

Landesign Group

LANDSCAPE ARCHITECTURE
MASTER PLANNING

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12/18/2017

Emerald Isle Assisted Care Facility

Gullane Drive, Santa Rosa, CA APN 173-67-016

REVISED TREE REMOVAL MITIGATION REPORT (DUE TO FIRE)

Total Replacement Trees Required for Entire Proposed Development:

742 - 15 gal. Size or Equivalent mitigation in larger sizes

Total Trees, Overall Site (Before Fire):	917
Trees Killed by Fire:	<u>135</u>
Total Trees, Overall Site (After Fire):	782
Total Trees to Remain:	597
Total Trees to be Removed:	<u>185</u>
Total Trees, Overall Site (After Fire):	782
Percentage of Trees to Remain:	69%
Percentage of Trees to be Removed:	31%

<u>Total Replacement Trees Required:</u> 742 – 15 gal. Size or Equivalent Planning Director Approved Mitigation Factor

Equivalent mitigation for tree planting in larger sizes to be:

- (3) 15 gal. trees = (1) 24" box size tree
- (7) 15 gal. trees = (1) 36" box size tree

Proposed Replacement Trees on Site: 742 – 15 gal. Size or Equivalent (77) 36" box, (68) 24" box. (145 Total Trees equivalent to 743, 15 gal.)

The above accounts for 100% of work required for Project Completion. See attached Tree Replacement Mitigation calculations.

Replacement Tree Planting Schedule:917-138

All Mitigation trees to be planted at time of overall project construction.

OSL COMMUNITIES, LLC

City of Santa Rosa, CA

Emerald Isle

TREE REPLACEMENT MITIGATION CALCULATION

APN 173-670-016

Per Chapter 17-24 existing trees over 4" in girth to be removed shall be replaced by (2) 15 gal. min. size trees for each 6 inches, or fraction thereof, of the diameter of the tree to be removed. Per 17-24-0.050(c) the same genus and species as the removed tree (or another species, if approved by the Director) shall be used.

For all of the multi trunk trees, total diameter is calculated by adding the multiple trunk areas together. (Per the Council of Tree & Landscape Appraisers Guide)

EXISTING TREES TO BE REMOVED ARE AS FOLLOWS:

TREE	SPECIES	TRUNK DIAMETER (In.)
38	Valley Oak/ Quercus lobata	23"
238	Coast Live Oak/Quercus agrifolia	25"
241	Coast Live Oak/ Quercus agrifolia	9"
243	Coast Live Oak/ Quercus agrifolia	8"
244	Coast Live Oak/Quercus agrifolia	16/13"
247	Coast Live Oak/ Quercus agrifolia	26" @ 2'
249	Coast Live Oak/Quercus agrifolia	17"
250	Coast Live Oak/Quercus agrifolia	9"
251	Coast Live Oak/Quercus agrifolia	14" @ 3'
256	Coast Live Oak/Quercus agrifolia	10"
257A	Black Oak/ Quercus kelloggi	8"
263	California Bay/Umbellularia californica	12" @ 3'
264	Black Oak/ Quercus kelloggi	14"
265	Coast Live Oak/Quercus agrifolia	19"
289	California Bay / Umbellularia californica	9" @ 2.5'
331	Coast Live Oak/Quercus agrifolia	9"
332	Coast Live Oak/Quercus agrifolia	13"
333	Coast Live Oak/Quercus agrifolia	9"
335	Coast Live Oak/Quercus agrifolia	19"
340	Coast Live Oak/Quercus agrifolia	21"
341	California Bay / Umbellularia californica	7/5/5"
342	Coast Live Oak/Quercus agrifolia	7"
343	Coast Live Oak/Quercus agrifolia	17"
346	California Bay / Umbellularia californica	4/4/5/5/8"
347	California Bay/Umbellularia californica	4/5/5/6/6"
348	California Bay / Umbellularia californica	4/5/6"
349	Coast Live Oak/Quercus agrifolia	17"
350	Coast Live Oak/Quercus agrifolia	11"
351	Coast Live Oak/Quercus agrifolia	10"
352	Coast Live Oak/Quercus agrifolia	16"
353	Coast Live Oak/Quercus agrifolia	15"
355	California Bay/Umbellularia californica	5/19"
356	California Bay/Umbellularia californica	15"
357	Coast Live Oak/Quercus agrifolia	8"
358	Coast Live Oak/Quercus agrifolia	11
359	Coast Live Oak/Quercus agrifolia	12"

