

APPLICANT INSTRUCTIONS:

1. MEASURE ENTIRE FRONT YARD AREA. SUBTRACT HARDSCAPE AREAS TO GET THE TOTAL SQUARE FEET OF PLANTED AND IRRIGATED AREA. ENTER THIS NUMBER IN THE PLANT WATER USE TABLE ON THIS SHEET.
2. IF NEEDED USE A RED PEN TO ADJUST THE LAYOUT OF DRIVEWAY, PATHS AND PLANTING AREAS TO FIT YOUR YARD.
3. ADJUST ORIENTATION OF NORTH ARROW TO SITE CONDITION.
4. ADD ANY EXISTING TREES IN RED ON THE PLAN. ADJUST TREE LOCATIONS IF NEEDED TO FIT YOUR SITE.
5. FILL IN PLANT WATER USE TABLE.
6. INSURE LESS THAN 25% OF PLANTED AREA IS MEDIUM WATER USE PLANTINGS.
7. IN THE LEGEND, CIRCLE THE HARDSCAPE MATERIALS YOU WILL BE USING AND ON DETAIL SHEETS L3.0, L3.1 & L3.2.
8. INDICATE ANY SUBSTITUTIONS TO THE PLANTINGS BY CROSSING OUT THE LISTED PLANTS AND WRITING THE SUBSTITUTION BELOW IN RED INK. MAKE SURE THE PLANTS USED HAVE MATCHING WATER USE AND ARE ROUGHLY THE SAME SIZE (SEE SONOMA-MARIN SAVING WATER PARTNERSHIP <http://www.savingwaterpartnership.org> FOR SUBSTITUTIONS).
9. MOVE TO THE IRRIGATION PLAN AND FILL IN THE AREAS INDICATED ON THAT SHEET.

NOTE:

1. PLANTING DESIGN FOR FULL COVER WITHIN 3 YEARS.
2. THE GARDEN IS DESIGNED TO CAPTURE AND INFILTRATE SOME STORM WATER ON SITE. WHEN THE FLOW IS DIRECTED TO A SWALE OR RAIN GARDEN, IT NEEDS AN OVERFLOW OUTLET THAT WON'T ERODE. OPTIONS ARE PROVIDED ON THE DETAIL SHEETS. SPLASHBLOCKS AND OUTLETS IN PLANTING BEDS ARE MEANT TO SPREAD THE FLOW TO SHEETFLOW OVER PLANTING AREAS AND NO OVERFLOW DEVICE IS NEEDED.
3. REVIEW IRRIGATION SHEETS AND INSTALL SLEEVES UNDER PAVING SURFACES IN THEIR CORRECT LOCATION.

FIRE SAFER: NON WOOD FENCING & GATES ATTACHED TO HOUSE

MATCHLINE SEE SHEET L1.1

DS

DOWNSPOUT LOCATION (TYP) (APPLICANT CAN ADJUST TO MATCH SITE CONDITIONS)

SHEET FLOW OVER OR UNDER PAVING, SEE DETAILS 5 & 6 ON SHEET L3.1

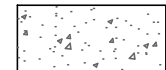
MULCH BASIN TYPICAL

PLACE COBBLE @ STORM DRAIN OUTFALL TYPICAL PER DETAIL 4 ON SHEET L3.1



OPTIONAL MATERIALS LEGEND

VEHICULAR PAVING



- CONCRETE

UNITS

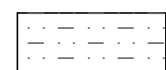
PLAN QUANTITY

PERMIT QUANTITY (FILL IN)

SF

524

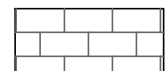
PEDESTRIAN PAVING



- AGGREGATE PAVING, CHOOSE FROM DETAILS 1-5 ON SHEET L3.0

SF

175



- BRICK OR PERMEABLE PAVER
SEE DETAIL 2 ON SHEET L3.0

SF

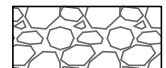
307



- MULCH
SEE DETAIL 5 ON SHEET L3.2

SF

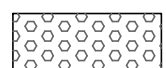
STORM WATER ELEMENTS (OPTIONAL)



- COBBLE
SEE DETAIL 4 ON SHEET L3.1

SF

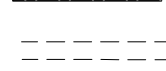
8



- RAIN GARDEN: 3/8" GRAVEL MULCH OR
PEA GRAVEL, SEE L3.1 FOR DETAILS

SF

30



- STORM DRAIN PIPE
SEE DETAIL 2 ON SHEET L3.1

LF

50

*SEE SHEETS L3.0-3.2 FOR MATERIALS OPTIONS

PLANTING LEGEND- APPLICANT FILL IN PLANT QUANTITY

AREA

BOTANICAL NAME

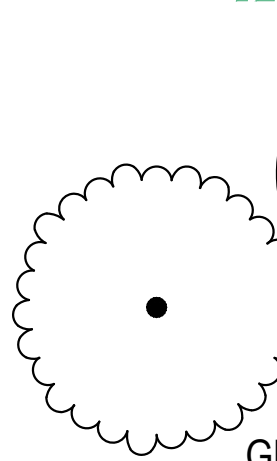
SIZE

SPACING

PLAN QUANTITY

PERMIT QUANTITY (FILL IN)

PLANTING LOW WATER USE



LARGE TREE (CHOOSE ONE)
QUERCUS LOBATA (VALLEY OAK)
TILIA TOMENTOSA (SILVER LINDEN)
GLEDITSIA TRIACANTHOS (HONEY LOCUST)

15G

30-60' O.C.

1

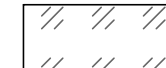
MEDIUM TREE (CHOOSE ONE)
DIOSPYROS (PERSIMMON)
CHILTALPA

15G

20-40' O.C.

1

GROUNDCOVER



- ACHILLEA MILLEFOLIUM 'PALISADES'

4"

18" O.C.

28

PERENNIALS 0-2'



- SALVIA SONOMENSIS CV OR 'DARA'S CHOICE'

4"

3' O.C.

21



- SALVIA SPATHACEA (HUMMINGBIRD SAGE)

1G

3' O.C.

8



- SCUTELLARIA SUFFRUTESCENS (PINK TEXAS SKULLCAP)

4"

18" O.C.

46

PERENNIALS 2-4' SUN



- EPILOBIUM CANUM 'MARIN PINK'

4"

3' O.C.

27



- SALVIA OFFICINALIS

4"

3' O.C.

9

SHRUBS 1-3' SUN



- LAVENDULA 'DENTATA' (FRENCH LAVENDER)

4"

4' O.C.

21

SHRUBS 3-6' SUN



- CEANOTHUS 'RAY HARTMAN'
SUBSTITUTE SM TREE, <http://www.savingwaterpartnership.org>.

5G

3' O.C.

1

GRASS 1-2'



- BOUTELOUA GRACILIS 'BLONDE AMBITION'
(SIDE OATS GRAMMA GRASS)

4"

2' O.C.

38

RAIN GARDEN



- JUNCUS PATENS (GRAY RUSH)

2" OR 4"

3' O.C.

2

PLANTING MEDIUM WATER USE

PERENNIALS 0-2' SUN



- GERANIUM 'ROZANNE'

4"

2' O.C.

38

SHRUBS 1-3' SUN



- ROSA 'FLOWER CARPET WHITE'

1G

3' O.C.

5



- SALVIA PATENS

1G

3' O.C.

7

SHRUB 7-10' SUN



- ANISODONTEIA HYPOMANDARA 'TARA'S PINK'

1G

4' O.C.

3

RAIN GARDEN (OPTIONAL)



- CAREX PRAEGRACILIS (FIELD SEDGE)
OR BIOSWALE SOD MIX

2" PLUGS
(OR SOD)

16" O.C.

100
(173 SF)



- JUNCUS EFFUSUS 'CHARMAN'S JAPANESE' (COMMON RUSH)

1G

3' O.C.

3



- HELIANTHUS ANGUSTIFOLIA (SWAMP SUNFLOWER)

1G

4' O.C.

2

VINE PLANTING



- ROSA 'SALLY HOLMES' OR
MANDEVILLA LAXA

1

*SEE MASTER PLANT LIST FOR PLANT SUBSTITUTIONS AND SHADE ALTERNATES, AVAILABLE FROM SONOMA-MARIN SAVING WATER PARTNERSHIP <http://www.savingwaterpartnership.org>.

PLANTING NOTES:

1. REFER TO PLANTING DETAILS ON SHEET L3.2.

BY USING THESE PLANS, I AGREE TO DEFEND, INDEMNIFY, AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP, ITS MEMBERS, SONOMA COUNTY WATER AGENCY, CITY OF SANTA ROSA, MARIN MUNICIPAL WATER AGENCY, NORTH MARIN WATER DISTRICT, CITY OF ROSS, VALLEY OF THE MOON WATER DISTRICT, AND TOWN OF WINDSOR AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES AND LANDSCAPE DESIGN CONSULTANTS, FROM ANY AND ALL LOSS, LIABILITY, EXPENSE, CLAIMS, SUITS AND DAMAGES, INCLUDING ATTORNEY'S FEES, ARISING OUT OF OR RESULTING FROM THE USE OF THIS LANDSCAPE PLAN. I UNDERSTAND THAT IT IS MY RESPONSIBILITY AS THE PROJECT OWNER TO OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND TO OBTAIN ANY NECESSARY EASEMENTS, RIGHTS-OF-WAY, OR OTHER INTERESTS IN REAL PROPERTY. I AGREE TO OBTAIN ANY NECESSARY EASEMENTS, RIGHTS-OF-WAY, OR OTHER INTERESTS IN REAL PROPERTY. I AGREE TO OBTAIN ANY NECESSARY EASEMENTS, RIGHTS-OF-WAY, OR OTHER INTERESTS IN REAL PROPERTY. I AGREE TO OBTAIN ANY NECESSARY EASEMENTS, RIGHTS-OF-WAY, OR OTHER INTERESTS IN REAL PROPERTY.

SONOMA-MARIN SAVING WATER PARTNERSHIP, ITS MEMBERS AND LANDSCAPE DESIGN CONSULTANTS MAKE NO REPRESENTATIONS AND GIVE NO WARRANTIES, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, AND SONOMA-MARIN SAVING WATER PARTNERSHIP, ITS MEMBERS AND DESIGN CONSULTANTS EACH SPECIFICALLY DISCLAIM ANY OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, OR EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF QUALITY. SONOMA-MARIN SAVING WATER PARTNERSHIP, ITS MEMBERS AND DESIGN CONSULTANTS MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, AND SONOMA-MARIN SAVING WATER PARTNERSHIP, ITS MEMBERS AND DESIGN CONSULTANTS EACH SPECIFICALLY DISCLAIM ANY OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, OR EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF QUALITY. SONOMA-MARIN SAVING WATER PARTNERSHIP, ITS MEMBERS AND DESIGN CONSULTANTS MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, AND SONOMA-MARIN SAVING WATER PARTNERSHIP, ITS MEMBERS AND DESIGN CONSULTANTS EACH SPECIFICALLY DISCLAIM ANY OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, OR EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF QUALITY.

daily acts
because every choice matters

ForeSite
digital mapping solutions

Equinox
LANDSCAPE

SHERWOOD
DESIGN ENGINEERS

P D G

PANORAMIC DESIGN GROUP
LANDSCAPE ARCHITECTURE

RESIDENTIAL LANDSCAPE DESIGN TEMPLATE
SONOMA-MARIN SAVING WATER PARTNERSHIP
www.savingwaterpartnership.org

