Plan, CARB approved a total statewide GHG 1990 emissions level and 2020 emissions limit of 427 million metric tons of CO_2e. As part of the update, CARB revised the 2020 Statewide limit to 431 million metric tons of CO_2e, an approximately 1 percent increase from the original estimate. The 2020 business-as-usual (BAU) forecast in the update is 509 million metric tons of CO_2e. The State would need to reduce those emissions by 15 percent to meet the 431 million metric tons of CO_2e 2020 limit.

California Senate Bills 1078, 107, and 2; Renewables Portfolio Standard

Established in 2002 under California Senate Bill 1078 and accelerated in 2006 under California Senate Bill 107, California's RPS requires retail suppliers of electric services to increase procurement from eligible renewable energy resources by at least 1 percent of their retail sales annually, until they reach 20 percent by 2010.

On April 2, 2011, Governor Jerry Brown signed California Senate Bill 2 to increase California's RPS to 33 percent by 2020. This new standard also requires regulated sellers of electricity to procure 25 percent of their energy supply from certified renewable resources by 2016.

Low Carbon Fuel Standard

California Executive Order S-01-07 (January 18, 2007) requires a 10 percent or greater reduction in the average carbon intensity for transportation fuels in California regulated by CARB. CARB identified the LCFS as a Discrete Early Action item under AB 32, and the final resolution (09-31) was issued on April 23,

[2] *CARB, First Update to the Climate Change Scoping Plan: Building on the Framework, May 2014.*

2009.

Sustainable Communities and Climate Protection Act (SB 375)

California's Sustainable Communities and Climate Protection Act, also referred to as Senate Bill (SB) 375, became effective January 1, 2009. The goal of SB 375 is to help achieve AB 32's GHG emissions reduction goals by aligning the planning processes for regional transportation, housing, and land use. SB 375 requires CARB to develop regional reduction targets for GHGs, and prompts the creation of regional plans to reduce emissions from vehicle use throughout the State. California's 18 Metropolitan Planning Organizations (MPOs) have been tasked with creating Sustainable Community Strategies (SCS) in an effort to reduce the region's vehicle miles traveled (VMT) in order to help meet AB 32 targets through integrated transportation, land use, housing and environmental planning. Pursuant to SB 375, CARB set per-capita GHG emissions reduction targets from passenger vehicles for each of the State's 18 MPOs. On September 23, 2010, CARB issued a regional eight (8) percent per capita reduction target for the planning year 2020, and a conditional target of 13 percent for 2035.

California Green Building Standards (CALGreen) Code

Although not originally intended to reduce greenhouse gases, California Code of Regulations (CCR) Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. Since then, Title 24 has been amended with recognition that energy-efficient buildings that require less electricity and reduce fuel consumption, which in turn decreases GHG emissions. The current 2013 Title 24 standards (effective as of January 1, 2014) were revised and adopted in part to respond to the requirements of AB 32. Specifically, new development projects constructed within California after January 1, 2014 are subject to the mandatory planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and environmental quality measures of the California Green Building Standards (CALGreen) Code (California Code of Regulations, Title 24, Part 11).

Local Policies and Regulations

In August of 2012, the City adopted the City of Santa Clarita Climate Action Plan (CAP). The purpose of the CAP is to measure the amount of greenhouse gas emissions generated within the City and to develop strategies to reduce the emissions in the future. As discussed previously, AB 32 requires that statewide GHG emissions must be reduced to 1990 levels by 2020. The City's CAP not only identifies a reduction target or commitments, but it also sets forth the complement of goals, policies, measures, and ordinances that will achieve the target. These policies and other strategies include measures in transportation, land use, energy conservation, water conservation, and vegetation. Measures identified in the City's CAP will not only meet, but exceed, the State's AB 32 GHG emission reduction mandate.

GHG Significance Threshold

The City, the SCAQMD nor the State CEQA Guidelines Amendments provide adopted quantitative thresholds of significance for addressing a residential project's GHG emissions. Nonetheless, Section 15064.4 of the CEQA Guidelines Amendments serves to assist lead agencies in determining the significance of the impacts of GHGs. As required in Section 15604.4 of the CEQA Guidelines, this analysis includes an impact determination based on the following: (1) an estimate of the amount of greenhouse gas emissions resulting from the project; (2) a qualitative analysis or performance based standards; (3) a quantification of the extent to which the project increases greenhouse gas emissions as compared to the existing environmental setting; and (4) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

In December 2008, the SCAQMD adopted an interim 10,000 metric tons CO_2e ($MTCO_2e$) per year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency. The SCAQMD continues to consider adoption of significance thresholds for non-industrial development projects. The most recent proposal issued in September 2010 uses the following tiered approach to evaluate potential GHG impacts from various uses:

Tier 1: Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2: Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearings and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3: Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 $MTCO_2e$/year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 $MTCO_2e$/year), commercial projects (1,400 $MTCO_2e$/year), and mixed-use projects (3,000 $MTCO_2e$/year). Under option 2 a single numerical screening threshold of 3,000 $MTCO_2e$/year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4: Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 $MTCO_2e$ per service population for project level analyses and 6.6 $MTCO_2e$ per service population for plan level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5: Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

The thresholds identified above are not adopted by the SCAQMD or distributed for widespread public review and comment, and the working group tasked with developing the thresholds has not met since September 2010. The future schedule and likelihood of threshold adoption is uncertain. However, for the purpose of evaluating the GHG impacts associated with the Project, this analysis utilizes the proposed 3,000 $MTCO_2e$ per year Tier 3 threshold for non-industrial projects. These draft thresholds have been utilized for other projects in the South Coast Air Basin.

In addition and separate from the above quantitative threshold, if the Project can demonstrate qualitative consistency with the City's CAP, then the Project would be considered consistent with applicable plans, policies and regulations adopted for the purpose of reducing the emissions of GHGs.

Construction GHG Emissions

Construction emissions represent an episodic, temporary source of GHG emissions. Emissions are generally associated with the operation of construction equipment and the disposal of construction waste. To be consistent with the guidance from the SCAQMD for calculating criteria pollutants from construction activities, only GHG emissions from on-site construction activities and off-site hauling and construction worker commuting are considered as Project-generated. As explained by California Air Pollution Controls Officers Association (CAPCOA) in its 2008 white paper, the information needed to characterize GHG emissions from manufacture, transport, and end-of-life of construction materials would be speculative at the CEQA analysis level. CEQA does not require an evaluation of speculative impacts (*CEQA Guidelines* §15145). Therefore, the construction analysis does not consider such GHG emissions, but does consider non-speculative on-site construction activities and off-site hauling and construction worker trips. All GHG emissions are reported on an annual basis.

Emissions of GHGs were calculated using CalEEMod 2013.2.2 for construction of the Project. As shown Appendix B to this report, the Project would generate one-time annual construction GHG emissions of 173 metric tons in 2015. Consistent with SCAQMD recommendations and to ensure construction emissions are assessed in a quantitative sense, construction GHG emissions have been amortized over a 30-year period and have been added to the annual operational GHG emissions of the Project identified in Table 5.

Operational GHG Emissions

The Project Site is currently vacant and this analysis assumes no existing GHG emissions. This is conservative as it assumes all GHG emissions would be considered new emissions associated with the Project.

The operations of the Project would generate GHG emissions from the usage of on-road motor vehicles, electricity, natural gas, water, and generation of solid waste and wastewater. Emissions of operational GHGs are shown in Table 5, Project Operational GHG Emissions. As shown, the GHG emissions generated by the Project would be approximately 249.53 CO_2e MTY.

Table 5
Project Operational GHG Emissions

Emissions Source	Estimated Project Generated CO_2e Emissions (Metric Tons per Year)
Natural Gas Demand	19.20
Electricity Demand	28.61
Hearth	2.61
Landscaping	0.21
Solid Waste Generation	6.34
Water Demand	5.47
Motor Vehicles	181.32
Construction Emissions [a]	5.77
Project Total	**249.53**

[a] The total construction GHG emissions were amortized over 30 years and added to the operation of the Project.
Calculation sheets are provided in Appendix B to this report.

As noted previously, the SCAQMD released a draft guidance document regarding interim CEQA GHG significance thresholds. The SCAQMD proposed a tiered approach, whereby the level of detail and refinement needed to determine significance increases with a project's total GHG emissions. The SCAQMD also proposed a screening level of 3,000 metric tons of CO_2e per year for all land use projects (non-industrial projects), under which project impacts would be considered "less than significant." The 3,000 metric ton screening level was intended "to achieve the same policy objective of capturing 90 percent of the GHG emissions from new mixed-use or all land use development projects in the residential/commercial sectors."[3] While this screening threshold was never adopted by the SCAQMD Board, it is worth noting that the Project's total GHG emissions would be far less than the 3,000 metric tons of CO_2e per year screening threshold proposed by the SCAQMD staff.

In addition, and separate from the quantitative analysis above, there is substantial evidence to support that the Project is qualitatively consistent with City's CAP and therefore consistent with statewide goals and policies in place for the reduction of GHG emissions, including AB 32 and the corresponding Scoping Plan.

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[3] *South Coast Air Quality Management District, Board Meeting, December 5, 2008, Agenda No. 31, Interim GHG Significance Threshold Proposal – Key Issues/Comments Attachment D.*

As discussed previously, the Project is consistent with City's general plan and zoning designation for the site and would thus be consistent with the growth projections utilized in the City's CAP. The Project is an urban in-fill development project that would not introduce a substantial increase in daily or peak hour vehicle trips. In addition, the Project would be built to CALGreen Code 2013 standards and would include modern energy-efficient appliances, low-flow water fixtures, and low-water landscaping with native and drought tolerant vegetation. As such, the Project would be consistent with the CAP's GHG-reduction policies and strategies related to transportation, land use, energy conservation, water conservation, and vegetation. Therefore, the Project would be consistent with local and statewide goals and policies aimed at reducing the generation of GHGs, including the City's CAP and CARB's AB 32 Scoping Plan aimed at achieving 1990 GHG emission levels by 2020. In conclusion, the Project's generation of GHG emissions would not make a cumulatively considerable contribution to GHG emissions and impacts would be less than significant.

5.0 NOISE ANALYSIS

Consistent with Appendix G of the State CEQA Guidelines, a significant impact may occur if a project would result in:

a) Exposure of persons to or generation of noise in levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
b) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
c) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
d) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?; and/or
e) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

a-c) A significant impact may occur if the project would generate excess noise that would cause the ambient noise environment at the Project Site to exceed noise level standards set forth in the City's General Plan Noise Element (Noise Element) and/or the City's Noise Ordinance (Noise Ordinance).

City General Plan Noise Element

The Noise Element of the General Plan is a comprehensive program for including noise management in the planning process, providing a tool for planners to use in achieving and maintaining land uses that are compatible with existing and future environmental noise levels. The Noise Element identifies current noise conditions within the planning area, and projects future noise impacts resulting from continued growth allowed by the Land Use Element. The element identifies noise-sensitive land uses and noise sources, and defines areas of noise impact for the purpose of developing programs to ensure that residents in the Santa Clarita Valley will be protected from excessive noise intrusion. As development proposals are reviewed in the future, the City and County will evaluate each proposal with respect to the Noise Element to ensure that noise impacts are reduced through planning and project design. Through implementation of the policies and programs of the Noise Element, current and future adverse noise impacts will be reduced or avoided in order to protect the general health, safety, and welfare of the community.

The most basic planning strategy to minimize adverse impacts on new land uses due to noise is to avoid designating sensitive land uses in areas that are subject to high levels of noise. Uses such as schools, hospitals, child care, senior care, congregate care, churches, and all types of residential use should be located outside of any area anticipated to exceed acceptable noise levels as defined by the Noise and Land Use Compatibility Guidelines, or should be protected from noise through sound attenuation

measures such as site and architectural design and sound walls. The State of California has adopted guidelines for acceptable noise levels in various land use categories (California Office of Planning and Research, General Plan Guidelines 2003, Appendix C). The City of Santa Clarita and the County of Los Angeles have adopted these guidelines in a modified form as a basis for planning decisions based on noise considerations. Modifications were made to eliminate overlap between categories in the table, in order to make the guidelines easier for applicants and decision makers to interpret and apply to planning decisions. With respect to single-family residences, the guidelines state exterior noise levels up to 60 dBA CNEL would considered normally acceptable, exterior noise levels between 60 and 70 dBA CNEL would considered conditionally acceptable, exterior noise levels between 70 and 75 dBA CNEL would considered normally unacceptable, and exterior noise levels above 75 dBA CNEL would considered clearly unacceptable.

City Noise Ordinance (Ord. 89-29, 1/23/90)

The City Noise Ordinance provides exterior noise standards within the City and the following references are those portions of the Noise Ordinance that may be applicable to the Project.

Section 11.44.040 (Noise Limits) of the City of Santa Clarita Municipal Code (SCMC)

A. It shall be unlawful for any person within the City to produce or cause or allow to be produced noise which is received on property occupied by another person within the designated region, in excess of the following levels, except as expressly provided otherwise herein:

Region	Time	Sound Level dB
Residential zone	Day	65
Residential zone	Night	55
Commercial and manufacturing	Day	80
Commercial and manufacturing	Night	70

At the boundary line between a residential property and a commercial and manufacturing property, the noise level of the quieter zone shall be used.

