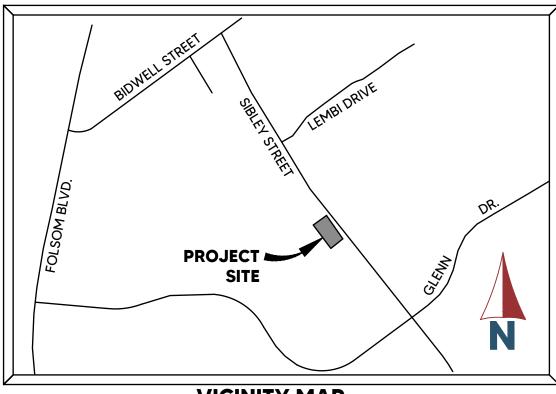
DESCRIPTION 1014 SIBLEY STREET EASEMENT (NO EXISTING EASEMENTS LISTED ON T.R.) **FOLSOM, CA 95630** APN: 071-0200-056 **DIMENSION POINT (BOUNDARY LINE) OVERHEAD UTILITY** - DOUBLE YELLOW WATER VALVE SIBLEY STREET #1418 #1419 INDEX CONTOUR #1425 INTERMEDIATE CONTOURS N37°04'33"W 289.00' N37°04'33"W 262.35" TREE & DRIP △ 100.00 **CONTROL POINT** SPOT ELEVATION (ASPHALT CONCRETE) **BUILDING** GROUP 4" 243 BM 13 130709 O.R. 1100 #1423 24"OAK **ABBREVIATIONS:** - EXISTING GROUP LOT 3 LOT 4 LOT 5 LOT 6 BCR BEGIN CURVE RETURN BLDG BUILDING 6,241 SF 6.231 SF.[#] 6,260 SF 6,250 SF CONC CONCRETE 0.144 AC 0.143 AC 0.143 AC 0.143 AC 0.144 AC 0.145 AC 243 BM 13 CG&S CURB, GUTTER & SIDEWALK CENTERLINE APN 071-1330-008 DI DRAIN / DROP INLET 201204 O.R. 1919 28"OAK EXISTING 12"OAK● #1444 PARCEL 1/2 T.R. LINE **EDGE OF PAVEMENT** 10"OAK • • 10"/10"OAK INVERT CMU BLOCK WALL INVERT ELEVATION JOINT POLE MAINTENANCE HOLE NORTHEAST XISTING GROUND -NORTHWEST 20"OAK #1446 20"OAK OHU OVERHEAD UTILITIES 7"/7"OAK 243 BM 13 PROPERTY LINE #1445 11"OAK 18"OAK SDMH STORM DRAIN MANHOLE PINE APN 071-1330-048 11"OAK SD STORM DRAIN *7"OAK 970919 O.R. 1724 SOUTHEAST SANITARY SEWER WOOD FENCE SSMH SANITARY SEWER MANHOLE GATE -WOOD -SW SIDEWALK OR SOUTHWEST FENCE 43.64' 43.64' 43.64' T.R. TITLE REPORT ⁼N37°21'47"W 261.86' WV WATER VALVE LOT 10 LOTE CMU WALL LOT 9 CMU WALL VERIFY-IN-FIELD 244 BM 13 244 BM 13 243 BM 13 244 BM 13 APN 071-1340-003 APN 071-1340-002 APN 071-1330-048 190415 O.R. 0932 200908 O.R. 1745 980323 O.R. 0103 970919 O.R. 1724 140530 O.R. 0385

VESTING TENTATIVE SUBDIVISION MAP



VICINITY MAP

SHEET INDEX:

3 OF 4 C2 PRELIMINARY GRADING PLAN 4 OF 4 C3 PRELIMINARY UTILITY PLAN

TOPOGRAPHIC & BOUNDARY SURVEY:

FIELD SURVEY DATED: 4-05 AND 4-06-2022

BASIS OF BEARINGS:

BENCHMARK:

CITY OF FOLSOM BENCHMARK B.M. 18

ELEV SURVEYED = 219.46 (NAVD 88)

NAVD 88 VERTICAL DATUM.

JURISDICTION:

CITY OF FOLSOM

ZONING FOR ALL PARCELS:

R-4 GENERAL APARTMENT DISTRICT R-M RESIDENTIAL, MULTI FAMILY DWELLING DISTRICT

FLOOD PLAIN:

SUBJECT PROPERTY IS LOCATED WITHIN ZONE "X", REDUCED FLOOD ZONE DUE TO LEVEE. AREAS WITHIN ZONE "X" ARE DETERMINED TO BE OUTSIDE THE 0.2 ANNUAL CHANCE FLOOD PLAIN AS DETERMINED BY THE NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO.: 06067C0116H DATED: 08-16-2012

TITLE REPORT:

OLD REPUBLIC TITLE COMPANY

POLICY NUMBER A04286-FTYA-203812

PROPERTY OWNER / DEVELOPER:

FRANK ALBANESE (916) 939-6561 LUIS OCON (650) 520-6226

LUIS OCON
1014 SIBLEY STREET
FOLSOM, CA 95630

TSM of **4** 6/8/2023

NOTICE TO CONTRACTOR - ORDER OF WORK:

