




































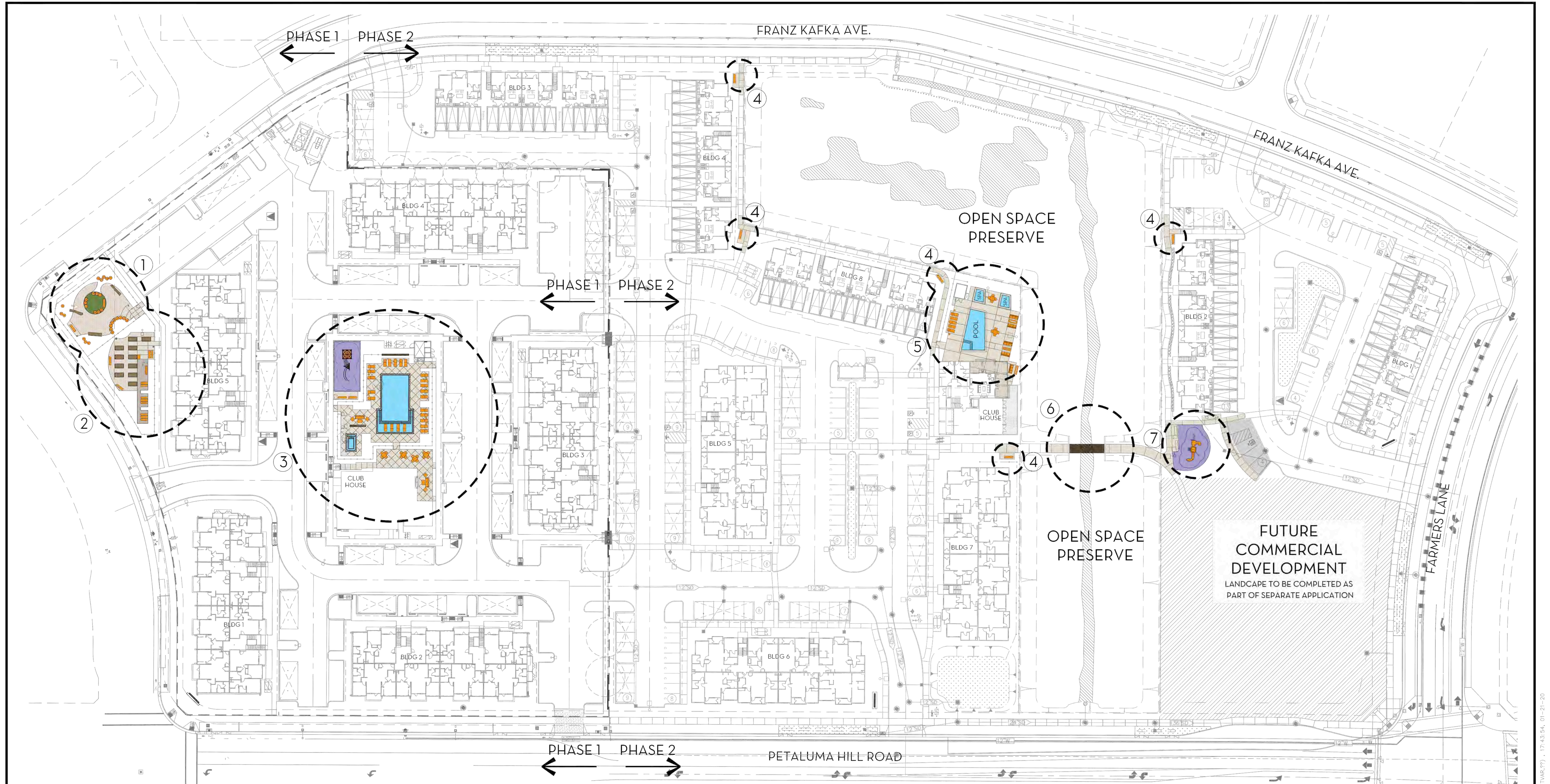


PLANT LEGEND

TYPE	BOTANICAL NAME	COMMON NAME	WATER USE	SIZE	NOTES
TREES					
	ACER MACROPHYLLUM	BIG LEAF MAPLE	H	15 GAL.	55'x35'
	ACER NEGUNDO	BOX ELDER	M	15 GAL.	40'x35'
	ACER PLATANOIDES 'CRIMSON KING'	CRIMSON KING NORWAY MAPLE	M	24" BOX	35'x25'
	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY MAPLE	M	15 GAL.	35'x30'
	ELAEOCARPUS DECIPIENS	JAPANESE BLUEBERRY TREE	M	15 GAL.	40'x25'
	LAGERSTROEMIA 'NATCHEZ'	WHITE CRAPE MYRTLE (MULTI)	L	24" BOX	25' x20'
	LAURUS NOBILIS	SWEET BAY	L	15 GAL.	25'x25'
	LIRIODENDRON TULIPIFERA	TULIP TREE	M	15 GAL.	60'x35'
	MAGNOLIA G. 'LITTLE GEM'	COMPACT SOUTHERN MAGNOLIA	M	24" BOX	22'x12'
	MAGNOLIA G. 'SAMUEL SOMMER'	SOUTHERN MAGNOLIA	M	24" BOX	35'x30'
	OLEA EUROPAEA 'WILSONII'	LOW FRUITING OLIVE (MULTI)	VL	36" BOX	25'x25'
	PISTACIA CHINENSIS 'KEITH DAVEY'	FRUITLESS CHINESE PISTACHE	L	24" BOX	30'x30'
	QUERCUS AGRIFOLIA	COAST LIVE OAK	L	24" BOX	50'x50'
	QUERCUS LOBATA	VALLEY OAK	L	15 GAL.	50'x50'
	QUERCUS LOBATA	VALLEY OAK (SPECIMEN)	L	60" BOX	50' x50'
	VITEX AGNUS-CASTUS BLUE	CHASTE TREE	L	15 GAL.	18'x18'
	WASHINGTONIA ROBUSTA	MEXICAN FAN PALM	L	20' BTH	75'x8'
SHRUBS AND GRASSES					
	ANIGOZANTHOS HYBRID 'ORANGE'	ORANGE KANGAROO PAW	L	1 GAL.	3.5x2.5'
	ARBUTUS UNEDO 'COMPACTA'	COMPACT STRAWBERRY TREE	L	5 GAL.	8'x8'
	BESCHORNERIA YUCCOIDES 'FLAMINGO GLOW'	FLAMINGO GLOW MEXICAN LILY	L	5 GAL.	5'x5'
	BOUTELOUA G. 'BLONDE AMBITION'	BLONDE AMBITION BLUE GRAMA	L	1 GAL.	2'x2'
	CALLISTEMON VIMINALIS 'SLIM'	SLIM BOTTLEBRUSH	L	15 GAL.	8'x3'
	DAPHNE ODORA 'AUREO-MARGINATA'	VARIEGATED WINTER DAPHNE	L	5 GAL.	3.5'x3.5'
	DIETES IRIDIOIDES	AFRICAN IRIS	L	5 GAL.	3.5'x3.5'
	DODONAEA VISCOSA 'PURPUREA'	PURPLE HOPSEED BUSH	L	15 GAL.	10'x8'
	HESPERALOE PARVIFLORA	RED YUCCA	L	5 GAL.	3.5'x3.5'
	HESPERALOE PARVIFLORA 'YELLOW'	YELLOW YUCCA	L	5 GAL.	3.5'x3.5'
	HYDRANGEA QUERCIFOLIA 'SNOW QUEEN'	SNOW QUEEN OAKLEAF HYDRANGEA	M	5 GAL.	5'x6'
	JUNCUS PATENS 'ELK BLUE'	CALIFORNIA GRAY RUSH	L	5 GAL.	2'x2'
	LOMANDRA LONGIFOLIA 'BREEZE'	DWARF MAT RUSH	L	1 GAL.	2'x2'
	MUHLENBERGIA CAPILLARIS 'WHITE CLOUD'	WHITE CLOUD MUHLY	L	5 GAL.	3.5'x3.5'
	PENNISETUM MESSIACUM 'BUNNY TAILS'	DWARF RED FOUNTAIN GRASS	L	1 GAL.	1.5'x1.5'
	PEROVSKIA A. 'BLUE SPIRES'	RUSSIAN SAGE	L	1 GAL.	3.5'x3.5'