B. Corrections to Noise Limits. The numerical limits given in subsection (A) of this section shall be adjusted by the following corrections, where the following noise conditions exist:

Noise Condition	Correction (in dB)
(1) Repetitive impulsive noise	-5
(2) Steady whine, screech or hum	-5
The following corrections apply to day only:	
(3) Noise occurring more than 5 but less than 15 minutes per hour	+5
(4) Noise occurring more than 1 but less than 5 minutes per hour	+10
(5) Noise occurring less than 1 minute per hour	+20

Section 11.44.070 of the SCMC (Special Noise Sources—Machinery, Fans and Other Mechanical Devices)

Any noise level from the use or operation of any machinery, equipment, pump, fan, air conditioning apparatus, refrigerating equipment, motor vehicle, or other mechanical or electrical device, or in repairing or rebuilding any motor vehicle, which exceeds the noise limits as set forth in Section 11.44.040 at any property line, or, if a condominium or rental units, within any condominium unit or rental unit within the complex, shall be a violation of this chapter.

Section 11.44.080 of the SCMC (Special Noise Sources—Construction and Building)

No person shall engage in any construction work which requires a building permit from the City on sites within three hundred (300) feet of a residentially zoned property except between the hours of seven a.m. to seven p.m., Monday through Friday, and eight a.m. to six p.m. on Saturday. Further, no work shall be performed on the following public holidays: New Year's Day, Independence Day, Thanksgiving, Christmas, Memorial Day and Labor Day.

Emergency work as defined in Section 11.44.020(D) is permitted at all times. The Department of Community Development may issue a permit for work to be done "after hours"; provided, that containment of construction noises is provided.

Existing Noise Levels

To identify the existing ambient noise levels in the general vicinity of the Project Site, noise measurements were taken with a 3M SoundPro SP DL-1 sound level meter, which conforms to industry standards set forth in ANSI S1.4-1983 (R2006) – Specification for Sound Level Meters/Type 1. This instrument was calibrated and operated according to the manufacturer's written specifications. At the measurement sites, the microphone was placed at a height of approximately five feet above grade. The measured noise levels are shown in Table 6, Existing Ambient Daytime Noise Levels. The noise measurement locations are illustrated in Figure 3, Noise Monitoring Location Map.

Table 6
Existing Ambient Daytime Noise Levels

No.	Location	Primary Noise Sources	Noise (dBA)[a]		
			L_{eq}	L_{min}	L_{max}
1	On the Project Site, near eastern boundary.	Traffic from Walnut Street and Railroad Avenue; Metrolink pass-by audible (twice); neighborhood gardeners.	54.6	47.4	64.3
2	Western boundary of Project Site fronting Walnut Street.	Traffic and pedestrian activity along Walnut Street.	54.8	44.7	69.6

[a] *Noise measurements were taken on October 28, 2014 at each location for a duration of 15 minutes.*
See Appendix C to this report for noise measurements.

Project Site

Noise Monitoring Locations

0 100 200

Approximate Scale (feet)

N

Aerial source: Google Earth 2014.

POMEROY ENVIRONMENTAL SERVICES

Figure 3
Noise Monitoring Location Map

Construction Noise Impacts

Construction of the Project would require the use of heavy equipment for grading/site preparation, the installation of utilities, paving, and building construction. During each construction phase there would be a different mix of equipment operating and noise levels would vary based on the amount of equipment in operation and the location of each activity.

The U.S. Environmental Protection Agency (EPA) has compiled data regarding the noise generating characteristics of specific types of construction equipment and typical construction activities. The data pertaining to the types of construction equipment and activities that would occur at the Project Site are presented in Table 7, Noise Range of Typical Construction Equipment, and Table 8, Typical Outdoor Construction Noise Levels, respectively, at a distance of 50 feet from the noise source (i.e., reference distance).

Table 7
Noise Range of Typical Construction Equipment

Construction Equipment	Noise Level in dBA L_{eq} at 50 Feet [a]
Front Loader	73-86
Trucks	82-95
Cranes (moveable)	75-88
Cranes (derrick)	86-89
Vibrator	68-82
Saws	72-82
Pneumatic Impact Equipment	83-88
Jackhammers	81-98
Pumps	68-72
Generators	71-83
Compressors	75-87
Concrete Mixers	75-88
Concrete Pumps	81-85
Back Hoe	73-95
Tractor	77-98
Scraper/Grader	80-93
Paver	85-88

[a] *Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.*

Source: United States Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

Table 8
Typical Outdoor Construction Noise Levels

Construction Phase	Noise Levels at 50 Feet with Mufflers (dBA L_{eq})	Noise Levels at 60 Feet with Mufflers (dBA L_{eq})	Noise Levels at 100 Feet with Mufflers (dBA L_{eq})	Noise Levels at 200 Feet with Mufflers (dBA L_{eq})
Ground Clearing	82	80	76	70
Excavation, Grading	86	84	80	74
Foundations	77	75	71	65
Structural	83	81	77	71
Finishing	86	84	80	74

Source: United States Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

The noise levels shown in Table 7 represent composite noise levels associated with typical construction activities, which take into account both the number of pieces and spacing of heavy construction equipment that are typically used during each phase of construction. As shown, construction noise during the heavier initial periods of construction is presented as 86 dBA Leq when measured at a reference distance of 50 feet from the center of construction activity. These noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 84 dBA Leq measured at 50 feet from the noise source to the receptor would reduce to 78 dBA Leq at 100 feet from the source to the receptor, and reduce by another 6 dBA Leq to 72 dBA Leq at 200 feet from the source to the receptor. Thus, construction activities associated with the Project would be expected to generate noise levels consistent with these estimates at the surrounding noise-sensitive uses. It should be noted, however, that any increase in noise levels at off-site receptors during construction of the Project would be temporary in nature, and would not generate continuously high noise levels, although occasional single-event disturbances from construction are possible. In addition, the construction noise during the heavier initial periods of construction (i.e., grading work) would typically be reduced in the later construction phases (i.e., interior building construction at the proposed buildings) as the physical structure of the proposed structures would break the line-of-sight noise transmission from the construction areas to the nearby sensitive receptors.

The City does not have specific limitation on construction noise levels. Instead, construction noise is regulated by limiting construction activity to the less noise sensitive daytime hours. Specifically, as stated previously, Section 11.44.080 of the SCMC states no person shall engage in any construction work which requires a building permit from the City on sites within three hundred (300) feet of a residentially zoned property except between the hours of seven a.m. to seven p.m., Monday through Friday, and eight a.m. to six p.m. on Saturday. Further, no work shall be performed on the following public holidays: New Year's Day, Independence Day, Thanksgiving, Christmas, Memorial Day and Labor Day. Thus,

although construction activity would increase noise levels at the adjacent off-site sensitive receptors, the proposed construction activity would occur within the time confines set forth in the City's Noise Ordinance. Therefore, as Project construction activity would be consistent with the standards established in the City Noise Ordinance, construction noise impacts would be less than significant.

Operational Noise Impacts

The Project proposes the development of 11 single-family detached condominium homes with surface parking on 1.10 acres in the City's UR3 Zone, which allows for up to 11 dwelling units per acre. As such, the Project would be consistent with the intended build out and use of the Project Site identified in the City's General Plan and zoning code. As stated previously, the Noise Element identifies current noise conditions within the planning area, and projects future noise impacts resulting from continued growth allowed by the Land Use Element. Thus, because the Project would be consistent with the existing zoning and Land Use Element of the General Plan, the project would also be consistent with the planned future noise impacts resulting from general plan build-out. Operational noise impacts with respect to land use consistency would be less than significant.

With respect to existing noise sources in the vicinity of the Project Site, noise is primarily generated by the operations of the adjacent 1- and 2-story residential uses. These noise sources primarily include vehicular travel, access and parking along Walnut Street, landscape maintenance, and operation of HVAC units. As shown in Table 6 previously, ambient noise levels from these primary sources were measured at 54.6-54.8 dBA Leq. In addition to these primary noise sources, intermittent noise sources may include railroad operations more than 430 feet east of the nearest proposed residence, and operations of a soils amendment company located more than 150 feet east of the Project Site. During the collection of the ambient noise data noted above, the Metrolink passenger train passed by twice. Although the noise was distinct, the noise levels recorded were not materially impacted as noted in the measured noise levels above. In addition, noise levels from the soils amendment company were not audible during the ambient noise measurements. At distances of more than 430 feet and 150 feet, respectively, in combination with soft terrain and intervening barriers and vegetation, noise levels from these intermittent sources upon the proposed residences would not be substantive and these impacts would be less than significant.

With respect to the Project's stationary noise sources, mechanical HVAC equipment would be installed for the proposed residences at the Project Site. These noise sources would be consistent with the existing residential HVAC units operating in the vicinity of the Project Site. Furthermore, Section 11.44.070 of the SCMC states any noise level from the use or operation of any machinery, equipment, pump, fan, air conditioning apparatus, refrigerating equipment, motor vehicle, or other mechanical or electrical device, or in repairing or rebuilding any motor vehicle, which exceeds the noise limits as set forth in Section 11.44.040 at any property line, or, if a condominium or rental units, within any condominium unit or rental unit within the complex, shall be a violation of this chapter.

As such, compliance with Section 11.44.070 of the SCMC would ensure noise from stationary sources would be less than significant.

With respect to the Project's traffic noise, in order for a new noise source to be audible, there would need to be a 3 dBA or greater CNEL noise increase. As a general rule, the traffic volume on any given roadway would need to double in order for a 3 dBA increase in ambient noise to occur. Thus, if a project would result in traffic that is less than double the existing traffic, then the Project's mobile noise impacts can typically be assumed to be less than significant. According to the traffic assessment prepared for the Project,[4] the proposed development would result in a maximum increase of 105 daily vehicle trips, including 8 a.m. peak hour trips and 11 p.m. peak hour trips. Given the Project is an urban in-fill development, the existing environment is substantially built out on all frontages. Thus, the introduction of this volume of vehicular traffic would not have the potential to double existing traffic volumes on Walnut Street or any street in the vicinity of the Project Site. Therefore, because the Project would not have the potential to double the traffic volumes on any roadway segment in the vicinity of the Project Site, the Project would not have the potential to increase roadway noise levels by 3 dBA CNEL at any location. Thus, traffic generated noise impacts would be considered less than significant.

With respect to the Project's parking, noise would be generated by activities within the on-site surface parking areas associated with the Project. Sources of noise within the parking areas would include engines accelerating, doors slamming, car alarms, and people talking. Noise levels within the parking areas would fluctuate with the amount of automobile and human activity. It is anticipated that parking related noise would be substantially similar to the existing noise generated by existing roadway activity, street parking, and parking associated with the existing adjacent residential uses. As such, noise impacts associated with the Project's surface parking areas would be less than significant.

d-e) The Project would not be located within an airport land use plan, within two miles of a public airport, or within the vicinity of a private airstrip. The closest aviation facility is Whiteman Airport located approximately 11 miles to the south. Thus, the Project would not expose people to excessive aircraft noise levels. Therefore, no impact would occur.

[4] *See Traffic Assessment Potential Technical Memorandum – Trip Generation, Walnut Park Cottages Project, Newhall, California, prepared by Fehr & Peers, December 23, 2014.*

6.0 WATER QUALITY ANALYSIS

Consistent with Appendix G of the State CEQA Guidelines, a significant impact may occur if a project would:

a) Violate any water quality standards or waste discharge requirements
b) 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;
c) Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; and/or
d) Otherwise substantially degrade water quality.

Section 303 of the federal Clean Water Act requires states to develop water quality standards to protect the beneficial uses of receiving waters. In accordance with California's Porter/Cologne Act, the Regional Water Quality Control Boards (RWQCBs) of the State Water Resources Control Board (SWRCB) are required to develop water quality objectives that ensure their region meets the requirements of Section 303 of the Clean Water Act. The Project Site, located in Santa Clarita, is within the jurisdiction of the Los Angeles RWQCB and the following outlines a summary of the Project's regulatory compliance for project construction and operation.

Construction Impacts

Project construction activities have the potential to degrade water quality through the exposure of surface runoff (primarily rainfall) to exposed soils, dust, and other debris, as well as from runoff from construction equipment. Because the proposed construction site would be greater than one acre in size, construction activities associated with the Project would be required to meet the requirements for storm water quality contained in the Statewide General Permit for Stormwater Discharges Associated With Construction and Land Disturbance Activities (NPDES No. CAS000002, State Water Resources Control Board Order No. 2012-0006-DWQ, the "Statewide General Construction Permit"). In addition, construction associated with the Project would be subject to the requirements of the Los Angeles Regional Water Quality Control Board Order No. R4-2012-0175, NPDES No. CAS00400, effective December 28, 2012, Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County (the "Los Angeles County MS4 Permit"), which controls the quality of runoff entering municipal storm drains in the County. Section VI.D.8, of this Permit, Development Construction Program, requires Permittees (which include the City of Santa Clarita) to enforce implementation of Best Management Practices (BMPs), including, but not limited to, approval of an Erosion and Sediment Control Plan (ESCP) for all construction activities within their jurisdiction. Accordingly, the construction contractor for the Project would be required to implement BMPs that would meet or exceed local, State, and Federal mandated guidelines for storm

water treatment to control erosion and to protect the quality of surface water runoff during the construction period. BMPs utilized include disposing of waste in accordance with all applicable laws and regulations; cleaning up leaks, drips, and spills immediately; conducting street sweeping during construction activities; stabilizing disturbed soil area; covering trucks; keeping construction equipment in good working order; installing and maintaining a stabilized construction entrance; providing perimeter sediment control; and installing sediment traps or basins during construction activities. Under existing regulations, as the Project Site is over one acre in size, the contractor will file a Notice of Intent (NOI) with the State Water Resources Control Board and prepare a Storm Water Pollution Prevention Plan (SWPPP) before the start of any construction activity. Implementation of the BMPs in the Project SWPPP and compliance with the City's discharge requirements will ensure that project construction will not violate any water quality standards or discharge requirements or otherwise substantially degrade water quality. Adherence to these regulations will ensure that project-related water quality impacts during construction will be less than significant.