^{**} Indicates a Dying Tree, Per the Project Arborist, Not Needing Mitigation

TREE	SPECIES	TRUNK DIAMETER (In.)
360	Coast Live Oak/Quercus agrifolia	19"
361	Coast Live Oak/Quercus agrifolia	15"
362	Coast Live Oak/Quercus agrifolia	17"
363	Coast Live Oak/Quercus agrifolia	9"
364	California Bay / Umbellularia californica	15"/10"/7"
365	Coast Live Oak/Quercus agrifolia	23"
366	Valley Oak/ Quercus lobata	19"
368	Coast Live Oak/Quercus agrifolia	17"
369	Coast Live Oak/Quercus agrifolia	12"
370	Coast Live Oak/Quercus agrifolia	17"
372	California Bay / Umbellularia californica	6"
373	California Bay / Umbellularia californica	7"
374	California Bay/Umbellularia californica	5"/4"
375	Coast Live Oak/Quercus agrifolia	17"
376	California Bay / Umbellularia californica	6/6/7"
377	California Bay / Umbellularia californica	5/6"
379	Coast Live Oak/Quercus agrifolia	15"
380	Coast Live Oak/Quercus agrifolia	4/5/11"
381	California Bay/Umbellularia californica	6/7"
383	Coast Live Oak/Quercus agrifolia	14"
384	Coast Live Oak/Quercus agrifolia	14/16"
385	Coast Live Oak/Quercus agrifolia	14"
389	Black Oak/Quercus kelloggii	13" @ 3'
392	Black Oak / Quercus kelloggii	15"
393	Coast Live Oak/Quercus agrifolia	9"
394	California Bay/Umbellularia californica	4/7/16"
395	Coast Live Oak/Quercus agrifolia	8/19"
396	Coast Live Oak/Quercus agrifolia	19" @ 3'
397	Coast Live Oak/Quercus agrifolia	12"
398	California Bay / Umbellularia californica	12"
400	Coast Live Oak/Quercus agrifolia	11" @ 4'
401	Coast Live Oak/Quercus agrifolia	20"
408	Coast Live Oak/Quercus agrifolia	11" @ 4'
409	Coast Live Oak/Quercus agrifolia	16"
410	Coast Live Oak/Quercus agrifolia	13"
411	Coast Live Oak/Quercus agrifolia	15"
419	Coast Live Oak/Quercus agrifolia	9"
420	Coast Live Oak/Quercus agrifolia	13"/22"
425	Coast Live Oak/Quercus agrifolia	7"
426	Black Oak/Quercus kelloggii	14"
428	Coast Live Oak/Quercus agrifolia	18"
429	Coast Live Oak/Quercus agrifolia	12"
430	Coast Live Oak/Quercus agrifolia	19"
465	Valley Oak/ Quercus lobata	19"
466	Black Oak/Quercus kelloggii	11"
468	Coast Live Oak/Quercus agrifolia	8/11"
471	Valley Oak/ Quercus lobata	9"
482	Valley Oak/Quercus lobata	12"
487	Valley Oak/ Quercus lobata	14"
488	Coast Live Oak/Quercus agrifolia	9"
610	Coast Live Oak/Quercus agrifolia	7"
613	Coast Live Oak/Quercus agrifolia	13"
614	Coast Live Oak/Quercus agrifolia	11"
615	Coast Live Oak/Quercus agrifolia	14"

^{**} Indicates a Dying Tree, Per the Project Arborist, Not Needing MitigationH Designates a Heritage Tree as defined in Chapter 17-24