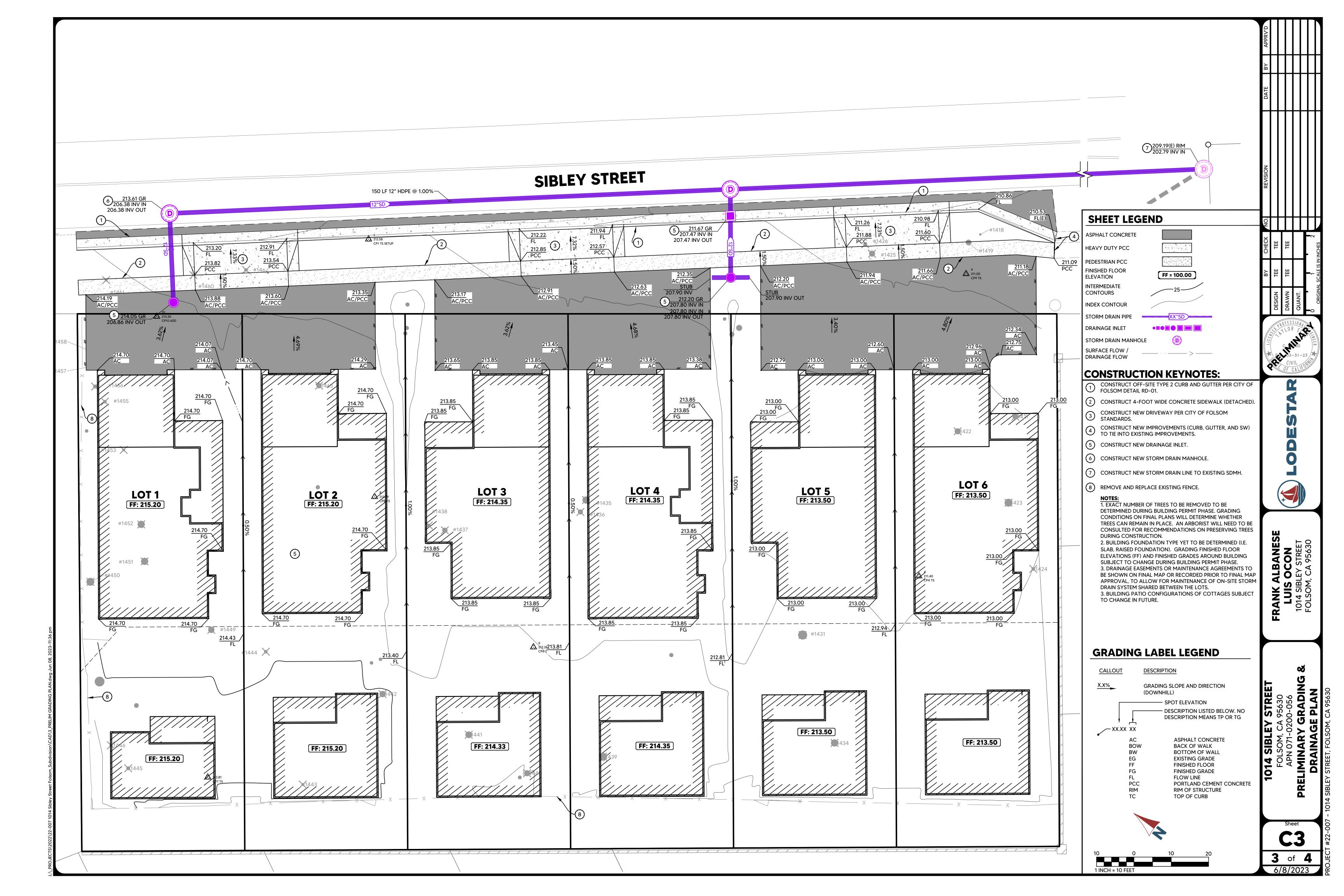
PRIOR TO THE START OF ANY CIVIL WORK, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES BY POTHOLING AT ALL POINTS OF POTENTIAL CONFLICT WITH PROPOSED UTILITIES OR PROPOSED POINTS OF CONNECTION WITH EXISTING UTILITIES. IF THE ACTUAL LOCATIONS OF THE EXISTING UTILITIES FOUND IN THE FIELD ARE DIFFERENT FROM WHAT IS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL CONTACT LODESTAR ENGINEERING AND SURVEYING, INC. IMMEDIATELY AND PROVIDE THE ACTUAL LOCATION INFORMATION. LODESTAR ENGINEERING AND SURVEYING, INC. WILL VERIFY IF THERE ARE ANY CONFLICTS WITH THE IMPROVEMENTS AND WILL PROVIDE MODIFICATIONS TO THE DESIGN TO MITIGATE THE CONFLICTS IF ANY CONFLICTS EXIST.