Operational Impacts

The primary source of operation-related water pollutants will be from the deposition of certain chemicals by cars in the parking areas and on internal driveway surfaces. Chemicals that vehicles typically contribute to the storm drain system include metals, oil and grease, solvents, phosphates, hydrocarbons, and suspended solids. With respect to runoff water quality during operation of the Project, Los Angeles County and all cities within LA County (except for the City of Long Beach) are permittees under the Los Angeles County MS4 Permit, as described above. Section VI.D.7 of this Permit, Planning and Land Development Program, is applicable to, among others, development projects equal to one acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area and would thus apply to the Project. This Program requires, among other things, that projects retain on site the runoff volume from: (a) the .75 inch, 24-hour rain event; or (b) the 85th percentile, 24-hour rain event, as determined from the Los Angeles County 85th percentile precipitation isohyetal map, whichever is greater. The Project would also be subject to the BMP requirements of the Standard Urban Stormwater Mitigation Plan (SUSMP) adopted by the Regional Water Quality Control Board for the Los Angeles Region. As a permittee, the City of Santa Clarita is responsible for implementing the requirements of the County-wide SUSMP within the City. In compliance with the MS4 Permit and SUSMP requirements, the Project would be required to either retain and percolate stormwater flows on-site, or store and reuse storm water on-site for beneficial purposes. If percolation on-site would not be allowed due to underlying soils lacking the necessary infiltration rates to support infiltration, or because of the potential for infiltrated rain water to cause migration of underground contaminants, the Project would be required to treat and/or filter stormwater runoff through biofiltration before it enters the stormwater drainage system. Any system incorporated into the Project must follow specific design requirements set forth in the MS4 permit and must be approved by the City. Adherence to the requirements of the MS4 Permit and SUSMP would ensure that potential impacts associated with water quality would be less than significant.

7.0 CONCLUSION

The Project proposes the development of 11 single-family detached condominium homes with surface parking on 1.10 acres at 24982 Walnut Street in the City of Santa Clarita. As outlined in the preceding sections herein, the Project would not have the potential to result in any significant effects relating to air quality, greenhouse gases, noise, and water quality. As such, the Project would meet the criteria established for a Class 32 Categorical Exemption from CEQA (see Section 15332(d) of the State CEQA Guidelines).

APPENDIX A

Air Quality Calculations

Walnut Park Cottages

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	12.00	Dwelling Unit	0.79	21,600.00	34
Parking Lot	13.70	1000sqft	0.31	13,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2015
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Site is approximately 1.10 acres.

Construction Phase - custom construction schedule from applicant.

Off-road Equipment - assume all equipment operates for 8 hours per day.

Off-road Equipment - assume all equipment operates for 8 hours per day.

Off-road Equipment -

Off-road Equipment -

Grading - 1,320 cy of soil import

Vehicle Trips - Project trips per traffic assessment.

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	200.00	133.00
tblConstructionPhase	NumDays	4.00	21.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	PhaseEndDate	10/19/2015	9/16/2015
tblConstructionPhase	PhaseEndDate	9/11/2015	9/16/2015
tblConstructionPhase	PhaseEndDate	10/19/2015	9/16/2015
tblConstructionPhase	PhaseStartDate	9/17/2015	8/17/2015
tblConstructionPhase	PhaseStartDate	3/11/2015	3/16/2015
tblConstructionPhase	PhaseStartDate	9/17/2015	8/17/2015
tblGrading	AcresOfGrading	10.50	1.50
tblGrading	MaterialImported	0.00	1,320.00
tblLandUse	LotAcreage	3.90	0.79
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblVehicleTrips	ST_TR	10.08	9.50
tblVehicleTrips	SU_TR	8.77	9.50
tblVehicleTrips	WD_TR	9.57	9.50

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					
2015	12.4453	39.1326	25.8248	0.0396	6.3312	2.5043	7.9243	3.3807	2.3655	4.8463	0.0000	3,926.9737	3,926.9737	0.9010	0.0000	3,945.8945
Total	**12.4453**	**39.1326**	**25.8248**	**0.0396**	**6.3312**	**2.5043**	**7.9243**	**3.3807**	**2.3655**	**4.8463**	**0.0000**	**3,926.9737**	**3,926.9737**	**0.9010**	**0.0000**	**3,945.8945**

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					
2015	12.4453	39.1326	25.8248	0.0396	2.6072	2.5043	4.2002	1.3558	2.3655	2.8214	0.0000	3,926.9737	3,926.9737	0.9010	0.0000	3,945.8945
Total	**12.4453**	**39.1326**	**25.8248**	**0.0396**	**2.6072**	**2.5043**	**4.2002**	**1.3558**	**2.3655**	**2.8214**	**0.0000**	**3,926.9737**	**3,926.9737**	**0.9010**	**0.0000**	**3,945.8945**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**58.82**	**0.00**	**47.00**	**59.90**	**0.00**	**41.78**	**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	3.9247	0.0917	7.0417	9.6500e-003		0.9221	0.9221		0.9219	0.9219	112.4030	217.7856	330.1887	0.3371	7.6300e-003	339.6321
Energy	0.0106	0.0903	0.0384	5.8000e-004		7.3000e-003	7.3000e-003		7.3000e-003	7.3000e-003		115.2655	115.2655	2.2100e-003	2.1100e-003	115.9670
Mobile	0.5123	1.4950	5.8103	0.0120	0.8268	0.0216	0.8484	0.2210	0.0198	0.2409		1,084.5917	1,084.5917	0.0496		1,085.6342
Total	**4.4476**	**1.6770**	**12.8905**	**0.0222**	**0.8268**	**0.9510**	**1.7777**	**0.2210**	**0.9491**	**1.1701**	**112.4030**	**1,417.6428**	**1,530.0459**	**0.3889**	**9.7400e-003**	**1,541.2333**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8012	0.0119	1.0112	5.0000e-005		0.0199	0.0199		0.0197	0.0197	0.0000	230.4915	230.4915	6.2500e-003	4.1900e-003	231.9225
Energy	0.0106	0.0903	0.0384	5.8000e-004		7.3000e-003	7.3000e-003		7.3000e-003	7.3000e-003		115.2655	115.2655	2.2100e-003	2.1100e-003	115.9670
Mobile	0.5123	1.4950	5.8103	0.0120	0.8268	0.0216	0.8484	0.2210	0.0198	0.2409		1,084.5917	1,084.5917	0.0496		1,085.6342
Total	**1.3241**	**1.5972**	**6.8599**	**0.0126**	**0.8268**	**0.0488**	**0.8756**	**0.2210**	**0.0469**	**0.2679**	**0.0000**	**1,430.3487**	**1,430.3487**	**0.0581**	**6.3000e-003**	**1,433.5237**

	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	N20	CO2e
Percent Reduction	70.23	4.76	46.78	43.24	0.00	94.87	50.75	0.00	95.06	77.10	100.00	-0.90	6.52	85.06	35.32	6.99

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading/Site Preparation	Grading	2/10/2015	3/10/2015	5	21	
2	Building Construction	Building Construction	3/16/2015	9/16/2015	5	133	
3	Paving	Paving	8/17/2015	9/16/2015	5	23	
4	Architectural Coating	Architectural Coating	8/17/2015	9/16/2015	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 43,740; Residential Outdoor: 14,580; Non-Residential Indoor: 617; Non-Residential Outdoor: 206 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Paving	Pavers	1	6.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Grading/Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading/Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading/Site Preparation	Graders	1	8.00	174	0.41
Paving	Paving Equipment	1	8.00	130	0.36
Building Construction	Welders	1	8.00	46	0.45

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
Grading/Site Preparation	3	8.00	0.00	165.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	10.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Grading/Site Preparation - 2015

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					6.1049	0.0000	6.1049	3.3195	0.0000	3.3195			0.0000			0.0000
Off-Road	2.6954	28.6870	18.3827	0.0183		1.5510	1.5510		1.4269	1.4269		1,918.4854	1,918.4854	0.5728		1,930.5131
Total	**2.6954**	**28.6870**	**18.3827**	**0.0183**	**6.1049**	**1.5510**	**7.6559**	**3.3195**	**1.4269**	**4.7464**		**1,918.4854**	**1,918.4854**	**0.5728**		**1,930.5131**

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	0.1671	2.5808	1.9479	5.8600e-003	0.1368	0.0412	0.1780	0.0375	0.0379	0.0754		596.6007	596.6007	4.9200e-003		596.7040
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	0.0411	0.0550	0.5764	1.1000e-003	0.0894	8.9000e-004	0.0903	0.0237	8.2000e-004	0.0245		96.0086	96.0086	5.8000e-003		96.1305
Total	**0.2082**	**2.6358**	**2.5243**	**6.9600e-003**	**0.2262**	**0.0421**	**0.2684**	**0.0612**	**0.0388**	**0.0999**		**692.6093**	**692.6093**	**0.0107**		**692.8345**

3.2 Grading/Site Preparation - 2015

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					2.3809	0.0000	2.3809	1.2946	0.0000	1.2946			0.0000			0.0000
Off-Road	2.6954	28.6870	18.3827	0.0183		1.5510	1.5510		1.4269	1.4269	0.0000	1,918.4854	1,918.4854	0.5728		1,930.5131
Total	**2.6954**	**28.6870**	**18.3827**	**0.0183**	**2.3809**	**1.5510**	**3.9319**	**1.2946**	**1.4269**	**2.7215**	**0.0000**	**1,918.4854**	**1,918.4854**	**0.5728**		**1,930.5131**

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	0.1671	2.5808	1.9479	5.8600e-003	0.1368	0.0412	0.1780	0.0375	0.0379	0.0754		596.6007	596.6007	4.9200e-003		596.7040
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	0.0411	0.0550	0.5764	1.1000e-003	0.0894	8.9000e-004	0.0903	0.0237	8.2000e-004	0.0245		96.0086	96.0086	5.8000e-003		96.1305
Total	**0.2082**	**2.6358**	**2.5243**	**6.9600e-003**	**0.2262**	**0.0421**	**0.2684**	**0.0612**	**0.0388**	**0.0999**		**692.6093**	**692.6093**	**0.0107**		**692.8345**

3.3 Building Construction - 2015

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	2.6838	21.4094	12.6350	0.0194		1.3823	1.3823		1.3147	1.3147		1,910.7204	1,910.7204	0.4423		1,920.0086
Total	**2.6838**	**21.4094**	**12.6350**	**0.0194**		**1.3823**	**1.3823**		**1.3147**	**1.3147**		**1,910.7204**	**1,910.7204**	**0.4423**		**1,920.0086**

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	0.0424	0.4057	0.5336	8.7000e-004	0.0249	6.7100e-003	0.0317	7.0900e-003	6.1700e-003	0.0133		88.3114	88.3114	7.3000e-004		88.3268
Worker	0.0514	0.0688	0.7205	1.3700e-003	0.1118	1.1200e-003	0.1129	0.0296	1.0200e-003	0.0307		120.0108	120.0108	7.2600e-003		120.1631
Total	**0.0938**	**0.4745**	**1.2541**	**2.2400e-003**	**0.1367**	**7.8300e-003**	**0.1445**	**0.0367**	**7.1900e-003**	**0.0439**		**208.3221**	**208.3221**	**7.9900e-003**		**208.4899**

3.3 Building Construction - 2015

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	2.6838	21.4094	12.6350	0.0194		1.3823	1.3823		1.3147	1.3147	0.0000	1,910.7204	1,910.7204	0.4423		1,920.0086
Total	**2.6838**	**21.4094**	**12.6350**	**0.0194**		**1.3823**	**1.3823**		**1.3147**	**1.3147**	**0.0000**	**1,910.7204**	**1,910.7204**	**0.4423**		**1,920.0086**

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	0.0424	0.4057	0.5336	8.7000e-004	0.0249	6.7100e-003	0.0317	7.0900e-003	6.1700e-003	0.0133		88.3114	88.3114	7.3000e-004		88.3268
Worker	0.0514	0.0688	0.7205	1.3700e-003	0.1118	1.1200e-003	0.1129	0.0296	1.0200e-003	0.0307		120.0108	120.0108	7.2600e-003		120.1631
Total	**0.0938**	**0.4745**	**1.2541**	**2.2400e-003**	**0.1367**	**7.8300e-003**	**0.1445**	**0.0367**	**7.1900e-003**	**0.0439**		**208.3221**	**208.3221**	**7.9900e-003**		**208.4899**

3.4 Paving - 2015

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	1.4041	14.5959	9.1695	0.0133		0.8919	0.8919		0.8215	0.8215		1,382.4703	1,382.4703	0.4054		1,390.9826
Paving	0.0353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4394**	**14.5959**	**9.1695**	**0.0133**		**0.8919**	**0.8919**		**0.8215**	**0.8215**		**1,382.4703**	**1,382.4703**	**0.4054**		**1,390.9826**