TREE	SPECIES	TRUNK DIAMETER (In.)
616	Coast Live Oak/Quercus agrifolia	5"
624	Coast Live Oak/Quercus agrifolia	6"
625	Coast Live Oak/Quercus agrifolia	12"
626	Coast Live Oak/Quercus agrifolia	8"
627	Coast Live Oak/Quercus agrifolia	6"
628	Coast Live Oak/Quercus agrifolia	7"
629	Valley Oak/ Quercus lobata	22"
631	Coast Live Oak/Quercus agrifolia	12"
632	Coast Live Oak/Quercus agrifolia	20"
633	Coast Live Oak/Quercus agrifolia	14"
634	Coast Live Oak/Quercus agrifolia	9"
635	Coast Live Oak/Quercus agrifolia	15"
636	Coast Live Oak/Quercus agrifolia	16"
637	Coast Live Oak/Quercus agrifolia	18"
638	Coast Live Oak/Quercus agrifolia	13"
639	Black Oak/Quercus kelloggii	16"
640	California Bay/Umbellularia californica	15"
642	Coast Live Oak/Quercus agrifolia	13"
643		17"
644	California Bay / Umbellularia californica Coast Live Oak / Quercus agrifolia	21"
645		11"
646	Coast Live Oak/Quercus agrifolia	13"
	Coast Live Oak/Quercus agrifolia	
647	Black Oak/Quercus kelloggii	16" 11"
648	California Bay / Umbellularia californica	
649	Coast Live Oak/Quercus agrifolia	12"
650	Coast Live Oak/Quercus agrifolia	13"
651	Coast Live Oak/Quercus agrifolia	14"
652	Coast Live Oak/Quercus agrifolia	14"
661	California Bay / Umbellularia californica	4/5/5/5/6"
662	Coast Live Oak/Quercus agrifolia	18"
663	Coast Live Oak/Quercus agrifolia	16"
664	Coast Live Oak/Quercus agrifolia	6"
665	Coast Live Oak/Quercus agrifolia	16"
668	California Bay / Umbellularia californica	5"
672	California Bay /Umbellularia californica	5/6"
674	California Bay / Umbellularia californica	5"/5"
678	Coast Live Oak/Quercus agrifolia	10"
679	Coast Live Oak/Quercus agrifolia	16"
681	Buckeye/Aesculus californica	5"
682	Coast Live Oak/Quercus agrifolia	11"
683	Black Oak / Quercus kelloggii	11"
684	Coast Live Oak/Quercus agrifolia	12"
686	Coast Live Oak/Quercus agrifolia	7"
689A	Buckeye/Aesculus californica	5"
741	Coast Live Oak/Quercus agrifolia	12/13/15/16"
750	Coast Live Oak/Quercus agrifolia	15"
751	Coast Live Oak/Quercus agrifolia	17"
752	Coast Live Oak/ Quercus agrifolia	17"
797	Coast Live Oak/ Quercus agrifolia	12"
798	Black Oak/ Quercus kelloggi	16"
799	Coast Live Oak/ Quercus agrifolia	13"/13"
800	Coast Live Oak/ Quercus agrifolia	5/10/14/17"
801	Coast Live Oak/Quercus agrifolia	17"
901	California Bay/Umbellularia californica	5/9" @ 2'

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TREE	SPECIES	TRUNK DIAMETER (In.)
903	Coast Live Oak/Quercus agrifolia	10"
904	Coast Live Oak/ Quercus agrifolia	6"
906	California Bay / Umbellularia californica	6" (+ small stems)
910	California Bay/Umbellularia californica	4"
912	California Bay/Umbellularia californica	4/5/5"
914	California Bay / Umbellularia californica	4/4"
919	California Bay / Umbellularia californica	5"
921	California Bay / Umbellularia californica	4/5/5"
928	California Bay / Umbellularia californica	6"
931	California Bay / Umbellularia californica	4/6/6"
932	California Bay/Umbellularia californica	4" (+ small stems)
940	California Bay / Umbellularia californica	5"
941	Buckeye/Aesculus californica	4/5"
946	Buckeye/Aesculus californica	5"@3'
949	Buckeye/Aesculus californica	7"
951	Coast Live Oak/ Quercus agrifolia	8"
952	Coast Live Oak/ Quercus agrifolia	5"
956	California Bay / Umbellularia californica	5"
957	California Bay / Umbellularia californica	4" (+ small stems)
958	California Bay / Umbellularia californica	5"
959	California Bay / Umbellularia californica	5" (+ small stems)
960	California Bay/Umbellularia californica	5" (+ small stems)
962	Coast Live Oak/ Quercus agrifolia	8"
963	California Bay/Umbellularia californica	5/6"
967	Coast Live Oak/ Quercus agrifolia	4/4/7/9/10"
968	California Bay / Umbellularia californica	4"
969	California Bay / Umbellularia californica	6"
970	California Bay / Umbellularia californica	5"
971	California Bay / Umbellularia californica	4/4" (+ small stems)
972	California Bay / Umbellularia californica	4/5" (+ small stems)
973	California Bay/Umbellularia californica	5/5/6"
974	Coast Live Oak/ Quercus agrifolia	5"
975	Coast Live Oak/ Quercus agrifolia	6/9"
976	California Bay/Umbellularia californica	5"
977	California Bay/Umbellularia californica	4"
978	California Bay/Umbellularia californica	6"
979	California Bay / Umbellularia californica	4"
980	California Bay / Umbellularia californica	4/4" (+ small stems)
981	California Bay/Umbellularia californica	4" (+ small stems)
982	Coast Live Oak/ Quercus agrifolia	6"
984	Buckeye/Aesculus californica	4