	PHORMIUM TENAX 'BRONZE BABY'	RED-BRONZE NEW ZEALAND FLAX	L	1 GAL.	2.5'x2.5'
	PHORMIUM 'YELLOW WAVE'	YELLOW WAVE NEW ZEALAND FLAX	L	5 GAL.	4'x4'
	PODOCARPUS MACROPHYLLUS 'MAKI'	SHRUBBY YEW PODOCARPUS	M	15 GAL.	8'x3'
	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	M	5 GAL.	4'x4'
	RHAPHIOLEPIS UMBELLATA 'MINOR'	DWARF YEDDO HAWTHORN	L	5 GAL.	3.5'x3.5'
	TAXUS BACCATA 'STRICTA'	IRISH YEW	M	15 GAL.	15x6'
	WESTRINGIA R. 'MORNING LIGHT'	VARIEGATED COAST ROSEMARY	L	5 GAL.	3'x3'

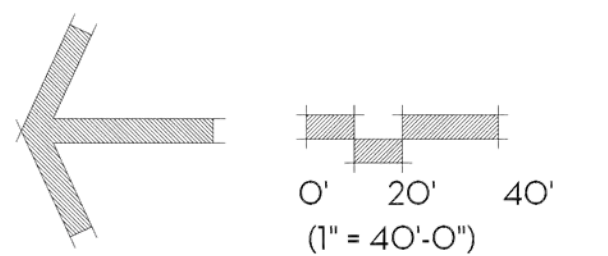
PLANT LEGEND

TYPE	BOTANICAL NAME	COMMON NAME	WATER USE	SIZE	NOTES
GROUNDCOVERS					
	ARCTOSTAPHYLOS 'PACIFIC MIST'	PACIFIC MIST MANZANITA	L	1 GAL.	72" O.C.
	DIANELLA CAERULEA 'CASSA BLUE'	COMPACT BLUE FLAX LILY	M	1 GAL.	18" O.C.
	LAVANDULA ANGUSTIFOLIA 'MUNSTEAD'	DWARF ENGLISH LAVENDER	L	1 GAL.	24" O.C.
	MYOPORUM PARVIFOLIUM 'WHITE'	CREEPING MYOPORUM	L	1 GAL.	72" O.C.
	SANTOLINA VIRENS	GREEN LAVENDER COTTON	L	1 GAL.	36" O.C.
	SENECIO SERPENS	BLUE CHALK STICKS	L	1 GAL.	36" O.C.
	VERBENA PERUVIANA	PERUVIAN VERBENA	L	1 GAL.	36" O.C.
BIOFILTRATION AREAS					
	CHONDROPETALUM TECTORUM	CAPE RUSH	L	1 GAL.	2.5'x3.5'
	JUNCUS PATENS 'ELK BLUE'	CALIFORNIA GREY RUSH	L	1 GAL.	2'x2'
	BIOFILTRATION SOD AS AVAILABLE FROM DELTA BLUEGRASS		M	SOD	
OPEN SPACE PRESERVE					
	FRANGULA CALIFORNICA	CALIFORNIA COFFEEBERRY	L	1 GAL.	6' x6'
	ROSA CALIFORNICA	CALIFORNIA ROSE	L	1 GAL.	5' x 5'
MULCH					
		WALK-ON BARK MULCH, 3" LAYER			



LAYOUT KEYNOTES

1. PHASE 1 DOG PARK: DECOMPOSED GRANITE PAVING, SYNTHETIC TURF BENEATH TREE STUMP 'STOOLS', AND TREE LOGS FOR DOG PLAY.
2. PHASE 1 COMMUNITY GARDEN: CONCRETE AND DECOMPOSED GRANITE PAVING WITH RAISED PLANTERS, PICNIC TABLES, AND BENCH SEATING.
3. PHASE 1 CLUBHOUSE AREA: COMMUNITY POOL AND SPA; GABION ACCENT WALL FEATURE; GABION DOUBLE-SIDED FIREPLACE; BBQ; OUTDOOR SEATING; AND CHILDREN'S PLAY AREA.
4. PHASE 2 OVERLOOK AREA: BENCH SEATING (5 TOTAL) ANGLED TO VIEWS OF THE ADJACENT OPEN SPACE PRESERVE.
5. PHASE 2 CLUBHOUSE AREA: POOL AND (2) SPAS; (3) LINEAR FIRE PITS WITH OUTDOOR SEATING AND VIEWS TO OPEN SPACE PRESERVE.
6. PHASE 2 BRIDGE CROSSING AT OPEN PRESERVE: ENHANCED PEDESTRIAN BRIDGE PROVIDES ACCESS ACROSS AND VIEWS TO OPEN SPACE PRESERVE.
7. PHASE 2 CHILDREN'S PLAY AREA WITH BENCH SEATING.