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	0.0514	0.0688	0.7205	1.3700e-003	0.1118	1.1200e-003	0.1129	0.0296	1.0200e-003	0.0307		120.0108	120.0108	7.2600e-003		120.1631
Total	**0.0514**	**0.0688**	**0.7205**	**1.3700e-003**	**0.1118**	**1.1200e-003**	**0.1129**	**0.0296**	**1.0200e-003**	**0.0307**		**120.0108**	**120.0108**	**7.2600e-003**		**120.1631**

3.4 Paving - 2015

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	1.4041	14.5959	9.1695	0.0133		0.8919	0.8919		0.8215	0.8215	0.0000	1,382.4703	1,382.4703	0.4054		1,390.9826
Paving	0.0353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4394**	**14.5959**	**9.1695**	**0.0133**		**0.8919**	**0.8919**		**0.8215**	**0.8215**	**0.0000**	**1,382.4703**	**1,382.4703**	**0.4054**		**1,390.9826**

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	0.0514	0.0688	0.7205	1.3700e-003	0.1118	1.1200e-003	0.1129	0.0296	1.0200e-003	0.0307		120.0108	120.0108	7.2600e-003		120.1631
Total	**0.0514**	**0.0688**	**0.7205**	**1.3700e-003**	**0.1118**	**1.1200e-003**	**0.1129**	**0.0296**	**1.0200e-003**	**0.0307**		**120.0108**	**120.0108**	**7.2600e-003**		**120.1631**

3.5 Architectural Coating - 2015

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	7.7601					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177
Total	**8.1667**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**		**281.4481**	**281.4481**	**0.0367**		**282.2177**

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	0.0103	0.0138	0.1441	2.7000e-004	0.0224	2.2000e-004	0.0226	5.9300e-003	2.0000e-004	6.1300e-003		24.0022	24.0022	1.4500e-003		24.0326
Total	**0.0103**	**0.0138**	**0.1441**	**2.7000e-004**	**0.0224**	**2.2000e-004**	**0.0226**	**5.9300e-003**	**2.0000e-004**	**6.1300e-003**		**24.0022**	**24.0022**	**1.4500e-003**		**24.0326**

3.5 Architectural Coating - 2015

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	7.7601					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209	0.0000	281.4481	281.4481	0.0367		282.2177
Total	**8.1667**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**	**0.0000**	**281.4481**	**281.4481**	**0.0367**		**282.2177**

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	0.0103	0.0138	0.1441	2.7000e-004	0.0224	2.2000e-004	0.0226	5.9300e-003	2.0000e-004	6.1300e-003		24.0022	24.0022	1.4500e-003		24.0326
Total	**0.0103**	**0.0138**	**0.1441**	**2.7000e-004**	**0.0224**	**2.2000e-004**	**0.0226**	**5.9300e-003**	**2.0000e-004**	**6.1300e-003**		**24.0022**	**24.0022**	**1.4500e-003**		**24.0326**

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	0.5123	1.4950	5.8103	0.0120	0.8268	0.0216	0.8484	0.2210	0.0198	0.2409		1,084.5917	1,084.5917	0.0496		1,085.6342
Unmitigated	0.5123	1.4950	5.8103	0.0120	0.8268	0.0216	0.8484	0.2210	0.0198	0.2409		1,084.5917	1,084.5917	0.0496		1,085.6342

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	114.00	114.00	114.00	389,555	389,555
Total	114.00	114.00	114.00	389,555	389,555

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534619	0.058604	0.178185	0.126004	0.038986	0.006286	0.016079	0.029769	0.002429	0.003158	0.003693	0.000543	0.001646

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	0.0106	0.0903	0.0384	5.8000e-004		7.3000e-003	7.3000e-003		7.3000e-003	7.3000e-003		115.2655	115.2655	2.2100e-003	2.1100e-003	115.9670
NaturalGas Unmitigated	0.0106	0.0903	0.0384	5.8000e-004		7.3000e-003	7.3000e-003		7.3000e-003	7.3000e-003		115.2655	115.2655	2.2100e-003	2.1100e-003	115.9670

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					
Parking Lot	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
Single Family Housing	979.757	0.0106	0.0903	0.0384	5.8000e-004		7.3000e-003	7.3000e-003		7.3000e-003	7.3000e-003		115.2655	115.2655	2.2100e-003	2.1100e-003	115.9670
Total		**0.0106**	**0.0903**	**0.0384**	**5.8000e-004**		**7.3000e-003**	**7.3000e-003**		**7.3000e-003**	**7.3000e-003**		**115.2655**	**115.2655**	**2.2100e-003**	**2.1100e-003**	**115.9670**

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					
Single Family Housing	0.979757	0.0106	0.0903	0.0384	5.8000e-004		7.3000e-003	7.3000e-003		7.3000e-003	7.3000e-003		115.2655	115.2655	2.2100e-003	2.1100e-003	115.9670
Parking Lot	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		**0.0106**	**0.0903**	**0.0384**	**5.8000e-004**		**7.3000e-003**	**7.3000e-003**		**7.3000e-003**	**7.3000e-003**		**115.2655**	**115.2655**	**2.2100e-003**	**2.1100e-003**	**115.9670**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	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	0.8012	0.0119	1.0112	5.0000e-005		0.0199	0.0199		0.0197	0.0197	0.0000	230.4915	230.4915	6.2500e-003	4.1900e-003	231.9225
Unmitigated	3.9247	0.0917	7.0417	9.6500e-003		0.9221	0.9221		0.9219	0.9219	112.4030	217.7856	330.1887	0.3371	7.6300e-003	339.6321

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	0.0489					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6989					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.1444	0.0798	6.0317	9.6000e-003		0.9167	0.9167		0.9165	0.9165	112.4030	216.0000	328.4030	0.3352	7.6300e-003	337.8074
Landscaping	0.0324	0.0119	1.0100	5.0000e-005		5.4100e-003	5.4100e-003		5.4100e-003	5.4100e-003		1.7856	1.7856	1.8600e-003		1.8247
Total	**3.9247**	**0.0917**	**7.0417**	**9.6500e-003**		**0.9221**	**0.9221**		**0.9219**	**0.9219**	**112.4030**	**217.7856**	**330.1887**	**0.3371**	**7.6300e-003**	**339.6322**

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	0.0489					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6989					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0210	0.0000	1.1400e-003	0.0000		0.0145	0.0145		0.0143	0.0143	0.0000	228.7059	228.7059	4.3800e-003	4.1900e-003	230.0978
Landscaping	0.0324	0.0119	1.0100	5.0000e-005		5.4100e-003	5.4100e-003		5.4100e-003	5.4100e-003		1.7856	1.7856	1.8600e-003		1.8247
Total	**0.8012**	**0.0119**	**1.0112**	**5.0000e-005**		**0.0199**	**0.0199**		**0.0197**	**0.0197**	**0.0000**	**230.4915**	**230.4915**	**6.2400e-003**	**4.1900e-003**	**231.9225**

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

Walnut Park Cottages

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	12.00	Dwelling Unit	0.79	21,600.00	34
Parking Lot	13.70	1000sqft	0.31	13,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2015
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Site is approximately 1.10 acres.

Construction Phase - custom construction schedule from applicant.

Off-road Equipment - assume all equipment operates for 8 hours per day.

Off-road Equipment - assume all equipment operates for 8 hours per day.

Off-road Equipment -

Off-road Equipment -

Grading - 1,320 cy of soil import

Vehicle Trips - Project trips per traffic assessment.

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	200.00	133.00
tblConstructionPhase	NumDays	4.00	21.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	PhaseEndDate	10/19/2015	9/16/2015
tblConstructionPhase	PhaseEndDate	9/11/2015	9/16/2015
tblConstructionPhase	PhaseEndDate	10/19/2015	9/16/2015
tblConstructionPhase	PhaseStartDate	9/17/2015	8/17/2015
tblConstructionPhase	PhaseStartDate	3/11/2015	3/16/2015
tblConstructionPhase	PhaseStartDate	9/17/2015	8/17/2015
tblGrading	AcresOfGrading	10.50	1.50
tblGrading	MaterialImported	0.00	1,320.00
tblLandUse	LotAcreage	3.90	0.79
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblVehicleTrips	ST_TR	10.08	9.50
tblVehicleTrips	SU_TR	8.77	9.50
tblVehicleTrips	WD_TR	9.57	9.50

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					
2015	12.4366	39.1076	25.8324	0.0398	6.3312	2.5042	7.9241	3.3807	2.3654	4.8462	0.0000	3,943.3989	3,943.3989	0.9010	0.0000	3,962.3193
Total	**12.4366**	**39.1076**	**25.8324**	**0.0398**	**6.3312**	**2.5042**	**7.9241**	**3.3807**	**2.3654**	**4.8462**	**0.0000**	**3,943.3989**	**3,943.3989**	**0.9010**	**0.0000**	**3,962.3193**

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					
2015	12.4366	39.1076	25.8324	0.0398	2.6072	2.5042	4.2001	1.3558	2.3654	2.8213	0.0000	3,943.3989	3,943.3989	0.9010	0.0000	3,962.3193
Total	**12.4366**	**39.1076**	**25.8324**	**0.0398**	**2.6072**	**2.5042**	**4.2001**	**1.3558**	**2.3654**	**2.8213**	**0.0000**	**3,943.3989**	**3,943.3989**	**0.9010**	**0.0000**	**3,962.3193**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**58.82**	**0.00**	**47.00**	**59.90**	**0.00**	**41.78**	**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	3.9247	0.0917	7.0417	9.6500e-003		0.9221	0.9221		0.9219	0.9219	112.4030	217.7856	330.1887	0.3371	7.6300e-003	339.6321
Energy	0.0106	0.0903	0.0384	5.8000e-004		7.3000e-003	7.3000e-003		7.3000e-003	7.3000e-003		115.2655	115.2655	2.2100e-003	2.1100e-003	115.9670
Mobile	0.4875	1.4164	5.8459	0.0125	0.8268	0.0215	0.8483	0.2210	0.0197	0.2408		1,134.9082	1,134.9082	0.0496		1,135.9501
Total	**4.4227**	**1.5984**	**12.9261**	**0.0228**	**0.8268**	**0.9508**	**1.7776**	**0.2210**	**0.9489**	**1.1700**	**112.4030**	**1,467.9594**	**1,580.3624**	**0.3889**	**9.7400e-003**	**1,591.5492**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8012	0.0119	1.0112	5.0000e-005		0.0199	0.0199		0.0197	0.0197	0.0000	230.4915	230.4915	6.2500e-003	4.1900e-003	231.9225
Energy	0.0106	0.0903	0.0384	5.8000e-004		7.3000e-003	7.3000e-003		7.3000e-003	7.3000e-003		115.2655	115.2655	2.2100e-003	2.1100e-003	115.9670
Mobile	0.4875	1.4164	5.8459	0.0125	0.8268	0.0215	0.8483	0.2210	0.0197	0.2408		1,134.9082	1,134.9082	0.0496		1,135.9501
Total	**1.2992**	**1.5186**	**6.8955**	**0.0132**	**0.8268**	**0.0487**	**0.8754**	**0.2210**	**0.0468**	**0.2678**	**0.0000**	**1,480.6653**	**1,480.6653**	**0.0581**	**6.3000e-003**	**1,483.8396**

	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	N20	CO2e
Percent Reduction	70.62	4.99	46.65	42.16	0.00	94.88	50.75	0.00	95.07	77.11	100.00	-0.87	6.31	85.07	35.32	6.77

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading/Site Preparation	Grading	2/10/2015	3/10/2015	5	21	
2	Building Construction	Building Construction	3/16/2015	9/16/2015	5	133	
3	Paving	Paving	8/17/2015	9/16/2015	5	23	
4	Architectural Coating	Architectural Coating	8/17/2015	9/16/2015	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 43,740; Residential Outdoor: 14,580; Non-Residential Indoor: 617; Non-Residential Outdoor: 206 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Paving	Pavers	1	6.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Grading/Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading/Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading/Site Preparation	Graders	1	8.00	174	0.41
Paving	Paving Equipment	1	8.00	130	0.36
Building Construction	Welders	1	8.00	46	0.45

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
Grading/Site Preparation	3	8.00	0.00	165.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	10.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Grading/Site Preparation - 2015

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					6.1049	0.0000	6.1049	3.3195	0.0000	3.3195			0.0000			0.0000
Off-Road	2.6954	28.6870	18.3827	0.0183		1.5510	1.5510		1.4269	1.4269		1,918.4854	1,918.4854	0.5728		1,930.5131
Total	**2.6954**	**28.6870**	**18.3827**	**0.0183**	**6.1049**	**1.5510**	**7.6559**	**3.3195**	**1.4269**	**4.7464**		**1,918.4854**	**1,918.4854**	**0.5728**		**1,930.5131**

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	0.1573	2.4930	1.6995	5.8700e-003	0.1368	0.0411	0.1779	0.0375	0.0378	0.0753		598.0006	598.0006	4.8600e-003		598.1027
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	0.0395	0.0496	0.6117	1.1600e-003	0.0894	8.9000e-004	0.0903	0.0237	8.2000e-004	0.0245		101.7137	101.7137	5.8000e-003		101.8356
Total	**0.1967**	**2.5426**	**2.3112**	**7.0300e-003**	**0.2262**	**0.0420**	**0.2682**	**0.0612**	**0.0386**	**0.0998**		**699.7143**	**699.7143**	**0.0107**		**699.9383**