Total Replacement Trees Required: (total trunk dia.)2225 / 6 = 371 x 2 = 742

Heritage Trees are defined per Chapter 17-24 as follows:

Species of Tree	<u>Diameter</u>	Circumference
Valley Oak/Quercus lobata	6"	19"
Coast Live Oak/Quercus agrifolia	18"	57"
Black Oak/Quercus kelloggii	18"	57"
California Bay/Umbellularia californica	24"	75"

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ABBREVIATIONS MISCELLANEOUS ASPHALT CONCRETE ASBESTOS CEMENT PIPE MECHANICAL JOINT ALGEBRAIC DIFFERENCE MEAN SEA LEVEL AMERICANS WITH DISABILITIES ACT NORTH NUMBER **AGGREGATE** NOT APPLICABLE ALUMINUM NOT IN CONTRACT NATIONAL PIPE THREAD ANGLE POINT ASSESSORS PARCEL NUMBER ON CENTER OUTSIDE DIAMETER OVERHEAD APPROX **APPROXIMATI** AIR RELEASE VALVE AVENUE OUNCE PLANTER AREA BEGIN HORIZONTAL CURVE POINT OF CURVATURE BUILDING POINT OF COMPOUND CURVATURE **BOUL FVAR** PORTLAND CEMENT CONCRETE **BENCHMARK** BLOWOFF PLANTER DRAIN PLAIN END BUTTERFLY VALVE BEGIN VERTICAL CURVE PAD GRADE BACK OF SIDEWALK POST INDICATOR VALVE PROPERTY LINE BOTTOM OF WALL PAVING NOTCH BRELJE & RACE POINT OF CONNECTION POINT ON CURVE COMBINATION AIR AND VACUUM RELEASE VALVE PRIVATE OPEN SPACE POINT ON TANGENT CALIFORNIA BUILDING CODE POWER POLE CONTROLLED DENSITY FILL POINT OF REVERSE CURVATURE PRESSURE REDUCING VALVE CAST-IN-PLACE PIPE POUND PER SQUARE INCH **CENTERLINE** PRESSURE SUSTAINING VALVE POINT OF TANGENCY CENTERLINE PUBLIC UTILITY EASEMENT POLYVINYL CHLORIDE CORRUGATED METAL PIPE POINT OF VERTICAL INTERSECTION CORRUGATED METAL PIPE ARCH PAVEMENT PUBLIC WATER EASEMENT CL FANOUT COAXIAL CABLE RADIUS RAW WATER CONCRETE RELATIVE COMPACTION COTG CLEANOUT TO GRADE REINFORCED CONCRETE BOX REINFORCED CONCRETE PIPE CONTROL POINT ROAD ROOF DRAIN COUPLING CURB RETURN CORRUGATED STEEL PIPE REDUCER CENTER REFERENCE CUBIC YARDS REDUCED PRESSURE CENTER TO CENTER BACKFLOW PREVENTER REMOTE SUPERVISORY CONTROL CURB AND GUTTER DOUBLE CHECK DETECTOR CHECK RING TIGHT DOUBLE DETECTOR CHECK RECYCLED WATER DETECTOR RAIN WATER LEADER RIGHT OF WAY DROP INLET DUCTILE IRON PIPE SEE ARCHITECTURAL DRAWINGS **DOWNSPOUT** SCADA SUPERVISORY CONTROL AND DOWNSTREAM DATA ACQUISITION SCHEDULE DRAWING STORM DRAIN STORM DRAIN CATCH BASIN DRIVEWAY STORM DRAIN CLEANOUT END HORIZONTAL CURVE STORM DRAIN DROP INLET **ECCENTRIC** STORM DRAIN EASEMENT EFFLUENT (SEWER) STORM DRAIN MANHOLE SEWER EASEMENT EXISTING GROUND FI FVATION SEE ELECTRICAL DRAWINGS **ELECTRICAL** SQUARE FEET SUBGRADE EDGE OF PAVEMENT SEE LANDSCAPE DRAWINGS **EASEMENT** SLIP ON FLANGE END VERTICAL CURVE SIDE OPENING (SD) EACH WAY **EXISTING** SEE PLUMBING DRAWINGS SPECIFICATION **EXISTING** FACE OF STAINLESS STEEL FLANGED COUPLING ADAPTER SSCO S.S.D. SANITARY SEWER CLEANOUT FIRE DEPARTMENT CONNECTION SEE STRUCTURAL DRAWINGS FLARED END SECTION FINISHED FLOOR SANITARY SEWER MANHOLE STREET FINISHED GRADE STATION FIRE HYDRANT STANDARD STEEL SERVICE FLOWLINE FI ANGE SIDEWALK EASEMENT FLOWLINE OF SIDE OPENING SQUARE YARDS FLEX FLEXIBLE FORCE MAIN (PRESSURE) FΜ **TANGENT** FIBERGLASS REINFORCED PLASTIC TANGENT TOP OF BOX GALVANIZED TEMPORARY CONSTRUCTION GRADE BREAK EASEMENT GALLONS PER MINUTE TOP OF DIKE GROUND TELEPHONE GALVANIZED STEEL PIPE **TEMPORARY** GAS VALVE TOP OF FOUNDATION GATE VALVE TOP OF GRATE HOSE BIBB THREADED HEADER BOARD HOT DIPPED GALVANIZED TOP OF TAPER HIGH DENSITY POLYETHYLENE TREE TAG NUMBER HIGH POINT TOP OF WALL HIGH PRESSURE GAS HWY UNDER FLOOR FINISHED GRADE IRRIGATION CONTROL VALVE UFFG INSIDE DIAMETER UNLESS NOTED OTHERWISE VERTICAL CURVE IRON PIPF WATER IRON PIPE SIZE WATER METER INTERNATIONAL SIGN ASSOCIATION WELD NECK FLANGE JOINT POLE WATER SERVICE JOINT TRENCH WATER VALVE ARC LENGTH DEGREES LINEAL FEET MINUTES LIP OF GARAGE SECONDS LIP OF GUTTER DELTA LOW POINT MAXIMUM NUMBER METAL BEAM GUARD RAIL POUNDS PERCENT MFR MANUFACTURE MILLION GALLONS MANHOLE