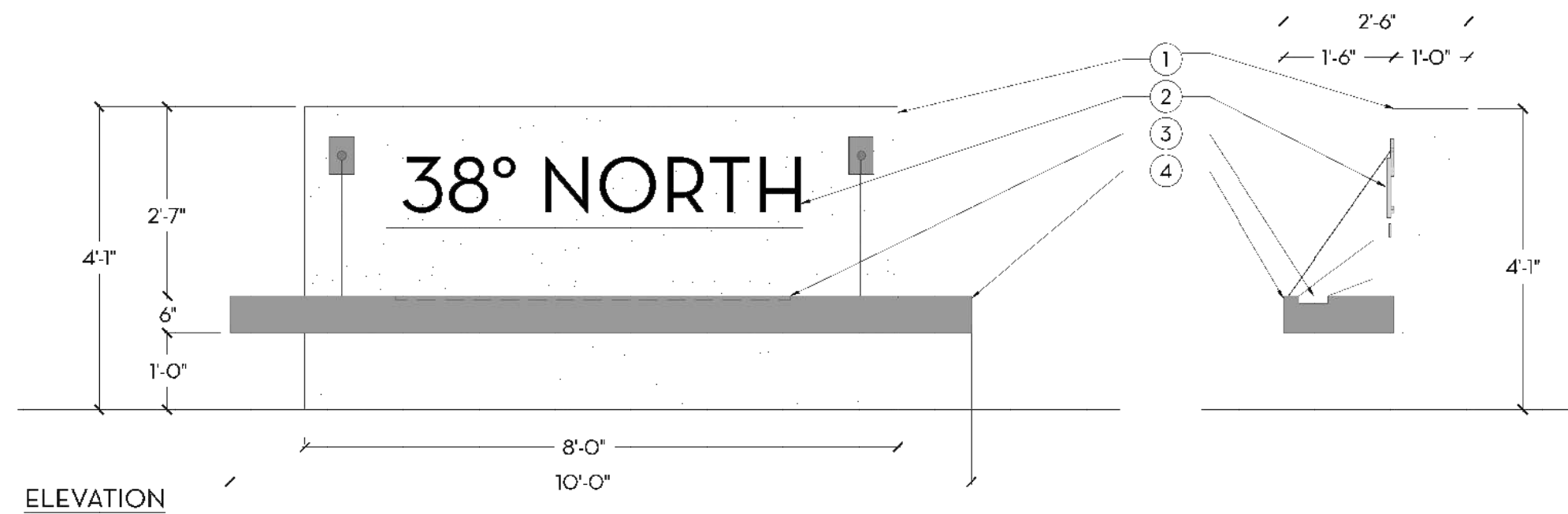
38° NORTH - PHASE 2: AMENITY PLAN PHASES 1 & 2