3.2 Grading/Site Preparation - 2015

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					2.3809	0.0000	2.3809	1.2946	0.0000	1.2946			0.0000			0.0000
Off-Road	2.6954	28.6870	18.3827	0.0183		1.5510	1.5510		1.4269	1.4269	0.0000	1,918.4854	1,918.4854	0.5728		1,930.5131
Total	**2.6954**	**28.6870**	**18.3827**	**0.0183**	**2.3809**	**1.5510**	**3.9319**	**1.2946**	**1.4269**	**2.7215**	**0.0000**	**1,918.4854**	**1,918.4854**	**0.5728**		**1,930.5131**

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	0.1573	2.4930	1.6995	5.8700e-003	0.1368	0.0411	0.1779	0.0375	0.0378	0.0753		598.0006	598.0006	4.8600e-003		598.1027
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	0.0395	0.0496	0.6117	1.1600e-003	0.0894	8.9000e-004	0.0903	0.0237	8.2000e-004	0.0245		101.7137	101.7137	5.8000e-003		101.8356
Total	**0.1967**	**2.5426**	**2.3112**	**7.0300e-003**	**0.2262**	**0.0420**	**0.2682**	**0.0612**	**0.0386**	**0.0998**		**699.7143**	**699.7143**	**0.0107**		**699.9383**

3.3 Building Construction - 2015

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	2.6838	21.4094	12.6350	0.0194		1.3823	1.3823		1.3147	1.3147		1,910.7204	1,910.7204	0.4423		1,920.0086
Total	**2.6838**	**21.4094**	**12.6350**	**0.0194**		**1.3823**	**1.3823**		**1.3147**	**1.3147**		**1,910.7204**	**1,910.7204**	**0.4423**		**1,920.0086**

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	0.0383	0.3955	0.4441	8.8000e-004	0.0249	6.6300e-003	0.0316	7.0900e-003	6.1000e-003	0.0132		89.0475	89.0475	7.1000e-004		89.0625
Worker	0.0493	0.0620	0.7646	1.4500e-003	0.1118	1.1200e-003	0.1129	0.0296	1.0200e-003	0.0307		127.1422	127.1422	7.2600e-003		127.2945
Total	**0.0876**	**0.4575**	**1.2087**	**2.3300e-003**	**0.1367**	**7.7500e-003**	**0.1445**	**0.0367**	**7.1200e-003**	**0.0439**		**216.1897**	**216.1897**	**7.9700e-003**		**216.3570**

3.3 Building Construction - 2015

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	2.6838	21.4094	12.6350	0.0194		1.3823	1.3823		1.3147	1.3147	0.0000	1,910.7204	1,910.7204	0.4423		1,920.0086
Total	**2.6838**	**21.4094**	**12.6350**	**0.0194**		**1.3823**	**1.3823**		**1.3147**	**1.3147**	**0.0000**	**1,910.7204**	**1,910.7204**	**0.4423**		**1,920.0086**

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	0.0383	0.3955	0.4441	8.8000e-004	0.0249	6.6300e-003	0.0316	7.0900e-003	6.1000e-003	0.0132		89.0475	89.0475	7.1000e-004		89.0625
Worker	0.0493	0.0620	0.7646	1.4500e-003	0.1118	1.1200e-003	0.1129	0.0296	1.0200e-003	0.0307		127.1422	127.1422	7.2600e-003		127.2945
Total	**0.0876**	**0.4575**	**1.2087**	**2.3300e-003**	**0.1367**	**7.7500e-003**	**0.1445**	**0.0367**	**7.1200e-003**	**0.0439**		**216.1897**	**216.1897**	**7.9700e-003**		**216.3570**

3.4 Paving - 2015

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	1.4041	14.5959	9.1695	0.0133		0.8919	0.8919		0.8215	0.8215		1,382.4703	1,382.4703	0.4054		1,390.9826
Paving	0.0353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4394**	**14.5959**	**9.1695**	**0.0133**		**0.8919**	**0.8919**		**0.8215**	**0.8215**		**1,382.4703**	**1,382.4703**	**0.4054**		**1,390.9826**

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	0.0493	0.0620	0.7646	1.4500e-003	0.1118	1.1200e-003	0.1129	0.0296	1.0200e-003	0.0307		127.1422	127.1422	7.2600e-003		127.2945
Total	**0.0493**	**0.0620**	**0.7646**	**1.4500e-003**	**0.1118**	**1.1200e-003**	**0.1129**	**0.0296**	**1.0200e-003**	**0.0307**		**127.1422**	**127.1422**	**7.2600e-003**		**127.2945**

3.4 Paving - 2015

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	1.4041	14.5959	9.1695	0.0133		0.8919	0.8919		0.8215	0.8215	0.0000	1,382.4703	1,382.4703	0.4054		1,390.9826
Paving	0.0353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4394**	**14.5959**	**9.1695**	**0.0133**		**0.8919**	**0.8919**		**0.8215**	**0.8215**	**0.0000**	**1,382.4703**	**1,382.4703**	**0.4054**		**1,390.9826**

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	0.0493	0.0620	0.7646	1.4500e-003	0.1118	1.1200e-003	0.1129	0.0296	1.0200e-003	0.0307		127.1422	127.1422	7.2600e-003		127.2945
Total	**0.0493**	**0.0620**	**0.7646**	**1.4500e-003**	**0.1118**	**1.1200e-003**	**0.1129**	**0.0296**	**1.0200e-003**	**0.0307**		**127.1422**	**127.1422**	**7.2600e-003**		**127.2945**

3.5 Architectural Coating - 2015

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	7.7601					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177
Total	**8.1667**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**		**281.4481**	**281.4481**	**0.0367**		**282.2177**

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	9.8600e-003	0.0124	0.1529	2.9000e-004	0.0224	2.2000e-004	0.0226	5.9300e-003	2.0000e-004	6.1300e-003		25.4284	25.4284	1.4500e-003		25.4589
Total	**9.8600e-003**	**0.0124**	**0.1529**	**2.9000e-004**	**0.0224**	**2.2000e-004**	**0.0226**	**5.9300e-003**	**2.0000e-004**	**6.1300e-003**		**25.4284**	**25.4284**	**1.4500e-003**		**25.4589**

3.5 Architectural Coating - 2015

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	7.7601					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209	0.0000	281.4481	281.4481	0.0367		282.2177
Total	**8.1667**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**	**0.0000**	**281.4481**	**281.4481**	**0.0367**		**282.2177**

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	9.8600e-003	0.0124	0.1529	2.9000e-004	0.0224	2.2000e-004	0.0226	5.9300e-003	2.0000e-004	6.1300e-003		25.4284	25.4284	1.4500e-003		25.4589
Total	**9.8600e-003**	**0.0124**	**0.1529**	**2.9000e-004**	**0.0224**	**2.2000e-004**	**0.0226**	**5.9300e-003**	**2.0000e-004**	**6.1300e-003**		**25.4284**	**25.4284**	**1.4500e-003**		**25.4589**

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	0.4875	1.4164	5.8459	0.0125	0.8268	0.0215	0.8483	0.2210	0.0197	0.2408		1,134.9082	1,134.9082	0.0496		1,135.9501
Unmitigated	0.4875	1.4164	5.8459	0.0125	0.8268	0.0215	0.8483	0.2210	0.0197	0.2408		1,134.9082	1,134.9082	0.0496		1,135.9501

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	114.00	114.00	114.00	389,555	389,555
Total	114.00	114.00	114.00	389,555	389,555

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534619	0.058604	0.178185	0.126004	0.038986	0.006286	0.016079	0.029769	0.002429	0.003158	0.003693	0.000543	0.001646

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	0.0106	0.0903	0.0384	5.8000e-004		7.3000e-003	7.3000e-003		7.3000e-003	7.3000e-003		115.2655	115.2655	2.2100e-003	2.1100e-003	115.9670
NaturalGas Unmitigated	0.0106	0.0903	0.0384	5.8000e-004		7.3000e-003	7.3000e-003		7.3000e-003	7.3000e-003		115.2655	115.2655	2.2100e-003	2.1100e-003	115.9670

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					
Parking Lot	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
Single Family Housing	979.757	0.0106	0.0903	0.0384	5.8000e-004		7.3000e-003	7.3000e-003		7.3000e-003	7.3000e-003		115.2655	115.2655	2.2100e-003	2.1100e-003	115.9670
Total		**0.0106**	**0.0903**	**0.0384**	**5.8000e-004**		**7.3000e-003**	**7.3000e-003**		**7.3000e-003**	**7.3000e-003**		**115.2655**	**115.2655**	**2.2100e-003**	**2.1100e-003**	**115.9670**

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					
Single Family Housing	0.979757	0.0106	0.0903	0.0384	5.8000e-004		7.3000e-003	7.3000e-003		7.3000e-003	7.3000e-003		115.2655	115.2655	2.2100e-003	2.1100e-003	115.9670
Parking Lot	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		**0.0106**	**0.0903**	**0.0384**	**5.8000e-004**		**7.3000e-003**	**7.3000e-003**		**7.3000e-003**	**7.3000e-003**		**115.2655**	**115.2655**	**2.2100e-003**	**2.1100e-003**	**115.9670**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	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	0.8012	0.0119	1.0112	5.0000e-005		0.0199	0.0199		0.0197	0.0197	0.0000	230.4915	230.4915	6.2500e-003	4.1900e-003	231.9225
Unmitigated	3.9247	0.0917	7.0417	9.6500e-003		0.9221	0.9221		0.9219	0.9219	112.4030	217.7856	330.1887	0.3371	7.6300e-003	339.6321

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	0.0489					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6989					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.1444	0.0798	6.0317	9.6000e-003		0.9167	0.9167		0.9165	0.9165	112.4030	216.0000	328.4030	0.3352	7.6300e-003	337.8074
Landscaping	0.0324	0.0119	1.0100	5.0000e-005		5.4100e-003	5.4100e-003		5.4100e-003	5.4100e-003		1.7856	1.7856	1.8600e-003		1.8247
Total	**3.9247**	**0.0917**	**7.0417**	**9.6500e-003**		**0.9221**	**0.9221**		**0.9219**	**0.9219**	**112.4030**	**217.7856**	**330.1887**	**0.3371**	**7.6300e-003**	**339.6322**

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	0.0489					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6989					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0210	0.0000	1.1400e-003	0.0000		0.0145	0.0145		0.0143	0.0143	0.0000	228.7059	228.7059	4.3800e-003	4.1900e-003	230.0978
Landscaping	0.0324	0.0119	1.0100	5.0000e-005		5.4100e-003	5.4100e-003		5.4100e-003	5.4100e-003		1.7856	1.7856	1.8600e-003		1.8247
Total	**0.8012**	**0.0119**	**1.0112**	**5.0000e-005**		**0.0199**	**0.0199**		**0.0197**	**0.0197**	**0.0000**	**230.4915**	**230.4915**	**6.2400e-003**	**4.1900e-003**	**231.9225**

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

APPENDIX B

Greenhouse Gas Calculations

Walnut Park Cottages

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	12.00	Dwelling Unit	0.79	21,600.00	34
Parking Lot	13.70	1000sqft	0.31	13,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2015
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Site is approximately 1.10 acres.

Construction Phase - custom construction schedule from applicant.

Off-road Equipment - assume all equipment operates for 8 hours per day.

Off-road Equipment - assume all equipment operates for 8 hours per day.

Off-road Equipment -

Off-road Equipment -

Grading - 1,320 cy of soil import

Vehicle Trips - Project trips per traffic assessment.