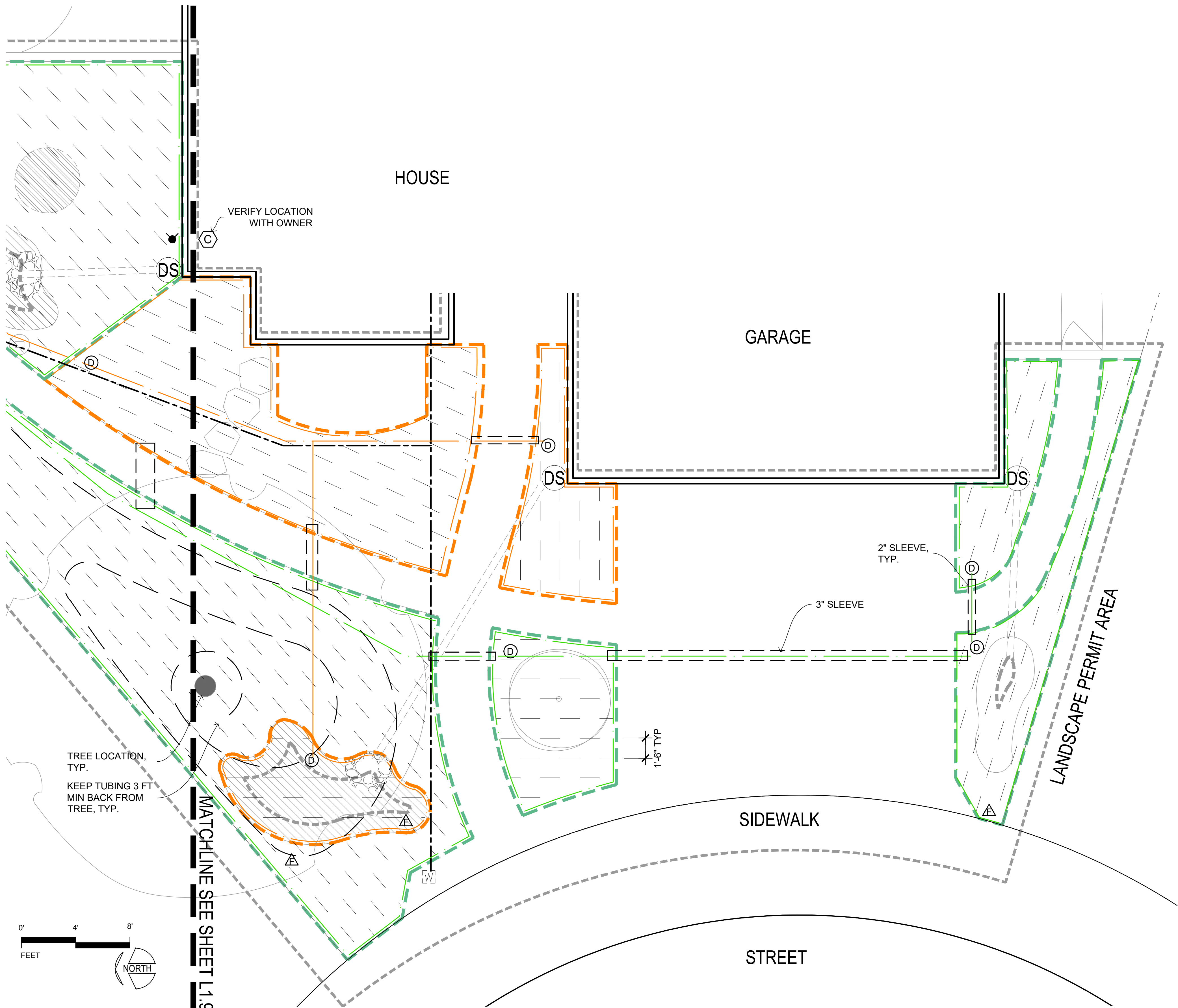
NAME: _____
SITE ADDRESS: _____

SHEET TITLE:
LANDSCAPE &
PLANTING PLAN
COTTAGE B
CUL-DE-SAC

DATE
PERMIT PLAN
JANUARY 17, 2019

L-1.0

SHEET
OF



PLANT WATER USE TABLE			
WATER USE	PLAN SF (%)	PERMIT SF (FILL IN)	PERMIT % (FILL IN)
LOW	1,535 (75%)		
MED	508 (25%)		
TOTAL	2,043 (100%)		

IRRIGATION VALVE TABLE

HYDRO ZONE	WATER USE	VALVE	PLAN SF	SUB - ZONES	PERMIT SF (FILL IN)	SUB - ZONES (FILL IN)	SOIL TYPE (CLAY / LOAM / SAND) (FILL IN)
1	LOW	1	1535 SF	5			
2	MED	2	508 SF	3			
3	TREES	3	196 LF	1			
CLAY SOIL: DO NOT EXCEED 1100 SF / 3 GPM PER SUBZONE. IF TOTAL AREA OF ZONE EXCEEDS 2200 SF, ADD A VALVE.							
LOAM SOIL: DO NOT EXCEED 1100 SF / 3 GPM PER SUBZONE. IF TOTAL AREA OF ZONE EXCEEDS 2200 SF, ADD A VALVE.							
SANDY SOIL: DO NOT EXCEED 500 SF / 3 GPM PER SUBZONE. IF TOTAL AREA OF ZONE EXCEEDS 1000 SF, ADD A VALVE.							
TREE EMITTER TUBING 0.6 GPH PER LEGEND: MIN 20 LF PER VALVE; MAX 200 LF PER SUBZONE; MAX 400 LF PER VALVE							
FOR EMITTER FLOW, EMITTER SPACING & ROW SPACING PER SOIL TYPE SEE LEGEND							

IRRIGATION LEGEND

APPLICANT CHECK-OFF COMPONENTS	SYMBOL	COMPONENT	MANUFAC - TURER	MODEL	NOTES / SIZE / COLOR
		EXISTING WATER METER			
		CONTROLLER	HUNTER	PRO-C	INDOOR
		WEATHER SENSOR	HUNTER	SOLAR-SYNC -SEN	WIRED
		FULL PORT BALL VALVE	NIBCO	585	LINE SIZE
		SLEEVE		PVC SCH 40	
		MAINLINE		PVC SCH 40 WITH SCH 40 SOLVENT WELD FITTINGS	
		LATERAL PIPE (COLOR VARIES PER ZONE)		PVC SCH 40 WITH SCH 40 SOLVENT WELD FITTINGS	PIPE SIZE: 0-6 GPM: 3/4" PIPE; 7-12 GPM: 1" PIPE;
		DRIP IRRIGATION CONTROL VALVE ASSEMBLY TO INCLUDE:			
		ASSEMBLY		ACZ-075-40 DRIP CONTROL ZONE KIT	ALL-IN-ONE KIT INCLUDES BACKFLOW PREVENTION, FILTER AND PRESSURE REGULATOR
		ANTI-SIPHON VALVE (COLOR VARIES PER ZONE)	HUNTER	PGV-ASV, INCLUDED IN KIT	3/4 INCH ANTI-SIPHON VALVE PROVIDES BACKFLOW PREVENTION
		DRIP FILTER		INCLUDED IN KIT	150 MESH STAINLESS STEEL SCREEN
		PRESSURE REGULATION		INCLUDED IN KIT	40 PSI
		NIPPLE			PVC SCH 80 UV RESISTANT
		TRANSITION TO DRIP ZONE			SEE DETAIL
		DRIP LAYOUT			
		PLANTING BEDS			
		TREES	NETAFIM TLCV6-1201 EMITTER FLOW 0.6 GPH; EMITTER SPACING: 12".		
				TLCV4-1801	CLAY SOIL: EMITTER FLOW: 0.4 GPH; EMITTER SPACING: 18"; ROW SPACING: 18"
		INLINE EMITTER TUBING	NETAFIM	TLCV4-1801	LOAM SOIL: EMITTER FLOW: 0.4 GPH; EMITTER SPACING: 18"; ROW SPACING: 18"
				TLCV6-1201	SANDY SOIL: EMITTER FLOW: 0.6 GPH; EMITTER SPACING: 12"; ROW SPACING: 18"
		DRIP FLUSHOUT	NETAFIM	TLFIG8	
		SYMBOLS FOR COMPONENTS ARE LARGER THAN ACTUAL SIZE AND MAY BE SHOWN IN PAVED AREAS FOR GRAPHIC CLARITY. COORDINATE LOCATION OF EQUIPMENT WITH PLUMBER.			
		ALL PIPE RUNS UNDER PAVING ARE IN SLEEVES, INSTALL SLEEVES PRIOR TO POURING CONCRETE			

APPLICANT INSTRUCTIONS:

- ADJUST LAYOUT OF PLANTING BEDS IF CHANGED ON LAYOUT SHEET 1.0.
- REVIEW IRRIGATION VALVE TABLE TO ADJUST SF AREAS OF VALVE ZONES.
- IF AREAS EXCEED MAX SUBZONE FLOW (3 GPM) DIVIDE INTO ADDITIONAL SUBZONES AND ENTER UNDER SUBZONE COLUMN
- IF AREAS EXCEED MAX ZONE FLOW (7 GPM) ADD A VALVE AND ENTER SF AREA NEXT TO NEW VALVE NUMBER ("B" OR "C")
- DRAW OUT NEW SUBZONE AND/OR VALVE ZONE AREA ON PLAN IN NEW COLOR.
- ADD VALVE AS NEEDED TO VALVE MANIFOLD.
- REVIEW IRRIGATION LEGEND AND CHECK OFF THAT ALL COMPONENTS ARE SHOWN ON ADJUSTED PLAN.
- NOTE ANY EQUIPMENT SUBSTITUTIONS.

BY USING THESE PLANS, I AGREE TO OBTAIN, INDEMNIFY, AND HOLD HARMLESS THE SONOMA-MAKIN SAVING WATER PARTNERSHIP, ITS MEMBERS AND LANDSCAPE DESIGN CONSULTANTS FROM ANY AND ALL LIABILITY, DAMAGES, SUITS AND DAMAGES, INCLUDING ATTORNEY'S FEES, ARISING OUT OF OR RESULTING FROM THE USE OF THESE PLANS. I UNDERSTAND THAT IT IS MY RESPONSIBILITY AS THE PROJECT OWNER TO ENSURE ACCORDING TO APPLICABLE REGULATORY RULES.

SONOMA-MAKIN SAVING WATER PARTNERSHIP, ITS MEMBERS AND LANDSCAPE DESIGN CONSULTANTS MAKE NO REPRESENTATION AND GIVE NO WARRANTIES, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, AND SONOMA-MAKIN SAVING WATER PARTNERSHIP, ITS MEMBERS AND LANDSCAPE DESIGN CONSULTANTS EACH SPECIFICALLY DISCLAIM ANY OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, OR EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF QUALITY. MEDICANT RELEASES AND DEFENSES FOR A VIOLATION OF USE OR FOR THE USE OF ANY INFORMATION AS TO THE VALIDITY OF ANY PATENTS OR THE NON-INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

ABLA
ANN BAKER LANDSCAPE ARCHITECTURE
625 2ND ST., STE 110
PETALUMA, CA 94952
TEL.: (707) 772-5062
EMAIL: landarches@gmail.com

ForeSite
digital mapping solutions

Equinox
LANDSCAPE

SHERWOOD
DESIGN ENGINEERS

RESIDENTIAL LANDSCAPE DESIGN TEMPLATE
SONOMA-MAKIN SAVING WATER PARTNERSHIP
www.savingwaterpartnership.org