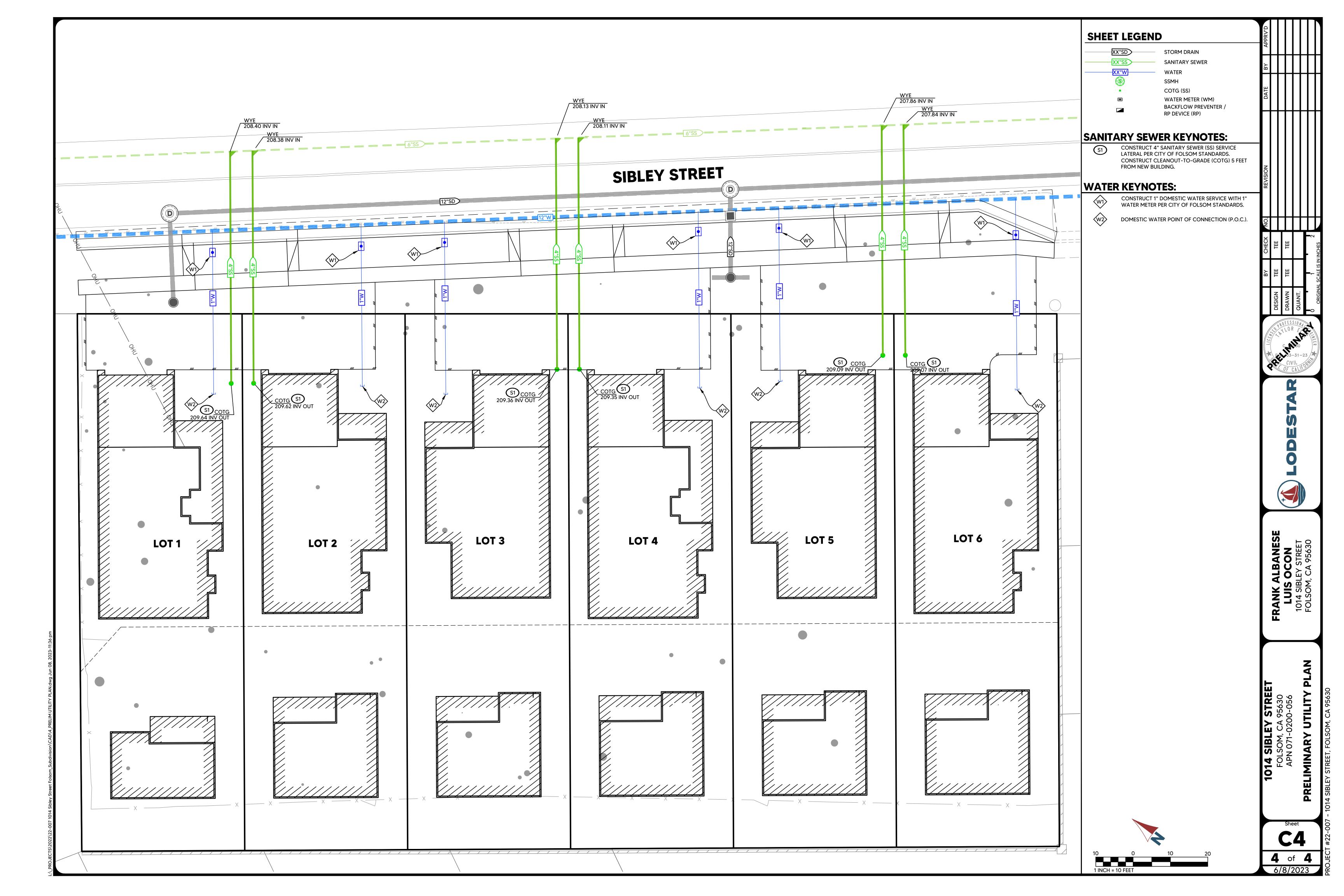
UTILITY NOTE:

LEGEND

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.









California Tree and Landscape Consulting, Inc.

PRELIMINARY ARBORIST REPORT & TREE INVENTORY

May 25, 2022



Executive Summary:

on behalf of the property owner, contacted California Tree and Landscape Consulting, Inc. to inventory and evaluate the trees on the site for purposes of providing preliminary information for planning the development of the parcel. The property is located at 1014 Sibley Street and falls within the jurisdiction of the City of Folsom, California. See Supporting Information Appendix 1—Tree Location Map.

Tyler Thomson, ISA Certified Arborist #WE-WE12751A, was on site May 10, 2022 to provide species identification, measurements of diameter and canopy, field condition notes and arborist ratings. A total of 49 trees were included in the survey, of which, 35 are protected according to the City of Folsom Tree Preservation ordinance.

Tree Species	Trees Inventoried	Trees on the Site ¹	Protected Trees		Development Impacts
Blue Oak, <i>Quercus douglasii</i>	2	2	2	Private Property, Protected by Species	TBD
Canary Island Pine, <i>Pinus</i> canariensis	1	1	1	Within the Street ROW ²	TBD
Glossy Privet, Ligustrum sp.	9	9	2	Within the Street ROW	TBD
Grey Pine, Pinus sabiniana	1	1	1	Within the Street ROW	TBD
Incense Cedar, Calocedrus decurrens	2	2	1	Within the Street ROW	TBD
Interior Live Oak, Quercus wislizenii	21	21	21	Private Property, Protected by Species & within the Street ROW	TBD
Italian Stone Pine, Pinus pinea	2	2	0		TBD
Ponderosa Pine, Pinus ponderosa	1	1	0		TBD
Valley Oak, <i>Quercus lobata</i>	5	5	0		TBD
Misc Orchard Species	5	5	2	Within the Street ROW	TBD
Total	49	49	35		

¹ CalTLC is not a licensed land surveyor. Tree locations are approximate and we do not determine tree ownership. Trees which appear to be on another parcel are listed as off-site and treated as the property of that parcel.