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TREE PROTECTION . .

TREE TO BE SAVED

TREE TO BE REMOVED

TREE TO BE REMOVED - KILLED BY FIRE

TREE PROTECTION MEASURES

1. PRIOR TO THE START OF CONSTRUCTION, PROJECT ARBORIST SHALL MEET WITH THE GENERAL CONTRACTOR AND PROJECT MANAGER TO DISCUSS TREE PROTECTION DURING

- 2. IF QUESTIONS ARISE DURING CONSTRUCTION RELATING TO PROTECTED TREES, THE PROJECT ARBORIST SHALL BE CONSULTED TO RECOMMEND APPROPRIATE PROCEDURES, OR ASKED TO MONITOR CONSTRUCTION ACTIVITIES EXPECTED TO IMPACT TREES. GENERALLY THE PROJECT OR MONITORING ARBORIST SHALL BE NOTIFIED TO BE PRESENT OR TO PROVIDE DIRECTION WHEN CONSTRUCTION ACTIVITIES WILL BE OCCURRING WITHIN TREE PROTECTION ZONES (TPZ). THE TPZ IS DEFINED AS THE AREA WITHIN THE DRIPLINES OF TREES TO RÈMAIN.
- MINIMUM 24 HOURS ADVANCE NOTICE SHALL BE GIVEN WHEN SCHEDULING SITE VISITS BY
- 4. NO OPERATION OF EQUIPMENT OR VEHICLES, OR STORAGE OF MATERIALS, OR DISPOSAL OF WASTE MATERIALS SHALL OCCUR WITHIN THE DRIPLINES OF PROTECTED TREES. IN AREAS WHERE CONSTRUCTION ACTIVITIES MUST OCCUR WITHIN THE DRIPLINES OF PROTECTED TREES, THE SUPERVISING ARBORIST MAY REQUIRE THAT PROTECTIVE WRAP BE PLACED AROUND TRUNKS OR BRANCHES THAT MAY BE DAMAGED.
- 5. TREE STUMPS ARE NOT TO BE REMOVED AS PART OF THESE PLANS. NO GRADING OR GROUND DISTURBANCE SHALL OCCUR.