SANTA ROSA, CA

L3

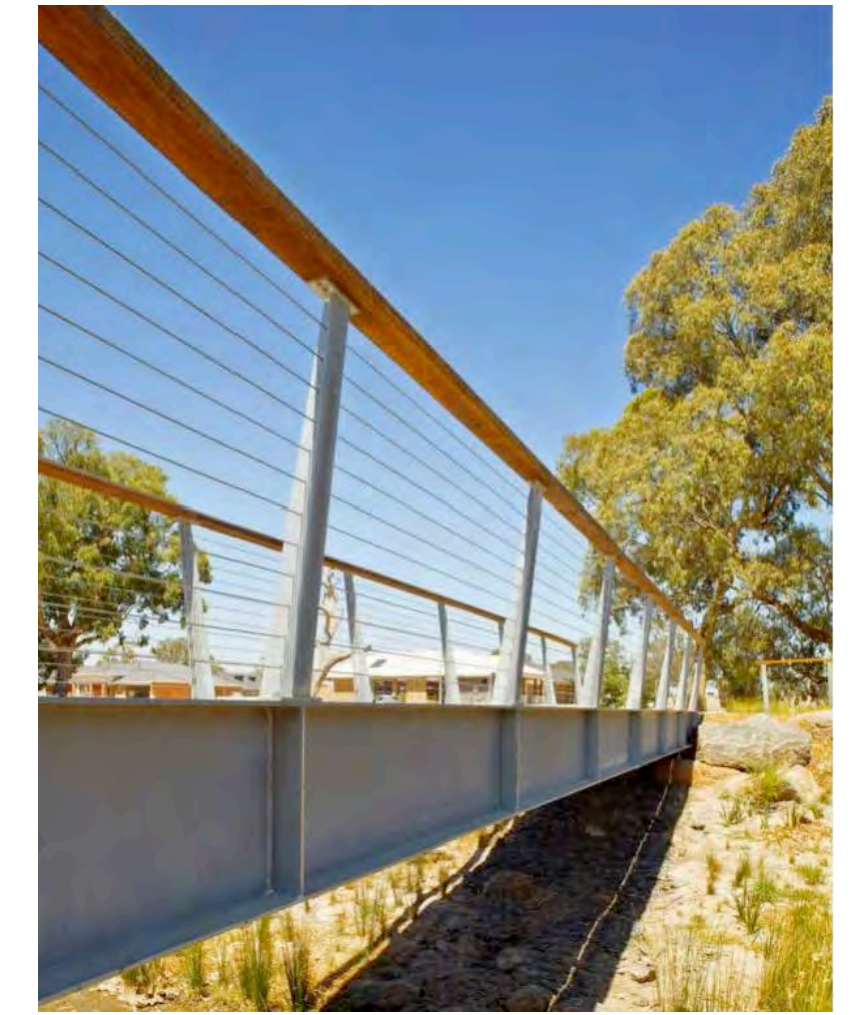
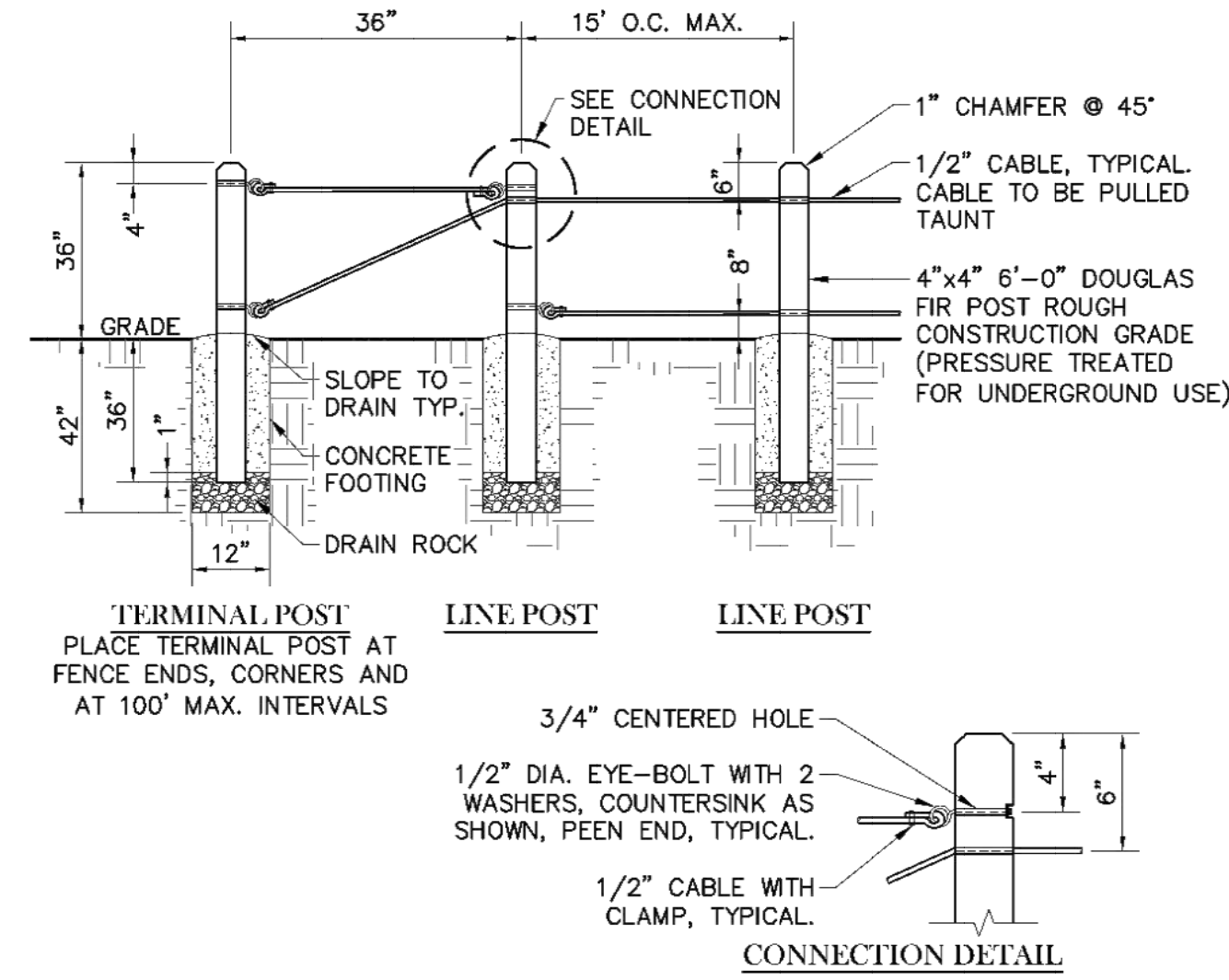
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KEY NOTES

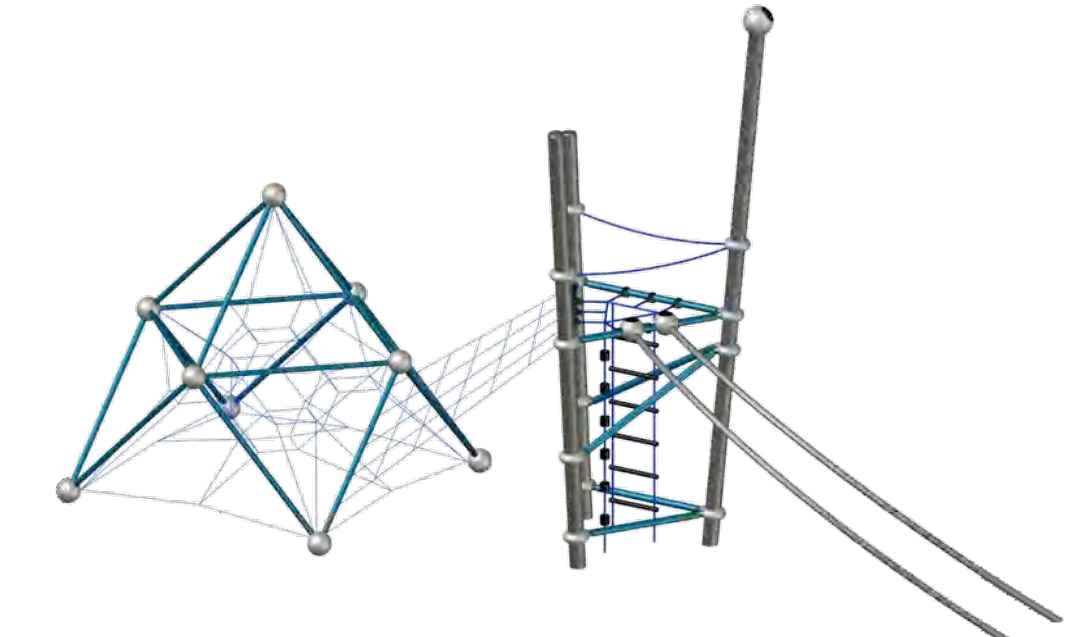
1. MASONRY WALL WITH STUCCO VENEER TO MATCH ARCHITECTURE; MUD CAP.
2. 10" TALL ALUMINUM LETTERS, FONT: NEUTRA.
3. RECESSED LED LINEAR UPLIGHTING FOR ALUMINUM LETTERS, COORDINATE ELECTRICAL CONNECTION.
4. CUSTOM LUMISHADE ALUMINUM CANOPY, 6' HIGH. CUSTOM METAL OVERHANG AND MOUNTING HARDWARE.