² The Right of Way is not clearly defined. The City provided that the ROW extends 12.5' from the back of the sidewalk on the south side and 18' from the edge of pavement on the north side. A licensed surveyor should locate the ROW and any trees within the ROW for accuracy.





METHODS

<u>Appendix 2</u> in this report is the detailed inventory of the trees. The following terms will further explain our methods and findings.

The protected trees evaluated as part of this report have a numbered tag that was placed on each one that is $1-1/8" \times 1-3/8"$, green anodized aluminum, "acorn" shaped, and labeled: CalTLC, Auburn, CA with 1/4" pre-stamped tree number and Tree Tag. They are attached with a natural colored aluminum 10d nail, installed at approximately 6 feet above ground level on the approximate north side of the tree. The tag should last $\sim 10-20+$ years depending on the species, before it is enveloped by the trees' normal growth cycle.

A Level 2 – Basic Visual Assessment was performed in accordance with the International Society of Arboriculture's best management practices. This assessment level is limited to the observation of conditions and defects which are readily visible. Additional limiting factors, such as blackberries, poison oak, and/or debris piled at the base of a tree can inhibit the visual assessment.

Tree Location: The GPS location of each tree was collected using the ESRI's ArcGIS collector application on an Apple iPhone or Samsung. The data was then processed in ESRI's ArcMap by Julie McNamara, M.S. GISci, to produce the tree location map.

Tree Measurements: DBH (diameter breast high) is normally measured at 4'6" (above the average ground height for "Urban Forestry"), but if that varies then the location where it is measured is noted. A steel diameter tape was used to measure the DBH for all trees. A Stanley laser distance meter was used to measure distances and/or pacing was used to estimate canopy measurements. Canopy radius measurements may also have been estimated due to obstructions, such as steep slopes or other trees.

1	е	T	10	n	S

Field Tag # The pre-stamped tree number on the tag which is installed at approximately 6 feet above ground level on the north side of the tree. Sometimes also includes a virtual tag # (such as 1-100) for verification of unprotected

foliage on the aerial map.

Old Tag # If additional field tags are found on the trees and are legible, they are listed here.

Species The species of a tree is listed by our local and correct common name and botanical name by genus

(capitalized) and species (lower case). Oaks frequently cross-pollinate and hybridize, but the identification is

towards the strongest characteristics.

DBH Diameter breast high' is normally measured at 4'6" (above the average ground height for "Urban Forestry"),

but if that varies then the location where it is measured is noted in the next column "measured at"

Measured

at

Height above average ground level where the measurement of DBH was taken

Canopy radius

The farthest extent of the crown composed of leaves and small twigs. Most trees are not evenly balanced. This measurement represents the longest extension from the trunk to the outer canopy. The dripline measurement is from the center point of the tree and is shown on the Tree Location Map as a circle. This measurement can further define a protection zone if specified in the local ordinance as such or can indicate if

pruning may be required for development.



Protected Root Zone The radius of the protected root zone is a circle equal to the trunk diameter inches converted to feet and factored by tree age, condition and health pursuant to the industry standard. Best Management Practices: Managing Trees During Construction, the companion publication to the Approved American National Standard, provides guidance regarding minimum tree root protection zones for long term survival. In instances where a tree is multi-stemmed the protected root zone is equal to the extrapolated diameter (sum of the area of each stem converted to a single stem) factored by tree age, condition and health.

Arborist Rating Subjective to condition and is based on both the health and structure of the tree. All of the trees were rated for condition, per the recognized national standard as set up by the Council of Tree and Landscape Appraisers and the International Society of Arboriculture (ISA) on a numeric scale of 5 (being the highest) to 0 (the worst condition, dead) as in Chart A. The rating was done in the field at the time of the measuring and inspection.

No problem(s)	Excellent	5	No problems found from a visual ground inspection. Structurally, these trees have properly spaced branches and near perfect
No apparent problem(s)	Good	4	The tree is in good condition and there are no apparent problems that a Certified Arborist can see from a visual ground inspection. If potential structural or health problems are tended to at this stage future hazard can be reduced and more serious health problems can be averted.
Minor problem(s)	Fair	3	The tree is in fair condition. There are some minor structural or health problems that pose no immediate danger. When the recommended actions in an arborist report are completed correctly the defect(s) can be minimized or eliminated and/or health can be improved.
Major or uncorrectable problems (2)	Poor	2	The tree has major problems. If the option is taken to preserve the tree, additional evaluation to identify if health or structure can be improved with correct arboricultural work including, but not limited to: pruning, cabling, bracing, bolting, guying, spraying, mistletoe removal, vertical mulching, fertilization, etc. Additionally, risk should be evaluated as a tree rated 2 may have structural conditions which indicate there is a high likelihood of some type of failure. Tree rated 2 should be removed if these additional evaluations will not be performed.
Extreme problem(s)	Hazardous	1	The problems are extreme. This rating is assigned to a tree that has structural and/or health problems that no amount of work or effort can change. The issues may or may not be considered a dangerous situation.
Dead	Dead	0	This indicates the tree has no significant sign of life.