PROTECTIVE FENCING

TEMPORARY PROTECTIVE FENCING SHALL BE INSTALLED TO RESTRICT CONSTRUCTION ACTIVITY WITHIN THE DRIPLINES OF PROTECTED TREES. IT SHALL BE PLACED AT THE OUTER EDGE OF THE DRIPLINES OF TREES OR GROUPS OF TREES AND AS SHOWN AND DETAILED ON THE TREE PROTECTION PLAN. WHERE GRADING OR OTHER OPERATIONS MUST OCCUR WITHIN THE DRIPLINES, THE FENCING IS PLACED AS FAR AS POSSIBLE FROM THE TRUNKS, AT THE LIMIT OF REQUIRED ACCESS. FENCING LOCATIONS TO BE APPROVED ON SITE BY THE ARBORIST. PLACEMENT OF POSTS SHALL AVOID ROOTS IF ENCOUNTERED DURING INSTALLATION.

ANY PRUNING SHALL BE THE MINIMUM NECESSARY TO ACHIEVE HAZARD REDUCTION AND

- PUBLIC SAFETY, CONSTRUCTION CLEARANCE, AND TO IMPROVE TREE HEALTH. 2. ALL PRUNING SHALL BE DONE ACCORDING TO ISA OR ANSI-300 STANDARDS, BY
- QUALIFIED PERSONNEL. PRUNING SHALL BE DONE BY ISA CERTIFIED TREE WORKERS OR CERTIFIED ARBORISTS,
- OR UNDER THE DIRECT SUPERVISION OF A CERTIFIED ARBORIST. 4. PRUNING FOR HAZARD REDUCTION SHALL INCLUDE: THE REMOVAL OF DEAD BRANCHES
- OR STEMS 3" DIAMETER AND LARGER, BROKEN, WEAKLY—ATTACHED OR CROSSING PRUNING FOR CONSTRUCTION CLEARANCE SHALL BE THE MINIMUM NECESSARY FOR THE
- SAFE OPERATION OF EQUIPMENT AND CONSTRUCTION ACTIVITIES. BRANCHES SHALL BE CUT BACK TO APPROPRIATE SIZED LATERALS OR THE PARENT STEM. NO STUBS, BROKEN ENDS, FLUSH CUTS, OR WOUNDS ON TRUNKS OR BRANCHES ARE ACCEPTABLE.
- PRUNING SHALL OCCUR PRIOR TO START OF CONSTRUCTION ACTIVITIES NEAR TREES TO BE PRESERVED.
- PROJECT ARBORIST SHALL MEET WITH TREE SERVICE CONTRACTOR PRIOR TO TREE CLEARING AND PRUNING TO DETERMINE LIMITS AND GOALS OF CLEARANCE AND HAZARD REDUCTION PRUNING.

ROOT PROTECTION

- PROJECT ARBORIST (OR DESIGNATE) SHALL BE NOTIFIED IN ADVANCE TO BE PRESENT WHEN ROUGH GRADING WILL OCCUR WITHIN DRIPLINES OF PROTECTED TREES. WHERE UTILITY TRENCHING MUST OCCUR WITHIN ROOTZONES OF TREES TO BE PRESERVED, MONITORING ARBORIST SHALL BE PRESENT TO OBSERVE WORK. ROOTS 2"+ SHALL BE PRESERVED WHEREVER POSSIBLE. IF ROOTS LARGER THAN 1" DIAMETER ARE ENCOUNTERED DURING GRADING OR TRENCHING WHICH CANNOT BE PRESERVED, THEY SHALL BE CUT CLEANLY ACROSS THE FACE OF THE ROOT WITH A SHARP SAW, PAST ANY
- IN AREAS WHERE ROOTS ARE ENCOUNTERED AND BACKFILL WILL BE PLACED, ROOTS SHOULD BE LEFT EXPOSED AS SHORT A TIME AS POSSIBLE TO AVOID DRYING OUT.
- WHEREVER POSTS, PIERS OR POLES WILL BE INSTALLED WITHIN DRIPLINES OF PROTECTED TREES, CARE SHOULD BE TAKEN TO AVOID DAMAGING ROOTS. POST LOCATIONS SHALL BE SHIFTED TO AVOID ROOTS.

1. AT THE COMPLETION OF CONSTRUCTION ACTIVITIES THERE MAY BE AREAS AROUND PROTECTED TREES THAT REQUIRE TREATMENT TO INSURE FUTURE TREE HEALTH.

- 2. AREAS WITHIN TREE ROOTZONES WHERE SOIL HAS BECOME COMPACTED SHALL BE LOOSENED IF REQUIRED BY ARBORIST.
- WHERE NEEDED, MULCH SHALL BE REAPPLIED AROUND TREES IN THE AREA OF RECENT CONSTRUCTION ACTIVITY.