(A) ENTRY SIGNAGE: SINGLE OR DOUBLE SIDED

(B) POST & CABLE FENCE TO PERIMETER OF OPEN SPACE

(C) BRIDGE CROSSING AT OPEN SPACE

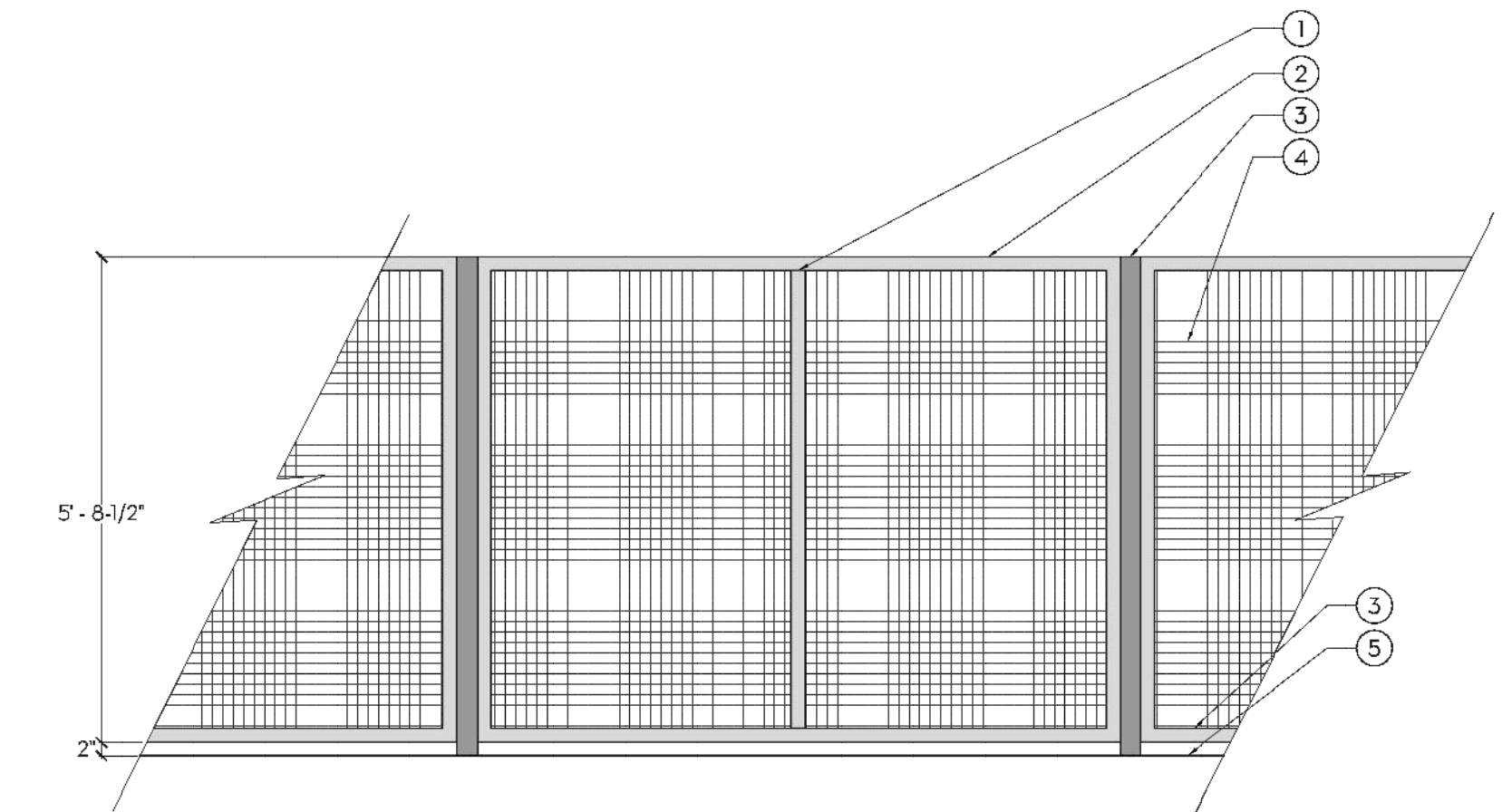


(D) CARPORT

(E) BIKE STORAGE: BIKE RACKS & LOCKERS

(F) BIO-RETENTION /WATER QUALITY AREAS

(G) CHILDREN'S PLAY EQUIPMENT



KEY NOTES

1. 2" SQ. TUB. STEEL FRAME CENTER RAIL 4' O.C. BETWEEN POSTS TYP.
2. 2" SQ. TUB. STEEL FRAME, BOTTOM OF FRAME TO BE MAXIMUM 2" ABOVE FINISH SURFACE OF CURB.
3. 3" SQ. TUB. STEEL POSTS SPACED 8' O.C., TYP.
4. STEEL WIRE MESH, SQUARE WELDED WITH 1.5" O.C. SPACING.
5. 6" WIDE CONCRETE CURB, POUR WITH CONCRETE FOOTING.

(H) CLUBHOUSE POOL AREA

*IMAGES PROVIDED ARE FOR INSPIRATION AND PRECEDENTS ONLY OF AMENITIES PROGRAMMED FOR SITE. FINAL DESIGN/PRODUCTS MAY DIFFER THAN WHAT IS SHOWN HERE. *