NAME: _____
SITE ADDRESS: _____

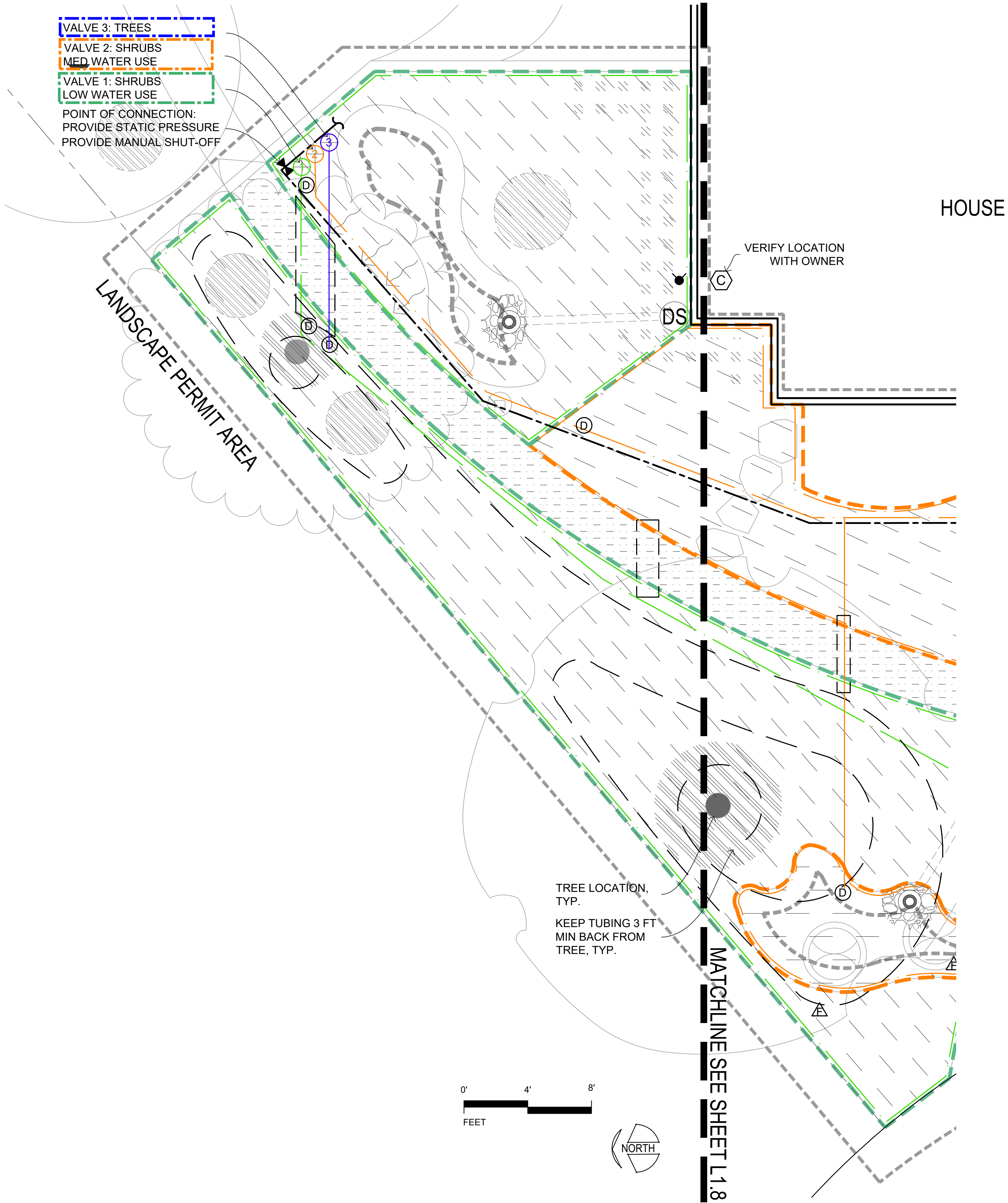
SONOMA-MARIN SAVING WATER PARTNERSHIP





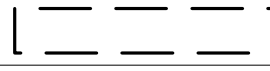




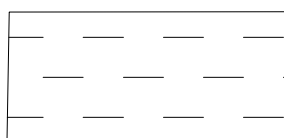
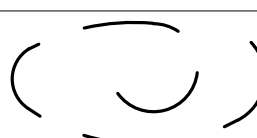

SHEET TITLE:
IRRIGATION
PLAN
SONOMA
COTTAGE B
(CUL-DE-SAC)

DATE
PERMIT PLAN
JANUARY 17, 2019

L-2.0

SHEET
OF



IRRIGATION LEGEND					
APPLICANT CHECK-OFF COMPONENTS	SYMBOL	COMPONENT	MANUFAC - TURER	MODEL	NOTES / SIZE / COLOR
		EXISTING WATER METER			
		CONTROLLER	HUNTER	PRO-C	INDOOR
		WEATHER SENSOR	HUNTER	SOLAR-SYNC -SEN	WIRED
		FULL PORT BALL VALVE	NIBCO	585	LINE SIZE
		SLEEVE		PVC SCH 40	
		MAINLINE		PVC SCH 40 WITH SCH 40 SOLVENT WELD FITTINGS	
		LATERAL PIPE (COLOR VARIES PER ZONE)		PVC SCH 40 WITH SCH 40 SOLVENT WELD FITTINGS	PIPE SIZE: 0-6 GPM: 3/4" PIPE; 7-12 GPM: 1" PIPE;
		DRIP IRRIGATION CONTROL VALVE ASSEMBLY TO INCLUDE:			
		ASSEMBLY	HUNTER	ACZ-075-40 DRIP CONTROL ZONE KIT	ALL-IN-ONE KIT INCLUDES BACKFLOW PREVENTION, FILTER AND PRESSURE REGULATOR
		ANTI-SIPHON VALVE (COLOR VARIES PER ZONE)		PGV-ASV, INCLUDED IN KIT	3/4 INCH ANTI-SIPHON VALVE PROVIDES BACKFLOW PREVENTION
		DRIP FILTER		INCLUDED IN KIT	150 MESH STAINLESS STEEL SCREEN
		PRESSURE REGULATION		INCLUDED IN KIT	40 PSI
		NIPPLE		PVC SCH 80 UV RESISTANT	
		TRANSITION TO DRIP ZONE			SEE DETAIL
DRIP LAYOUT					
		PLANTING BEDS			
		TREES			
		INLINE EMITTER TUBING	NETAFIM	TLCV26-1801	CLAY SOIL: EMITTER FLOW: 0.26 GPH; EMITTER SPACING: 18"; ROW SPACING: 18"
				TLCV4-1801	LOAM SOIL: EMITTER FLOW: 0.4 GPH; EMITTER SPACING: 18"; ROW SPACING: 18"
				TLCV6-1801	SANDY SOIL: EMITTER FLOW: 0.6 GPH; EMITTER SPACING: 12"; ROW SPACING: 18"
		DRIP FLUSHOUT	NETAFIM	TLFIG8	
SYMBOLS FOR COMPONENTS ARE LARGER THAN ACTUAL SIZE AND MAY BE SHOWN IN PAVED AREAS FOR GRAPHIC CLARITY. COORDINATE LOCATION OF EQUIPMENT WITH PLUMBER.					
ALL PIPE RUNS UNDER PAVING ARE IN SLEEVES, INSTALL SLEEVES PRIOR TO POURING CONCRETE					

- APPLICANT INSTRUCTIONS:**
- ADJUST LAYOUT OF PLANTING BEDS IF CHANGED ON LAYOUT SHEET 1.0.
 - REVIEW IRRIGATION VALVE TABLE TO ADJUST SF AREAS OF VALVE ZONES.
 - IF AREAS EXCEED MAX SUBZONE FLOW (3 GPM) DIVIDE INTO ADDITIONAL SUBZONES AND ENTER UNDER SUBZONE COLUMN
 - IF AREAS EXCEED MAX ZONE FLOW (7 GPM) ADD A VALVE AND ENTER SF AREA NEXT TO NEW VALVE NUMBER ("B" OR "C")
 - DRAW OUT NEW SUBZONE AND/OR VALVE ZONE AREA ON PLAN IN NEW COLOR.
 - ADD VALVE AS NEEDED TO VALVE MANIFOLD.
 - REVIEW IRRIGATION LEGEND AND CHECK OFF THAT ALL COMPONENTS ARE SHOWN ON ADJUSTED PLAN.
 - NOTE ANY EQUIPMENT SUBSTITUTIONS.

BY USING THESE PLANS, I AGREE TO DEFEND, INDEMNIFY, AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP, ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SANTA ROSA, NORTON MENDOCINO WATER DISTRICT, NORTH MAIN WATER DISTRICT, CITY OF PETALUMA, CITY OF COSTA, CITY OF SONOMA, VALLEY OF THE MOCKERS DISTRICT AND TOWN OF WANDERER) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES AND LANDSCAPE DESIGN CONSULTANTS AGAINST ANY AND ALL LOSS, LIABILITY, ATTORNEY'S FEES, AND DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES, INCURRED BY OR FOR ANY OF THEM IN THE USE OF THIS LANDSCAPE PLAN. I UNDERSTAND THAT IT IS MY RESPONSIBILITY AS THE PROJECT OWNER TO ENSURE THAT PLAN ELEMENTS ARE IMPLEMENTED SAFELY AND ACCORDING TO APPLICABLE STATUTES, RULES, REGULATIONS, ORDINANCES AND/OR CODES.

ABLA

ANN BAKER LANDSCAPE ARCHITECTURE
625 2ND ST., STE 110
PETALUMA, CA 94952
TEL.: (707) 772-5062
EMAIL: landarches@gmail.com

daily acts

because every choice matters

ForeSite

digital mapping solutions

Equinox

LANDSCAPE

SHERWOOD

DESIGN ENGINEERS

P D G

PANORAMIC DESIGN GROUP
LANDSCAPE ARCHITECTURE

RESIDENTIAL LANDSCAPE DESIGN TEMPLATE

SONOMA-MARIN SAVING WATER PARTNERSHIP
www.savingwaterpartnership.org

NAME: _____

SITE ADDRESS: _____

SONOMA-MARIN SAVING WATER PARTNERSHIP

SHEET TITLE:

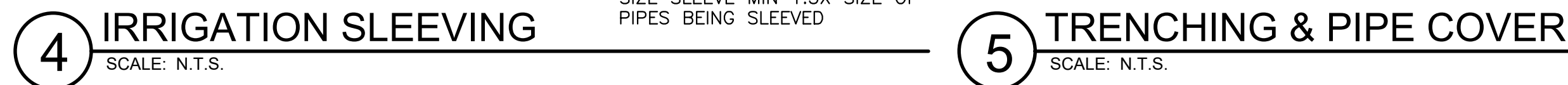
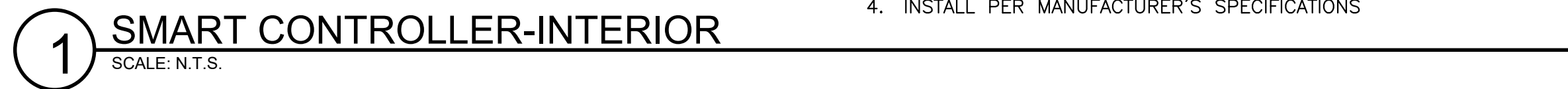
IRRIGATION
PLAN
SONOMA
COTTAGE B
(CUL-DE-SAC)

DATE

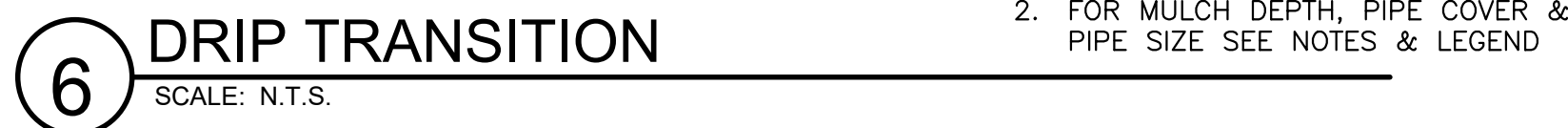
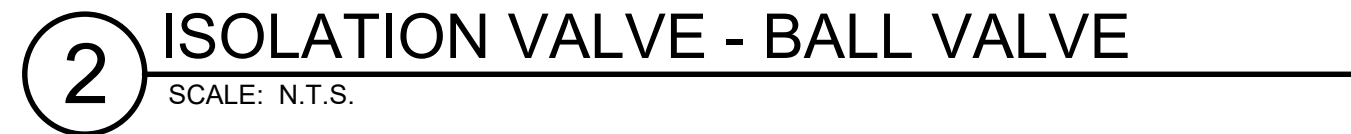
PERMIT PLAN
JANUARY 17, 2019