TREE PROTECTION SITE SUMMARY

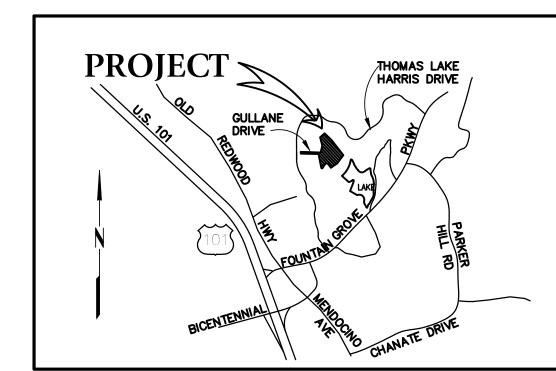
- 1. TREE SURVEYS OF THIS SITE WERE CONDUCTED IN THE EARLY 1990'S IN CONJUNCTION WITH THE OAKS SUBDIVISION, AND WERE UPDATED IN THE EARLY 2000'S BY BRELJE & RACE. THE SITE WAS WALKED IN THE SUMMER OF 2016 BY ARBORIST BECKY DUCKLES. FOLLOWING THE OCTOBER 2017 TUBBS FIRE THE ARBORIST AGAIN SURVEYED THE AREA OF PROPOSED CONSTRUCTION AND HAS NOTED TREES THAT WERE KILLED BY THE FIRE. FIRE KILLED TREES HAVE BEEN IDENTIFIED ON THIS TREE PROTECTION PLAN WITH A UNIQUE
- 2. TREES NEAR, AND OUTSIDE OF, THE LIMITS OF GRADING THAT ARE SHOWN TO BE PRESERVED HAVE BEEN CAREFULLY REVIEWED BY THE PROJECT ARBORIST AND CIVIL ENGINEER. CONSULTATIONS HAVE OCCURRED WITH THE PROJECT GEOTECHNICAL ENGINEER, WHO HAS STATED THAT BECAUSE OF THE NATURE OF THE FILLS AND THEIR LOCATION ON THE PROJECT SITE, KEYWAYS CAN BE MODIFIED IN DESIGN TO NOT PROJECT BEYOND THE LIMITS OF FILL ILLUSTRATED ON THE GRADING PLAN. BECAUSE OF THIS, TREES LOCATED IN

CLOSE PROXIMITY TO THE LIMITS OF GRADING CAN RELIABLY BE SHOWN TO BE PRESERVED.

- THE PROJECT WILL BE DEVELOPED IN A SINGLE PHASE. IT IS PROPOSED THAT TREE REMOVAL OCCURS IN A SINGLE PHASE. IF TREE REMOVAL OCCURS DURING THE PERIOD WHERE NESTING SURVEYS ARE REQUIRED, AS IDENTIFIED IN THE PROJECT INITIAL STUDY AND MITIGATION MONITORING PROGRAM, THOSE SURVEYS WILL BE COMPLETED PRIOR TO ANY REMOVALS. FOLLOWING REMOVAL OF THE DESIGNATED TREES, TREE PROTECTION FENCING WILL BE ERECTED AS CLOSE AS POSSIBLE TO THE LIMITS OF GRADING. TREES CLOSE TO THE LIMITS OF GRADING WILL BE MONITORED DURING ACTUAL GRADING ACTIVITIES TO MONITOR FOR IMPACTS AND TO PRESCRIBE PROTECTIVE MEASURES AS NEEDED.
- 4. BECAUSE OF THE LARGE NUMBER OF TREES LOCATED OUTSIDE OF THE PROJECT IMPACT ZONE, ONLY THOSE TREES "TO BE REMOVED" AND THOSE TREES "TO BE SAVED" WHICH ARE LOCATED WITHIN OR IMMEDIATELY ADJACENT TO THE LIMITS OF GRADING HAVE BEEN MARKED WITH SAVE OR REMOVE SYMBOLS. ALL OTHER TREES ON THE SITE THAT ARE NOT MARKED WITH A SYMBOL ARE INTENDED TO BE PRESERVED.
- 5. BECAUSE THE INITIAL SURVEYS OF THESE TREES OCCURRED A NUMBER OF YEARS AGO, MANY HAVE INCREASED IN SIZE FROM THE SIZES IDENTIFIED ON THE TREE PROTECTION PLAN. PLEASE REFER TO THE ARBORIST'S INVENTORY OF TREES FOR THE CURRENT SIZE AND SPECIFIC TYPE OF EACH TREE. THE TREE NUMBERS ARE CONSISTENT BETWEEN THE TREE PROTECTION PLAN AND THE ARBORIST INVENTORY.

