ARBOR RESOURCES
professional consulting arborists and tree care

ARBOR REPORT

18151 OVERLOOK ROAD

LOS GATOS, CALIFORNIA

PROPERTY OWNER: Ronald M. Tate
APPLICANT: Nicole King of Urban West, LLC
ARCHITECTURE & SITE APPLICATION S-14-056
APN 510-40-146

Submitted to:

Erin Walters
Community Development Department
Town of Los Gatos
110 East Main Street
Los Gatos, CA 95031

Prepared by:

David L. Babby
Registered Consulting Arborist® #399
Board-Certified Master Arborist® #WE-4001B

May 29, 2015

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EXHIBITS

1.0 INTRODUCTION

The Town of Los Gatos Community Development Department has retained me to prepare this *Arborist Report* in connection with the proposed new residence, with basement, at **18151 Overlook Road**, Los Gatos. Specific tasks conducted are as follows:

- Visit the site, performed on 5/21/15, to identify 15 "protected trees"[1] situated either within the project site, along the street frontage, or on neighboring properties and having trunks immediately adjacent to and/or canopies overhanging the site.
- Determine each tree's trunk diameter at 54 inches above grade. Diameters are rounded to the nearest inch, and trees listed with more than one diameter are formed by multiple trunks.
- Estimate average canopy spreads (rounded to the nearest fifth).
- Ascertain each tree's health and structural integrity, and assign an overall condition rating (e.g. good, fair, poor or dead).
- Rate each tree's suitability for preservation (e.g. high, moderate or low).
- Obtain photographs; see Exhibit C.
- Assign tree numbers in a sequential pattern, and plot those numbers and roughly approximate locations on the site map in Exhibit B (base map being Sheet A1, the *Site & Drainage Plan*, dated 9/22/14, by Chris Spaulding Architect).
- Affix round-metal tags with corresponding, engraved numbers to the trunks or limbs of accessible trees. For inaccessible trees on neighboring properties, tags were affixed to wood fences adjacent to respective tree trunks.
- Review the set of project plans, prepared by Chris Spaulding Architect, stamp dated 3/30/15, to identify potential impacts to inventoried trees.
- Provide measures to help avoid or mitigate impacts to retained or removed trees.
- Prepare a written report containing the above information, and submit via email as a PDF document.

[1] Pursuant to Section 29.10.0960 of the Town's Municipal Code, a "protected tree" has a trunk with a diameter ≥4" at three feet above grade. Fruit- or nut-bearing trees with trunk diameters less than 18" are exempt (Section 29.10.0970).

2.0 TREE COUNT AND COMPOSITION

Fifteen (15) trees of eight various species were inventoried for this report. They are sequentially numbered as #**1 thru 15**, and the table below identifies their names, assigned numbers, counts and percentages.

NAME	TREE NUMBER(S)	COUNT	% OF TOTAL
Coast live oak	6, 7, 11, 14	4	27%
Deodar cedar	1	1	7%
European beech	4	1	7%
Evergreen pear	5	1	7%
Glossy privet	9, 10, 13	3	20%
Monterey pine	2, 8, 12	3	20%
Pacific wax myrtle	3	1	7%
Western redbud	3	1	7%
	Total	**15**	**100%**

As illustrated in the above table, the tree landscape on and surrounding the site is populated predominantly by coast live oak, followed by privet and Monterey pine.

Specific information regarding each tree is presented within the table in **Exhibit A**. The trees' corresponding **numbers** and approximate **locations** can be viewed on the site map in **Exhibit B**, and **photographs** are presented in **Exhibit C**.

Tree #3, a small redbud, is situated within the public right-of-way along Overlook Road and is regarded as a **street tree**.

Nine (9) trees have trunks originating on **neighboring properties**, and due to their proximity to the project site, were inventoried to achieve conformance with Section 29.10.0995 of the Town Code); they include **#1, 4, 6-10, 12 and 13**.

Ten (10) trees are **not shown** on the project plans, and their locations depicted on the map in Exhibit B are only *roughly* approximate and should not be construed as being surveyed; they include **#1, 4, 6-10, 12, 13 and 15** (accounts for all those on neighboring properties plus #15).

Other trees located throughout the site were not inventoried due to having trunks with diameters less than four inches.

3.0 SUITABILITY FOR TREE PRESERVATION

Each tree has been assigned either a "high," "moderate" or "low" suitability for preservation rating as a means to cumulatively measure its existing health, structural integrity, anticipated life span, location, size, particular species, tolerance to construction impacts, growing space, and safety to property and persons within striking distance. Descriptions of these ratings are presented below; the high category is comprised of **no trees**, the moderate category **six** (or 40%), and the low category **nine** (or 60%).

High: Applies to **none**.

These trees appear relatively healthy and structurally stable; have no apparent, significant health issues or structural defects; present a good potential for contributing long-term to the site; and require only periodic or regular care and monitoring to maintain their longevity and structural integrity. They are typically the most suitable for retaining and incorporating into the future landscape.

Moderate: Applies to **trees #1, 4, 6, 8, 11 and 14**.

These trees contribute to the site, but at levels less than those assigned a good suitability; may have health and/or structural issues that can potentially be reasonably addressed and properly mitigated; and frequent care is typically required for their remaining lifespan. They might be worth retaining, if provided proper care, but not seemingly at significant expense or major design revisions.

Low: Applies to **trees #2, 3, 5, 7, 9, 10, 12, 13 and 15**.

These trees have serious or significantly weakened health and/or structural defects that are expected to worsen regardless of tree care measures employed (i.e. beyond likely recovery). Removal of those located within the site is recommended to improve the tree landscape and/or site safety.

4.0 REVIEW OF POTENTIAL IMPACTS

Implementation of the proposed design allow retention of all inventoried trees, but presents **significant impacts** to a few, namely **#3 and 6**. **Tree #3** is a small redbud with a poor structure, and excavation for constructing the new driveway will extend up to its trunk; based on its condition, removal is the appropriate disposition.

Tree #6 is a large coast live oak originating from the neighboring eastern property. Excavation for the proposed lightwell along the home's east side will result in severe root loss, and as a result, subject the tree to instability and/or premature decline. To avoid this, the lightwell design requires revision to achieve a minimum **protection zone** of nine to ten feet west of the trunk, and from this point towards north and south, up to 15 feet from the trunk; the protection zone must remain free from any excavation, overexcavation, fill, compaction, trenching, or other soil disturbance, including for shoring (and stitch piers).

I also recommend onsite **trees #2, 5 and 15** are **removed**. Tree #2 is a declining Monterey pine with a poor structure, #5 is a small evergreen pear also with a poor structure, and #15 is a short tree anticipated to be removed during excavation for the basement.

Tree #4 is situated in close proximity to the new parking space. Given a distinct grade differential between the shared fence and home, to include a planter, short rock wall, and level walk below planter, there unlikely are significant roots within the existing walk, but will be within the planter. Based on this, where beneath the tree's existing canopy, the future parking space/driveway should be entirely beyond (east of) the outer edge of existing planter and rock wall, including for any overexcavation; i.e. maintain existing grade within entire planter width and beyond wall (note that dimensions and grades of existing conditions are needed, and not currently shown in the site plan).

A summary of the prior information is as follows:

- **Removals** (four in total): **#2, 3, 5 and 15**.
- **Retained** (11 in total): **#1, 4 and 6-14**.
- **Revise** the **lightwell** and building design for achieving a reasonable chance of survival and rooting stability for **tree #6**.
- **Achieve setback** noted above for the **parking space** adjacent to **tree #4**.

5.0 TREE PROTECTION MEASURES

This section presents recommendations for achieving the protection of retained trees throughout construction. They should be carefully followed, are subject to revision upon reviewing revised or additional project plans, and I should be consulted in the event any measure cannot be feasibly implemented. Please note all referenced distances from trunks are intended to be from the closest edge (face of) of their outermost perimeter at soil grade.

5.1 Design Guidelines

1. Designate a **Tree Protection Zone (TPZ)** to be the section of existing unpaved ground beneath or beyond a tree's entire canopy, and for #4 and #6, as specified in Section 4.0 of this report. A TPZ is where the following activities, but not necessarily limited to, shall be avoided: trenching, soil scraping, compaction, mass grading, finish-grading, overexcavation, subexcavation, tilling, ripping, swales, bioswales, storm drains, dissipaters, dry equipment cleaning, stockpiling and dumping of materials, and equipment/vehicle operation. In the event an impact encroaches slightly within a setback, it can be reviewed on a case-by-case basis to determine whether measures can sufficiently mitigate the impacts to less-than-significant levels.

2. For **trees #4 and 6**, implement the design recommendations provided in Section 4.0.

3. Where beneath the canopies of **trees #6 and 14**, **confine** overexcavation, compaction and other **soil disturbance** to within **24 inches** beyond the basement wall and first floor foundation (including the drilling of piers for shoring).

4. To achieve the above, **shoring** is critical to avoid overexcavation beyond the basement wall and maintain setbacks. The shoring design should not require the loss or large limbs or branches during operation of a pile driver or drill rig for **shoring**. (and soil nailing and shotcrete utilized should a conflict exist).

5. The permanent and temporary **drainage design**, including downspouts, should not require water being discharged towards a tree's trunk.

6. **Add** the **assigned numbers** to all site-related plans. The approximate **trunk locations** of **#1, 4, 6-10, 12, 13 and 15** should also be added, as well as additional information regarding the grade differential, planter width and wall location beneath **#4**'s canopy.

7. On the demolition plan, specify that all below ground **existing and unused pipes, vaults and lighting** shall be **abandoned** and cut off at existing soil grade where within a TPZ (rather than being dug up and causing root damage).

8. **Swales** should be established well-beyond tree canopies. Where necessary within, they should be as far from the trunks as possible, require no more than a two- to three-inch deep cut or fill, avoid severing roots ≥two inches in diameter, and not be compacted (foot-tamping is acceptable).