Notes:

Provide notable details about each tree which are factors considered in the determination of the tree rating including: (a) condition of root crown and/or roots; (b) condition of trunk; (c) condition of limbs and structure; (d) growth history and twig condition; (e) leaf appearance; and (f) dripline environment. Notes also indicate if the standard tree evaluation procedure was not followed (for example - why dbh may have been measured at a location other than the standard 54"). Additionally, notes will list any evaluation limiting factors such as debris at the base of a tree.





DISCUSSION

Trees need to be protected from normal construction practices if they are to remain on the site and are expected to survive long term. While construction damage in the root zone is often the death of a tree, the time from when the damage occurs to when the symptoms begin and/or the tree dies can be years. Our recommendations are based on experience and the local ordinance requirements to enhance tree longevity. It requires the calculated root zone must remain intact as an underground ecosystem despite the use of heavy equipment to install foundations, driveways, underground utilities, and landscape irrigation systems. Simply walking and driving on soil can have serious consequences to tree health. The Tree Preservation Requirements and General Development Guidelines should be incorporated into the site plans and enforced onsite. The project arborist should be included in the development team during construction to provide expertise and make additional recommendations if additional impacts occur or tree response is poor.

RECOMMENTATIONS: SUMMARY OF TREE PROTECTION MEASURES

Report Prepared by:

Nicole Harrison

Registered Consulting Arborist #719

ISA Certified Arborist #WC-6500AM, TRAQ

American Society of Consulting Arborists

Appendix 1 – Tree Location Map

Appendix 2 - Tree Data

Appendix 3 – General Development Guidelines

Appendix 4 – Site Photographs

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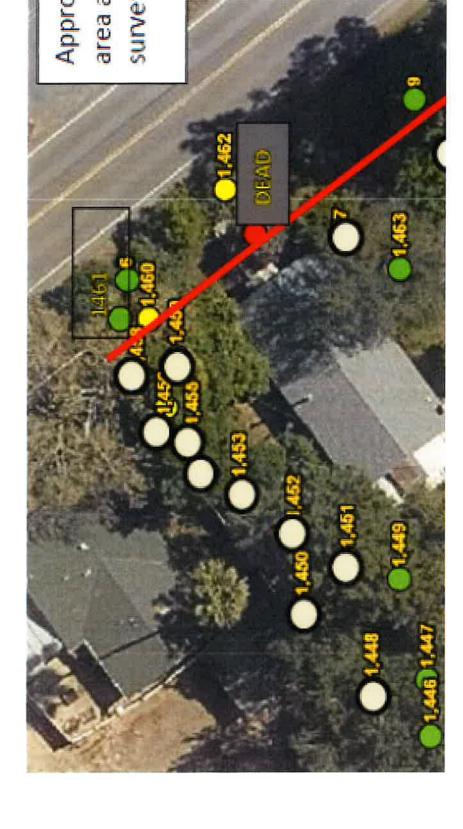
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APPENDIX 2 TREE INFORMATION DATA

Field Notes	multi stem at 1'. good vigor.	small diameter Valley Oak. good structure and vigor.	fair base, young sprouts present. heavy lean east. towards road, poor structure. fair vigor.	good base and flare. small low lateral branches all directions. fair structure. good vigor. 15' from street.	fair base. 8" flush cut at 2'. 7" codom leader flush cut at 5'. poor structure. dead canopy and extensive branch die back.	good base and flare. fair structure, leans moderately south. canopy to wall on property line south. good vigor.	swollen base, sunken sinuses. grafted codom stems with 2' seam. crowded stems. low canopy. fair vigor.	good base and flare.codom at 7 and 8'. epicormic sprouts on canopy branches. good structure and vigor.
Dvlpmt Status	TBD	TBD	TBD	ТВD	TBD	TBD	TBD	TBD
Arborist Rating	3 Fair - Minor Problems	3 Fair - Minor Problems	2 Major Structure or Health Problems	3 Fair - Minor Problems	1 Extreme Structure or Health Problems	3 Fair - Minor Problems	2 Major Structure or Health Problems	3 Fair - Minor Problems
Canopy Radius	11	8	16	20	11	24	14	27
Measured at (in.)	54	54	54	54	54	54	12	54
Multi- Stems	5, 5, 4							
DBH (in.)		4	5.5	15.5	10	17	14	22
Species Botanical Name	Ligustrum Iucidum	Quercus lobata	Quercus wislizeni	Quercus wislizeni	Calocedrus decurrens	Quercus Iobata	Quercus Iobata	Quercus Iobata
Species Common Name	Glossy Privet	Valley Oak	Interior Live Oak	Interior Live Oak	Incense Cedar	Valley Oak	Valley Oak	Valley Oak
Offsite								
Protected By Code	Street?	Street?	Street?	Street?	Street?	Yes	Yes	Yes
Field Tag#	6	13	1418	1419	1420	1421	1422	1423

