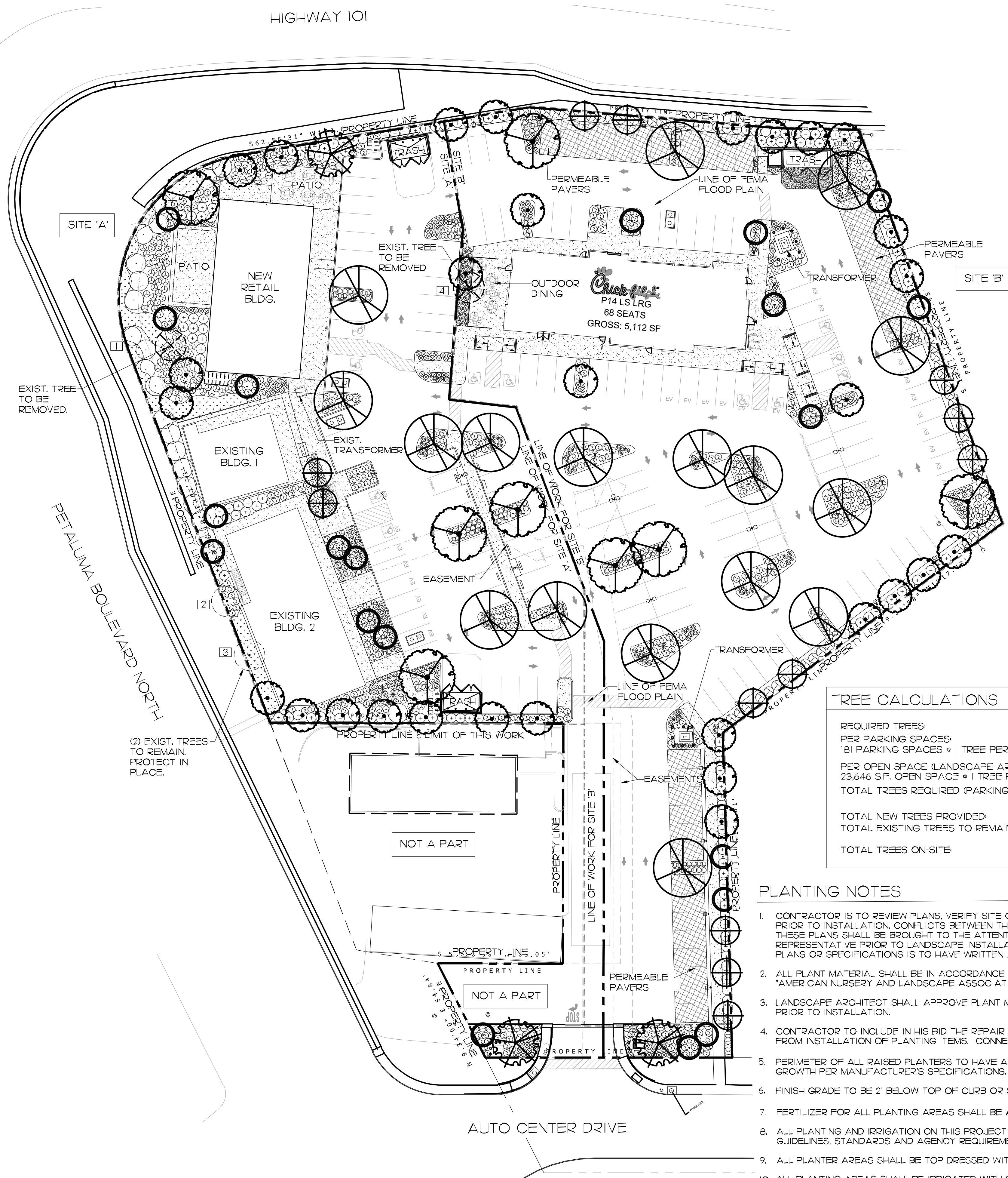


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TREE CALCULATIONS	
REQUIRED TREES:	
PER PARKING SPACES: 181 PARKING SPACES • 1 TREE PER 4 SPACES	45 TREES
PER OPEN SPACE (LANDSCAPE AREA) 23,646 S.F. OPEN SPACE • 1 TREE PER 500 S.F.	47 TREES
TOTAL TREES REQUIRED (PARKING LOT & OPEN SPACE)	92 TREES
TOTAL NEW TREES PROVIDED:	90 TREES
TOTAL EXISTING TREES TO REMAIN:	2 TREES
TOTAL TREES ON-SITE:	92 TREES