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	200.00	133.00
tblConstructionPhase	NumDays	4.00	21.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	PhaseEndDate	10/19/2015	9/16/2015
tblConstructionPhase	PhaseEndDate	9/11/2015	9/16/2015
tblConstructionPhase	PhaseEndDate	10/19/2015	9/16/2015
tblConstructionPhase	PhaseStartDate	9/17/2015	8/17/2015
tblConstructionPhase	PhaseStartDate	3/11/2015	3/16/2015
tblConstructionPhase	PhaseStartDate	9/17/2015	8/17/2015
tblGrading	AcresOfGrading	10.50	1.50
tblGrading	MaterialImported	0.00	1,320.00
tblLandUse	LotAcreage	3.90	0.79
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblVehicleTrips	ST_TR	10.08	9.50
tblVehicleTrips	SU_TR	8.77	9.50
tblVehicleTrips	WD_TR	9.57	9.50

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					
2015	0.3260	1.9837	1.2798	1.9100e-003	0.0769	0.1220	0.1988	0.0383	0.1153	0.1536	0.0000	171.7590	171.7590	0.0374	0.0000	172.5449
Total	**0.3260**	**1.9837**	**1.2798**	**1.9100e-003**	**0.0769**	**0.1220**	**0.1988**	**0.0383**	**0.1153**	**0.1536**	**0.0000**	**171.7590**	**171.7590**	**0.0374**	**0.0000**	**172.5449**

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					
2015	0.3260	1.9837	1.2798	1.9100e-003	0.0378	0.1220	0.1597	0.0170	0.1153	0.1323	0.0000	171.7589	171.7589	0.0374	0.0000	172.5448
Total	**0.3260**	**1.9837**	**1.2798**	**1.9100e-003**	**0.0378**	**0.1220**	**0.1597**	**0.0170**	**0.1153**	**0.1323**	**0.0000**	**171.7589**	**171.7589**	**0.0374**	**0.0000**	**172.5448**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**50.87**	**0.00**	**19.66**	**55.52**	**0.00**	**13.84**	**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	0.1798	2.4800e-003	0.2017	1.3000e-004		0.0121	0.0121		0.0121	0.0121	1.2746	2.6519	3.9265	4.0100e-003	9.0000e-005	4.0376
Energy	1.9300e-003	0.0165	7.0100e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	47.5837	47.5837	1.6800e-003	6.2000e-004	47.8114
Mobile	0.0886	0.2774	1.0637	2.2000e-003	0.1476	3.9100e-003	0.1515	0.0395	3.5900e-003	0.0431	0.0000	181.1559	181.1559	8.1800e-003	0.0000	181.3278
Waste						0.0000	0.0000		0.0000	0.0000	2.8297	0.0000	2.8297	0.1672	0.0000	6.3415
Water						0.0000	0.0000		0.0000	0.0000	0.2480	4.4804	4.7285	0.0257	6.4000e-004	5.4675
Total	**0.2704**	**0.2963**	**1.2724**	**2.4400e-003**	**0.1476**	**0.0174**	**0.1649**	**0.0395**	**0.0171**	**0.0566**	**4.3524**	**235.8719**	**240.2243**	**0.2068**	**1.3500e-003**	**244.9858**

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	0.1408	1.4900e-003	0.1263	1.0000e-005		8.6000e-004	8.6000e-004		8.5000e-004	8.5000e-004	0.0000	2.7960	2.7960	2.6000e-004	5.0000e-005	2.8162
Energy	1.9300e-003	0.0165	7.0100e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	47.5837	47.5837	1.6800e-003	6.2000e-004	47.8114
Mobile	0.0886	0.2774	1.0637	2.2000e-003	0.1476	3.9100e-003	0.1515	0.0395	3.5900e-003	0.0431	0.0000	181.1559	181.1559	8.1800e-003	0.0000	181.3278
Waste						0.0000	0.0000		0.0000	0.0000	2.8297	0.0000	2.8297	0.1672	0.0000	6.3415
Water						0.0000	0.0000		0.0000	0.0000	0.2480	4.4804	4.7285	0.0257	6.4000e-004	5.4671
Total	**0.2313**	**0.2953**	**1.1970**	**2.3200e-003**	**0.1476**	**6.1000e-003**	**0.1537**	**0.0395**	**5.7700e-003**	**0.0453**	**3.0777**	**236.0160**	**239.0938**	**0.2030**	**1.3100e-003**	**243.7640**

	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	N20	CO2e
Percent Reduction	**14.44**	**0.33**	**5.92**	**4.92**	**0.00**	**64.88**	**6.83**	**0.00**	**66.16**	**19.94**	**29.29**	**-0.06**	**0.47**	**1.81**	**2.96**	**0.50**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading/Site Preparation	Grading	2/10/2015	3/10/2015	5	21	
2	Building Construction	Building Construction	3/16/2015	9/16/2015	5	133	
3	Paving	Paving	8/17/2015	9/16/2015	5	23	
4	Architectural Coating	Architectural Coating	8/17/2015	9/16/2015	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 43,740; Residential Outdoor: 14,580; Non-Residential Indoor: 617; Non-Residential Outdoor: 206 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Paving	Pavers	1	6.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Grading/Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading/Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading/Site Preparation	Graders	1	8.00	174	0.41
Paving	Paving Equipment	1	8.00	130	0.36
Building Construction	Welders	1	8.00	46	0.45

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
Grading/Site Preparation	3	8.00	0.00	165.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	10.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Grading/Site Preparation - 2015

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					0.0641	0.0000	0.0641	0.0349	0.0000	0.0349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0283	0.3012	0.1930	1.9000e-004		0.0163	0.0163		0.0150	0.0150	0.0000	18.2744	18.2744	5.4600e-003	0.0000	18.3890
Total	**0.0283**	**0.3012**	**0.1930**	**1.9000e-004**	**0.0641**	**0.0163**	**0.0804**	**0.0349**	**0.0150**	**0.0498**	**0.0000**	**18.2744**	**18.2744**	**5.4600e-003**	**0.0000**	**18.3890**

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	1.7200e-003	0.0276	0.0199	6.0000e-005	1.4100e-003	4.3000e-004	1.8400e-003	3.9000e-004	4.0000e-004	7.8000e-004	0.0000	5.6906	5.6906	5.0000e-005	0.0000	5.6916
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	4.1000e-004	5.9000e-004	6.1700e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.9292	0.9292	6.0000e-005	0.0000	0.9304
Total	**2.1300e-003**	**0.0282**	**0.0261**	**7.0000e-005**	**2.3300e-003**	**4.4000e-004**	**2.7700e-003**	**6.3000e-004**	**4.1000e-004**	**1.0300e-003**	**0.0000**	**6.6198**	**6.6198**	**1.1000e-004**	**0.0000**	**6.6220**

3.2 Grading/Site Preparation - 2015

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					0.0250	0.0000	0.0250	0.0136	0.0000	0.0136	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0283	0.3012	0.1930	1.9000e-004		0.0163	0.0163		0.0150	0.0150	0.0000	18.2744	18.2744	5.4600e-003	0.0000	18.3890
Total	**0.0283**	**0.3012**	**0.1930**	**1.9000e-004**	**0.0250**	**0.0163**	**0.0413**	**0.0136**	**0.0150**	**0.0286**	**0.0000**	**18.2744**	**18.2744**	**5.4600e-003**	**0.0000**	**18.3890**

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	1.7200e-003	0.0276	0.0199	6.0000e-005	1.4100e-003	4.3000e-004	1.8400e-003	3.9000e-004	4.0000e-004	7.8000e-004	0.0000	5.6906	5.6906	5.0000e-005	0.0000	5.6916
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	4.1000e-004	5.9000e-004	6.1700e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.9292	0.9292	6.0000e-005	0.0000	0.9304
Total	**2.1300e-003**	**0.0282**	**0.0261**	**7.0000e-005**	**2.3300e-003**	**4.4000e-004**	**2.7700e-003**	**6.3000e-004**	**4.1000e-004**	**1.0300e-003**	**0.0000**	**6.6198**	**6.6198**	**1.1000e-004**	**0.0000**	**6.6220**

3.3 Building Construction - 2015

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	0.1785	1.4237	0.8402	1.2900e-003		0.0919	0.0919		0.0874	0.0874	0.0000	115.2695	115.2695	0.0267	0.0000	115.8299
Total	**0.1785**	**1.4237**	**0.8402**	**1.2900e-003**		**0.0919**	**0.0919**		**0.0874**	**0.0874**	**0.0000**	**115.2695**	**115.2695**	**0.0267**	**0.0000**	**115.8299**

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	2.7200e-003	0.0275	0.0342	6.0000e-005	1.6300e-003	4.4000e-004	2.0700e-003	4.6000e-004	4.1000e-004	8.7000e-004	0.0000	5.3534	5.3534	4.0000e-005	0.0000	5.3543
Worker	3.2300e-003	4.6900e-003	0.0489	9.0000e-005	7.2900e-003	7.0000e-005	7.3600e-003	1.9400e-003	7.0000e-005	2.0000e-003	0.0000	7.3563	7.3563	4.4000e-004	0.0000	7.3655
Total	**5.9500e-003**	**0.0322**	**0.0830**	**1.5000e-004**	**8.9200e-003**	**5.1000e-004**	**9.4300e-003**	**2.4000e-003**	**4.8000e-004**	**2.8700e-003**	**0.0000**	**12.7097**	**12.7097**	**4.8000e-004**	**0.0000**	**12.7198**

3.3 Building Construction - 2015

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	0.1785	1.4237	0.8402	1.2900e-003		0.0919	0.0919		0.0874	0.0874	0.0000	115.2694	115.2694	0.0267	0.0000	115.8297
Total	**0.1785**	**1.4237**	**0.8402**	**1.2900e-003**		**0.0919**	**0.0919**		**0.0874**	**0.0874**	**0.0000**	**115.2694**	**115.2694**	**0.0267**	**0.0000**	**115.8297**

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	2.7200e-003	0.0275	0.0342	6.0000e-005	1.6300e-003	4.4000e-004	2.0700e-003	4.6000e-004	4.1000e-004	8.7000e-004	0.0000	5.3534	5.3534	4.0000e-005	0.0000	5.3543
Worker	3.2300e-003	4.6900e-003	0.0489	9.0000e-005	7.2900e-003	7.0000e-005	7.3600e-003	1.9400e-003	7.0000e-005	2.0000e-003	0.0000	7.3563	7.3563	4.4000e-004	0.0000	7.3655
Total	**5.9500e-003**	**0.0322**	**0.0830**	**1.5000e-004**	**8.9200e-003**	**5.1000e-004**	**9.4300e-003**	**2.4000e-003**	**4.8000e-004**	**2.8700e-003**	**0.0000**	**12.7097**	**12.7097**	**4.8000e-004**	**0.0000**	**12.7198**

3.4 Paving - 2015

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	0.0162	0.1679	0.1055	1.5000e-004		0.0103	0.0103		9.4500e-003	9.4500e-003	0.0000	14.4228	14.4228	4.2300e-003	0.0000	14.5116
Paving	4.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0166**	**0.1679**	**0.1055**	**1.5000e-004**		**0.0103**	**0.0103**		**9.4500e-003**	**9.4500e-003**	**0.0000**	**14.4228**	**14.4228**	**4.2300e-003**	**0.0000**	**14.5116**

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	5.6000e-004	8.1000e-004	8.4500e-003	2.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.3000e-004	1.0000e-005	3.5000e-004	0.0000	1.2721	1.2721	8.0000e-005	0.0000	1.2737
Total	**5.6000e-004**	**8.1000e-004**	**8.4500e-003**	**2.0000e-005**	**1.2600e-003**	**1.0000e-005**	**1.2700e-003**	**3.3000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**1.2721**	**1.2721**	**8.0000e-005**	**0.0000**	**1.2737**

3.4 Paving - 2015

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	0.0162	0.1679	0.1055	1.5000e-004		0.0103	0.0103		9.4500e-003	9.4500e-003	0.0000	14.4228	14.4228	4.2300e-003	0.0000	14.5116
Paving	4.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0166**	**0.1679**	**0.1055**	**1.5000e-004**		**0.0103**	**0.0103**		**9.4500e-003**	**9.4500e-003**	**0.0000**	**14.4228**	**14.4228**	**4.2300e-003**	**0.0000**	**14.5116**

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	5.6000e-004	8.1000e-004	8.4500e-003	2.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.3000e-004	1.0000e-005	3.5000e-004	0.0000	1.2721	1.2721	8.0000e-005	0.0000	1.2737
Total	**5.6000e-004**	**8.1000e-004**	**8.4500e-003**	**2.0000e-005**	**1.2600e-003**	**1.0000e-005**	**1.2700e-003**	**3.3000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**1.2721**	**1.2721**	**8.0000e-005**	**0.0000**	**1.2737**

3.5 Architectural Coating - 2015

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	0.0892					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6800e-003	0.0296	0.0219	3.0000e-005		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	2.9362	2.9362	3.8000e-004	0.0000	2.9443
Total	**0.0939**	**0.0296**	**0.0219**	**3.0000e-005**		**2.5400e-003**	**2.5400e-003**		**2.5400e-003**	**2.5400e-003**	**0.0000**	**2.9362**	**2.9362**	**3.8000e-004**	**0.0000**	**2.9443**

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	1.1000e-004	1.6000e-004	1.6900e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2544	0.2544	2.0000e-005	0.0000	0.2548
Total	**1.1000e-004**	**1.6000e-004**	**1.6900e-003**	**0.0000**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2544**	**0.2544**	**2.0000e-005**	**0.0000**	**0.2548**

3.5 Architectural Coating - 2015

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	0.0892					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6800e-003	0.0296	0.0219	3.0000e-005		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	2.9362	2.9362	3.8000e-004	0.0000	2.9443
Total	**0.0939**	**0.0296**	**0.0219**	**3.0000e-005**		**2.5400e-003**	**2.5400e-003**		**2.5400e-003**	**2.5400e-003**	**0.0000**	**2.9362**	**2.9362**	**3.8000e-004**	**0.0000**	**2.9443**

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	1.1000e-004	1.6000e-004	1.6900e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2544	0.2544	2.0000e-005	0.0000	0.2548
Total	**1.1000e-004**	**1.6000e-004**	**1.6900e-003**	**0.0000**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2544**	**0.2544**	**2.0000e-005**	**0.0000**	**0.2548**

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	0.0886	0.2774	1.0637	2.2000e-003	0.1476	3.9100e-003	0.1515	0.0395	3.5900e-003	0.0431	0.0000	181.1559	181.1559	8.1800e-003	0.0000	181.3278
Unmitigated	0.0886	0.2774	1.0637	2.2000e-003	0.1476	3.9100e-003	0.1515	0.0395	3.5900e-003	0.0431	0.0000	181.1559	181.1559	8.1800e-003	0.0000	181.3278

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	114.00	114.00	114.00	389,555	389,555
Total	114.00	114.00	114.00	389,555	389,555

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534619	0.058604	0.178185	0.126004	0.038986	0.006286	0.016079	0.029769	0.002429	0.003158	0.003693	0.000543	0.001646