L-2.1

SHEET
OF



FOR IRRIGATION VALVE TABLE SEE IRRIGATION PLAN SHEET L2.0

[illegible]

daily acts

because every choice matter



Equinox
LANDSCAPE



SHERWOOD
DESIGN ENGINEERS

P D G

PANORAMIC DESIGN GROUP
LANDSCAPE ARCHITECTURE

DATE _____

EMPL			
------	--	--	--

SHIP

DESIGN PARTNER

CAPE
ENTER PA
0.org

NDSC
NG WA
nership

ESS:

—

NAME: _____

RE
so
ww
NA
SI

PARIN TER CHIP



SHEET TITLE

SHEET TITLE:
IRRIGATION

DETAILS & NOTES

NOTES

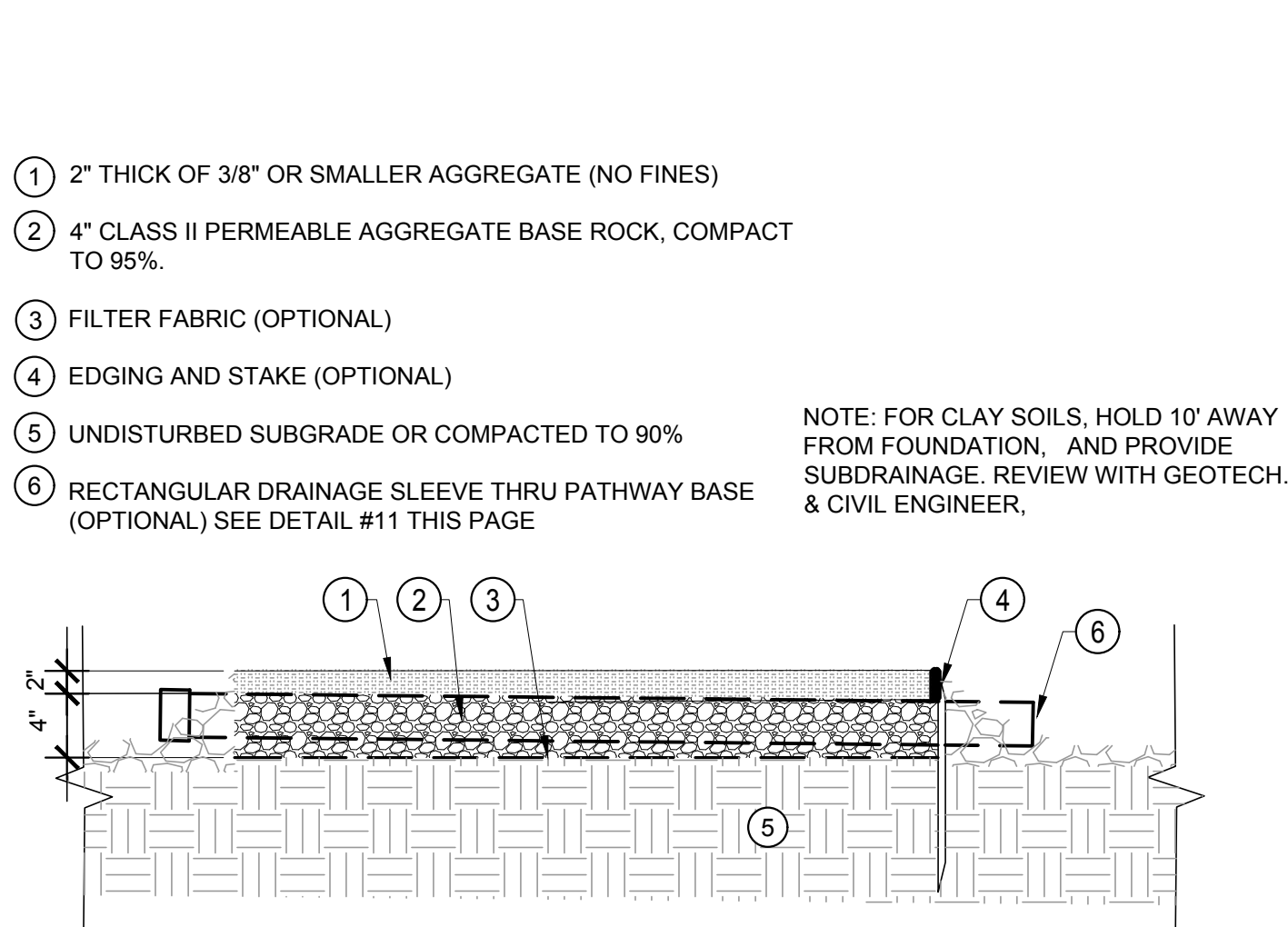
DATE
PERMIT PLAN

MAY 18, 2018

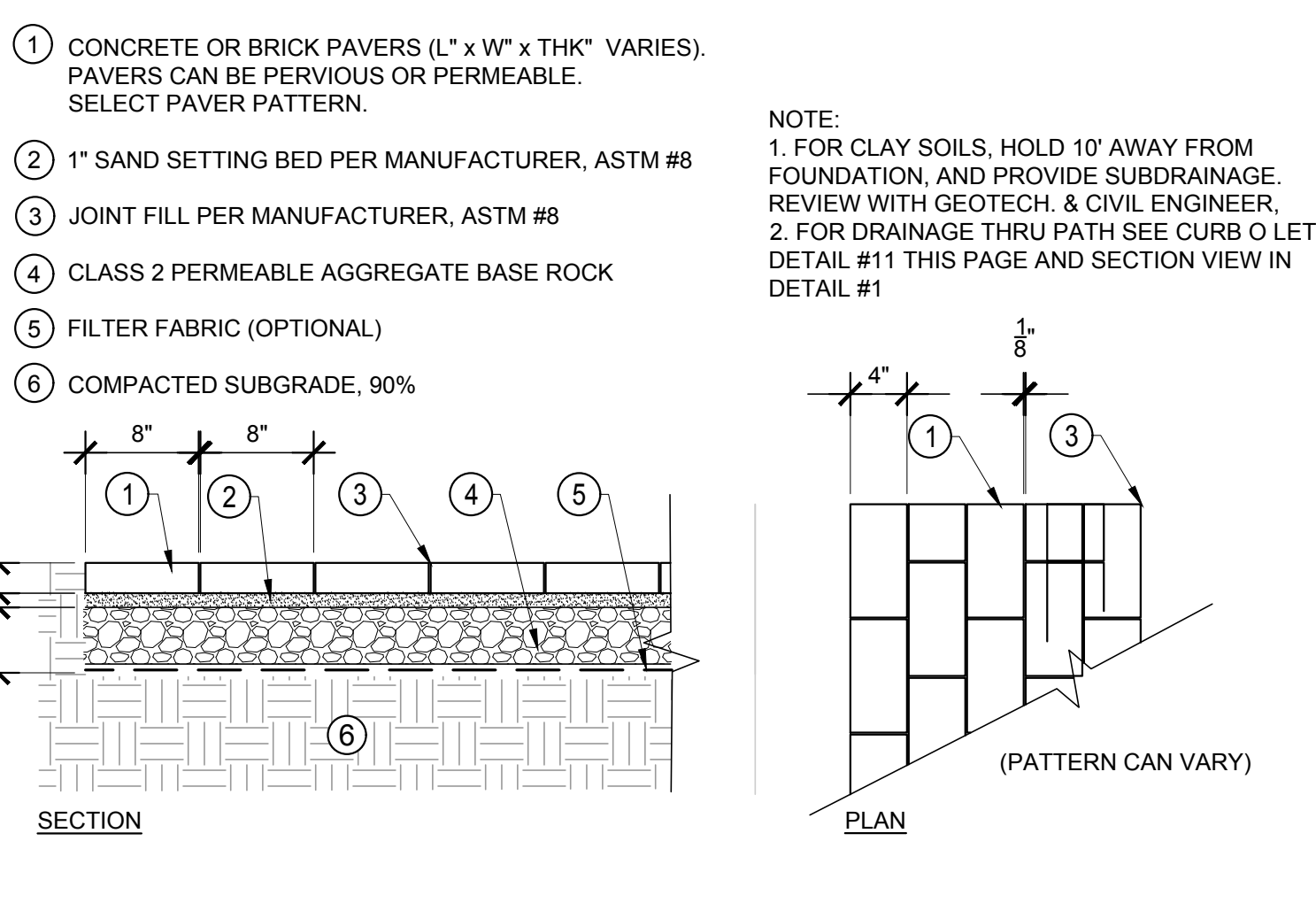
L-2.2

SHEET

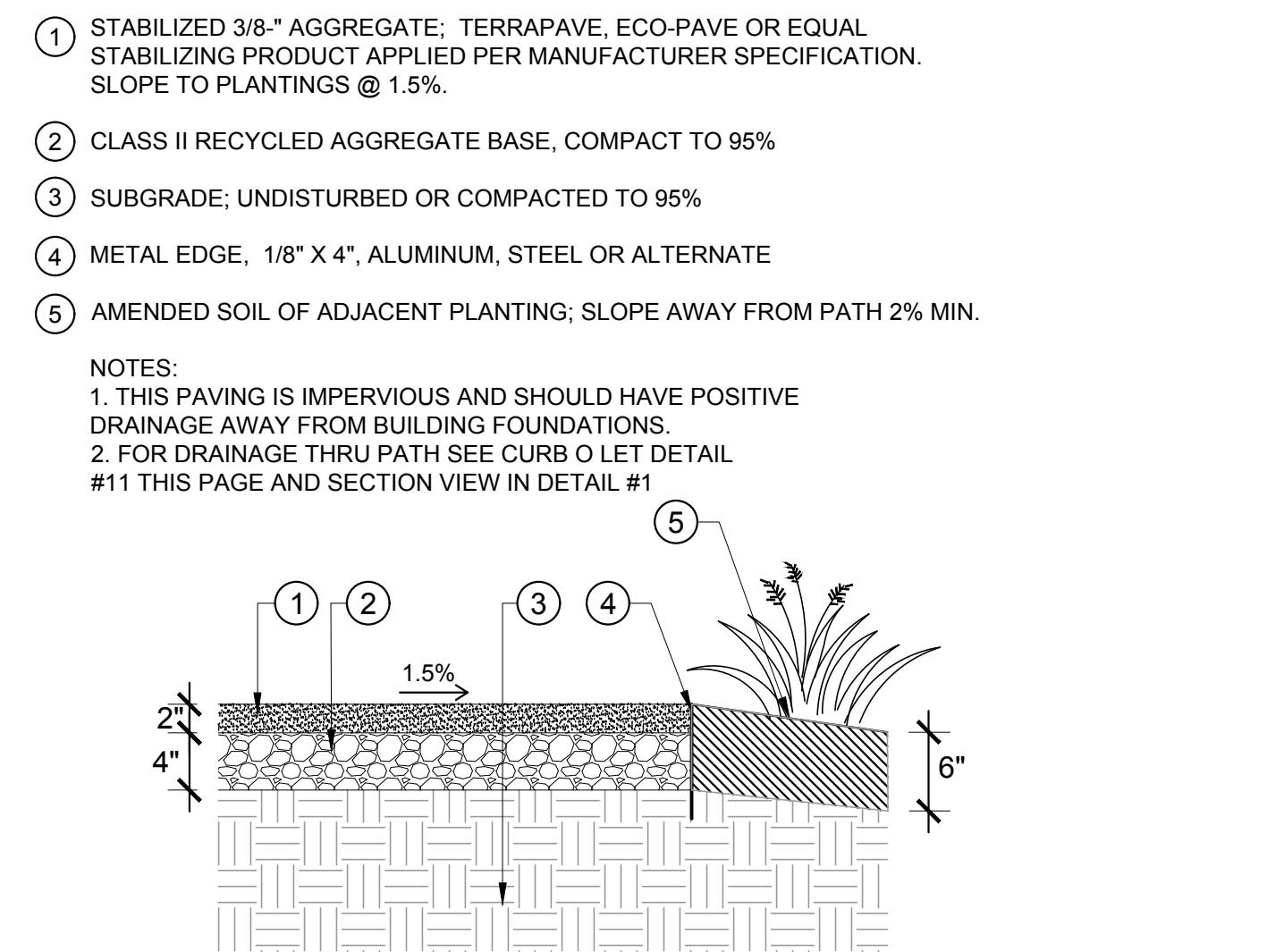
SHEET
OF



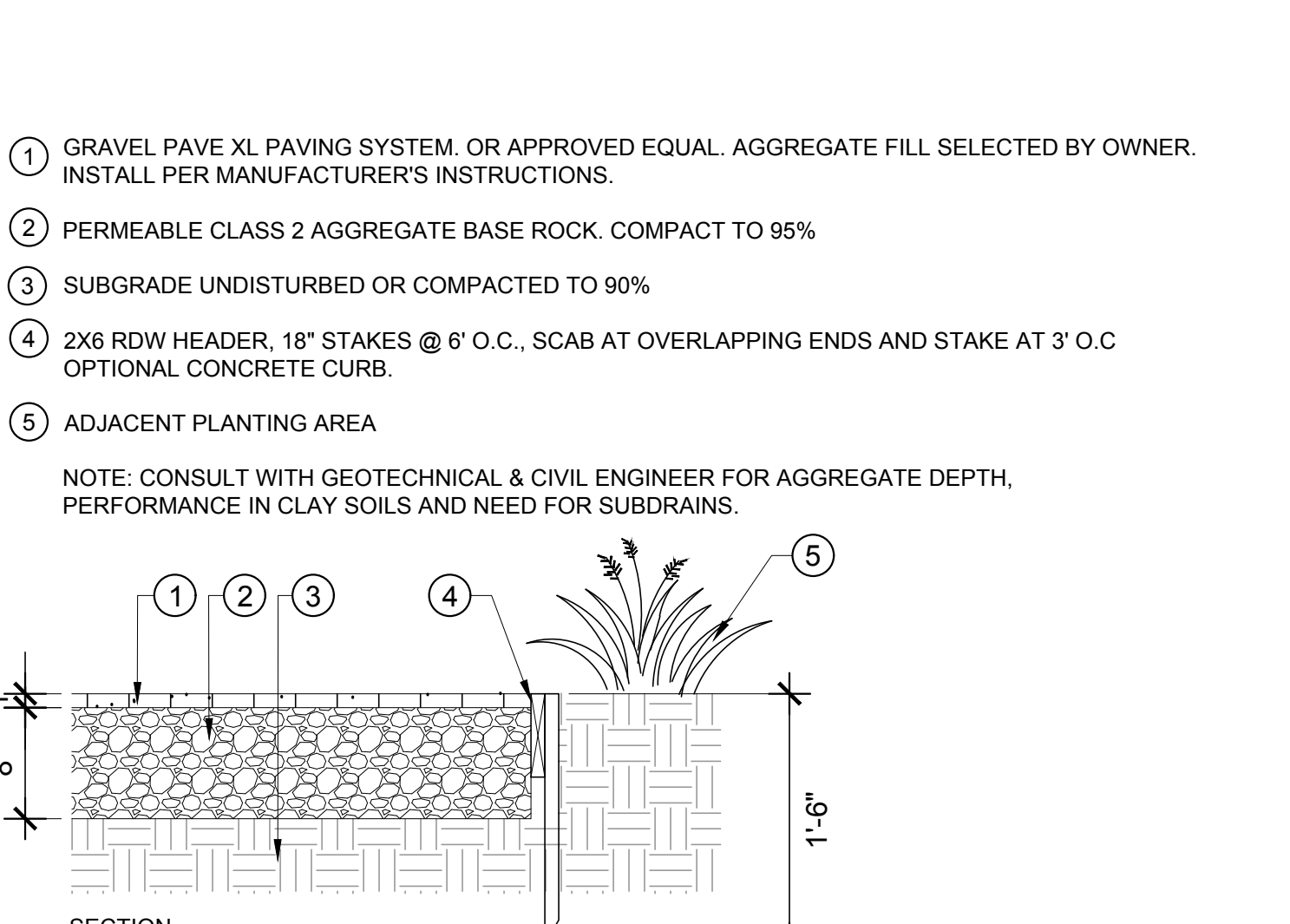
1 PERMEABLE AGGREGATE PAVING - PATH OR PATIO
SCALE: 1"=1'-0"



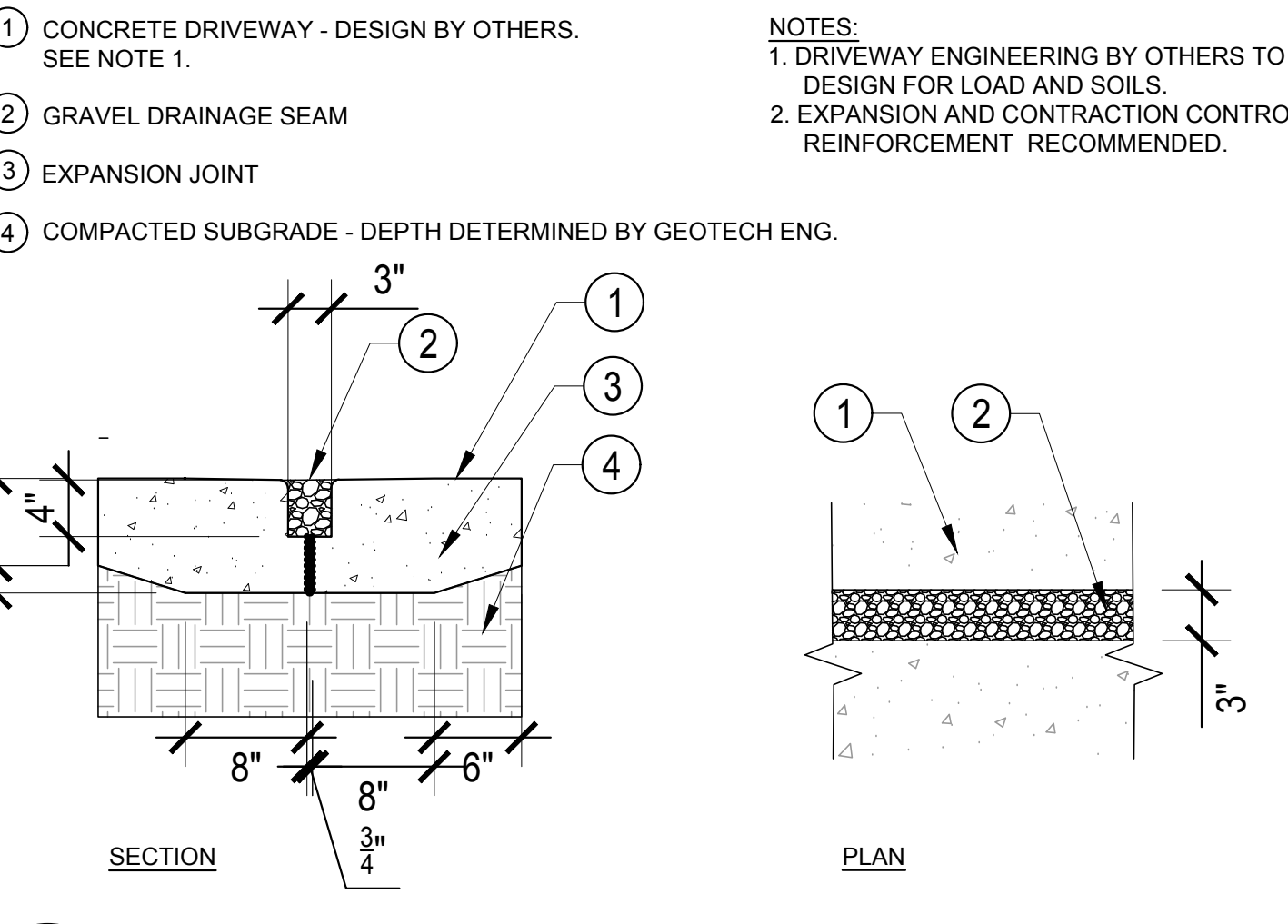
2 PERMEABLE PAVERS - PATH OR PATIO
SCALE: 1"=1'-0"



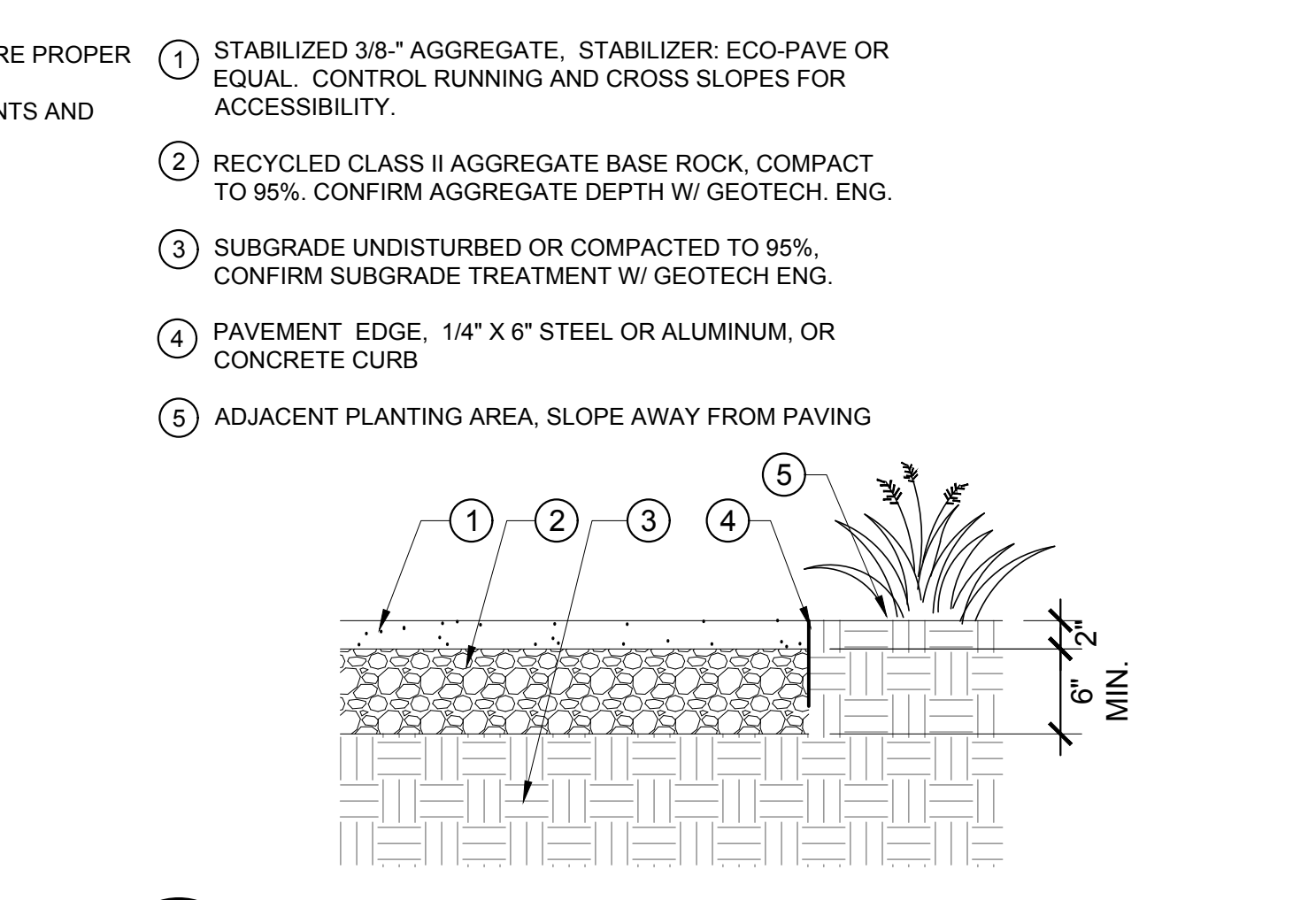
3 PERMEABLE INFILTRATION - PEDESTRIAN
SCALE: 1"=1'-0"