Dvlpmt Field Notes Status	TBD good base. surrounded by small diameter Plum trees. codom at 7'. poor structure, unbalanced canopy, understory. fair/low vigor.	r TBD good base and flare. low lateral branches southwest. good structure and vigor.	r TBD good base. leans slightly east towards street. good vigor.	r TBD good base, structure and vigor.	r TBD good base, structure and vigor. 3" low lateral branch southeast.	TBD minor dead bark on base. extensive dead bark and decay on trunk. heavy lean northeast toward street. low vigor.	TBD good base. swollen lateral branch union at 4'. heavy lean south. poor structure. fair vigor.	r TBD good base, structure and vigor. large diameter grape vines into canopy top.	r TBD good base. unbalanced canopy west. fair structure and vigor. grape vine up	into canopy.	r TBD good base, structure and vigor.	TBD fair base. deep sunken sinuses below swollen multi stem union at 4'. fair structure and vigor.
Arborist Rating	2 Major Structure or Health Problems	3 Fair - Minor Problems	3 Fair - Minor Problems	3 Fair - Minor Problems	3 Fair - Minor Problems	2 Major Structure or Health Problems	2 Major Structure or Health Problems	3 Fair - Minor Problems	3 Fair - Minor Problems		3 Fair - Minor Problems	2 Major Structure or Health Problems
Canopy Radius	15	22	16	25	23	26	25	25	26		19	20
Measured at (in.)	54	36	54	54	54	54	54	54	54		54	54
Multi- Stems												
(in.)	11	18	11	20.5	14	10.5	11	24.5	16		12	19
Species Botanical Name	Quercus douglasii	Quercus wislizeni	Quercus Iobata	Pinus sabiniana	Quercus wislizeni	Quercus wislizeni	Quercus wislizeni	Quercus wislizeni	Quercus wislizeni		Carya illinoinensis	Quercus wislizeni
Species Common Name	Blue Oak	Interior Live Oak	Valley Oak	Gray Pine	Interior Live Oak	Interior Live Oak	Interior Live Oak	Interior Live Oak	Interior Live Oak		Pecan	Interior Live Oak
Offsite												
Protected By Code	Yes	Street?	Street?	Street?	Street?	Street?	Street?	Yes	Yes		ON	Yes
Field Tag #	1424	1425	1426	1427	1428	1429	1430	1431	1432	(1433	1434

Page **9** of 18

Nicole Harrison, Consulting Arborist

The Tree will

Be reserved CaITLC

Field Notes	good base, structure and vigor. codom at 6'.	good base. heavy lean west. poor structure. fair vigor.	good base, structure and vigor. leans slightly west.	good base, leans heavy west. poor structure.	tree uprooted many years ago. branches became primary stems, poor structure. unbalanced north stem. fair vigor.	codom at grade. north stem understory structure, low lateral branches over fence west. fair structure. good vigor.	abnormal base, growing through steel planter box. if box is removed, base with be exposed. good canopy structure. low vigor.	growing in steel planter box, elevated roots mat 1' off grade. open cavity in base west. multi stem at 4'. fair structure. heavy lean west. fair/low vigor.	good base. codom at 2'. good structure. damaged foliage throughout.
Dvlpmt Status	TBD	TBD	ТВD	TBD	TBD	TBD	TBD	ТВО	ТВО
Arborist Rating	3 Fair - Minor Problems	2 Major Structure or Health Problems	3 Fair - Minor Problems	2 Major Structure or Health Problems	2 Major Structure or Health Problems	3 Fair - Minor Problems	2 Major Structure or Health Problems	2 Major Structure or Health Problems	2 Major Structure or Health Problems
Canopy Radius	56	26	20	23	18	21	28	25	12
Measured at (in.)	54	54	36	54	54	54	54	24	12
Multi- Stems					17, 13, 8	17.5, 11.5			
OBH (in.)	19	14	16	9.5			17.5	18	7.5
Species Botanical Name	Quercus wislizeni	Quercus wislizeni	Quercus wislizeni	Quercus wislizeni	Pinus pinea	Quercus wislizeni	Quercus wislizeni	Quercus wislizeni	Quercus wislizeni
Species Common Name	Interior Live Oak	Interior Live Oak	Interior Live Oak	Interior Live Oak	Stone Pine	Interior Live Oak	Interior Live Oak	Interior Live Oak	Interior Live Oak
Offsite				124924492					
Protected By Code	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Field Tag#	1435	1436	1437	1438	1439	1440	1441	1442	1443