TREE PROTECTION NOTES

- 1. NO PARKING, STORAGE OF MATERIALS, DISPOSAL OF ANY WASTE MATERIALS, OR UNNECESSARY OPERATION OF EQUIPMENT SHALL OCCUR WITHIN THE DRIPLINES OF TREES TO REMAIN. PROJECT MANAGER WILL DESIGNATE WASTE DISPOSAL AREAS.
- 2. IF PRUNING FOR CLEARANCE IS REQUIRED ON ANY TREES TO REMAIN, IT SHOULD BE DONE BY TRAINED, QUALIFIED TREE WORKERS ACCORDING TO ISA AND ANSI PRUNING GUIDELINES. PRUNING SHOULD BE THE MINIMUM NECESSARY FOR HAZARD REDUCTION, (I.E. THE REMOVAL OF DEADWOOD 2" AND LARGER, ETC.), AND CLEARANCE. PROJECT ARBORIST SHALL MEET WITH TREE SERVICE CONTRACTOR PRIOR TO WORK TO DISCUSS LIMITS AND GOALS OF
- CARE SHALL BE TAKEN TO AVOID DAMAGING TRUNKS OR BRANCHES OF PROTECTED TREES. WHERE NECESSARY, TRUNKS SHALL BE WRAPPED WITH THICK LAYERS OF BURLAP OR STRAW WATTLE FOR PROTECTION, IF REQUIRED.
- 4. PROJECT ARBORIST SHALL BE NOTIFIED A MINIMUM OF 24 HRS IN ADVANCE TO BE PRESENT ON SITE DURING ROUGH GRADING OR TRENCHING WITHIN THE TREE PROTECTION ZONES (TPZ) OF TREES TO BE PRESERVED, AS DESIGNATED ON THE PLANS. TREE PROTECTION FENCING SHALL BE INSTALLED AS SHOWN ON THE TREE EXHIBIT AND MAINTAINED IN PLACE THROUGHOUT CONSTRUCTION.
- 5. IF ANY ROOTS LARGER THAN 1" ARE ENCOUNTERED WHICH CANNOT BE PRESERVED. THEY SHOULD BE CUT CLEANLY ACROSS THE FACE OF THE ROOT WITH A SHARP SAW. NO TREATMENT OF THE CUT END IS NECESSARY. BACKFILL OF THE EXPOSED CUT ROOTS SHALL BE DONE AS QUICKLY AS POSSIBLE TO PREVENT DESICCATION.
- 6. IN AREAS WHERE SOIL COMPACTION WITHIN ROOT ZONES OF PROTECTED TREES HAS OCCURRED, LOOSENING OF SOIL SURFACE SHALL BE COMPLETED PRIOR TO FINAL WALK THROUGH OF EACH AREA. CONSULT PROJECT MANAGER OR PROJECT ARBORIST FOR RECOMMENDATIONS OF TECHNIQUE.
- 7. ARBORMULCH, (CHIPPED WOOD BARK AND FOLIAGE, 3" LAYER MINIMUM) SHALL BE SPREAD AND RETAINED UNDER PROTECTED TREES NEAR DISTURBED AREAS TO SERVE AS A PERMANENT TOP DRESSING AND MULCH. IT SHALL BE KEPT 6" FROM BASE OF TRUNK
- 8. FOLIAGE OF PROTECTED TREES WITHIN CONSTRUCTION AREAS SHALL BE SPRAYED WITH WATER WEEKLY DURING CONSTRUCTION; USE 1 1/2" HOSE WITH NOZZLE FROM DUST



LOCATION MAP

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Brelje & Race



EMERALD ISLE ASSISTED LIVING

GULLANE DRIVE SANTA ROSA, CALIFORNIA

REVISIONS NO. DATE DESCRIPTION

ON A FULL-SCALE DRAWING, LENGTH OF BAR BELOW IS 1-INCH. IF BAR MEASURES LESS THAN 1-INCH, THIS SHEET WAS PLOTTED AT A REDUCED SCALE, WHICH MAY REQUIRE ADJUSTMENT OF SCALE(S) SHOWN ON DRAWING.

DECEMBER 2017 DRAWN BY | CHECKED BY

PROTECTION ABBREVIATIONS LEGEND & NOTES