9. The **erosion control** design should consider that any straw wattle or fiber rolls require a maximum vertical soil cut of two inches for their embedment, and are established as close to canopy edges as possible (and not against a tree trunk).

10. Per Section 29.10.1000(C.1) of the Ordinance, a copy of this report (or updated one) must be incorporated into the final set of project plans; titled **Sheets T-1, T-2, etc**. ("Tree Protection Instructions"); and referenced on all site-related project plans.

11. On Sheet A1, add **protection fencing** for **trees #4 and 6** to be along the outside eastern edge of the existing wall for **#4**, and five feet from the proposed home foundation or basement wall for **#6**; see Exhibit B for an illustration.

12. A **root zone buffer**, for foot-traffic only, should also be specified on Sheet A1 for **trees #6 and 14**, to be between protection fencing and the basement wall or foundation. It shall comprise a six- to eight-inch layer of coarse wood chips manually spread on unpaved ground, and to create a sturdy walking surface, can be covered by plywood sheets of at least ¾-inch thick and secured together. For **tree #6**, it should be installed prior to demolition, and for **#4**, immediately following removal of the existing rear patio.

13. The **landscape design** should conform to the following additional guidelines:
    a. **Plant material** installed beneath the canopies of the oaks should be drought-tolerant, limited in amount, and planted at least five or more feet from their trunks. Plant material installed beneath the canopies of all other trees should be at least 24 to 36 inches from their trunks.
    b. **Irrigation** beneath the oak canopies should not be applied within a distance of five times their trunk diameters. Irrigation for new plant material beneath their canopies should be low-volume, applied irregularly (such as only once or twice per week), and temporary (such as no more than three years).
    c. **Irrigation and lighting features** (e.g. main line, lateral lines, valve boxes, wiring and controllers) should be established beyond TPZs. In the event this is not feasible, they may require being installed in a radial direction to a tree's trunk, and terminate a specific distance from a trunk (versus crossing past it).
    d. **Ground cover** should be comprised (partially or entirely) of a three- to four-inch depth of coarse wood chips or other high-quality mulch (gorilla hair, bark or rock, stone, cobble, gravel, black plastic or other synthetic ground cover should be avoided). Mulch should remain six inches from the trees' trunks.
    e. **Tilling, ripping and compaction** within TPZs should be avoided.
    f. Bender board or other **edging** material proposed beneath the canopies should be established on top of existing soil grade (such as by using vertical stakes).

14. **Mitigation** is necessary to compensate for the removal of **protected trees**, and Section 29.10.0985 can be used as the framework for determining amounts and sizes. The trees shall be planted prior to final inspection, double-staked with rubber tree ties (may not be necessary for trees of 36-inch box size and larger), and all forms of irrigation be of an automatic drip or soaker hose system placed on the soil surface and not in a sleeve. Additionally, to achieve the greatest assurance of proper installation, all new trees shall be installed, including necessary irrigation, by an experienced California State-licensed landscape contractor or tree-service company.

5.2 Before Demolition, Grading and Construction

15. **Manually restore** the soil grade at the rear of the site; the ground should be 'smoothed' and leveled out, being careful not to excavate soil and roots.

16. **Spread** a four- to five-inch layer of **coarse wood chips** (¼- to ¾-inch in size) from a tree-service company over the ground within the property's rear section.

17. Establish the **root zone buffer** for **tree #6**.

18. The **root collars** of trees **#11 and 14** must be fully **cleared of rock and soil** on all sides (360°), and the work performed by a professional and state-licensed tree service either through hand-digging or the use of an Airspade.

19. Establish **tree protection fencing** to restrict access into TPZs, and where along future foundations, no farther than five feet from the basement wall; locations are identified on Exhibit B. This fencing shall remain throughout construction, and consist of five- to six-foot high chain link mounted on eight-foot tall, two-inch diameter galvanized steel posts that are driven into the ground.

20. Pursuant to Section 29.10.1005(a)(4) of the Town Code, 8.5- by 11-inch **warning signs** shall be affixed and prominently displayed on each side of fencing opposite the trees' trunks: "WARNING - Tree Protection Zone - this fence shall not be removed and is subject to penalty according to Town Code 29.10.1025." These signs should be intact prior to commencing demolition.

5.3 During Demolition, Grading and Construction

21. **Supply water** to the root zones of **#4, 6 and 14** every three to four weeks throughout the entire construction process, at an amount of five to ten gallons per inch of trunk diameter. Various application methods include either flooding the inside of a 12-inch tall berm formed around or near a canopy's perimeter, using soaker hoses, or through deep-root injection. For #4 and 6, watering only on the project site is sufficient.

22. Avoid using **tree trunks** as winch supports for moving or lifting heavy loads.

23. The **staging area** and **route(s) of access** should be established beyond TPZs.

24. Excavation for section of drive (parking space location) beneath **#4's canopy** should first be performed by a **one-foot wide trench** being **manually dug** along the perimeter of where soil excavation will occur closest to the tree's trunk, and down to the required subgrade depth (to avoid roots breaking and being damaged closer to the trunk than otherwise needed). Roots encountered with diameters of ≥two inches shall be cleanly severed by hand (at 90° to the direction of root growth) against the tree side of the trench. All soil beyond the trench (i.e. away from the tree) can then be mechanically excavated using heavy equipment, and remaining outside the fenced area(s). Alternatively, the use of a **stump grinder** could be utilized precisely where a curb/gutter and any overcut (12" max) will be established.

25. Any approved **digging or trenching** within a **TPZ** shall be **manually performed** without the use of heavy equipment or tractors operating on unpaved ground beneath canopies.

26. Avoid damaging or cutting **roots** with diameters ≥two inches. Should roots of this size be encountered, within one hour of exposure, they should either be covered by burlap that remains continually moist until covered by soil. If they are approved for cutting, cleanly severe at 90° to the angle of root growth against the cut line (using loppers or a sharp hand saw), and then immediately after, the cut end either buried with soil or covered by a plastic sandwich bag (and secured using a rubber band, and removed just before backfilling).

27. **Tree pruning** shall only be performed in accordance with ANSI A300-2001 standards, by a California licensed tree-service contractor (D-49) that has an ISA certified arborist in a supervisory role, carries General Liability and Worker's Compensation insurance, and abides by ANSI Z133.1-2006 (Safety Operations).

28. Removing **existing hardscape and home** within and near a TPZ, such as for **tree #14**, must be carefully performed to avoid excavating roots and soil during the process (and above-ground portion of a tree).

29. The **root zone buffer** for **tree #14** shall be installed immediately following demolition of the existing rear patio (completed prior to basement excavation).

30. Any **fence posts** to be established within a TPZ must be carefully designed to avoid potential significant impacts. In doing so, I recommend they are planned to be at least two to three feet from a trunk, minimized in diameter, and spaced as far apart as possible (e.g. at least five plus feet apart). The design should specify that the post holes are manually dug using a post hole digger or shovel, and roots two inches and greater in diameter retained and protected during the process (in the event a root of this size is encountered during digging, the hole should be shifted over 12 inches and the process repeated).

31. **Spoils** created during digging shall not be piled or spread on unpaved ground within a TPZ. If essential, spoils can be temporarily piled on plywood or a tarp.

32. **Dust** accumulating on trunks and canopies during dry weather periods should be periodically **washed** away (e.g. every two to three months).

33. **Avoid disposing** harmful products (such as cement, paint, chemicals, oil and gasoline) beneath canopies or anywhere on site that allows drainage within or near TPZs. **Herbicides** should not be used with a TPZ; where used on site, they should be labeled for safe use near trees. **Liming** shall not occur within 50 feet from a trunk.

34. Great care must be taken by **equipment operators** to position their equipment to avoid the trunks and branches of trees, including the scorching of foliage (including along the road).

35. **Fertilization** may benefit the trees' health, vigor and appearance. If applied, however, soil samples should first be obtained to identify the pH levels and nutrient levels so a proper fertilization program can be established. I further recommend any fertilization is performed under the direction and supervision of a certified arborist, and in accordance with ANSI A300 (Part 2) - 2004 Fertilization standards.

6.0 ASSUMPTIONS AND LIMITING CONDITIONS

- All information presented herein covers only the inventoried trees, and reflects their size, condition, and areas viewed within the project site and from the ground May 21, 2015.
- Documented condition, suitability ratings and species of dormant trees are subject to change once they can be observed following the growth of new leaves.
- My observations were performed visually without probing, coring, dissecting or excavating. I cannot, in any way, assume responsibility for any defects that could only have been discovered by performing the mentioned services in the specific area(s) where a defect was located.
- The assignment pertains solely to trees listed in Exhibit A. I hold no opinion towards other trees on or surrounding the project area.
- I cannot provide a guarantee or warranty, expressed or implied, that deficiencies or problems of any trees or property in question may not arise in the future.
- No assurance can be offered that if all my recommendations and precautionary measures (verbal or in writing) are accepted and followed, that the desired results may be achieved.
- I cannot guarantee or be responsible for the accuracy of information provided by others.
- I assume no responsibility for the means and methods used by any person or company implementing the recommendations provided in this report.
- The information provided herein represents my opinion. Accordingly, my fee is in no way contingent upon the reporting of a specified finding, conclusion or value.
- The numbers shown on the site map in Exhibit B are intended to only roughly approximate a tree's location, or group location, and shall not be considered surveyed points.
- This report is proprietary to me and may not be copied or reproduced in whole or part without prior written consent. It has been prepared for the sole and exclusive use of the parties to who submitted for the purpose of contracting services provided by David L. Babby.
- If any part of this report or copy thereof be lost or altered, the entire evaluation shall be invalid.