Field Notes	swollen base with decay present. trunks spiral around each other. high amount of small dead branches. heavy lean west. low vigor.	good base. one sided canopy west. good vigor.	fair base. codom at 1'. understory structure. leans moderately west. fair structure and vigor.	good base, structure and vigor. leans slightly southwest.	good base, structure and vigor. codom at 20'.	good base. Iow branches on buildings roofs. good structure and vigor.	multi stem at 1'. next to fence. crowded crossing stems. poor structure. low vigor.	good base, structure and vigor. ropes girdling trunk in 2 spots.	leans heavy north. 95% dead branches, dead canopy. poor structure. low vigor.	damaged 4" surface root. fair structure and vigor.	codom at grade. next to fence. fair structure. branches lean over fence. small diameter sprouts at grade.	
Dvlpmt Status	TBD	TBD	TBD	ТВD	TBD	TBD	ТВО	TBD	ТВО	TBD	TBD	of 18
Arborist Rating	1 Extreme Structure or Health Problems	3 Fair - Minor Problems	3 Fair - Minor Problems	3 Fair - Minor Problems	3 Fair - Minor Problems	3 Fair - Minor Problems	2 Major Structure or Health Problems	3 Fair - Minor Problems	1 Extreme Structure or Health Problems	2 Major Structure or Health Problems	3 Fair - Minor Problems	Page 11 of 18
Canopy Radius	17	16	14	24	28	27		19	19	11	17	
Measured at (in.)	54	54	54	54	54	54	54	54	54	54	54	
Multi- Stems	10, 8		7.5, 7				10, 7, 7, 5				8 '6	ist
DBH (in.)		12		14.5	27.5	20.5		24	20.5	9		Iting Arbor
Species Botanical Name	Prunus sp.	Quercus douglasii	Quercus wislizeni	Quercus wislizeni	Pinus pinea	Quercus wislizeni	Ligustrum Iucidum	Pinus ponderosa	Calocedrus decurrens	Ligustrum Iucidum	Ligustrum Iucidum	Nicole Harrison, Consulting Arborist
Species Common Name	Plum	Blue Oak	Interior Live Oak	Interior Live Oak	Stone Pine	Interior Live Oak	Glossy Privet	Ponderosa Pine	Incense Cedar	Glossy Privet	Glossy Privet	Nicole
Offsite												
Protected By Code	No	Yes	Yes	Yes	No	Yes	No	No	No	N	N	
Field Tag#	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	CalTLC

Field Notes	fair base, structure and vigor.	good base, structure and vigor.	elevated damaged surface roots. branch die back in canopy. fair structure and vigor.	fair base. deep sinuses in base and trunk. grafting codom stems north. fair structure, branches lean over fence. good vigor.	good base and flare. multi stem at 2'. good structure and vigor.	fair base. dead bark up and around trunk. high amount of dead branches. fair structure. low vigor.	next to fence. leans toward street. fair structure and vigor.	fair base. crossing codominant stems. dead canopy top.	good base. codom at 11'. canopy corrects west. lateral branches over house.	good base, structure and vigor.
Dvlpmt Status	TBD	TBD	TBD	TBD	ТВО	TBD	TBD	TBD	TBD	ТВО
Arborist Rating	3 Fair - Minor Problems	3 Fair - Minor Problems	2 Major Structure or Health Problems	3 Fair - Minor Problems	3 Fair - Minor Problems	2 Major Structure or Health Problems	3 Fair - Minor Problems	2 Major Structure or Health Problems	3 Fair - Minor Problems	3 Fair - Minor Problems
Canopy Radius	14	14	13	15	18	∞	6	10	25	30
Measured at (in.)	54	54	54	54	54	54	54	12	54	54
Multi- Stems				12, 7	11, 11, 6					
DBH (in.)	9	6	7			7	7	7	16	31
Species Botanical Name	Ligustrum Iucidum	Ligustrum Iucidum	Ligustrum Iucidum	Ligustrum Iucidum	Citrus sinensis	Eriobotrya japonica	Ligustrum Iucidum	Eriobotrya japonica	Quercus wislizeni	Pinus canariensis
Species Common Name	Glossy Privet	Glossy Privet	Glossy Privet	Glossy Privet	Orange	Japanese Loquat	Glossy Privet	Japanese Loquat	Interior Live Oak	Canary Island Pine
Offsite										
Protected By Code	No	No	No	NO	No	Street?	Street?	Street?	Yes	Street?
Field Tag #	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464



APPENDIX 3 GENERAL DEVELOPMENT GUIDELINES

Definitions

Root zone: The roots of trees grow fairly close to the surface of the soil, and spread out in a radial direction from the trunk of tree. A general rule of thumb is that they spread 2 to 3 times the radius of the canopy, or 1 to 1 % times the height of the tree. It is generally accepted that disturbance to root zones should be kept as far as possible from the trunk of a tree.

Inner Bark: The bark on most large trees is quite thick, usually 1" to 2". If the bark is knocked off a tree, the inner bark, or cambial region, is exposed and/or removed. The cambial zone is the area where tissues responsible for adding new layers to the tree each year are located. Removing or damaging this tissue results in a tree that can only grow new tissue from the edges of the wound. In addition, the interior wood of the tree is exposed to decay fungi and becomes susceptible to decay. Tree protection measures require that no activities occur which can knock the bark off the trees.

Methods Used in Tree Protection:

No matter how detailed Tree Protection Measures are in the initial Arborist Report, they will not accomplish their stated purpose unless they are applied correctly and a Project Arborist oversees the construction. The Project Arborist should have the ability to enforce the Protection Measures. It is advisable for the Project Arborist to be present at the Pre-Construction meeting to answer questions the contractors may have about Tree Protection Measures. This also lets the contractors know how important tree preservation is to the developer.