- PLANTING NOTES**
- CONTRACTOR IS TO REVIEW PLANS, VERIFY SITE CONDITIONS AND PLANT QUANTITIES PRIOR TO INSTALLATION. CONFLICTS BETWEEN THE SITE AND THESE PLANS OR WITHIN THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO LANDSCAPE INSTALLATION. ANY DEVIATION(S) FROM THE PLANS OR SPECIFICATIONS IS TO HAVE WRITTEN APPROVAL.
 - ALL PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF 'AMERICAN NURSERY AND LANDSCAPE ASSOCIATION' STANDARDS. WWW.ANLA.ORG
 - LANDSCAPE ARCHITECT SHALL APPROVE PLANT MATERIAL PLACEMENT BY CONTRACTOR PRIOR TO INSTALLATION.
 - CONTRACTOR TO INCLUDE IN HIS BID THE REPAIR OF ANY AND ALL DAMAGE RESULTING FROM INSTALLATION OF PLANTING ITEMS. CONNECT TO EXISTING CONDITIONS.
 - PERIMETER OF ALL RAISED PLANTERS TO HAVE A ROOT BARRIER TO REDIRECT ROOT GROWTH PER MANUFACTURER'S SPECIFICATIONS.
 - FINISH GRADE TO BE 2" BELOW TOP OF CURB OR SIDEWALK FOR PLANTING AREAS.
 - FERTILIZER FOR ALL PLANTING AREAS SHALL BE AS SPECIFIED WITHIN THE SOILS REPORT.
 - ALL PLANTING AND IRRIGATION ON THIS PROJECT TO MEET OR EXCEED CITY LANDSCAPE GUIDELINES, STANDARDS AND AGENCY REQUIREMENTS.
 - ALL PLANTER AREAS SHALL BE TOP DRESSED WITH 2" MINIMUM MULCH COVER.
 - ALL PLANTING AREAS SHALL BE IRRIGATED WITH SUB-GRADE BUBBLERS FOR TREES AND DRIPLINE OR DRIP EMITTERS FOR SHRUBS/GROUND COVERS. CONNECTED TO AUTOMATIC REMOTE CONTROL VALVES AND TIED INTO AN AUTOMATIC IRRIGATION 'SMART' CONTROLLER.
 - THE LANDSCAPE CONTRACTOR SHALL MAINTAIN ALL PLANTED AREAS BY MEANS OF CONTINUOUS WATERING, PRUNING, RAISING TREE BALLS WHICH SETTLE BELOW GRADE, FERTILIZING, APPLICATION OF SPRAYS WHICH ARE NECESSARY TO KEEP THE PLANTINGS FREE OF INSECTS AND DISEASES, WEEDING, AND/OR OTHER OPERATIONS NECESSARY FOR PROPER CARE AND UPKEEP. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN ALL PLANTINGS AS SPECIFIED ABOVE FOR A PERIOD OF NINETY (90) DAYS.
 - ALL PLANTER BEDS TO BE AMENDED WITH SOIL PREPARATION PER SPECIFICATIONS. NO DEVIATIONS ARE ALLOWED.

PLANTING LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	REMARKS	WUCOLS IV REGION I
TREES						
	ARBUS UT 'MARINA'	STRAWBERRY TREE CULTIVAR	24" BOX	8	STANDARD EVERGREEN	L
	CERCIS OCCIDENTALIS	WESTERN REDBUD	24" BOX 15 GAL	9 21	MULTI-TRUNK DECIDUOUS (15 GAL AT PARKING LOT PERIMETER)	VL
	LAGERSTROEMIA X 'NATCHEZ'	GRAPE MYRTLE	24" BOX 15 GAL	16 4	STANDARD DECIDUOUS (15 GAL AT PARKING LOT PERIMETER)	L
	LALRUS NOBILIS 'SARATOGA'	SWEET BAY	15 GAL	12	STANDARD EVERGREEN	L
	PISTACIA 'RED PUSH'	CHINESE PISTACHE CULTIVAR	24" BOX	3	STANDARD DECIDUOUS	M
	PLATANUS ACERIFOLIA	LONDON PLANE TREE	24" BOX	17	STANDARD DECIDUOUS	M
	TYP. EXISTING TREE TO BE REMOVED (2 TOTAL), SEE LISTING THIS SHEET.					
	TYP. EXISTING TREE TO REMAIN (2 TOTAL), SEE LISTING THIS SHEET.					