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	28.5002	28.5002	1.3100e-003	2.7000e-004	28.6118
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	28.5002	28.5002	1.3100e-003	2.7000e-004	28.6118
NaturalGas Mitigated	1.9300e-003	0.0165	7.0100e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0835	19.0835	3.7000e-004	3.5000e-004	19.1996
NaturalGas Unmitigated	1.9300e-003	0.0165	7.0100e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0835	19.0835	3.7000e-004	3.5000e-004	19.1996

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					
Parking Lot	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
Single Family Housing	357611	1.9300e-003	0.0165	7.0100e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0835	19.0835	3.7000e-004	3.5000e-004	19.1996
Total		**1.9300e-003**	**0.0165**	**7.0100e-003**	**1.1000e-004**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**	**0.0000**	**19.0835**	**19.0835**	**3.7000e-004**	**3.5000e-004**	**19.1996**

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					
Single Family Housing	357611	1.9300e-003	0.0165	7.0100e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0835	19.0835	3.7000e-004	3.5000e-004	19.1996
Parking Lot	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
Total		**1.9300e-003**	**0.0165**	**7.0100e-003**	**1.1000e-004**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**	**0.0000**	**19.0835**	**19.0835**	**3.7000e-004**	**3.5000e-004**	**19.1996**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	12056	3.4500	1.6000e-004	3.0000e-005	3.4635
Single Family Housing	87537	25.0502	1.1500e-003	2.4000e-004	25.1482
Total		**28.5002**	**1.3100e-003**	**2.7000e-004**	**28.6118**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	12056	3.4500	1.6000e-004	3.0000e-005	3.4635
Single Family Housing	87537	25.0502	1.1500e-003	2.4000e-004	25.1482
Total		**28.5002**	**1.3100e-003**	**2.7000e-004**	**28.6118**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	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	0.1408	1.4900e-003	0.1263	1.0000e-005		8.6000e-004	8.6000e-004		8.5000e-004	8.5000e-004	0.0000	2.7960	2.7960	2.6000e-004	5.0000e-005	2.8162
Unmitigated	0.1798	2.4800e-003	0.2017	1.3000e-004		0.0121	0.0121		0.0121	0.0121	1.2746	2.6519	3.9265	4.0100e-003	9.0000e-005	4.0376

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	8.9200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1276					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0393	1.0000e-003	0.0754	1.2000e-004		0.0115	0.0115		0.0115	0.0115	1.2746	2.4494	3.7240	3.8000e-003	9.0000e-005	3.8307
Landscaping	4.0500e-003	1.4900e-003	0.1263	1.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004	0.0000	0.2025	0.2025	2.1000e-004	0.0000	0.2069
Total	**0.1798**	**2.4900e-003**	**0.2017**	**1.3000e-004**		**0.0121**	**0.0121**		**0.0121**	**0.0121**	**1.2746**	**2.6519**	**3.9265**	**4.0100e-003**	**9.0000e-005**	**4.0376**

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	8.9200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1276					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.6000e-004	0.0000	1.0000e-005	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5935	2.5935	5.0000e-005	5.0000e-005	2.6093
Landscaping	4.0500e-003	1.4900e-003	0.1263	1.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004	0.0000	0.2025	0.2025	2.1000e-004	0.0000	0.2069
Total	**0.1408**	**1.4900e-003**	**0.1263**	**1.0000e-005**		**8.6000e-004**	**8.6000e-004**		**8.6000e-004**	**8.6000e-004**	**0.0000**	**2.7960**	**2.7960**	**2.6000e-004**	**5.0000e-005**	**2.8162**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.7285	0.0257	6.4000e-004	5.4671
Unmitigated	4.7285	0.0257	6.4000e-004	5.4675

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.781848 / 0.492904	4.7285	0.0257	6.4000e-004	5.4675
Total		**4.7285**	**0.0257**	**6.4000e-004**	**5.4675**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.781848 / 0.492904	4.7285	0.0257	6.4000e-004	5.4671
Total		**4.7285**	**0.0257**	**6.4000e-004**	**5.4671**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.8297	0.1672	0.0000	6.3415
Unmitigated	2.8297	0.1672	0.0000	6.3415

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.94	2.8297	0.1672	0.0000	6.3415
Total		**2.8297**	**0.1672**	**0.0000**	**6.3415**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.94	2.8297	0.1672	0.0000	6.3415
Total		**2.8297**	**0.1672**	**0.0000**	**6.3415**

9.0 Operational Offroad

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

10.0 Vegetation

APPENDIX C

Noise Monitoring Data

Project Site

Noise Monitoring Locations

0 100 200

Approximate Scale (feet)

N

Aerial source: Google Earth 2014.

POMEROY ENVIRONMENTAL SERVICES

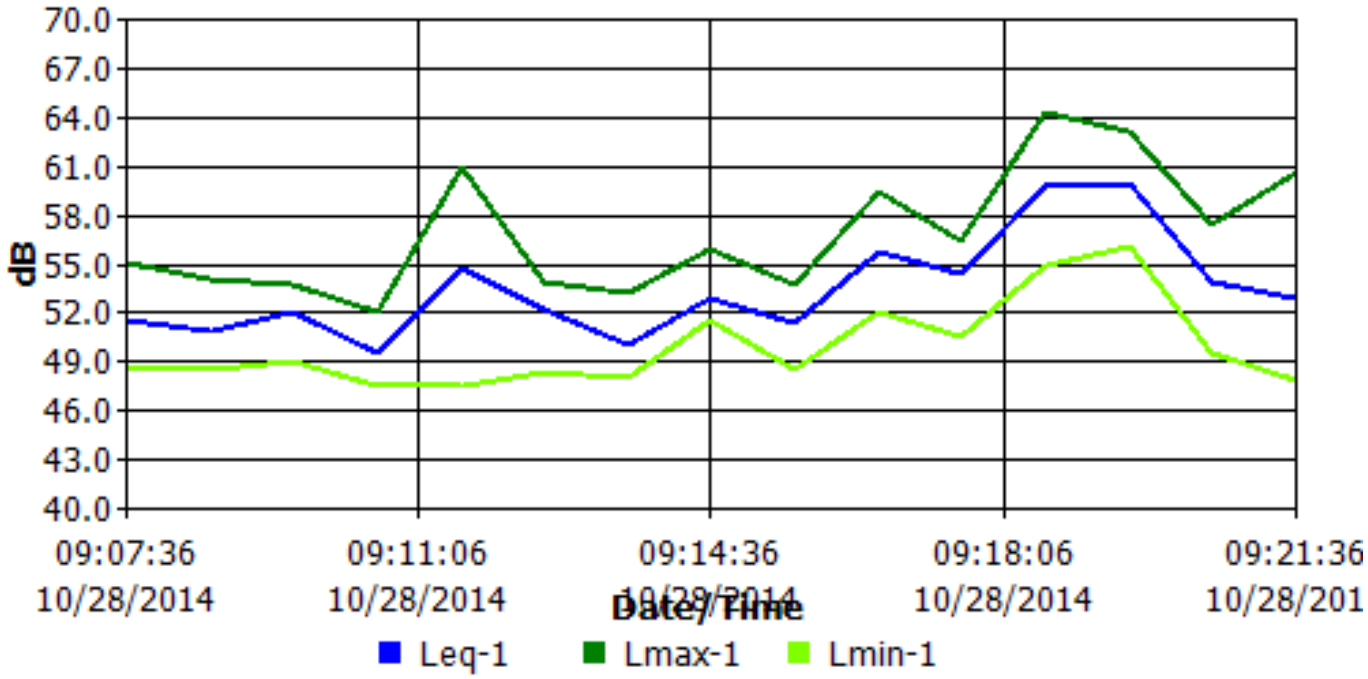
Figure 3
Noise Monitoring Location Map

Walnut Park Cottages Location 1

General Data Panel

Description	Meter	Value	Description	Meter	Value
Lmax	1	64.3 dB	Lmin	1	47.4 dB
Leq	1	54.6 dB	Weighting	1	A
Response	1	SLOW	Exchange Rate	1	3 dB
Log Rate	1	60 s			

Logged Data Chart



Logged Data Table

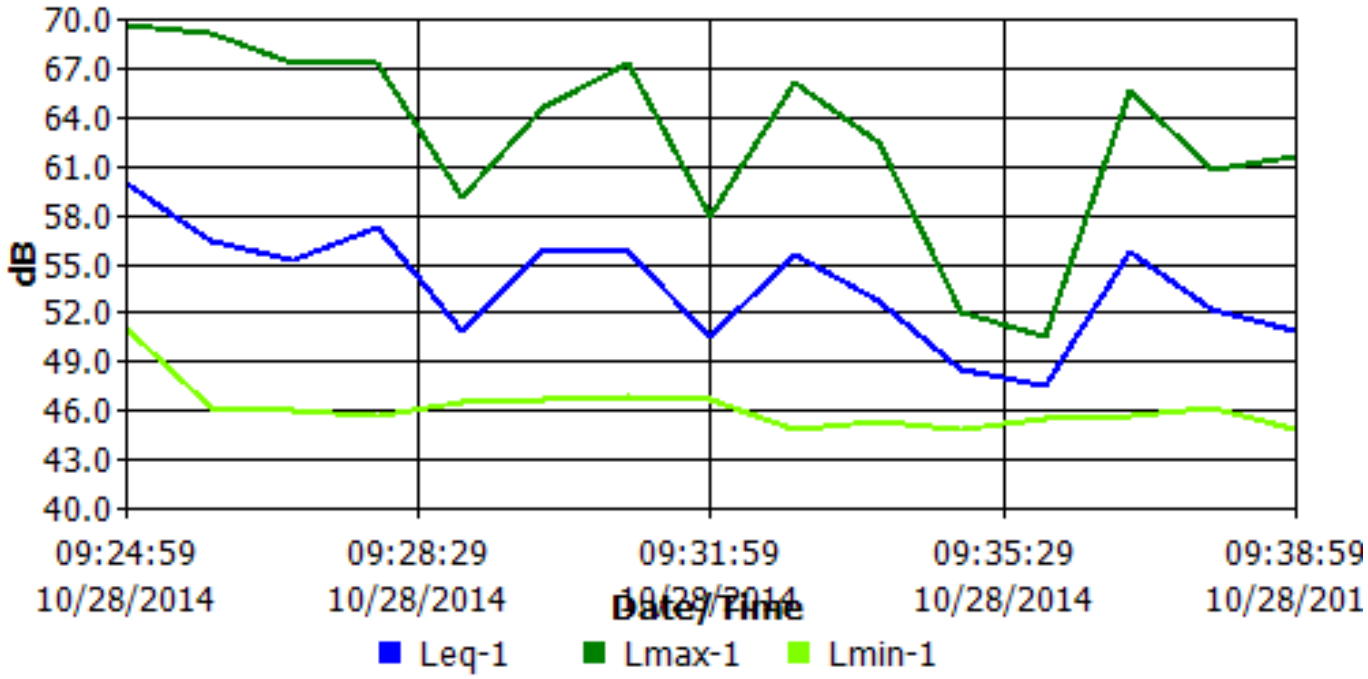
Timestamp	Leq-1	Lmax-1	Lmin-1
10/28/2014 9:07:36 AM	51.4	55.0	48.6
10/28/2014 9:08:36 AM	50.8	54.0	48.5
10/28/2014 9:09:36 AM	51.9	53.6	49.0
10/28/2014 9:10:36 AM	49.4	51.9	47.4
10/28/2014 9:11:36 AM	54.6	60.9	47.5
10/28/2014 9:12:36 AM	52.1	53.9	48.3
10/28/2014 9:13:36 AM	49.9	53.2	47.9
10/28/2014 9:14:36 AM	52.9	55.9	51.5
10/28/2014 9:15:36 AM	51.3	53.6	48.5
10/28/2014 9:16:36 AM	55.7	59.3	51.9
10/28/2014 9:17:36 AM	54.3	56.4	50.5
10/28/2014 9:18:36 AM	59.7	64.3	54.8
10/28/2014 9:19:36 AM	59.8	63.1	56.0
10/28/2014 9:20:36 AM	53.8	57.4	49.4
10/28/2014 9:21:36 AM	52.9	60.6	47.8

Walnut Park Cottages Location 2

General Data Panel

Description	Meter	Value	Description	Meter	Value
Lmax	1	69.6 dB	Lmin	1	44.7 dB
Leq	1	54.8 dB	Weighting	1	A
Response	1	SLOW	Exchange Rate	1	3 dB
Log Rate	1	60 s			

Logged Data Chart



Logged Data Table

Timestamp	Leq-1	Lmax-1	Lmin-1
10/28/2014 9:24:59 AM	59.9	69.6	50.9
10/28/2014 9:25:59 AM	56.3	69.0	46.1
10/28/2014 9:26:59 AM	55.1	67.3	45.9
10/28/2014 9:27:59 AM	57.2	67.2	45.6
10/28/2014 9:28:59 AM	50.8	59.0	46.4
10/28/2014 9:29:59 AM	55.8	64.6	46.6
10/28/2014 9:30:59 AM	55.6	67.2	46.8
10/28/2014 9:31:59 AM	50.5	57.9	46.6
10/28/2014 9:32:59 AM	55.5	66.0	44.8
10/28/2014 9:33:59 AM	52.6	62.3	45.2
10/28/2014 9:34:59 AM	48.4	52.0	44.8
10/28/2014 9:35:59 AM	47.5	50.5	45.5
10/28/2014 9:36:59 AM	55.7	65.6	45.6
10/28/2014 9:37:59 AM	52.2	60.7	46.2
10/28/2014 9:38:59 AM	50.8	61.6	44.7

FEHR PEERS

MEMORANDUM

Date: December 23rd, 2014

To: Jason Smisko

From: Jeremy Klop, Fehr & Peers

CC: Ed Poulin, PWP Properties

Subject: Traffic Assessment Potential Technical Memorandum – Trip Generation
Walnut Park Cottages Project, Newhall, California

Ref: LA14-2723

This memorandum summarizes the results of the trip generation assessment Fehr & Peers conducted for the proposed Walnut Park Cottages project located at 24982 Walnut Avenue in Newhall, California. The technical assessment was conducted to estimate the project's vehicle trip generation and assess the potential effect of the added traffic on the local street network.