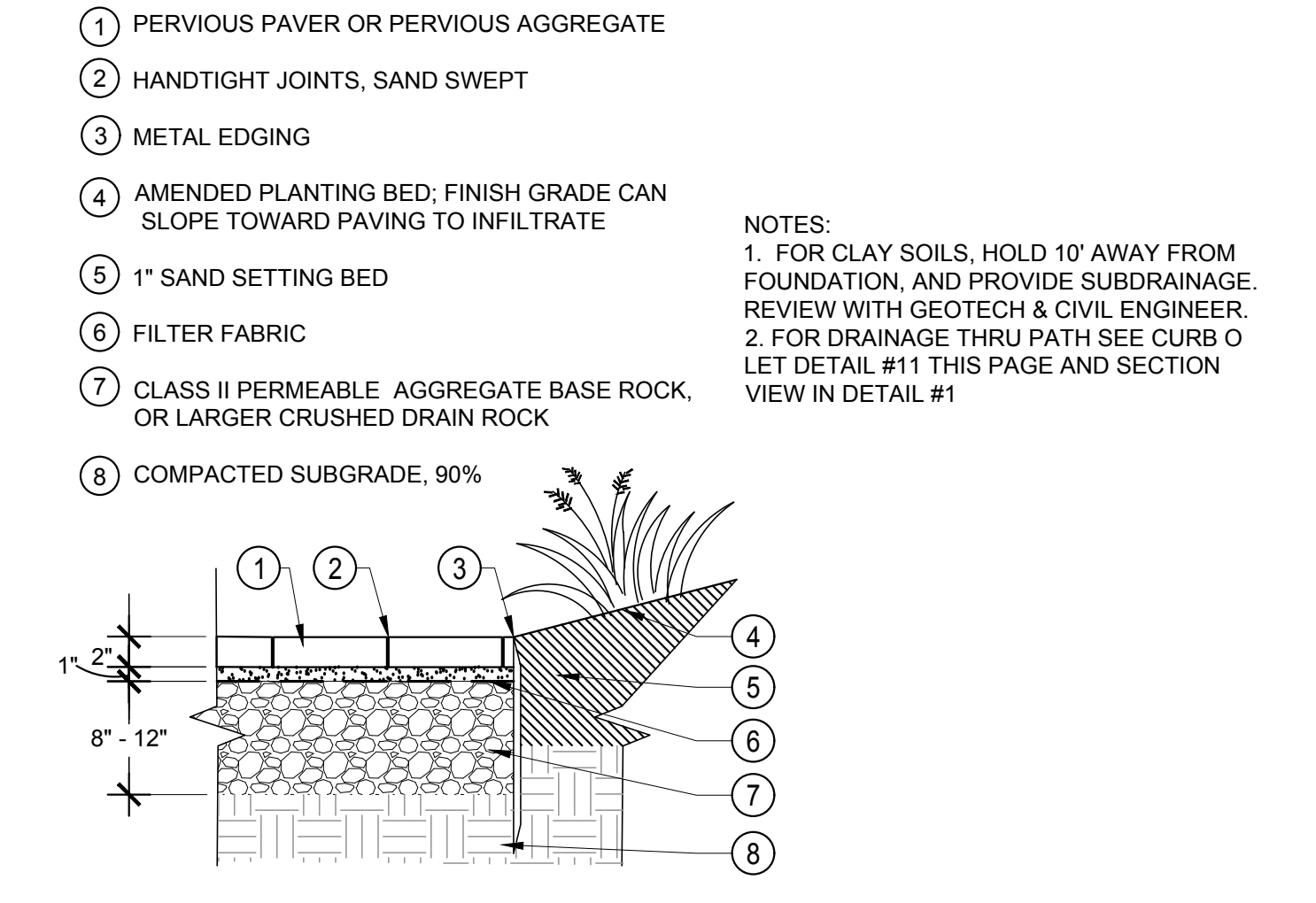
4 AGGREGATE PAVING - PEDESTRIAN
SCALE: 1"=1'-0"



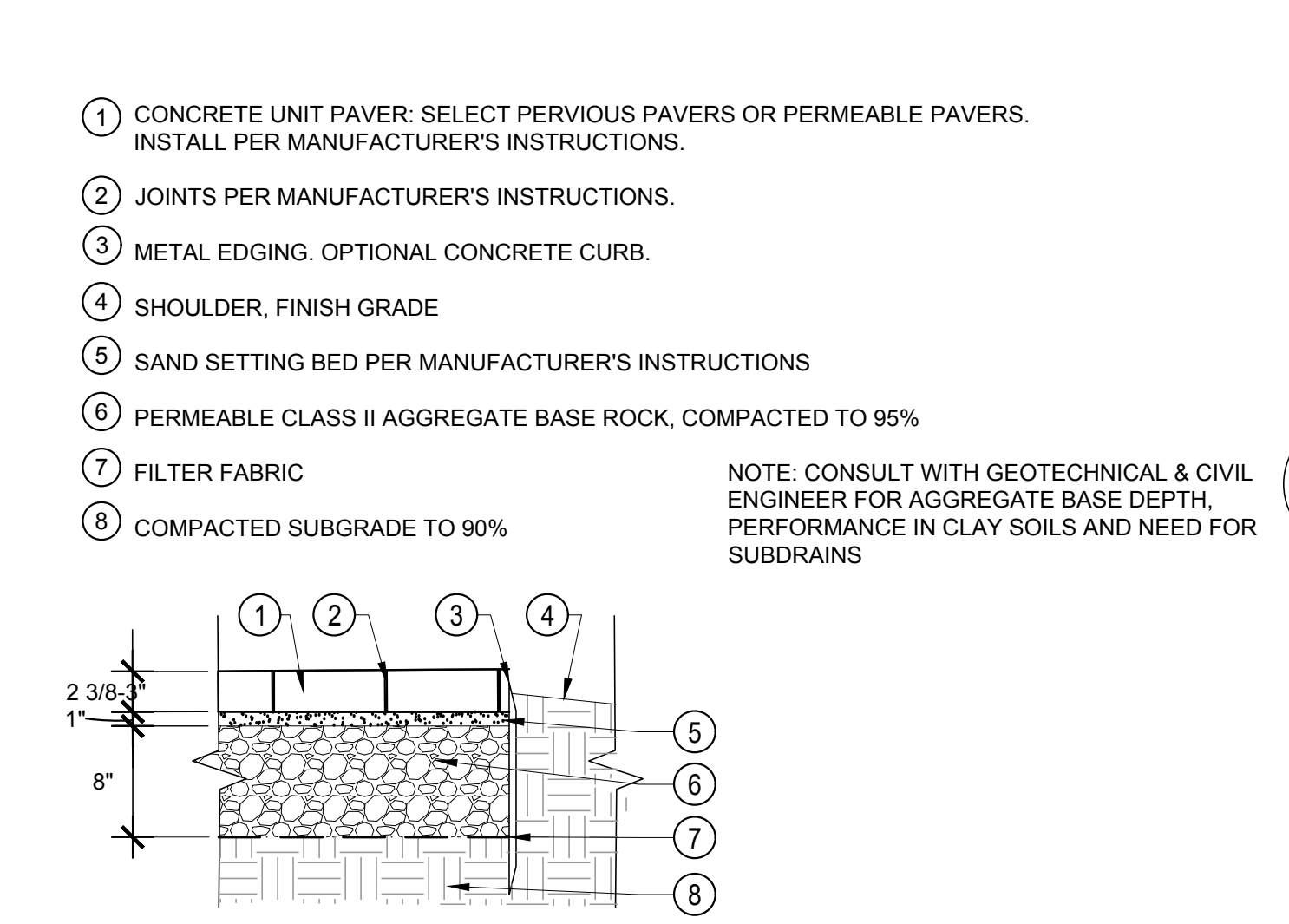
5 STABILIZED AGGREGATE - PATH OR PATIO
SCALE: 1"=1'-0"



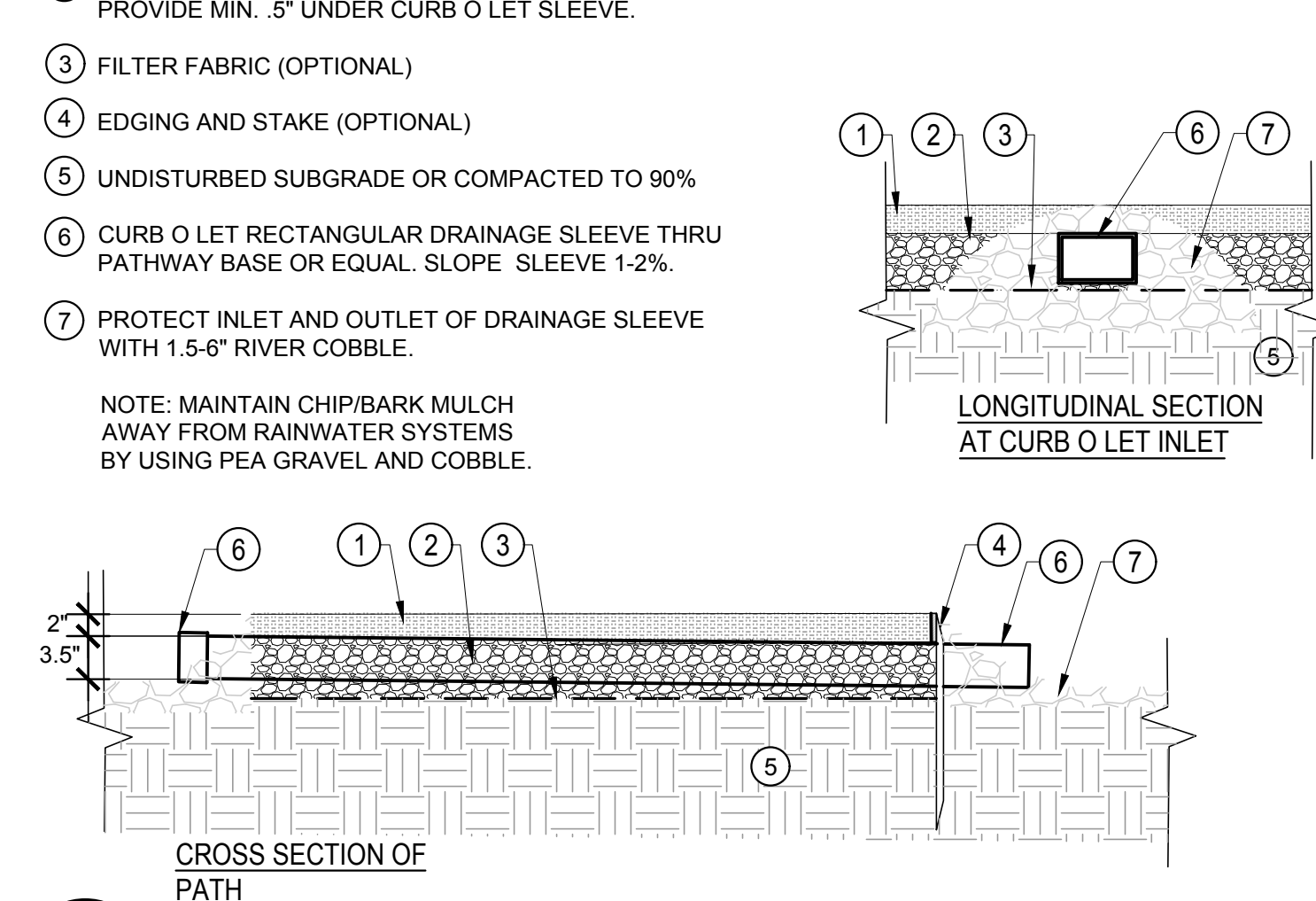
6 GRAVELPAVE PAVING - VEHICLE
SCALE: 1"=1'-0"