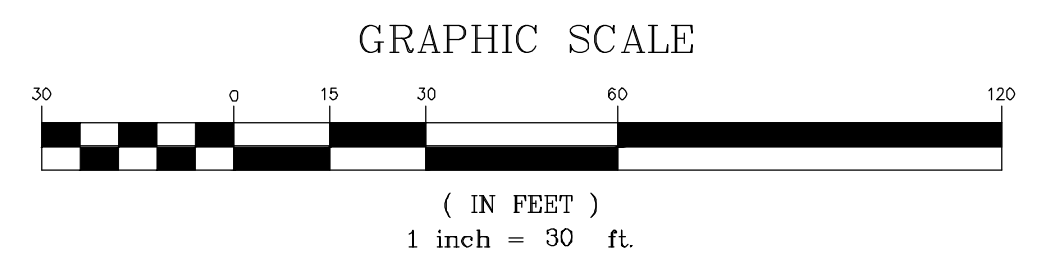
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	REMARKS	WUCOLS IV REGION I
SHRUBS						
	AGAVE VILMORINIANA	OCTOPUS AGAVE	5 GAL	17	AS SHOWN	VL
	ARISTIDA PURPUREA	PURPLE THREE-AWN	5 GAL	131	2'-6" O.C.	L
	BERBERIS THUNBERGII 'LIMEGLOW'	JAPANESE BARBERRY	5 GAL	52	5'-0" O.C.	M
	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	5 GAL	98	3'-6" O.C.	M
	DIANELLA X 'COOL VISTA'	BLACK ANTHEL FLAX LILY HYBRID	5 GAL	183	2'-6" O.C.	L
	EUCALYPTUS 'MOON LAGOON'	NON	5 GAL	22	8'-0" O.C.	L
	FRANGULA CALIFORNICA 'EVE CASE'	COFFEEBERRY	5 GAL	165	5'-0" O.C.	L
	HESPERALOE PARVIFLORA 'YELLOW'	YELLOW YUCCA	5 GAL	120	2'-6" O.C.	L
	LEYMUS CONDENSATUS 'CANYON PRINCE'	WILD RYE	5 GAL	199	2'-6" O.C.	L
	LIGUSTRUM SINENSE 'SUNSHINE'	SUNSHINE CHINESE PRIVET	5 GAL	53	3'-6" O.C.	L
	MULLENBERGIA RIGENS	DEER GRASS	5 GAL	423	3'-6" O.C.	L
GROUNDCOVERS						
	CEANOTHIS S. H. 'YANKEE POINT'	NON	5 GAL	1,582 S.F.	5'-0" O.C.	L

EXISTING TREE LEGEND

BOTANICAL NAME	COMMON NAME	HGT./CALIPER	ACTION
1 ULMUS PUMILA	SIBERIAN ELM		REMOVE
2 LAGERSTROEMIA SP.	GRAPE MYRTLE		REMAIN
3 YUCCA SP.	YUCCA		REMAIN
4 EUCALYPTUS SP.	EUCALYPTUS		REMOVE

LANDSCAPE CALCULATIONS

AREA 'A' SHRUB & GROUNDCOVER AREA:	12,401 S.F.
AREA 'B' SHRUB & GROUNDCOVER AREA:	11,245 S.F.
TURF AREA:	0 S.F.
TOTAL PLANTED LANDSCAPE AREA A+B:	23,646 S.F.
TOTAL PERMEABLE PAVERS AREA:	5,629 S.F.
TOTAL HARDSCAPED CONCRETE AREA:	13,449 S.F.
TOTAL PARKING LOT AREA:	61,393 S.F.