PROJECT BACKGROUND

Per the *Walnut Park Cattages Development Plan* (KHA Architecture, dated December 23rd, 2014), the proposed project would consist of 11 units of single family detached condominium homes with ground floor parking set on 1.10 acres. Vehicle access to the proposed project would be provided through a driveway off Walnut Avenue, which is approximately 850 feet north of 15th Street. Arterial roadways in the vicinity of the project include Lyons Avenue and Railroad Avenue.

TRIP GENERATION

The trip generation analysis uses rates recommended in *Trip Generation Manual, 9th Edition* for single-family detached housing (Land Use 210). As described in *Trip Generation Manual, 9th Edition*, surveyed single-family units include all single-family detached homes on individual lots. While this project is comprised of a single lot, the units are detached and provide a two car garage for each unit and therefore are most similar to the Land Use 210 category in the *Trip Generotion Manual, 9th Edition*. **Table 1** shows that the proposed project would generate approximately 105 new daily trips; of which eight (8) would occur during the AM peak hour and eleven (11) would occur during the PM peak hour.

TABLE 1: TRIP GENERATION			
Analysis Period	**Units**	**Vehicle Trip Rate**	**Vehicle Trips**
Daily	11	9.52 per unit	105
AM Peak Hour		0.75 per unit	8
PM Peak Hour		1.00 per unit	11

Sources: *Trip Generation Manual, 9th Edition*, Institute of Transportation Engineers; Fehr & Peers, 2013

EXISTING TRAFFIC ASSESSMENT

Traffic engineers study the AM and PM peak periods as they are typically the most congested period of the day. AM and PM peak periods generally occur between the hours of 7:00 – 9:00 AM and 4:00 – 7:00 PM, when people depart for or arrive home from work. The peak hour of traffic represents the most congested hour of each peak periods.

Two roadways were selected for the evaluation of existing traffic conditions: Lyons Avenue and Interstate 5. Lyons Avenue is an arterial roadway in the vicinity of the project site and I-5 provides regional access to the project site. Average vehicle travel speeds on these two roadways during the AM and PM peak hours in October are shown in **Figures 1** and **2**. The average travel speeds are based on INRIX speed data and represent conditions during a typical mid-week weekday (Tuesday through Thursday). These average speeds indicate that vehicles travel at free flow speeds and there is generally little to moderate congestion on both roadways during the peak hours.

TYPICAL VARIATIONS IN TRAFFIC

Since traffic volumes are a result of the aggregate travel choices of thousands of individual drivers, variation in the daily and peak period volumes on any given facility is both expected and observed. The Federal Highway Administration (FHWA) and Caltrans guidelines recommend traffic models are calibrated to within 7-15 percent for arterials and freeway segments to account for this regular variation.[1] This range is based on studies that show that this range represents the average daily fluctuation in traffic for major roadways.[2] Local traffic counts available through the California Freeway Performance Measurement System (PeMS) maintained by Caltrans were reviewed to confirm the variation in traffic volumes on local roadways to see if these are similar to national and statewide observations. As shown in **Figure 3**, daily traffic volumes on northbound I-5 varied between the 8,500 and 9,800 (~15%) in October; therefore, the variation in the traffic counts on I-5 for is well within this range.

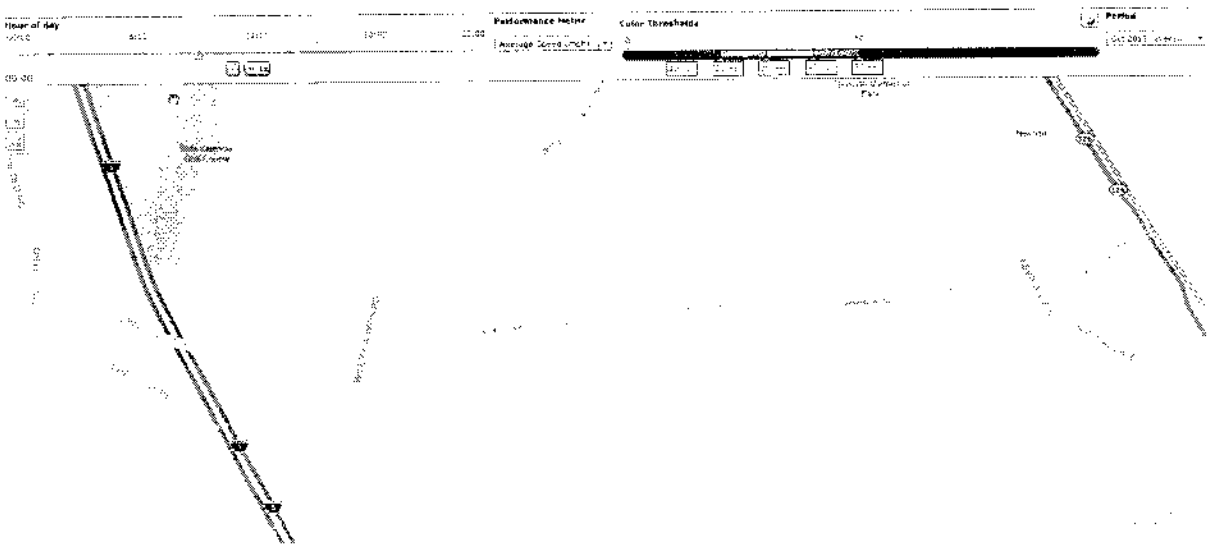
[1] Per the *FHWA Calibration & Adjustment of System Planning Models* (FHWA, December 1990); *Caltrans Travel Forecasting Guidelines* (Caltrans, 1992).
[2] *Variability In Traffic Monitoring Data: Final Summary Report* (US Department of Energy, August 1997).

CONCLUSION

Vehicles currently travel at or near free flow speed on nearby roadways that provide access to the proposed project. The proposed project would generate less than 110 daily vehicle trips and less than 15 peak hour vehicle trips to the local roadway network. This project contribution is well within the range of typical daily traffic variation and would not create a noticeable change in traffic operations.

Figure 1: Typical Weekday AM Peak Conditions (October)

Lyons Avenue



Interstate 5

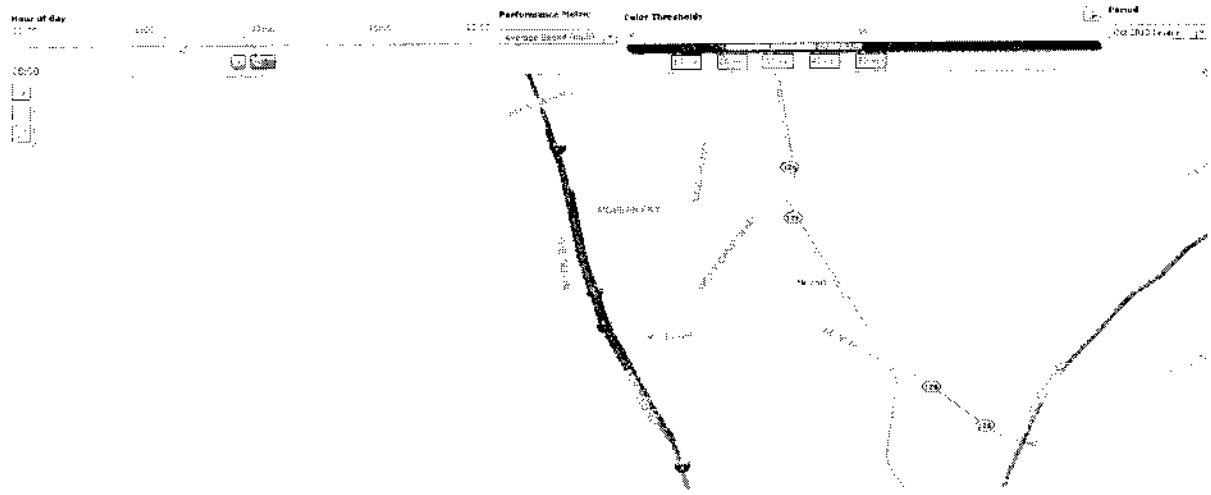
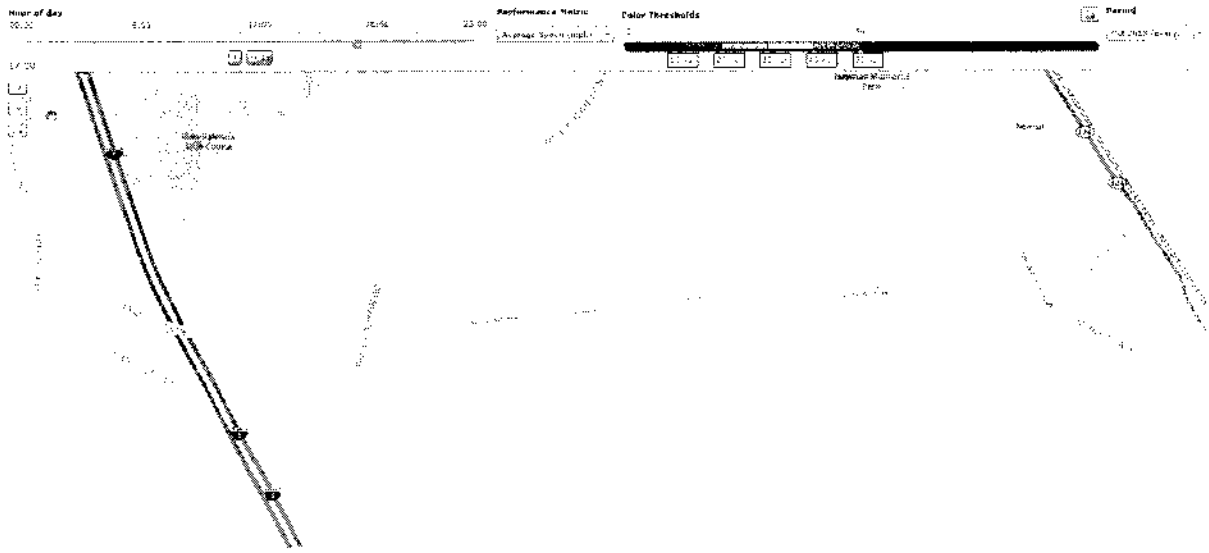


Figure 2: Typical Weekday PM Peak Conditions

Lyons Avenue



Interstate 5

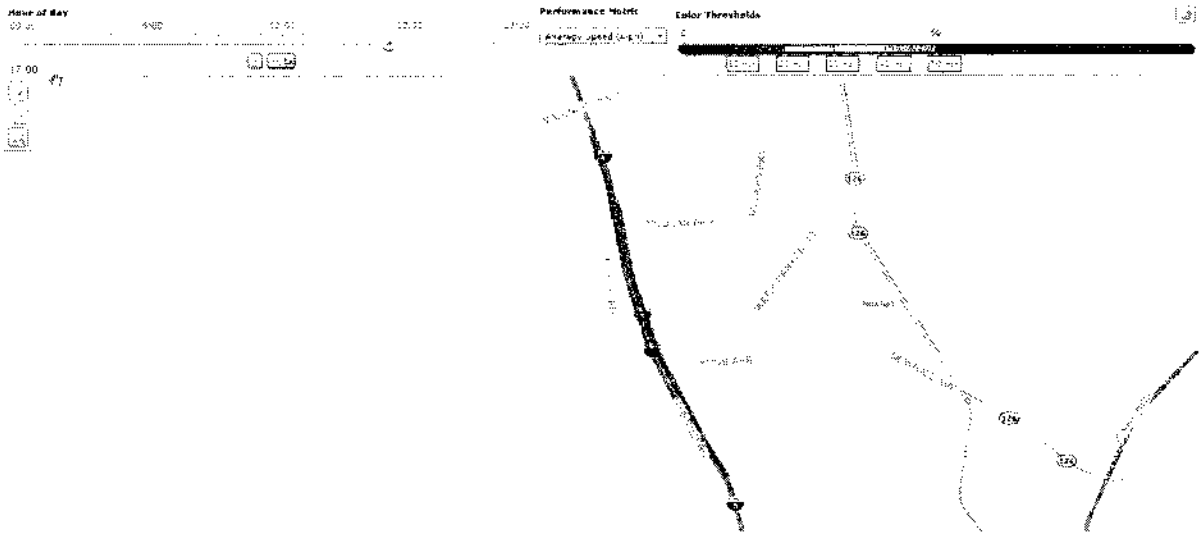


Figure 3: Daily Traffic Variation on Northbound I-5