Prepared By: _____ Date: May 29, 2015

David L. Babby

Registered Consulting Arborist® #399

Board-Certified Master Arborist® #WE-4001B

EXHIBIT A:

TREE INVENTORY TABLE

(three sheets)

TREE INVENTORY TABLE

TREE/ TAG NO.	TREE NAME	SIZE		CONDITION			Suitability for Preservation (High/Moderate/Low)
		Trunk Diameter (in.)	Canopy Spread (ft.)	Health Condition (100%=Best, 0%=Worst)	Structural Integrity (100%=Best, 0%=Worst)	Overall Condition (Good/Fair/Poor/Dead)	
1	Deodar cedar (*Cedrus deodara*)	22	55	40%	80%	Poor	Moderate

Comments: Offsite, center of trunk about 10' from fence and 12' from street. Added to map. Sparse canopy. Ivy throughout most of dripline.

2	Monterey pine (*Pinus radiata*)	18	35	60%	30%	Poor	Low

Comments: Asymmetrical, poor form and a sinuous trunk. Dead branches overhang driveway. Numerous large cuts along lower trunk and crown. Excessive limb weight.

3	Western redbud (*Cercis occidentalis*)	5, 3	20	60%	30%	Poor	Low

Comments: Prior pruning relegated to elevating crown. Remaining canopy is dense with poor form. Street tree.

4	European beech (*Fagus sylvatica*)	16	45	60%	70%	Fair	Moderate

Comments: Offsite, center of trunk about 5' from fence. Added to map. Excessive limb weight. The entire lower trunk is not visible.

5	Evergreen pear (*Pyrus kawakamii*)	5	10	50%	30%	Poor	Low

Comments: Highly asymmetrical, one-sided canopy away from #2. Sinuous form.

6	Coast live oak (*Quercus agrifolia*)	23	35	90%	40%	Fair	Moderate

Comments: Offsite, center of trunk about 4' from fence. Added to map. Asymmetrical away from site. Multi-leader structure and narrow form.

TREE INVENTORY TABLE

TREE/ TAG NO.	TREE NAME	SIZE		CONDITION			Suitability for Preservation (High/Moderate/Low)
		Trunk Diameter (in.)	Canopy Spread (ft.)	Health Condition (100%=Best, 0%=Worst)	Structural Integrity (100%=Best, 0%=Worst)	Overall Condition (Good/Fair/Poor/Dead)	
7	Coast live oak (*Quercus agrifolia*)	17	30	60%	30%	Poor	Low

Comments: Offsite, center of trunk about 8' from fence. Added to map. Sinuous form. Asymmetrical, one-sided canopy entirely away from site. Multi-leader structure. Partial buried root collar.

8	Monterey pine (*Pinus radiata*)	15	25	50%	50%	Fair	Moderate

Comments: Offsite, center of trunk about 7' from fence. Narrow form. Added to map.

9	Glossy privet (*Ligustrum lucidum*)	11	25	50%	40%	Poor	Low

Comments: Offsite, trunk's base abuts fence. Added to map. Crowded conditions beneath #8 and 11.

10	Glossy privet (*Ligustrum lucidum*)	9	10	60%	30%	Poor	Low

Comments: Offsite, center of trunk about 18" from fence. Added to map. Trunk grows thru fence from neighbor's side, then upright. Somewhat dense growth of wisteria in canopy.

11	Coast live oak (*Quercus agrifolia*)	35	45	40%	40%	Poor	Moderate

Comments: Moderate to low suitability. Significant soil disturbance beneath canopy - compaction and soil displaced from a small tractor (recent operations, likely during wet soil conditions). Buried root collar. Small, recent scar along lower trunk. Sparse canopy. Asymmetrical, nearly one-sided canopy that is dominant towards south side (due to crowded conditions). Very high canopy and excessively pruned in past. Trunk bifurcates into codominant leaders at 6' above grade; the central leader has a multi-limb structure.

TREE INVENTORY TABLE

TREE/ TAG NO.	TREE NAME	SIZE		CONDITION			Suitability for Preservation (High/Moderate/Low)
		Trunk Diameter (in.)	Canopy Spread (ft.)	Health Condition (100%=Best, 0%=Worst)	Structural Integrity (100%=Best, 0%=Worst)	Overall Condition (Good/Fair/Poor/Dead)	
12	Monterey pine (*Pinus radiata*)	36	60	40%	40%	Poor	Low

Comments: Offsite, center of trunk about 10' from fence. Added to map. Visibility of trunk and canopy is highly inhibited; what is seen of canopy indicates health is poor (further examination is needed if more accurate assessment is necessary). Very high canopy and excessive limb weight.

13	Glossy privet (*Ligustrum lucidum*)	8, 6, 5, 4	20	50%	30%	Poor	Low

Comments: Offsite, center of trunk about 3' from fence. Added to map. Topped before. Excessive limb weight.

14	Coast live oak (*Quercus agrifolia*)	35	65	60%	40%	Fair	Moderate

Comments: Asymmetrical, one-sided canopy towards south. Root collar is buried by river rock and possibly some soil. Low limb towards west, and its removal back to trunk is anticipated (a minor impact). A large 1.8' tall by 1.4' wide wound along the trunk's south side is filled with foam, and as such, the extent of decay is unknown. Significant soil disturbance beneath canopy (see tree #11 for further discussion).

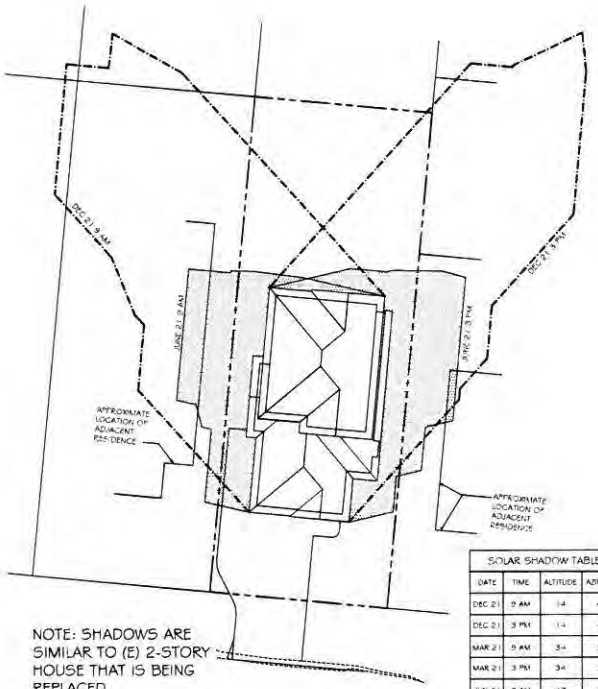
15	Pacific wax myrtle (*Morella californica*)	5	10	50%	40%	Poor	Low

Comments: Crowded-growing conditions. Could also be regarded as a tall shrub. Added to map.

EXHIBIT B:

SITE MAP

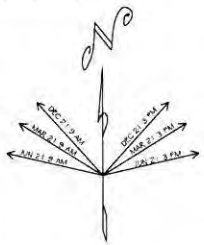
(one sheet)



NOTE: SHADOWS ARE SIMILAR TO (E) 2-STORY HOUSE THAT IS BEING REPLACED

SOLAR SHADOW TABLE			
DATE	TIME	ALTITUDE	AZIMUTH
DEC 21	9 AM	14	42
DEC 21	3 PM	14	42
MAR 21	9 AM	34	58
MAR 21	3 PM	34	58
JUN 21	9 AM	47	77
JUN 21	3 PM	47	77

SOLAR SHADOW STUDY 1"=16'-0"



PROJECT DATA

PROJECT ADDRESS: 18151 OVERLOOK ROAD, LOS GATOS, CA

OWNER: URBAN WEST, LLC

PROJECT DESCRIPTION:
DEMOLISH (E) 2-STORY HOUSE + (E) DETACHED GARAGE AND BUILD NEW 2-STORY HOUSE W/ CELLAR

APN: 510-40-146

HOUSE TO BE FULLY FIRE-SPRINKLED

ZONING: R-1-S

CONSTRUCTION TYPE: V-B

OCCUPANCY GROUP: R-3/U

AVERAGE LOT SLOPE:

LOT SIZE: 7,000 SQ. FT.

ALLOWABLE F.A.R.:
.35 = [(7,500 x .2) + 2,251] x 7,000 = 2,338 ± SQ. FT.

PROPOSED FLOOR AREA	
1ST FLOOR	1,360
2ND FLOOR	846
TOTAL	2,226
CELLAR	1,043
GARAGE	255
PROPOSED F.A.R.	33.6%

IMPERVIOUS COVERAGE:	
BUILDING	1,635
COVERED PORCH	145
LIGHTWELLS	161
LANDINGS	35
DRIVEWAY	854
TOTAL	2,530

BUILDING COVERAGE 2,530 ÷ 7,500 = 33.73%

EXISTING HOUSE FLOOR AREA	
1ST FLOOR	523
2ND FLOOR	823
TOTAL	1,646
DETACHED GARAGE	422

IMPERVIOUS COVERAGE	
BUILDINGS	1,245
WALKS PATIOS	967
DRIVEWAY	684
TOTAL	2,892

BUILDING COVERAGE 1,245 ÷ 7,500 = 17.6%

VICINITY MAP

WILDLAND-URBAN INTERFACE FIRE PROTECTION NOTES:

- ROOFING SHALL BE CLASS 'A' COMP. SHINGLE
- ROOF VALLEYS SHALL HAVE NOT LESS THAN 26 GA. SHEET METAL INSTALLED OVER A MIN. 36" WIDE UNDERLAYMENT OF NO. 72 CAP SHEET RUNNING THE FULL LENGTH OF THE VALLEY
- ROOF GUTTERS SHALL BE PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS
- UNDERSIDES OF EAVES SHALL BE STUCCO OR WOOD PANELING OVER GYPSUM BOARD, OR FIRE RETARDANT LUMBER
- EAVE VENTS WITHIN 12' OF GRADE OF WALKING SURFACE TO BE PROTECTED FROM THE PASSAGE OF FLAMES OR EMBERS. NOTE: PROTECTED VENTS MUST BE APPROVED BY CALFIRE STANDARD SCREEN VENTS NOT ALLOWED LESS THAN 12' ABOVE GRADE. VENTS MORE THAN 12' ABOVE GRADE OR WALKING SURFACE MAY BE STANDARD SCREEN VENTS
- ROOF AND ATTIC VENTS SHALL BE COVERED WITH CORROSION-RESISTANT WIRE MESH WITH 1/16" MIN. AND 1/8" MAX. MESH OPENINGS (ALL WALL AND STANDARD SCREEN ROOF VENTS)
- EXTERIOR WALL COVERING SHALL BE 3-COAT 7/8" MIN. THICK STUCCO W/ SELF-FURRING WIRE LATH OVER 2 LAYERS TYPE D PAPER AND SHALL EXTEND FROM TOP OF FOUNDATION TO THE ROOF, TERMINATING AT 2" NOMINAL SOLID WOOD BLOCKING BETWEEN RAFTERS AT ALL ROOF OVERHANGS OR TERMINATE AT ENCLOSED EAVES
- EXTERIOR WALL VENTS (I.E., CRAWL SPACE VENTS, COMBUSTION AIR VENTS, ETC.) SHALL BE COVERED WITH CORROSION-RESISTANT WIRE MESH WITH 1/16" MIN. AND 1/8" MAX. MESH OPENINGS
- EXTERIOR WALL VENTS (I.E., CRAWL SPACE VENTS, COMBUSTION AIR VENTS, ETC.) SHALL BE COVERED WITH CORROSION-RESISTANT WIRE MESH WITH 1/16" MIN. AND 1/8" MAX. MESH OPENINGS
- ALL EXTERIOR WINDOWS SHALL BE DUAL-PANED WITH A MINIMUM OF ONE TEMPERED PANE (INNER OR OUTER PANE) NOTE: HAZARDOUS LOCATIONS STILL REQUIRE SAFETY GLAZING IN ALL PANES

ALL EXTERIOR DOORS SHALL BE:

- SOLID-CORE, 1-3/4" MIN. THICK OR UTILIZE MULTIPLE DUAL-PANED GLAZED PANELS WITH AT LEAST ONE TEMPERED GLASS PANE OR
- APPROVED, LISTED, 20-MINUTE DOOR (PROVIDE SPECIFICATIONS SHOWING
- APPROVED LISTING TO BUILDING OFFICIAL UPON PLAN REVIEW SUBMITTAL) OR
- NONCOMBUSTIBLE CONSTRUCTION (PROVIDE SPECIFICATIONS SHOWING APPROVED LISTING TO BUILDING OFFICIAL UPON PLAN REVIEW SUBMITTAL

- VEGETATION CLEARANCE SHALL BE IN COMPLIANCE WITH CBC SECTION 701A.3.2.4 PRIOR TO PROJECT APPROVAL

GRADING & DRAINAGE NOTES

SHAPE FINAL GRADES TO FORM GRASSY SWALES TO DIRECT SURFACE FLOW TO LANDSCAPE AREAS IN REAR YARD AND FRONT YARD

DOWNSPOUT FLOW TO DISCHARGE ACROSS SPLASHBLOCKS OR DRIVEWAY AND INTO SWALES

DRIVEWAY TO DRAIN IN SHEET FLOW TO LANDSCAPE AREAS IN FRONT YARD

FINAL GRADES TO SLOPE 5% FOR 10' FROM STRUCTURES OR INTO GRASSY SWALES

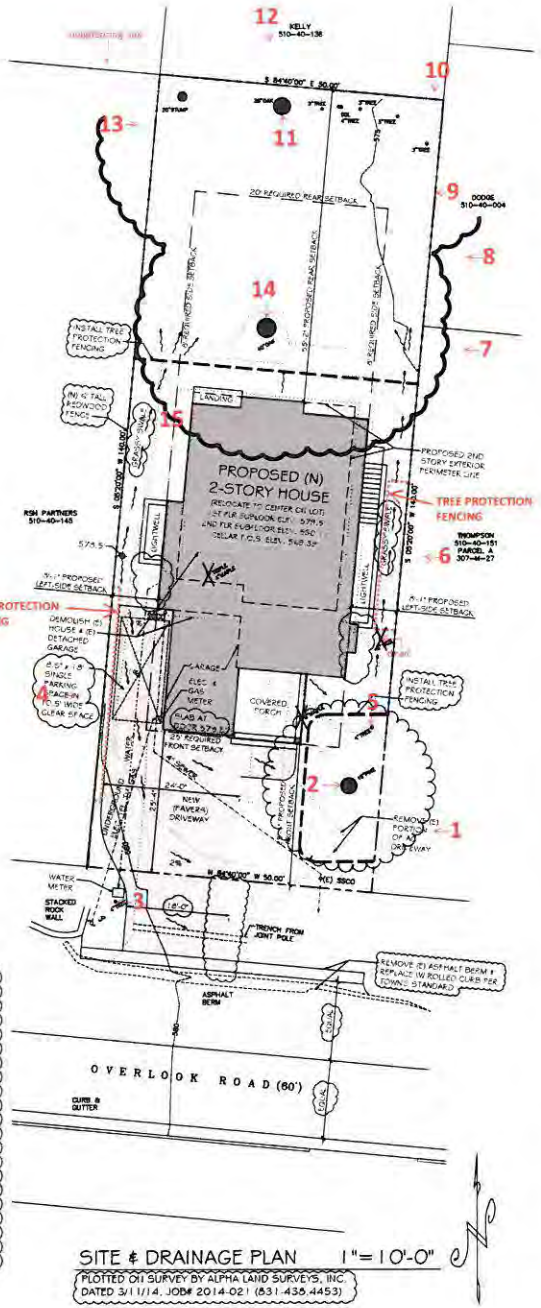
LINE TYPE LEGEND

- DEMOLITION LINE
- UTILITY LINE
- SETBACK LINE
- TREE PROTECTION FENCE
- PROPERTY LINE
- CONTOUR LINE

TREE PROTECTION FENCING NOTES:

TREE PROTECTION FENCING SHALL BE A MIN. OF 5' HIGH CHAIN LINK MOUNTED ON 2"Ø GALVINIZED STEEL POSTS DRIVEN 2' MIN. INTO THE GROUND AT A 10' MAX. SPACING

TREE PROTECTION FENCING TO REMAIN IN PLACE THROUGHT CONSTRUCTION AND SHALL NOT BE REMOVED UNTIL APPROVED BY ARBORIST OR RECORD



SITE & DRAINAGE PLAN 1"=10'-0"

PLOTTED ON SURVEY BY ALPHA LAND SURVEYS, INC. DATED 3/11/14, JOB# 2014-021 (831.438.4453)

DRAWINGS PREPARED BY
CHRIS SPAULDING
ARCHITECT
801 CAMELIA STREET SUITE E
BERKELEY CALIFORNIA 94710
(510) 527-9997 FAX (510) 527-9999

REVISIONS
9-22-14

PRELIMINARY SET	
DESIGN REVIEW SET	
PLAN CHECK SET	
PERMIT SET	
CONSTRUCTION SET	

A PROPOSED NEW HOME
18151 OVERLOOK ROAD
LOS GATOS CALIFORNIA

DATE:	9-10-14
SCALE:	AS NOTED
DRAWN:	BLC/SAB
JOB:	TATE / OVERLOOK
SHEET	A1
OF 6 SHEETS	

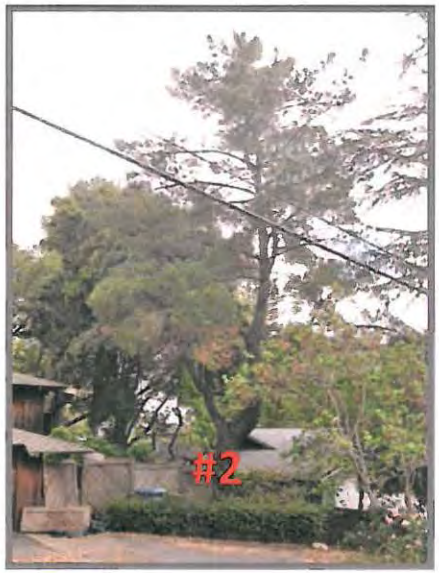
EXHIBIT C:

PHOTOGRAPHS

(four sheets)

Photo Index


#1


#2

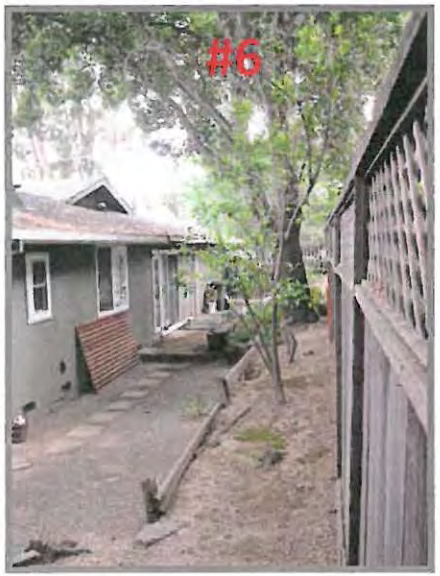

#3


#4


#4 (behind fence)


#5


#6


#6


#6


#7


#7


#7


#9
#8


#8


#10


#12
#11


#11
#12


#12
#11


neighboring
oak
#13


#13


#14


#14


#14


#14


#14


#15

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ARBOR RESOURCES
professional consulting arborists and tree care

UPDATED ARBORIST REPORT

18151 OVERLOOK ROAD

LOS GATOS, CALIFORNIA

PROPERTY OWNER: Ronald M. Tate
APPLICANT: Nicole King of Urban West, LLC
ARCHITECTURE & SITE APPLICATION S-14-056
APN 510-40-146

Submitted to:

Erin Walters
Community Development Department
Town of Los Gatos
110 East Main Street
Los Gatos, CA 95031

Prepared by:

David L. Babby
Registered Consulting Arborist® #399
Board-Certified Master Arborist® #WE-4001B

September 21, 2015

p.o. box 25295, san mateo, california 94402 ▪ email: arborresources@comcast.net
office: 650.654.3351 ▪ cell: 650.274.3656 ▪ licensed contractor #796763