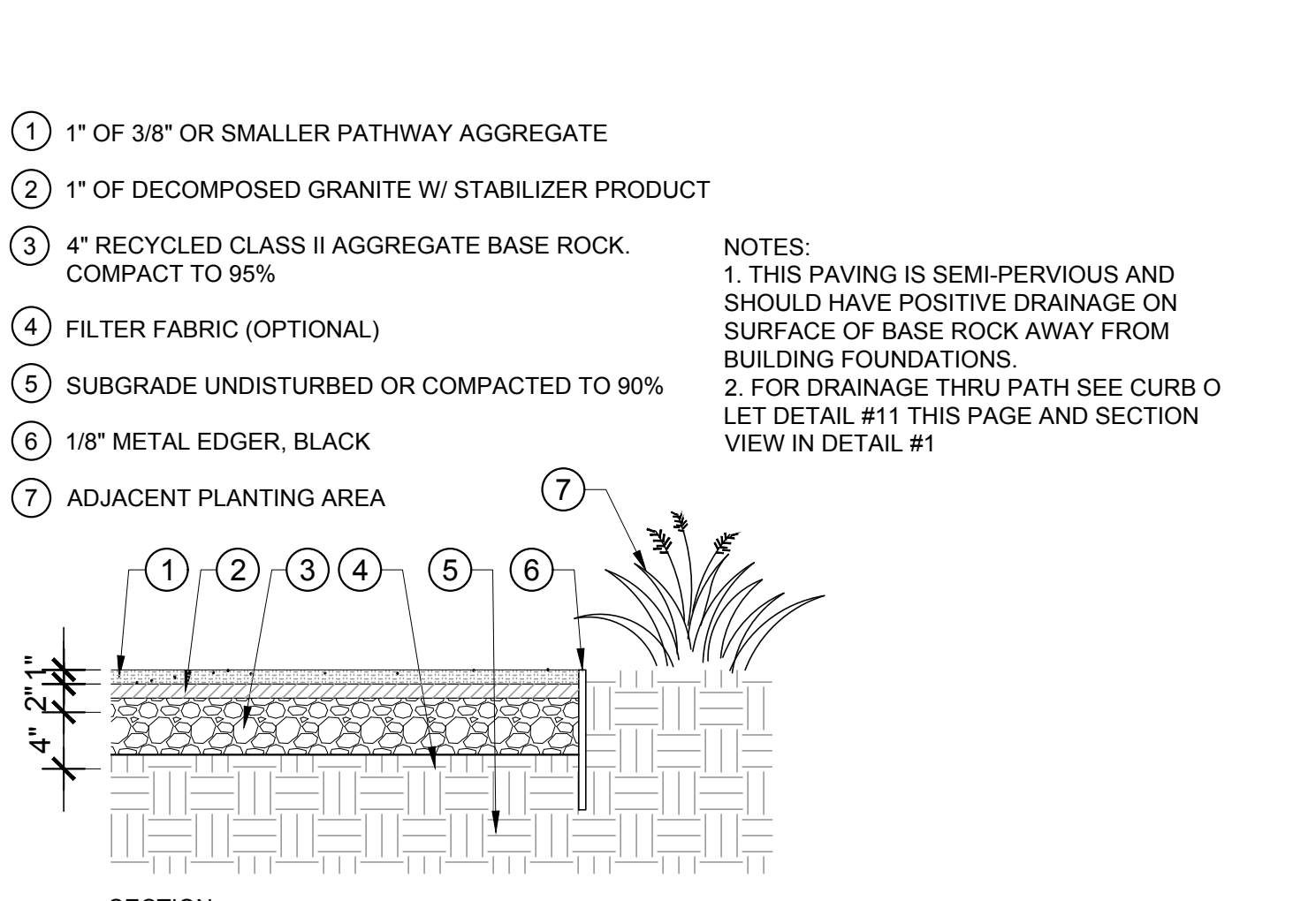
7 PERVIOUS OR PERMEABLE UNIT PAVER - VEHICLE
SCALE: 1"=1'-0"



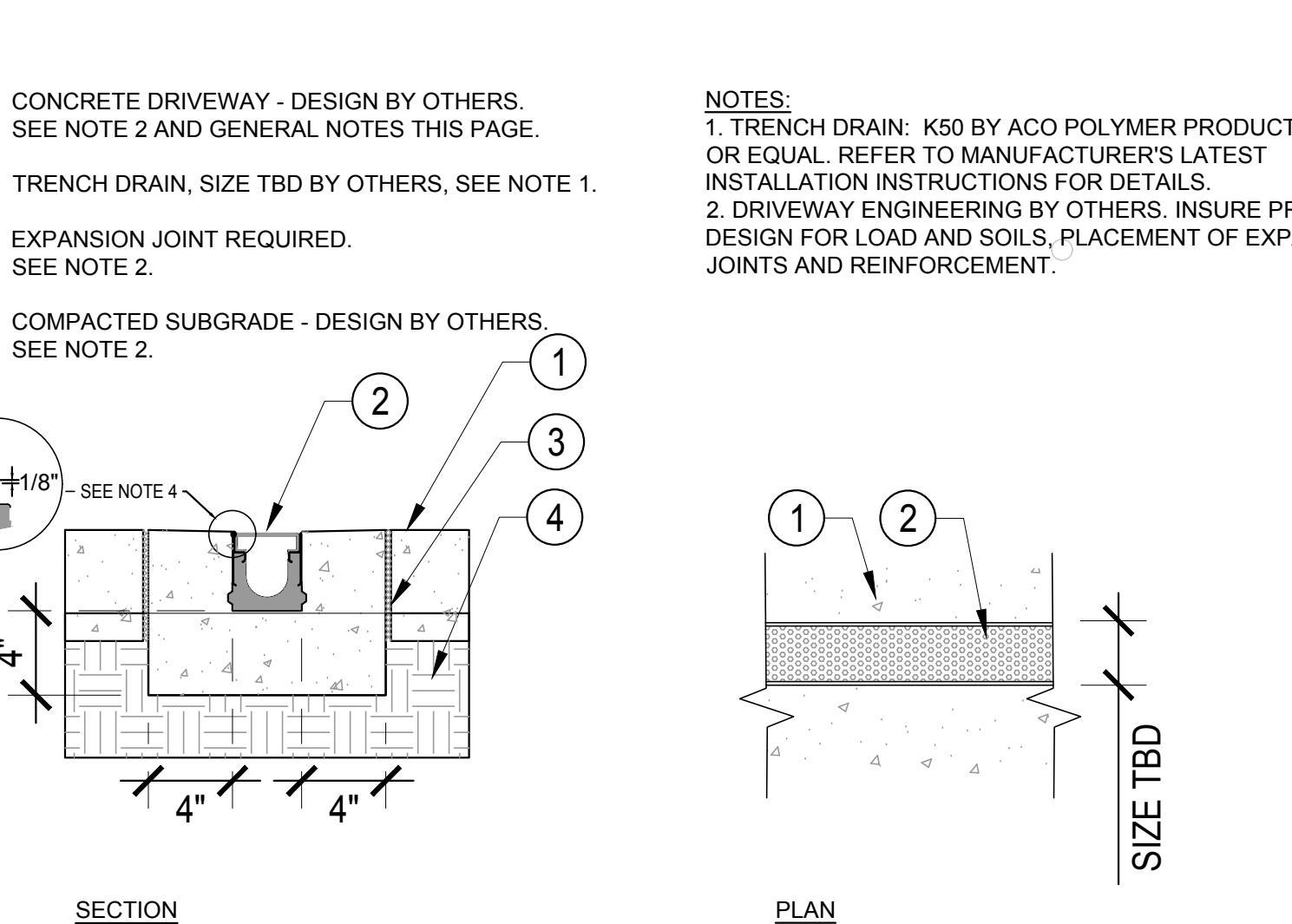
8 CONCRETE - VEHICLE - TRENCH DRAIN
SCALE: 1"=1'-0"



9 CONCRETE - VEHICLE - GRAVEL DRAINAGE SEAMS
SCALE: 1"=1'-0"



10 STABILIZED AGGREGATE - VEHICLE
SCALE: 1"=1'-0"



11 RECTANGULAR DRAINAGE SLEEVE IN PATHS
SCALE: NOT TO SCALE

- GENERAL NOTES :**
- DESIGN STRATEGY: THESE DETAILS ARE PROVIDED TO CREATE OPTIONS FOR PERMEABLE PAVING, AND PAVING STRATEGIES THAT PROMOTE STORMWATER INFILTRATION IN LANDSCAPE SPACES. THESE STRATEGIES HELP CLEAN WATER, INFILTRATE RUN OFF INTO GROUNDWATER, AND PROVIDE MORE SOIL MOISTURE AVAILABILITY FOR LANDSCAPE PLANTINGS.
 - THESE DETAILS SHOULD BE EVALUATED BY THE SITE ENGINEER AND ADJUSTED TO SITE CONDITIONS.
 - PAVING DEPTH, DEPTH OF BASE GRAVEL, SUB-BASE PREPARATION AND CONCRETE REINFORCEMENT SHOULD ALL BE EVALUATED AND ADJUSTED AS NEEDED BY A GEOTECHNICAL ENGINEER.
 - SOIL TYPE AFFECTS THE PERFORMANCE OF THESE DETAILS. CLAY SOILS DO NOT INFILTRATE WELL, SO THERE IS A NEED TO EVALUATE WHETHER THE PERMEABLE/PERVIOUS PAVING DETAILS ARE APPROPRIATE FOR SPECIFIC SITES AND ADJUST THEM AS APPROPRIATE TO PROTECT BUILDINGS AND OTHER IMPROVEMENTS.
 - ACCESSIBLE PAVING IS SMOOTH, FIRM, AND HAS A CROSS SLOPE NOT TO EXCEED 2%. RUNNING SLOPE SHOULD BE 5% OR LESS UNLESS PAVING RAMP WITH HANDRAILS. SEE TITLE 24 OF CALIFORNIA CODE FOR ACCESSIBILITY REQUIREMENTS AND STANDARDS

BY USING THESE PLANS, I AGREE TO RELEASE, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP, ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SANTA ROSA, MARIN MUNICIPAL WATER DISTRICT, NORTH BAY WATER DISTRICT, CITY OF SONOMA, CITY OF PETALUMA, CITY OF DUBLIN, CITY OF SAN ANTONIO, VALLEY OF THE MOON WATER DISTRICT AND TOWN OF WINDSOR) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES AND LANDSCAPE DESIGN CONSULTANTS AGAINST ANY AND ALL LOSS, LIABILITY, EXPENSE, CLAIMS, SUITS AND DAMAGES, INCLUDING ATTORNEY'S FEES, ARISING OUT OF OR RESULTING FROM THE USE OF THIS LANDSCAPE PLAN, UNDERSTANDING THAT IT IS MY RESPONSIBILITY AS THE PROJECT OWNER TO ENSURE THAT PLAN ELEMENTS ARE IMPLEMENTED SAFELY AND ACCORDING TO APPLICABLE STATUTES, RULES, REGULATIONS, ORDINANCES AND/OR CODES.