I PRELIMINARY LANDSCAPE PLAN
SCALE: 1" = 30'-0"

hourian associates, inc.
landscape architecture + design
san clemente • santa barbara, ca
p: 949.489.5623 e: team@hourianassociates.com

- revisions:
- △ 1-23-2023 Revise Tree Quantities
 - △ 1-30-2023 Revise Site Lights
 - △
 - △
 - △
 - △
 - △



PETALUMA RETAIL
5004 PETALUMA BLVD. NORTH
PETALUMA, CA 94952

project:
drawn by: VBNH
date: 5-26-2023

sheet name:
PRELIMINARY LANDSCAPE PLAN

sheet no:

L1.0

Appendix B – Sample Water Efficient Landscape Worksheet.

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filed out by the project applicant and it is a required element of the Landscape Documentation Package.

Reference Evapotranspiration (ET ₀) 39.6							
Hydrozone # (Planting Description)	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU)
Regular Landscape Areas							
TREES - MOD	0.40	BUBBLER	0.75	0.53	1,440	763.2	18,736
SHRUBS - LOW	0.30	DRIP	0.81	0.37	10,489	3,880.9	95,285
SHRUBS - MOD	0.40	DRIP	0.81	0.49	11,717	5,741.3	140,961
Totals					23,646	10,385.4	
Special Landscape Areas							
			1				
			1				
			1		23,646	10,385.4	
Totals							
ETWU Total							254,982
Maximum Allowed Water Allowance (MAWA)							261,250

***Hydrozone #/Planting Description**
 E.g.
 1) tree lawn
 2) non-water use plantings
 3) medium water use plantings

***Irrigation Method**
 overhead spray
 or drip

***Irrigation Efficiency**
 0.75 for spray head
 0.81 for drip

***ETWU (Annual Gallons Required) =**
 ET₀ x 0.62 x ETAF x Area
 where 0.62 is a conversion factor that acre-inches per acre per year to gallons per square foot per year

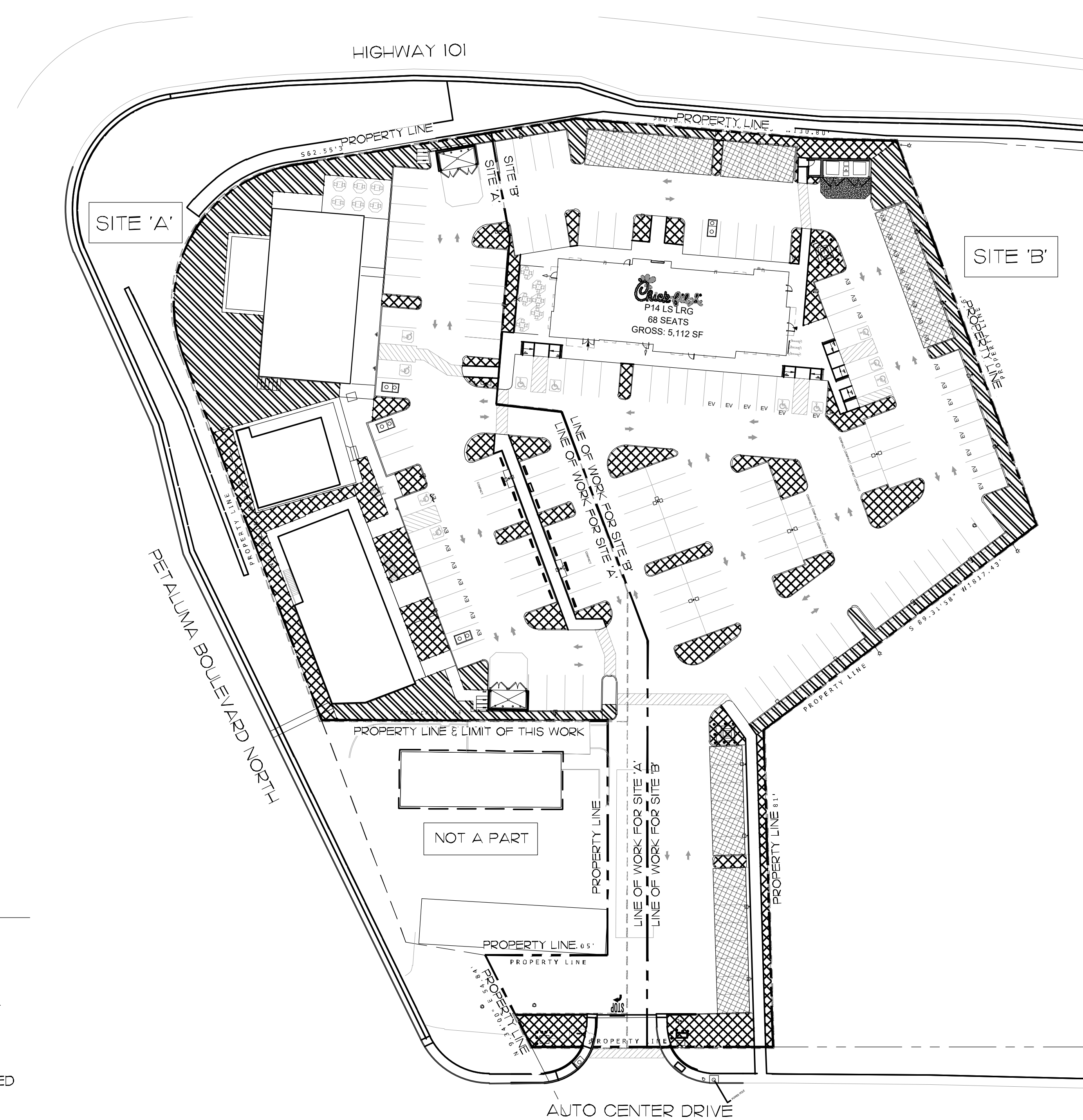
***MAWA (Annual Gallons Allowed) =**
 (ET₀ x LA) / 0.45
 where 0.62 is a conversion factor that acre-inches per acre per year to gallons per square foot per year, LA is the total landscape area in square feet, LA is the total special landscape area in square feet, and ETAF is 55 for residential areas and 0.45 for non-residential areas.