(I) 6' HIGH POOL FENCE

TREES



ACER PLATANOIDES 'CRIMSON KING'
CRIMSON KING NORWAY MAPLE
PETALUMA HILL RD. FRONTAGE TREE



ACER RUBRUM 'OCTOBER GLORY'
RED SUNSET MAPLE
PARKING CANOPY TREE



ELAEOCARPUS DECIPENS
JAPANESE BLUEBERRY TREE
ACCENT TREE



LAGERSTROEMIA 'NATCHEZ'
WHITE GRAPE MYRTLE (MULTI)
ACCENT TREE



LAURUS NOBILIS
SWEET BAY
ACCENT TREE



LIRIODENDRON TULIPIFERA
TULIP TREE
PARKING CANOPY TREE



MAGNOLIA G. 'LITTLE GEM'
COMPACT SOUTHERN MAGNOLIA
ACCENT TREE



MAGNOLIA G. 'SAMUEL SOMMERS'
CRIMSON KING NORWAY MAPLE
ACCENT TREE



OLEA EUROPEA 'WILSONII'
LOW FRUITING OLIVE (MULTI)
ACCENT TREE



PISTACIA CHINENSE 'KEITH DAVEY'
FRUITLESS CHINESE PISTACHE
FARMERS LN. FRONTAGE TREE



QUERCUS AGRIFOLIA
COAST LIVE OAK
FRANZ KAFKA AVE FRONTAGE TREE



QUERCUS LOBATA
VALLEY OAK (SPECIMEN)
SPECIMEN TREE



VITEX AGNUS-CASTUS BLUE
CHASTE TREE
ACCENT TREE



WASHINGTONIA ROBUSTA
MEXICAN FAN PALM
POOL AREA ACCENT TREE

SHRUBS AND GRASSES



ANIGOZANTHOS HYBRID
'ORANGE'
ORANGE KANGAROO PAW



ARBUTUS UNEDO 'COMPACTA'
COMPACT STRAWBERRY TREE



BESCHORNERIA YUCCOIDES
'FLAMINGO GLOW'
FLAMINGO GLOW MEXICAN LILY



BOUTELOUA G. 'BLONDE AMBITION'
BLONDE AMBITION BLUE GRAMA



CALLISTEMON VIMINALIS 'SLIM'
SLIM BOTTLEBRUSH



DAPHNE ODORA 'AUREO-MARGINATA'
VARIEGATED WINTER DAPHNE



DIETES IRIOIDES
AFRICAN IRIS



DODONAEA VISCOSA 'PURPUREA'
PURPLE HOPSEED BUSH



HESPERALOE PARVIFLORA
RED YUCCA



HESPERALOE P. 'YELLOW'
YELLOW YUCCA



HYDRANGEA QUERCIFOLIA 'SNOW QUEEN'
SNOW QUEEN OAKLEAF HYDRANGEA



JUNCUS PATENS 'ELK BLUE'
CALIFORNIA GRAY RUSH



LOMANDRA LONGIFOLIA 'BREEZE'
DWARF MAT RUSH



MUHLENBERGIA CAPILLARIS 'WHITE CLOUD'
WHITE CLOUD MUHLY



PENNISETUM MESSIACUM
'BUNNY TAILS'
DWARF RED FOUNTAIN GRASS



PEROVSKIA A. 'BLUE SPIRES'
RUSSIAN SAGE



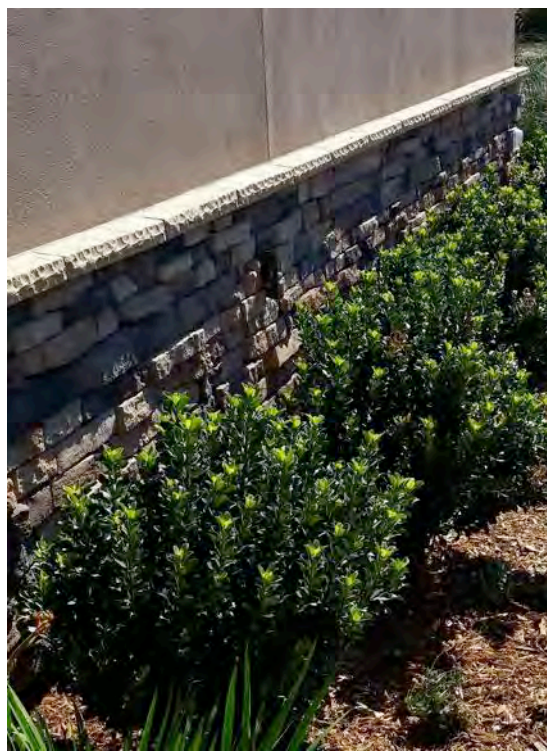
PHORMIUM 'YELLOW WAVE'
YELLOW WAVE NEW ZEALAND FLAX



PODOCARPUS M. 'MAKI'
SHRUBBY YEW PODPCARPUS



POLYSTICHUM MUNITUM
WESTERN SWORD FERN



RHAMPHIOLEPIS UMBELLATA
'MINOR'
DWARF YEDDO HAWTHORN



TAXUS BACCATA 'STRICTA'
IRISH YEW



WESTRINGIA R. 'MORNING LIGHT'
VARIEGATED COAST ROSEMARY

GROUNDCOVERS



ARCTOSTAPHYLOS 'PACIFIC MIST'
PACIFIC MIST MANZANITA



DIANELLA CAERULEA 'CASSA BLUE'
CHASTE TREE



LAVANDULA ANGUSTIFOLIA
'MUNSTEAD'
DWARF ENGLISH LAVENDER



MYOPORUM PARVIFOLIUM 'WHITE'
CREEPING MYOPORUM



SANTOLINA VIRENS
GREEN LAVENDER COTTON



SENECIO SERPENS
BLUE CHALK STICKS



VERBENA PERUVIANA
PERUVIAN VERBENA

BIOFILTRATION



JUNCUS PATENS 'ELK BLUE'
CALIFORNIA GRAY RUSH



CHONDROPETALUM TECTORUM
CAPE RUSH

OPEN SPACE PLANTS



ACER MACROPHYLLUM
BIG LEAF MAPLE



ACER NEGUNDO
BOX ELDER



QUERCUS LOBATA
VALLEY OAK

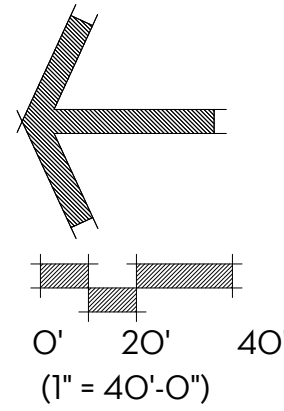
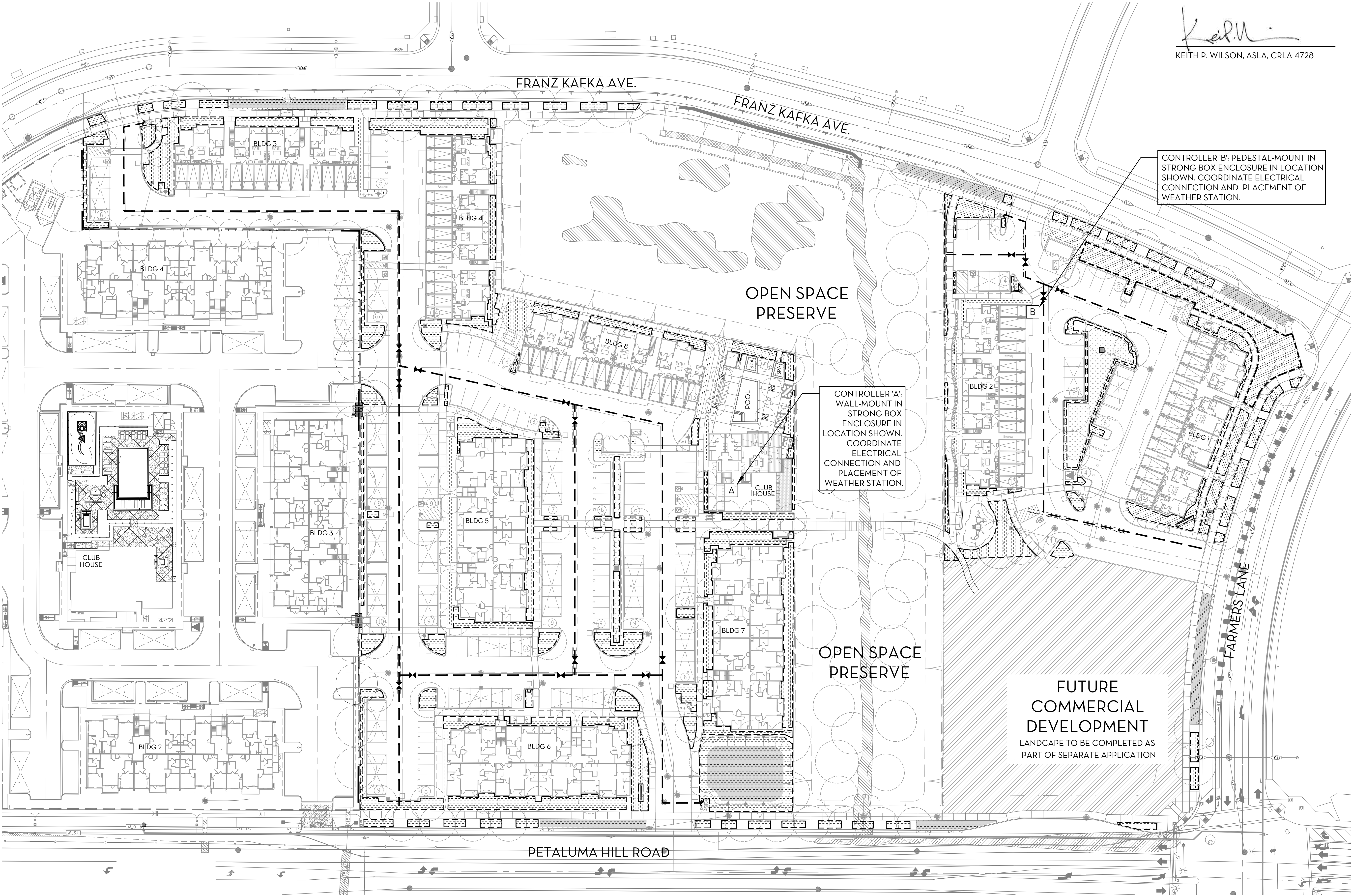


FRANGULA CALIFORNICA