TABLE OF CONTENTS

EXHIBITS

1.0 INTRODUCTION

The Town of Los Gatos Community Development Department has retained me to review the current set of plans and update my prior 5/29/15 report in connection with the proposed new residence, with basement, at **18151 Overlook Road**, Los Gatos. Specific tasks conducted for this and the prior report are as follows:

- Review the current set of plans, stamp dated 8/5/15 by the Town.
- Visit the site, performed on 5/21/15, to assess potential impacts by identify 15 trees situated either within the project site, along the street frontage, or on neighboring properties and having trunks immediately adjacent to and/or canopies overhanging the site. A subsequent visit was performed on 9/16/15 to assess potential impacts by implementing the current set of plans.
- Determine each tree's trunk diameter at 54 inches above grade. Diameters are rounded to the nearest inch, and trees listed with more than one diameter are formed by multiple trunks.
- Estimate average canopy spreads (rounded to the nearest fifth).
- Ascertain each tree's health and structural integrity, and assign an overall condition rating (e.g. good, fair, poor or dead).
- Rate each tree's suitability for preservation (e.g. high, moderate or low).
- Obtain photographs; see Exhibit C.
- Assign tree numbers in a sequential pattern, and plot those numbers and roughly approximate locations on the site map in Exhibit B (base map being Sheet A1, the *Site & Drainage Plan*, dated 9/22/14, by Chris Spaulding Architect).
- Affix round-metal tags with corresponding, engraved numbers to the trunks or limbs of accessible trees. For inaccessible trees on neighboring properties, tags were affixed to wood fences adjacent to their respective tree trunks.
- Provide measures to help avoid or mitigate impacts to retained or removed trees.
- Prepare a written report containing the above information, and submit via email as a PDF document.

2.0 TREE COUNT AND COMPOSITION

Fifteen (15) trees of eight various species were inventoried for this report. They are sequentially numbered as #**1 thru 15**, and the table below identifies their names, assigned numbers, counts and percentages.

NAME	TREE NUMBER(S)	COUNT	% OF TOTAL
Coast live oak	6, 7, 11, 14	4	27%
Deodar cedar	1	1	7%
European beech	4	1	7%
Evergreen pear	5	1	7%
Glossy privet	9, 10, 13	3	20%
Monterey pine	2, 8, 12	3	20%
Pacific wax myrtle	3	1	7%
Western redbud	3	1	7%
	Total	**15**	**100%**

As illustrated in the above table, the tree landscape on and surrounding the site is populated predominantly by coast live oak, privet and Monterey pine.

Specific information regarding each tree is presented within the table in **Exhibit A**. The trees' corresponding **numbers** and approximate **locations** can be viewed on the site map in **Exhibit B**, and **photographs** are presented in **Exhibit C**.

Tree #3, a small redbud, is situated within the public right-of-way along Overlook Road and is regarded as a **street tree**.

Nine (9) trees have trunks originating on **neighboring properties**, and were inventoried due to their proximity to the project site; they include **#1, 4, 6-10, 12 and 13**.

Of the 15 inventoried trees, the following **12** are **regulated** and defined as **protected trees**:[1] **#1-8, 11, 12, 14 and 15**.

The other three trees, **#9, 10 and 13**, are **exempt** from regulation, pursuant to Section 29.10.0970 of the Town Code, due to being privets with trunk diameters less than 24 inches (all are situated on neighboring properties).

Ten (10) trees were not shown on the prior plans reviewed, and their locations shown on the map in Exhibit B are only *roughly* approximate and should not be construed as being surveyed; they include **#1, 4, 6-10, 12, 13 and 15** (accounts for all those on neighboring properties plus #15).

Other trees located throughout the site were not inventoried due to having trunks with diameters less than four inches.

[1] Pursuant to Section 29.10.0960 of the Town's Municipal Code, a "protected tree" has a trunk with a diameter ≥4" at three feet above grade. Fruit- or nut-bearing trees with trunk diameters less than 18" are exempt (Section 29.10.0970).

3.0 SUITABILITY FOR TREE PRESERVATION

Each tree has been assigned either a "high," "moderate" or "low" suitability for preservation rating as a means to cumulatively measure its existing health, structural integrity, anticipated life span, location, size, particular species, tolerance to construction impacts, growing space, and safety to property and persons within striking distance. Descriptions of these ratings are presented below; the high category is comprised of **no trees**, the moderate category **six** (or 40%), and the low category **nine** (or 60%).

High: Applies to **none**.

These trees appear relatively healthy and structurally stable; have no apparent, significant health issues or structural defects; present a good potential for contributing long-term to the site; and require only periodic or regular care and monitoring to maintain their longevity and structural integrity. They are typically the most suitable for retaining and incorporating into the future landscape.

Moderate: Applies to **trees #1, 4, 6, 8, 11 and 14**.

These trees contribute to the site, but at levels less than those assigned a good suitability; may have health and/or structural issues that can potentially be reasonably addressed and properly mitigated; and frequent care is typically required for their remaining lifespan. They might be worth retaining, if provided proper care, but not seemingly at significant expense or major design revisions.

Low: Applies to **trees #2, 3, 5, 7, 9, 10, 12, 13 and 15**.

These trees have serious or significantly weakened health and/or structural defects that are expected to worsen regardless of tree care measures employed (i.e. beyond likely recovery). Removal of those located within the site is recommended to improve the tree landscape and/or site safety.

4.0 REVIEW OF POTENTIAL IMPACTS

Based on my review of project plans, in conjunction with a specific tree's condition and tolerance to impacts, the following disposition is anticipated:

- **Removals** (four in total): **#2, 3, 5 and 15.**
- **Retained** (eleven in total): **#1, 4 and 6-14.**

Regarding removals, **tree #2** is a Monterey pine intolerant of root loss, and its decline and ultimate demise is anticipated within one or more years following site development. **Tree #3** is a small redbud with poor structure, and excavation for constructing the new driveway will extend up to its trunk and result in severe impacts. **Tree #5** is a small evergreen pear also with a poor structure. **Tree #15** can be considered a tall shrub, and is anticipated to be removed during excavation for the basement.

To my understanding, an application has been submitted to the Town regarding **removing tree #11**, the rearmost oak on the property; specific reasons for removal are unrelated to future site construction.

Tree #4 is specified for retention, but would sustain substantial root impacts during construction of the proposed future curb and parking space/driveway within the existing planter and six inches from existing fence; when considering overexcavation is needed to form and pour the curb/parking space, ground disturbance will occur up to the fence.

Based on **#4**'s size, its protection zone should be a minimum of eight feet from the trunk's base to back of rock wall (i.e. where dirt of the planter and rocks meet), where all overexcavation, compaction, trenching and other ground disturbance should be avoided. Tree #4's base of trunk is roughly four feet from the fence, and the existing planter is 18 inches wide between the fence to back of rock wall (the planter is anticipated to contain significant roots). When considering this information, design revisions are needed for adhering to the TPZ and achieving a reasonable assurance of #4's survival.

5.0 TREE PROTECTION MEASURES

This section presents recommendations for achieving the protection of retained trees throughout construction. They should be carefully followed, are subject to revision upon reviewing revised or additional project plans, and I should be consulted in the event any measure cannot be feasibly implemented. Please note all referenced distances from trunks are intended to be from the closest edge (face of) of their outermost perimeter at soil grade.

5.1 Design Guidelines

1. Designate a **Tree Protection Zone (TPZ)** to be the section of existing unpaved ground beneath or beyond a tree's entire canopy; for #4, it should be as specified in Section 4.0 of this report, and for #6, a minimum distance of nine feet west of its trunk, and from this point north and south, up to 15 feet from the trunk.

   A TPZ is where the following activities shall be avoided: trenching, soil scraping, compaction, mass grading, finish-grading, overexcavation, subexcavation, tilling, ripping, swales, bioswales, storm drains, dissipaters, dry equipment cleaning, stockpiling and dumping of materials, equipment/vehicle operation, and shoring piers/excavation. In the event an impact encroaches slightly within a setback, it can be reviewed on a case-by-case basis to determine whether measures can sufficiently mitigate the impacts to less-than-significant levels.

2. Where beneath the canopies of **trees #6 and 14**, limit overexcavation, compaction, trenching and other **soil disturbance** to within **12 to 24 inches** beyond the first floor foundation. For **tree #4**, the same limitations are needed beyond the basement and lightwell walls, as well as the first floor foundation.

3. If **shoring** is used for constructing the basement, the layout should not require the loss or large limbs or branches during operation of a pile driver or drill rig for **shoring** (and soil nailing and shotcrete utilized should a conflict exist).

4. For **tree #4**, implement the design recommendations provided in Section 4.0.

5. The proposed **retaining wall** adjacent to **tree #6** shall require no excavation, trenching or compaction within its TPZ (e.g. utilize a drystack wall with no footings). Should footings be required for the desired wood wall, the post locations shall be installed as discussed in Section 5.3 of this report.

6. The permanent and temporary **drainage design**, including downspouts, should not require water being discharged towards a tree's trunk.

7. The **assigned numbers** should be added to Sheet 3 (excluding exempt trees #9, 10 and 13). Additionally, **#4**'s location should be updated on Sheets A1 and 3 to reflect what is identified in Exhibit A.

8. Update Sheets A1, A1.1 and C3 to illustrate **protection fencing** as shown in red on the map in Exhibit B. Other fencing locations can be omitted from the plans.

9. On the demolition plan, specify that all below ground **existing and unused pipes, vaults and lighting** shall be **abandoned** and cut off at existing soil grade where within a TPZ (rather than being dug up and causing root damage).

10. **Swales** should be established well-beyond tree canopies. Where necessary within, they should be as far from the trunks as possible, require no more than a two- to three-inch deep cut or fill, avoid severing roots ≥two inches in diameter, and not be compacted (foot-tamping is acceptable).

11. The **erosion control** design should consider that any straw wattle or fiber rolls require a maximum vertical soil cut of two inches for their embedment, and are established as close to canopy edges as possible (and not against a tree trunk).