ETAF Calculations

Regular Landscape Areas		
Total ETAF x Area	(B)	10,385.4
Total Area	(A)	23,646
Average ETAF	B ÷ A	0.44

Average ETAF for Regular Landscape Areas must be 0.65 or below for residential areas, and 0.45 or below for non-residential areas.

All Landscape Areas		
Total ETAF x Area	(B+D)	10,385.4
Total Area	(A+C)	23,646
Site-wide ETAF	(B+D) ÷ (A+C)	0.44



I HYDROZONE PLAN
 SCALE: 1" = 40'-0"
 N

HYDROZONE MAP		
SYMBOL	DESCRIPTION	AREA
	LOW WATER USE PLANTING	11,929 S.F.
	MODERATE WATER USE PLANTING	11,717 S.F.

LANDSCAPE CALCULATIONS	
AREA 'A' SHRUB & GROUNDCOVER AREA:	12,401 S.F.
AREA 'B' SHRUB & GROUNDCOVER AREA:	11,245 S.F.
TURF AREA:	0 S.F.
TOTAL PLANTED LANDSCAPE AREA A+B:	23,646 S.F.
TOTAL PERMEABLE PAVERS AREA:	5,629 S.F.
TOTAL HARDSCAPED CONCRETE AREA:	13,449 S.F.
TOTAL PARKING LOT AREA:	61,393 S.F.

MAINTENANCE MANUAL

THIS MANUAL TO BE KEPT AT THE CONTROLLER LOCATION AT ALL TIMES.

IRRIGATION SYSTEMS:

- AUTOMATIC CONTROLLER TO BE CHECKED MONTHLY BY LANDSCAPE MAINTENANCE FOREMAN AND CHECKED WEEKLY BY MAINTENANCE CREW LEADER, TO PROVIDE OPTIMUM PLANT GROWTH AND WATER CONSERVATION. (IF SMART CONTROLLER IS IN USE, CHECK ELECTRICAL POWER ONLY.)
- LANDSCAPE MAINTENANCE CONTRACTOR TO CHECK ALL SYSTEMS ONCE PER MONTH BY TURNING ON EACH SYSTEM MANUALLY.
- LANDSCAPE MAINTENANCE CONTRACTOR TO VISUALLY CHECK ALL SYSTEMS EVERY WEEK DURING MAINTENANCE OF LANDSCAPE.
- ALL IRRIGATION FILTERS AT THE WYE STRAINER (AT THE BACKFLOW DEVICE) AND ALL FILTERS AT THE DRIP IRRIGATION VALVES TO BE CLEANED MONTHLY OR AS NEEDED.
- CHECK RAIN SHUT OFF DEVICE AT THE BEGINNING OF THE RAINY SEASON AND RE-CALIBRATE AS NEEDED. MAKE SURE DEVICE IS CLEAN, FREE OF ANY DEBRIS, AND IN GOOD WORKING ORDER.
- BACKFLOW DEVICE TO BE VISUALLY CHECKED ON A MONTHLY BASIS. TEST AND RE-CERTIFY ANNUALLY AS PER ALL CODES AND ORDINANCES.
- SCHEDULE ALL SPRAY SYSTEMS TO RUN ONLY BETWEEN THE HOURS OF 2:00 AM AND 9:00 AM.
- ON A MONTHLY BASIS, FLUSH ALL DRIP SYSTEM LINES AND CHECK VALVE BOXES TO SEE THAT THEY DRAIN PROPERLY. CLEAN OUT ANY DEBRIS, MUD OR PLANT GROWTH ANNUALLY.
- TWICE A YEAR CHECK ALL QUICK COUPLERS AND MAKE ALL REPAIRS AS NECESSARY. REPLACE PEA GRAVEL IN VALVE BOXES AS NEEDED.
- COVER OR PROTECT ALL BACKFLOW DEVICES DURING FREEZING WEATHER.
- OWNER TO PROVIDE FOR A WATER AUDIT EVERY FIVE YEARS FROM OPENING OF STORE.

WATER CONSERVATION STATEMENT

WATER CONSERVATION IS ACHIEVED IN THIS LANDSCAPE CONSTRUCTION DOCUMENT AS DESCRIBED BELOW,

- ALL PLANT MATERIALS SELECTED FOR THIS SITE ARE APPROPRIATE FOR THE GEOGRAPHICAL LOCATION AND LOCAL CLIMATE, AND THEIR ADAPTABILITY TO DROUGHT. DATA FROM WILCOLS III HAS BEEN USED FOR DETERMINING THE SPECIES' PLANT FACTOR FOR THE WATER USE CALCULATIONS.
- PLANTS WITH SIMILAR WATER USE REQUIREMENTS ARE GROUPED TOGETHER.
- THE MAJORITY OF LANDSCAPE AREAS ARE PLANTED WITH LOW WATER USE PLANTS, WITH THE BALANCE IN MODERATE WATER USE PLANTS. NO HIGH WATER USE PLANTS ARE USED.
- IRRIGATION SECTIONS: HYDROZONES ARE SEPARATED BY CONSIDERING PLANT SPECIES FACTOR, PLANT DENSITY AND MICROCLIMATE. IF LOW WATER USE PLANTS ARE MIXED WITH MODERATE WATER USE PLANTS IN THE SAME HYDROZONE, THE MODERATE WATER USE FACTOR IS USED FOR WATER USE CALCULATIONS. SEE HYDROZONE EXHIBIT.
- THE IRRIGATION SYSTEM UTILIZES A LOW-VOLUME DISTRIBUTION SYSTEM WITH A MASTER VALVE, FLOW SENSOR, CHECK VALVES, ET BASED AUTOMATIC CONTROLLERS WITH CYCLE PLUS SOAK AND WATER BUDGETING CAPABILITY, WEATHER STATION, AND RAIN SHUT-OFF.
- THE USE OF TURF IS ELIMINATED. ALL TREE, SHRUB AND GROUND COVER AREAS WILL BE DRESSED WITH A 3" LAYER OF MULCH FOR MOISTURE RETENTION AND TO DISCOURAGE WEEDS.
- THERE ARE NO SPECIAL LANDSCAPE AREAS IN THIS PROJECT.

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hourian associates, inc.
 landscape architecture + design
 san clemente • santa barbara, ca
 p: 949.489.5623 • efax: 858.810.0335
 e: team@hourianassociates.com

- revisions:
- △ 1-23-2023 Revise Tree Quantities
 - △
 - △
 - △
 - △
 - △



PROJECT:
PETALUMA RETAIL
5004 PETALUMA BLVD. NORTH
PETALUMA, CA 94952

drawn by: mdm/NH
 date: 5-26-2023

SHEET NAME:
PRELIMINARY WATER CONSERVATION PLAN

SHEET NO:

L1.1