CALIFORNIA COFFEEBERRY



ROSA CALIFORNICA
CALIFORNIA ROSE

Keith P. Wilson
KEITH P. WILSON, ASLA, CRLA 4728



IRRIGATION LEGEND

SYMBOL	MAN.	MODEL NO.	DESCRIPTION	RADIUS	PSI	GPM.	PRECIP. RATE
	TORO	RGP-2-18-05	DL2000 SERIES PC DRIPLINE: 0.53 GPH, 18" EMITTER SPACING. INSTALL TUBING ON-GRADE, PER MANUFACTURER'S INSTRUCTIONS. IN 18" SPACED ROWS AT AREAS SHOWN. SEE DETAILS G & H, SHEET L2.4.	N/A	30	N/A	0.38
	TORO	RGP-2-12-05	DL2000 SERIES PC DRIPLINE: 0.53 GPH, 12" EMITTER SPACING. INSTALL TUBING 6" BELOW FINISH GRADE, PER MANUFACTURER'S INSTRUCTIONS. IN 12" SPACED ROWS IN BIOSWALES. SEE DETAILS G & H, SHEET L2.4.	N/A	30	N/A	0.85
	TORO	T-FCH-H	MANUAL FLUSH VALVE (INSTALL AT-GRADE IN 10" ROUND VALVE BOX IN PLANTER AREA LOCATED AT FARTHEST POINT FROM DRIP ZONE VALVE, TYP.) SEE DETAIL C, SHEET L2.5.				
	TORO	T-DL-MP9	TORO DL2000 POP-UP INDICATOR FOR SUB-SURFACE IRRIGATION. INSTALL AT-GRADE IN A VISIBLE LOCATION AT FARTHEST POINT FROM DRIP ZONE CONTROL KIT. SEE DETAIL B, SHEET L2.5.				
	TORO	TYD-500-34	AIR/VACUUM RELIEF VALVE (INSTALL AT-GRADE IN 10" ROUND VALVE BOX IN PLANTER AREA LOCATED AT HIGHEST ELEVATION POINT WITHIN DRIP ZONE VALVE, TYP.) SEE DETAIL A, SHEET L2.5.				
NOT SHOWN	TORO	(VARIES)	DL2000 CONNECTION FITTINGS, AS REQUIRED.				
			RAIN BIRD RWS-B-1401 ROOT ZONE WATERING SYSTEM. SEE DETAIL F, SHEET L 2.4. TWO (2) PER TREE*	N/A	30	0.25	1.72 *0.50
	TORO	P220-26	X" P220 CONTROL VALVE. SIZE AS NOTED. SEE DETAIL D, SHEET L2.4.				
	IRRITROL	700-X	X" DRIP CONTROL VALVE. SEE DETAIL E, SHEET L2.4.				
	EVERBILT	#VHNSTD84EB	EVERBILT 3/4" FPTxMHT NO-KINK HOSE BIBB. TYP. OF (4). SEE DETAIL X, SHEET LX.X.				
	NIBCO	T-113	BRONZE GATE VALVE, LINE SIZE. SEE DETAIL X, SHEET LX.X.				
	TORO	100-ATVLC	1" QUICK COUPLING VALVE W/ LOCKING VINYL COVER. SEE DETAIL C, SHEET L2.4.				
	TORO	P220-26	X" MASTER VALVE, LINE SIZE.				
		WEATHERMATIC SLFSI-TXX	X" FLOW SENSOR FOR USE WITH CONTROLLER. INSTALL PER MANUFACTURER'S SPECIFICATIONS.				
		WEATHERMATIC SL4800/ SLW5	PRE-ASSEMBLED XX STATION SMARTLINE CONTROLLER W/ SMARTLINK FLOW AIRCARD (*SL-AIRCARDFLOW) AND SLW5 WIRELESS WEATHER SENSOR. STAINLESS STEEL WALL /SLW5 MOUNT. CONTACT PARRY WEBB AT (972) 926-2193 FOR QUOTE NUMBER, PRICING, AND INSTALLATION. SEE DETAIL X, SHEET LX.X.				
			MAINLINE: PVC SCHEDULE 40 FOR SIZES 2" OR SMALLER, PVC CLASS 315 FOR SIZES 2" OR ABOVE. SOLVENT WELD FITTINGS AT 24" DEPTH, SIZE AS NOTED.				
			IRRIGATION LATERAL LINE: CLASS 200 PVC UP TO 2"; SCHEDULE 40 PVC PIPE FOR 2.5" OR ABOVE. SOLVENT WELD FITTINGS AT 18" DEPTH, SIZE AS NOTED.				
			IRRIGATION SLEEVE: SCHEDULE 40 PVC, SIZE TO BE 2X THE TOTAL OF PIPE DIAMETER. INSTALL UNDER ALL NEW PAVING AND EXTEND 12" BEYOND HARDSCAPE EDGES.				
			ELECTRICAL SERVICE CONDUIT WITH WIRES.				
			HYDROZONE DELINEATION				