12. Per Section 29.10.1000(C.1) of the Ordinance, a copy of this report (or updated one) must be incorporated into the final set of project plans; titled **Sheets T-1, T-2, etc.** ("Tree Protection Instructions"); and referenced on all site-related project plans.

13. The **landscape design** should conform to the following additional guidelines:
    a. **Plant material** installed beneath the canopies of the oaks should be drought-tolerant, limited in amount, and planted at least five or more feet from their trunks. Plant material installed beneath the canopies of all other trees should be at least 24 to 36 inches from their trunks.
    b. **Irrigation** beneath the oak canopies should not be applied within a distance of five times their trunk diameters. Irrigation for new plant material beneath their canopies should be low-volume, applied irregularly (such as only once or twice per week), and temporary (such as no more than three years).
    c. **Irrigation and lighting features** (e.g. main line, lateral lines, valve boxes, wiring and controllers) should be established beyond TPZs. In the event this is not feasible, they may require being installed in a radial direction to a tree's trunk, and terminate a specific distance from a trunk (versus crossing past it).
    d. **Ground cover** should be comprised (partially or entirely) of a three- to four-inch depth of coarse wood chips or other high-quality mulch (gorilla hair, bark or rock, stone, cobble, gravel, black plastic or other synthetic ground cover should be avoided). Mulch should remain six inches from the trees' trunks.
    e. **Tilling, ripping and compaction** within TPZs should be avoided.
    f. Bender board or other **edging** material proposed beneath the canopies should be established on top of existing soil grade (such as by using vertical stakes).

14. **Mitigation** is necessary to compensate for the removal of **protected trees**, and Section 29.10.0985 can be used as the framework for determining amounts and sizes. The trees shall be planted prior to final inspection, double-staked with rubber tree ties (may not be necessary for trees of 36-inch box size and larger), and all forms of irrigation be of an automatic drip or soaker hose system placed on the soil surface and not in a sleeve. Additionally, to achieve the greatest assurance of proper installation, all new trees shall be installed, including necessary irrigation, by an experienced California State-licensed landscape contractor or tree-service company.

5.2 Before Demolition, Grading and Construction

15. **Manually restore** the soil grade at the rear of the site; the ground should be 'smoothed' and leveled out, being careful not to excavate soil and roots.

16. **Spread** a four- to five-inch layer of **coarse wood chips** (¼- to ¾-inch in size) from a tree-service company over the ground within the property's rear section.

17. A **root zone buffer**, for foot-traffic only, should be established for **tree #6** between protection fencing and first-floor foundation. It shall comprise a six- to eight-inch layer of coarse wood chips manually spread on unpaved ground, and to create a sturdy walking surface, can be covered by plywood sheets of at least ¾-inch thick and secured together.

18. The **root collars** of **trees #11 and 14** must be fully **cleared of rock and soil** on all sides (360°), and the work performed by a professional and state-licensed tree service either through hand-digging or the use of an Airspade (not applicable for #11 if its removal is authorized by the Town).

19. Establish **tree protection fencing** to restrict access into TPZs, and where along future foundations, no farther than five feet from the basement wall and/or first-floor foundation; locations are identified on the map in Exhibit B. This fencing shall remain throughout construction, and consist of five- to six-foot high chain link mounted on eight-foot tall, two-inch diameter galvanized steel posts that are driven into the ground.

20. Pursuant to Section 29.10.1005(a)(4) of the Town Code, 8.5- by 11-inch **warning signs** shall be affixed and prominently displayed on each side of fencing opposite the trees' trunks: "WARNING - Tree Protection Zone - this fence shall not be removed and is subject to penalty according to Town Code 29.10.1025." These signs should be intact prior to commencing demolition.

5.3 During Demolition, Grading and Construction

21. **Supply water** to the root zones of **#4, 6 and 14** every three to four weeks throughout the entire construction process, at an amount of five to ten gallons per inch of trunk diameter. Various application methods include either flooding the inside of a 12-inch tall berm formed around or near a canopy's perimeter, using soaker hoses, or through deep-root injection. For #4 and 6, watering only on the project site is sufficient.

22. A **root zone buffer**, for foot-traffic only, should be established for **#4** immediately following removal of the rear patio. It should be established between protection fencing and the basement/lightwell wall, and comprise a six- to eight-inch layer of coarse wood chips manually spread on unpaved ground; to create a sturdy walking surface, the chips can be covered by plywood sheets of at least ¾-inch thick and secured together.

23. Avoid using **tree trunks** as winch supports for moving or lifting heavy loads.

24. The **staging area** and **route(s) of access** should be established beyond TPZs.

25. Excavation for section of drive (parking space location) beneath **#4's canopy** should first be performed by a **one-foot wide trench** being **manually dug** along the perimeter of where soil excavation will occur closest to the tree's trunk, and down to the required subgrade depth (to avoid roots breaking and being damaged closer to the trunk than otherwise needed). Roots encountered with diameters of ≥two inches shall be cleanly severed by hand (at 90° to the direction of root growth) against the tree side of the trench. All soil beyond the trench (i.e. away from the tree) can then be mechanically excavated using heavy equipment, and remaining outside the fenced area(s). Alternatively, the use of a **stump grinder** could be utilized precisely where a curb/gutter and any overcut (12" max) will be established.

26. Any approved **digging or trenching** within a **TPZ** shall be **manually performed** without the use of heavy equipment or tractors operating on unpaved ground beneath canopies.

27. Avoid damaging or cutting **roots** with diameters ≥two inches. Should roots of this size be encountered, within one hour of exposure, they should either be covered by burlap that remains continually moist until covered by soil. If they are approved for cutting, cleanly severe at 90° to the angle of root growth against the cut line (using loppers or a sharp hand saw), and then immediately after, the cut end either buried with soil or covered by a plastic sandwich bag (and secured using a rubber band, and removed just before backfilling).

28. **Tree pruning** shall only be performed in accordance with ANSI A300-2001 standards, by a California licensed tree-service contractor (D-49) that has an ISA certified arborist in a supervisory role, carries General Liability and Worker's Compensation insurance, and abides by ANSI Z133.1-2006 (Safety Operations).

29. Removing **existing hardscape and home** within and near a TPZ, such as for **tree #14**, must be carefully performed to avoid excavating roots and soil during the process (and above-ground portion of a tree). The section of existing hardscape within the designed-fenced area for #14 should be manually performed.

30. The **root zone buffer** for **tree #14** shall be installed immediately following demolition of the existing rear patio (completed prior to basement excavation).

31. Any **fence posts** to be established within a TPZ must be carefully designed to avoid potential significant impacts. In doing so, I recommend they are planned to be at least two to three feet from a trunk, minimized in diameter, and spaced as far apart as possible (e.g. at least five plus feet apart). The design should specify that the post holes are manually dug using a post hole digger or shovel, and roots two inches and greater in diameter retained and protected during the process (in the event a root of this size is encountered during digging, the hole should be shifted over 12 inches and the process repeated).

32. **Spoils** created during digging shall not be piled or spread on unpaved ground within a TPZ. If essential, spoils can be temporarily piled on plywood or a tarp.

33. **Dust** accumulating on trunks and canopies during dry weather periods should be periodically **washed** away (e.g. every two to three months).

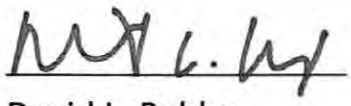
34. **Avoid disposing** harmful products (such as cement, paint, chemicals, oil and gasoline) beneath canopies or anywhere on site that allows drainage within or near TPZs. **Herbicides** should not be used with a TPZ; where used on site, they should be labeled for safe use near trees. **Liming** shall not occur within 50 feet from a trunk.

35. Great care must be taken by **equipment operators** to position their equipment to avoid the trunks and branches of trees, including the scorching of foliage (including along the road).

36. **Fertilization** may benefit the trees' health, vigor and appearance. If applied, however, soil samples should first be obtained to identify the pH levels and nutrient levels so a proper fertilization program can be established. I further recommend any fertilization is performed under the direction and supervision of a certified arborist, and in accordance with ANSI A300 (Part 2) - 2004 Fertilization standards.

6.0 ASSUMPTIONS AND LIMITING CONDITIONS

- All information presented herein covers only the inventoried trees, and reflects their size, condition, and areas viewed within the project site and from the ground on May 21, 2015.
- Documented condition, suitability ratings and species of dormant trees are subject to change once they can be observed following the growth of new leaves.
- My observations were performed visually without probing, coring, dissecting or excavating. I cannot, in any way, assume responsibility for any defects that could only have been discovered by performing the mentioned services in the specific area(s) where a defect was located.
- The assignment pertains solely to trees listed in Exhibit A. I hold no opinion towards other trees on or surrounding the project area.
- I cannot provide a guarantee or warranty, expressed or implied, that deficiencies or problems of any trees or property in question may not arise in the future.
- No assurance can be offered that if all my recommendations and precautionary measures (verbal or in writing) are accepted and followed, that the desired results may be achieved.
- I cannot guarantee or be responsible for the accuracy of information provided by others.
- I assume no responsibility for the means and methods used by any person or company implementing the recommendations provided in this report.
- The information provided herein represents my opinion. Accordingly, my fee is in no way contingent upon the reporting of a specified finding, conclusion or value.
- The numbers shown on the site map in Exhibit B are intended to only roughly approximate a tree's location, or group location, and shall not be considered surveyed points.
- This report is proprietary to me and may not be copied or reproduced in whole or part without prior written consent. It has been prepared for the sole and exclusive use of the parties to who submitted for the purpose of contracting services provided by David L. Babby.
- If any part of this report or copy thereof be lost or altered, the entire evaluation shall be invalid.