Root Protection Zone (RPZ): Since in most construction projects it is not possible to protect the entire root zone of a tree, a Root Protection Zone is established for each tree to be preserved. The minimum Root Protection Zone is the area calculated as 1 to 1.25' for every inch of trunk diameter (ie. A 10" diameter tree will have an RPZ of 10') or the dripline if required by local ordinance. The Project Arborist must approve work within the RPZ.

Irrigate, Fertilize, Mulch: Prior to grading on the site near any tree, if specified by the project arborist, the area within the Tree Protection fence should be fertilized with 4 pounds of nitrogen per 1000 square feet, and the fertilizer irrigated in. The irrigation should percolate at least 24 inches into the soil. This should be done no less than 2 weeks prior to grading or other root disturbing activities. After irrigating, cover the RPZ with at least 12" of leaf and twig mulch. Such mulch can be obtained from chipping or grinding the limbs of any trees removed on the site. Acceptable mulches can be obtained from nurseries or other commercial sources. Fibrous or shredded redwood or cedar bark mulch shall not be used anywhere on site.

<u>Fence</u>: Fence around the Root Protection Zone and restrict activity therein to prevent soil compaction by vehicles, foot traffic or material storage. The fenced area shall be off limits to all construction equipment, unless there is express written notification provided by the Project Arborist, and impacts are discussed and mitigated prior to work commencing.



No storage or cleaning of equipment or materials, or parking of any equipment can take place within the fenced off area, known as the RPZ.

The fence should be highly visible, and stout enough to keep vehicles and other equipment out. I recommend the fence be made of orange plastic protective fencing, kept in place by t-posts set no farther apart than 6'.

In areas of intense impact, a 6' chain link fence is preferred.

In areas with many trees, the RPZ can be fenced as one unit, rather than separately for each tree.

Where tree trunks are within 3' of the construction area, place 2" by 4" boards vertically against the tree trunks, even if fenced off. Hold the boards in place with wire. Do not nail them directly to the tree. The purpose of the boards is to protect the trunk, should any equipment stray into the RPZ.

<u>Elevate Foliage</u>: Where indicated, remove lower foliage from a tree to prevent limb breakage by equipment. Low foliage can usually be removed without harming the tree, unless more than 25% of the foliage is removed. Branches need to be removed at the anatomically correct location in order to prevent decay organisms from entering the trunk. For this reason, a contractor who is an ISA Certified Arborist should perform all pruning on protected trees.³

Expose and Cut Roots: Breaking roots with a backhoe, or crushing them with a grader, causes significant injury, which may subject the roots to decay. Ripping roots may cause them to splinter toward the base of the tree, creating much more injury than a clean cut would make. At any location where the root zone of a tree will be impacted by a trench or a cut (including a cut required for a fill and compaction), the roots shall be exposed with either a backhoe digging radially to the trunk, by hand digging, or by a hydraulic air spade, and then cut cleanly with a sharp instrument, such as chainsaw with a carbide chain. Once the roots are severed, the area behind the cut should be moistened and mulched. A root protection fence should also be erected to protect the remaining roots, if it is not already in place. Further grading or backhoe work required outside the established RPZ can then continue without further protection measures.

<u>Protect Roots in Deeper Trenches:</u> The location of utilities on the site can be very detrimental to trees. Design the project to use as few trenches as possible, and to keep them away from the major trees to be protected. Wherever possible, in areas where trenches will be very deep, consider boring under the roots of the trees, rather than digging the trench through the roots. This technique can be quite useful for utility trenches and pipelines.

<u>Protect Roots in Small Trenches:</u> After all construction is complete on a site, it is not unusual for the landscape contractor to come in and sever a large number of "preserved" roots during the installation of irrigation systems. The Project Arborist must therefore approve the landscape and irrigation plans. The irrigation system needs to be designed so the main lines are located outside the root zone of major trees, and the secondary lines are either laid on the surface (drip systems), or carefully dug with a hydraulic or air spade, and the flexible pipe fed underneath the major roots.

³ International Society of Arboriculture (ISA), maintains a program of Certifying individuals. Each Certified Arborist has a number and must maintain continuing education credits to remain Certified.



Design the irrigation system so it can slowly apply water (no more than $\frac{1}{4}$ " to $\frac{1}{4}$ " of water per hour) over a longer period of time. This allows deep soaking of root zones. The system also needs to accommodate infrequent irrigation settings of once or twice a month, rather than several times a week.

Monitoring Tree Health During and After Construction: The Project Arborist should visit the site at least twice a month during construction to be certain the tree protection measures are being followed, to monitor the health of impacted trees, and make recommendations as to irrigation or other needs. After construction is complete, the arborist should monitor the site monthly for one year and make recommendations for care where needed.

<u>Chemical Treatments:</u> The owner or developer shall be responsible to contact an arborist with a pesticide applicators license to arrange for an application of a root enhancing hormone, such as Paclobutrazol, to mitigate the stress produced by the development **prior to grading**. Additionally, at the discretion of the project arborist, an insect infestation preventative for both boring insects and leaf feeding insects and/or fungal preventative for leaf surfaces may be required. Roots pruned during the course of performing a cut may be required to be treated with a biofungicide such as Bio-Tam.