NOTE: FULL IRRIGATION SYSTEM COVERAGE DELINEATION THAT COMPLY WITH THE CITY'S WATER CONSERVATION ORDINANCE WILL BE SUBMITTED WITH PLANS FOR BUILDING PERMITS.

CONTROLLER/ HYDROZONE *

VALVE SIZE

-GPM (IRRIGATION PRODUCT TYPE)

-PRECIP.RATE/PSI/HYDROZONE SF

VALVE WATER USE

38 DEGREES NORTH PHASE 2, SANTA ROSA, CA
WATER EFFICIENT LANDSCAPE WORKSHEET
(APN 044-051-055)

REGULAR LANDSCAPE AREAS									
VALVE NUMBER	IRRIGATION METHOD	PLANT WATER USE	PLANT FACTOR (PF)	IRRIGATION EFFICIENCY (IE)	LANDSCAPE AREA (SF)	ETAF (PF/IE)	ETAF x AREA	ETWU	MAWA
A1	DRIP	LOW	0.2	0.81	37,754	0.25	9,321.98	242,744	442,401
A2	DRIP	MODERATE	0.5	0.81	9,888	0.62	6,103.70	158,940	115,868
A3	TREE BUBBLER	LOW	0.2	0.81	2,436	0.25	601.48	15,663	28,545
A4	TREE BUBBLER	MODERATE	0.5	0.81	2,268	0.62	1,400.00	36,456	26,576
A5	TREE BUBBLER	HIGH	0.8	0.81	224	0.99	221.23	5,761	2,625
TOTALS:				(A)	52,570	(B)	17,648.40	459,564	616,015

SPECIAL LANDSCAPE AREAS									
VALVE NUMBER	IRRIGATION METHOD	PLANT WATER USE	PLANT FACTOR (PF)	IRRIGATION EFFICIENCY (IE)	LANDSCAPE AREA (SF)	ETAF (PF/IE)	ETAF x AREA	ETWU	MAWA
A6	POOL/SPA	HIGH	0.8	0.75	752	1.07	802.13	20,888	8,812
TOTALS:				(C)	752	(D)	802.13	20,888	8,812

TOTAL AREA: 53,322

ETO:	42.00
ETAF:	0.45

ETWU = (ETO x 0.62 x ETAF x AREA)
MAWA = (ETO x 0.62 [(ETAF x LA) + (1- ETAF) x SLA])

ETWU TOTAL:	480,452
MAWA TOTAL:	635,597

ETWU < MAWA

*ETAF IS 0.55 FOR RESIDENTIAL APPLICATIONS AND 0.45 FOR COMMERCIAL APPLICATIONS.
*TREE AREA IS CALCULATED BY THE AREA COVERED BY ROOT BALL IRRIGATION (28 SF EA.)

ETAF CALCULATIONS		
REGULAR LANDSCAPE AREAS		
TOTAL ETAF x AREA	(B)	17,648.40
TOTAL AREA	(A)	52,570
AVAERAGE ETAF	(B) / (A) =	0.34

ALL LANDSCAPE AREAS		
TOTAL ETAF x AREA	(B + D)	18,450.53
TOTAL AREA	(A + C)	53,322
SITEWIDE ETAF	(B + D) / (A + C) =	0.35

**PRELIMINARY CALCULATIONS ASSUME THAT 80% OF SHRUBS/GROUNDCOVER ARE ON LOW VALVES, 35% ARE ON MODERATE VALVES.
ALL BIOFILTRATION AREAS ARE ON MODERATE VALVES. 49% OF TREES ARE ON LOW VALVES, 46% OF TREES ARE ON MODERATE, AND 5% OF TREES ARE ON HIGH VALVES. ASSUME 21 SHRUBS ARE LOCATED IN THE OPEN SPACE PRESERVE.

A PRELIMINARY WATER EFFICIENT LANDSCAPE WORKSHEET
NO SCALE

WATER EFFICIENT LANDSCAPE ORDINANCE COMPLIANCE

I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN.

KEITH P. WILSON, ASLA, CRLA 4728