Prepared By:  Date: September 21, 2015

David L. Babby

Registered Consulting Arborist® #399

Board-Certified Master Arborist® #WE-4001B

EXHIBIT A:

TREE INVENTORY TABLE

(three sheets)

TREE INVENTORY TABLE

TREE/ TAG NO.	TREE NAME	SIZE		CONDITION			Suitability for Preservation (High/Moderate/Low)
		Trunk Diameter (in.)	Canopy Spread (ft.)	Health Condition (100%=Best, 0%=Worst)	Structural Integrity (100%=Best, 0%=Worst)	Overall Condition (Good/Fair/Poor/Dead)	
1	Deodar cedar (*Cedrus deodara*)	22	55	40%	70%	Poor	Moderate

Comments: Offsite, center of trunk about 10' from fence and 12' from street. Added to map. Very sparse canopy; marginal or lesser condition. Ivy throughout most of dripline.

2	Monterey pine (*Pinus radiata*)	18	35	60%	30%	Poor	Low

Comments: Asymmetrical, poor form and a sinuous trunk. Dead branches overhang driveway. Numerous large cuts along lower trunk and crown. Excessive limb weight.

3	Western redbud (*Cercis occidentalis*)	5, 3	20	60%	30%	Poor	Low

Comments: Prior pruning relegated to elevating crown. Remaining canopy is dense with poor form. Street tree.

4	European beech (*Fagus sylvatica*)	16	45	60%	70%	Fair	Moderate

Comments: Offsite, center of trunk about 5' north of gate and 5' west of shared fence. Added to map. Excessive limb weight. The entire lower trunk is not visible.

5	Evergreen pear (*Pyrus kawakamii*)	5	10	50%	30%	Poor	Low

Comments: Highly asymmetrical, one-sided canopy away from #2. Sinuous, very poor form.

6	Coast live oak (*Quercus agrifolia*)	23	35	90%	40%	Fair	Moderate

Comments: Offsite, center of trunk about 4' from fence. Added to map. Asymmetrical away from site. Multi-leader structure and narrow form.

TREE INVENTORY TABLE

TREE/ TAG NO.	TREE NAME	SIZE		CONDITION			
		Trunk Diameter (in.)	Canopy Spread (ft.)	Health Condition (100%=Best, 0%=Worst)	Structural Integrity (100%=Best, 0%=Worst)	Overall Condition (Good/Fair/Poor/Dead)	Suitability for Preservation (High/Moderate/Low)
7	Coast live oak (*Quercus agrifolia*)	17	30	60%	30%	Poor	Low

Comments: Offsite, center of trunk about 8' from fence. Added to map. Sinuous form. Asymmetrical, one-sided canopy entirely away from site. Multi-leader structure. Partial buried root collar.

8	Monterey pine (*Pinus radiata*)	15	25	50%	50%	Fair	Moderate

Comments: Offsite, center of trunk about 7' from fence. Narrow form. Added to map.

9	Glossy privet (*Ligustrum lucidum*)	11	25	50%	40%	Poor	Low

Comments: Offsite, trunk's base abuts fence. Added to map. Crowded conditions beneath #8 and 11.

10	Glossy privet (*Ligustrum lucidum*)	9	10	60%	30%	Poor	Low

Comments: Offsite, center of trunk about 18" from fence. Added to map. Trunk grows thru fence from neighbor's side, then upright. Somewhat dense growth of wisteria in canopy.

11	Coast live oak (*Quercus agrifolia*)	35	45	40%	40%	Poor	Moderate

Comments: Moderate to low suitability. Significant soil disturbance beneath canopy - compaction and soil displaced from a small tractor (recent operations, likely during wet soil conditions). Buried root collar. Small, recent scar along lower trunk. Sparse canopy. Asymmetrical, nearly one-sided canopy that is dominant towards south side (due to crowded conditions). Very high canopy and excessively pruned in past. Trunk bifurcates into codominant leaders at 6' above grade; the central leader has a multi-limb structure.

TREE INVENTORY TABLE

TREE/ TAG NO.	TREE NAME	SIZE		CONDITION			Suitability for Preservation (High/Moderate/Low)
		Trunk Diameter (in.)	Canopy Spread (ft.)	Health Condition (100%=Best, 0%=Worst)	Structural Integrity (100%=Best, 0%=Worst)	Overall Condition (Good/Fair/Poor/Dead)	
12	Monterey pine (*Pinus radiata*)	36	60	40%	40%	Poor	Low

Comments: Offsite, center of trunk about 10' from fence. Added to map. Visibility of trunk and canopy is highly inhibited; what is seen of canopy indicates health is poor (further examination is needed if more accurate assessment is necessary). Very high canopy and excessive limb weight. Large deadwood within lower canopy.

13	Glossy privet (*Ligustrum lucidum*)	8, 6, 5, 4	20	50%	30%	Poor	Low

Comments: Offsite, center of trunk about 3' from fence. Added to map. Topped before. Excessive limb weight.

14	Coast live oak (*Quercus agrifolia*)	35	65	60%	40%	Fair	Moderate

Comments: Asymmetrical, one-sided canopy towards south. Root collar is buried by river rock and possibly some soil. Low limb towards west, and its removal back to trunk is anticipated (a minor impact). A large 1.8' tall by 1.4' wide wound along the trunk's south side is filled with foam, and as such, the extent of decay is unknown. Significant soil disturbance beneath canopy (see tree #11 for further discussion).

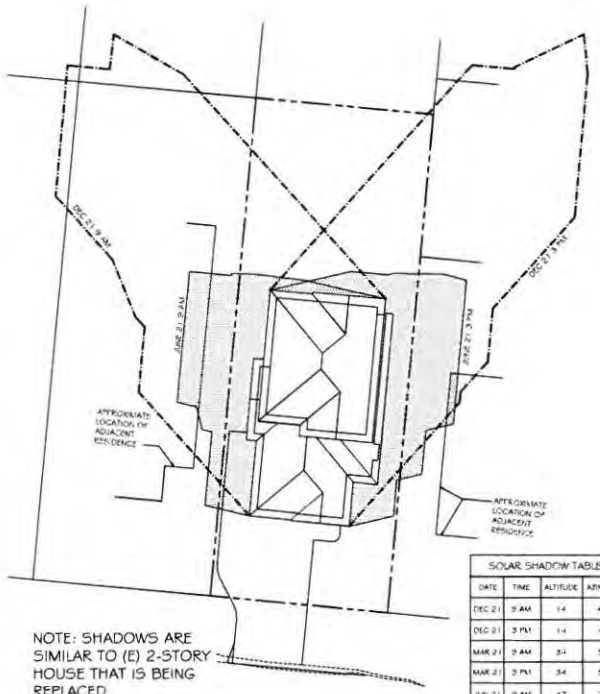
15	Pacific wax myrtle (*Morella californica*)	5	10	50%	40%	Poor	Low

Comments: Crowded-growing conditions. Could also be regarded as a tall shrub. Added to map.

EXHIBIT B:

SITE MAP

(one sheet)



NOTE: SHADOWS ARE SIMILAR TO (E) 2-STORY HOUSE THAT IS BEING REPLACED

SOLAR SHADOW TABLE			
DATE	TIME	ALTITUDE	AZIMUTH
DEC 21	9 AM	14	42
DEC 21	3 PM	14	42
MAR 21	9 AM	34	58
MAR 21	3 PM	34	58
JUN 21	9 AM	67	77
JUN 21	3 PM	67	77

SOLAR SHADOW STUDY 1"=16'-0"

PROJECT DATA

PROJECT ADDRESS: 18151 OVERLOOK ROAD, LOS GATOS, CA

OWNER: URBAN WEST, LLC

PROJECT DESCRIPTION:
DEMOLISH (E) 2-STORY HOUSE + (E) DETACHED GARAGE AND BUILD NEW 2-STORY HOUSE W/ CELLAR

APN: 510-40-146

HOUSE TO BE FULLY FIRE-SPRINKLED

ZONING: R-1:S

CONSTRUCTION TYPE: V-B

OCCUPANCY GROUP: R-3U

AVERAGE LOT SLOPE:

LOT SIZE: 7,000 SQ. FT.

ALLOWABLE FAR:
(.35 - ((7-5) (.21/25)) x 7,000 = 2,334 ± SQ. FT.

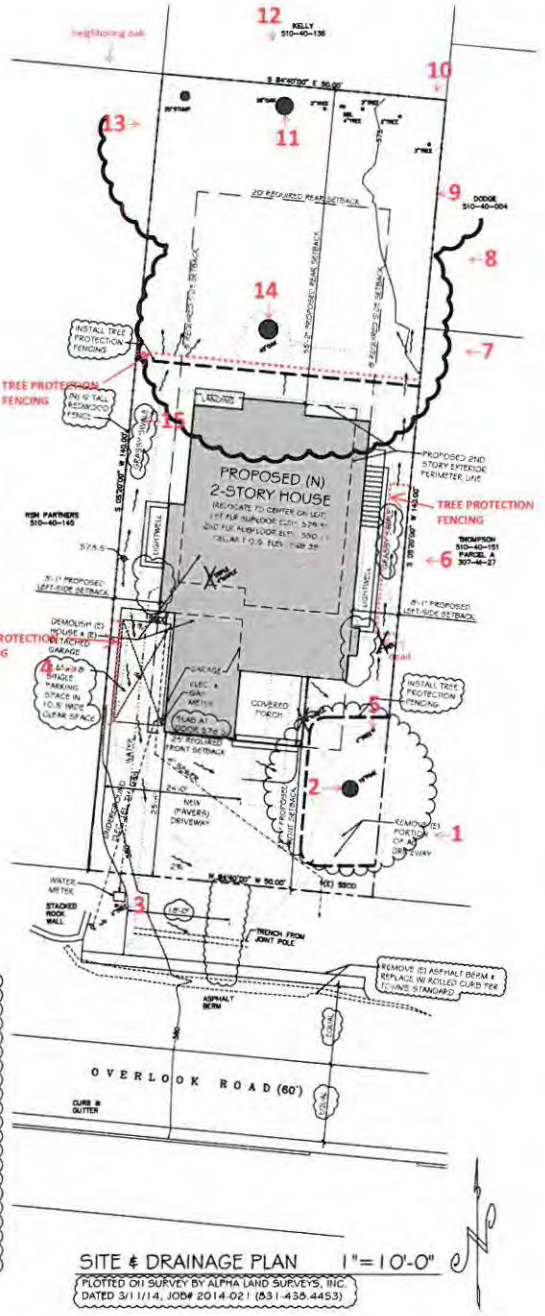
PROPOSED FLOOR AREA	
1ST FLOOR	1,340
2ND FLOOR	946
TOTAL	2,326
CELLAR	1,063
GARAGE	255
PROPOSED F.A.R.	33.2%

IMPERVIOUS COVERAGE:	
BUILDING	1,635
COVERED PORCH	149
LIGHTWELLS	101
LANDINGS	55
DRIVEWAY	854
TOTAL	2,330
BUILDING COVERAGE	1,760 = 25.42%

EXISTING HOUSE FLOOR AREA	
1ST FLOOR	523
2ND FLOOR	623
TOTAL	1,646
DETACHED GARAGE	422

IMPERVIOUS COVERAGE	
BUILDINGS	1,245
WALKS/ PATIOS	367
DRIVEWAY	684
TOTAL	2,296
BUILDING COVERAGE	1,245 = 17.8%

VICINITY MAP



SITE & DRAINAGE PLAN 1"=10'-0"

PLOTTED ON SURVEY BY ALPHA LAND SURVEYS, INC. DATED 3/11/14, JOB# 2014-021 (831-438-4453)

WILDLAND-URBAN INTERFACE FIRE PROTECTION NOTES:

- ROOFING SHALL BE CLASS 'A' COMP. SHINGLE
- ROOF VALLEYS SHALL HAVE NOT LESS THAN 26 GA. SHEET METAL INSTALLED OVER A MIN. 36" WIDE UNDERLAYMENT OF NO. 72 CAP SHEET RUNNING THE FULL LENGTH OF THE VALLEY.
- ROOF GUTTERS SHALL BE PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS
- UNDERSIDES OF EAVES SHALL BE STUCCO OF WOOD PANELING OVER GYPSUM BOARD, OR FIRE RETARDANT LUMBER
- EAVE VENTS WITHIN 12' OF GRADE OR WALKING SURFACE TO BE PROTECTED FROM THE PASSAGE OF FLAMES OR EMBERS. NOTE: PROTECTED VENTS MUST BE APPROVED BY CAL FIRE - STANDARD SCREEN VENTS NOT ALLOWED LESS THAN 12' ABOVE GRADE, VENTS MORE THAN 12' ABOVE GRADE OR WALKING SURFACE MAY BE STANDARD SCREEN VENTS
- ROOF AND ATTIC VENTS SHALL BE COVERED WITH CORROSION-RESISTANT WIRE MESH WITH 1/16" MIN. AND 1/8" MAX. MESH OPENINGS (ALL WALL AND STANDARD SCREEN ROOF VENTS)
- EXTERIOR WALL COVERING SHALL BE 3-COAT W/ MIN. THICK STUCCO W/ GRADE-D PAPER AND SHALL EXTEND FROM TOP OF FOUNDATION TO THE ROOF, TERMINATING AT 2" NOMINAL SOLID WOOD BLOCKING BETWEEN RAFTERS AT ALL ROOF OVERHANGS OR TERMINATE AT ENCLOSED EAVES
- EXTERIOR WALL VENTS (I.E., CRAWL SPACE VENTS, COMBUSTION AIR VENTS, ETC.) SHALL BE COVERED WITH CORROSION-RESISTANT WIRE MESH WITH 1/16" MIN. AND 1/8" MAX. MESH OPENINGS
- EXTERIOR WALL VENTS (I.E., CRAWL SPACE VENTS, COMBUSTION AIR VENTS, ETC.) SHALL BE COVERED WITH CORROSION-RESISTANT WIRE MESH WITH 1/16" MIN. AND 1/8" MAX. MESH OPENINGS
- ALL EXTERIOR WINDOWS SHALL BE DUAL-PANED WITH A MINIMUM OF ONE TEMPERED PANE (INNER OR OUTER PANE) NOTE: HAZARDOUS LOCATIONS STILL REQUIRE SAFETY GLAZING IN ALL PANES.

ALL EXTERIOR DOORS SHALL BE:

- SOLID-CORE, 1-3/4" MIN. THICK OR UTILIZE MULTIPLE DUAL-PANED GLAZED PANELS WITH AT LEAST ONE TEMPERED GLASS PANE OR
- APPROVED, LISTED, 20-MINUTE DOOR (PROVIDE SPECIFICATIONS SHOWING
- APPROVED LISTING TO BUILDING OFFICIAL UPON PLAN REVIEW SUBMITTAL) OR
- NONCOMBUSTIBLE CONSTRUCTION (PROVIDE SPECIFICATIONS SHOWING APPROVED LISTING TO BUILDING OFFICIAL UPON PLAN REVIEW SUBMITTAL)

VEGETATION CLEARANCE SHALL BE IN COMPLIANCE WITH CBC SECTION 701A.3.2.4 PRIOR TO PROJECT APPROVAL

GRADING & DRAINAGE NOTES

SHAPE FINAL GRADES TO FORM GRASSY SWALES TO DIRECT SURFACE FLOW TO LANDSCAPE AREAS IN REAR YARD AND FRONT YARD

DOWNSPOUT FLOW TO DISCHARGE ACROSS SPLASHBLOCKS OR DRIVEWAY AND INTO SWALES

DRIVEWAY TO DRAIN IN SHEET FLOW TO LANDSCAPE AREAS IN FRONT YARD

FINAL GRADES TO SLOPE 5% FOR 10' FROM STRUCTURES OR INTO GRASSY SWALES

LINE TYPE LEGEND

- DEMOLITION LINE
- UTILITY LINE
- SETBACK LINE
- TREE PROTECTION FENCE
- PROPERTY LINE
- CONTOUR LINE

TREE PROTECTION FENCING NOTES:

TREE PROTECTION FENCING SHALL BE A MIN. OF 5' HIGH CHAIN LINK MOUNTED ON 2"Ø GALVANIZED STEEL POSTS DRIVEN 2' MIN. INTO THE GROUND AT 4'-0" MAX. SPACING

TREE PROTECTION FENCING TO REMAIN IN PLACE THROUGH CONSTRUCTION AND SHALL NOT BE REMOVED UNTIL APPROVED BY ARBORIST OR RECORD

DRAWINGS PREPARED BY

CHRIS SPAULDING
ARCHITECTe

801 CAMELIA STREET SUITE E
BERKELEY CALIFORNIA 94710
(510) 527-5097 FAX (510) 527-5099

REVISIONS
5-22-14

PRELIMINARY SET	
DESIGN REVIEW SET	
PLAN CHECK SET	
PERMIT SET	
CONSTRUCTION SET	

A PROPOSED NEW HOME
18151 OVERLOOK ROAD
LOS GATOS CALIFORNIA

DATE:	5-10-14
SCALE:	AS NOTED
DRAWN:	EL/CS/DB
JOB:	TATE - OVERLOOK
SHEET	A1
OF 6	SHEETS

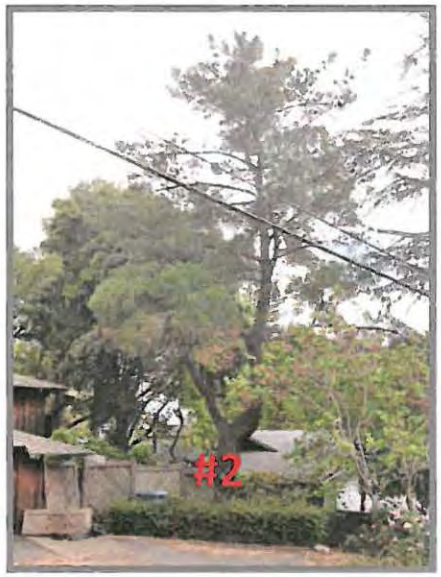
EXHIBIT C:

PHOTOGRAPHS

(four sheets)

Photo Index


#1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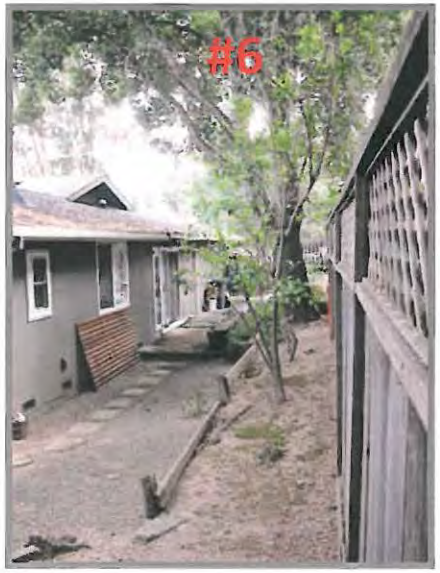
#3


#4


#4 (behind fence)


#5


#6


#6


#6


#7


#7


#7


#9
#8


#8


#10


#12
#11


#11
#12


#12
#11


neighboring
oak
#13

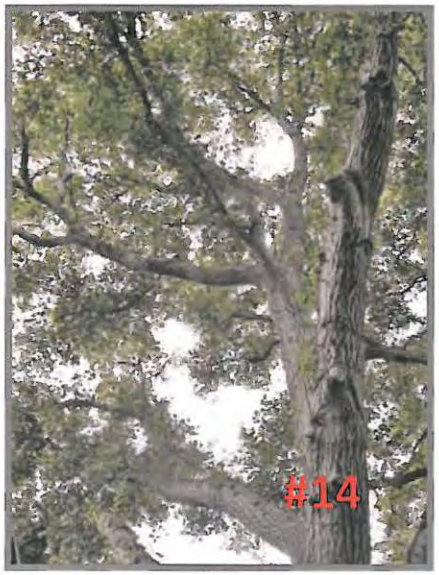

#13


#14


#14


#14


#14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#15