SONOMA-MARIN SAVING WATER PARTNERSHIP, ITS MEMBERS AND LANDSCAPE DESIGN CONSULTANTS MAKE NO REPRESENTATIONS AND GRANT NO WARRANTIES, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, AND SONOMA-MARIN SAVING WATER PARTNERSHIP, ITS MEMBERS AND DESIGN CONSULTANTS SPECIFICALLY DISCLAIM ANY OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, OR EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF QUALITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE OR ANY WARRANTY AS TO THE VALIDITY OF ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

ABLA
ANN BAKER LANDSCAPE ARCHITECTURE
625 2ND ST., STE 110
PETALUMA, CA 94952
TEL.: (707) 772-5062
EMAIL: landarches@gmail.com

because every choice matters
ForeSite
digital mapping solutions

SHERWOOD
DESIGN ENGINEERS

P D G
PANORAMIC DESIGN GROUP
LANDSCAPE ARCHITECTURE

RESIDENTIAL LANDSCAPE DESIGN TEMPLATE
SONOMA-MARIN SAVING WATER PARTNERSHIP
www.savingwaterpartnership.org

NAME: _____
SITE ADDRESS: _____

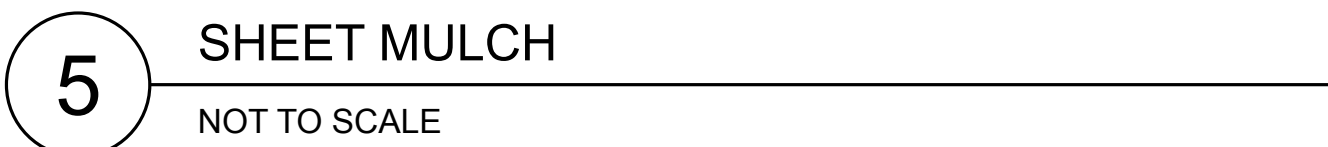
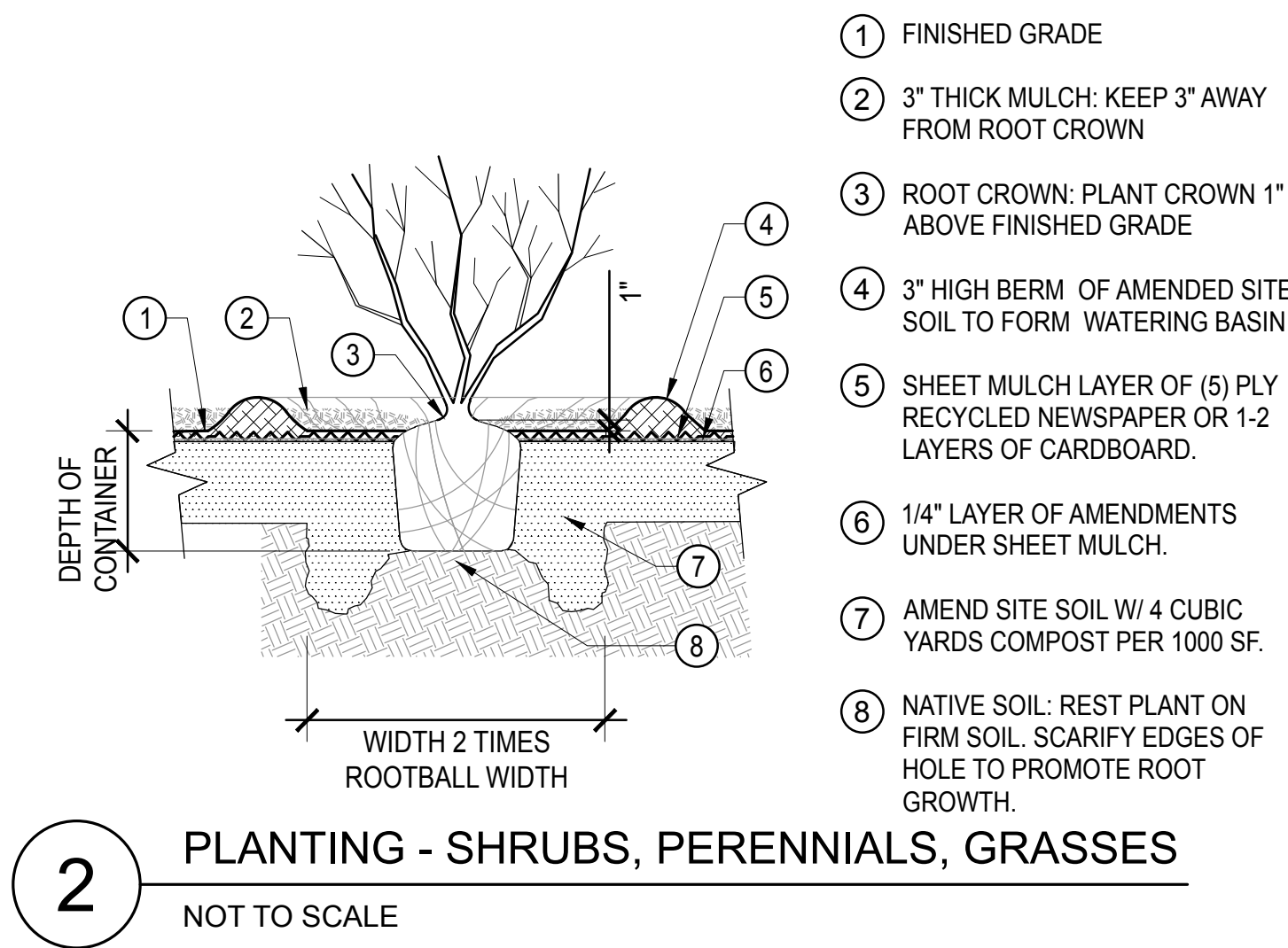
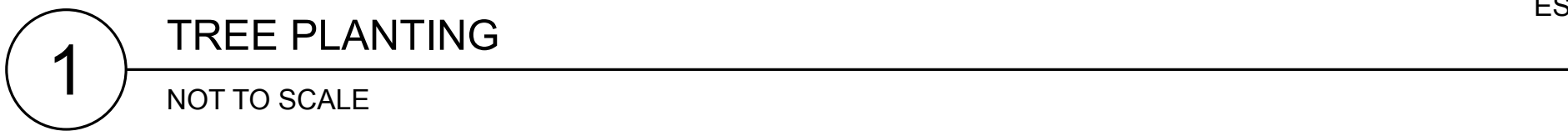
SONOMA - MARIN SAVING WATER PARTNERSHIP

SHEET TITLE:
L.I.D. PAVING DETAILS

DATE
PERMIT PLAN
MAY 18, 2018

L-3.0

SHEET OF



6 PLANT PIT AND WATERING BERM
NOT TO SCALE

APPLICANT INFORMATION:

LANDSCAPE TO LAUNDRY SYSTEM OVERVIEW:
 A LAUNDRY-TO-LANDSCAPE GRAYWATER SYSTEM CAPTURES LIGHTLY USED WATER FROM THE DISCHARGE HOSE OF YOUR WASHING MACHINE AND PUMPS IT OUT TO THE LANDSCAPE THROUGH 1-INCH TUBING. THE SYSTEM DOES NOT ALTER THE EXISTING PLUMBING AND THEREFORE DOES NOT REQUIRE A PERMIT. A THREE-WAY DIVERTER VALVE IS A NECESSARY COMPONENT, ALLOWING YOU TO SEND DISCHARGE WATER BACK TO THE SEWER SYSTEM WHEN NEEDED OR DURING THE RAINY SEASON.

INSTALLATION & DESIGN CONSIDERATIONS:
 LAUNDRY TO LANDSCAPE GRAYWATER SYSTEMS ARE EASY TO INSTALL FOR THE DO-IT-YOURSELF OR A PROFESSIONAL, ESPECIALLY IF THE WASHING MACHINE IS LOCATED ON AN EXTERNAL WALL AND IS IN CLOSE PROXIMITY TO THE LANDSCAPE AREA BEING IRRIGATED. NOTE, THE WASHING MACHINE PUMP WILL PROVIDE SUFFICIENT PRESSURE THROUGH A 1-INCH IRRIGATION LINE FOR 100-FEET ON FLAT GROUND. IF THE SYSTEM IS DESIGNED TO IRRIGATE UPHILL FROM THE WASHING MACHINE, THE DISTANCE SHOULD BE REDUCED TO 30-50 FEET WITH NO MORE THAN A 5% SLOPE. IF THE SYSTEM IS DESIGNED TO IRRIGATE DOWNHILL FROM THE WASHING MACHINE, THE DISTANCE MAY INCREASE TO 150-FEET DEPENDING ON SLOPE.

GRAYWATER REQUIREMENTS TO COMPLY WITH CALIFORNIA PLUMBING CODE ("CPC") STANDARDS:

- O NOTIFY ENFORCING AGENCY
- O BE ABLE TO REDIRECT TO SEWER
- O NO POTABLE WATER CONNECTION
- O CONTAIN GRAYWATER ON SITE
- O DIRECT AND CONTAIN GRAYWATER WITHIN MULCH BASINS (IRRIGATION OR DISPOSAL FIELD) BELOW THE GROUND SURFACE
- O NO PONDING OR RUNOFF
- O OUTLETS COVERED BY AT LEAST 2-INCHES OF MULCH, ROCK, OR A SHIELD (E.G. VALVE BOX LID)
- O MINIMIZE CONTACT WITH HUMANS AND ANIMALS
- O DIVERT WATER TO THE SEWER IF IT CONTAINS DIAPERS, OIL, OTHER CHEMICALS
- O GRAYWATER DIVERTED TO LANDSCAPE SHALL NOT CONTAIN HAZARDOUS CHEMICALS
- O PERMIT EXEMPTION DOES NOT GRANT INSTALLATION THAT VIOLATES OTHER CODE OR LAWS
- O POST OPERATION AND MAINTENANCE MANUAL

CPC Table 1502.4 — LOCATION OF GREY WATER SYSTEM

MINIMUM HORIZONTAL DISTANCE IN CLEAR REQUIRED FROM	SUBSURFACE AND SUBSOIL IRRIGATION FIELD AND MULCH BASIN (feet)
Building structures	2
Property line adjoining private property	1.5
Water supply wells	100
Streams and lakes	100
Sewage pits or cesspools	5
Sewage disposal field	4
Septic tank	5
On-site domestic water service line	0
Pressurized public water main	10

CALCULATIONS SECTION

1. Estimate Daily Graywater Production

Calculation Method (choose one and check box)

☐ California Plumbing Code Estimate (Assign 2 occupants to master bedroom and 1 occupant to each additional bedroom)

Laundry: _____ occupants x 15 gallons/day _____ gal/day

☐ Estimate of graywater produced from winter (Dec-Feb) water use records (reference utility bill)

Laundry: _____ (gallons/load*) x _____ (loads/week) ÷ 7 (days/week) _____ gal/day

*Typical gals/per load: Front loader 15, Top loader 40 **TOTAL** _____ gal/day

2. Determine Minimum Mulch Basin Size

Minimum Mulch Basin Size:

(gal/day) ÷ gal/ft²/day = ft²
 From 1 above Maximum Absorption Capacity (from column 3 in table below)

*Dig mulch basin to a depth of 1 ft to ensure sufficient surge capacity for water leaving the laundry machine.

Design of Six Soil Types	Min SQ. FT. of Irrigation/ Leaching Area Per 100 Gallons of Estimated Graywater Discharge Per Day	Max Absorption Capacity in Gallons Per SQ. FT. of Irrigation/ Leaching Area for an 24-Hour Period
Coarse sand or gravel	30	5.0
Fine Sand	25	4.0
Sandy Loam	40	2.5
Sandy Clay	60	1.7
Clay with considerable sand or gravel	90	1.1
Clay with small amounts of sand or gravel	120	0.8

3. Determining Weekly Water Needs

Weekly Water needs = (0.62 x Area x Eto x Pf) / 4 weeks = _____ *0.62 = (# of gal in 1" of water covering 1 ft²)

- Area = π r² = 3.14 x (canopy radius of existing plant)² OR = (Length x Width) for number of garden beds
- Evapotranspiration rates (Eto) - Choose Eto for hottest month - July = 6.51"/month for Santa Rosa
- Plant factor (Pf) = 0.3 (Low water use), 0.5 (Moderate water use) *check landscape plan for water use of plants in the hydrozone

ADDITIONAL INFORMATION

GRAYWATER IS RECEIVED BEST BY TREES, BUSHES, SHRUBS, SMALL PERENNIALS AND LARGER ANNUALS, BUT IS PROHIBITED ON LAWN, RAISED BEDS, ROOT AND LEAFY VEGETABLES. MODERATE WATER USERS SUCH AS FRUIT TREES ARE ALSO AN IDEAL APPLICATION. GRAYWATER IS SOMEWHAT ALKALINE (HIGH pH) AND NOT RECOMMENDED FOR PLANTS THAT PREFER ACIDIC SOILS (LOW pH) LIKE BLUEBERRIES AND RHODEDENDRONS SOIL TYPE WILL DETERMINE BOTH HOW QUICKLY GRAYWATER IS ABSORBED IN YOUR LANDSCAPE AND THE SIZE OF THE MULCH BASINS NEEDED TO INFILTRATE THE GRAYWATER..

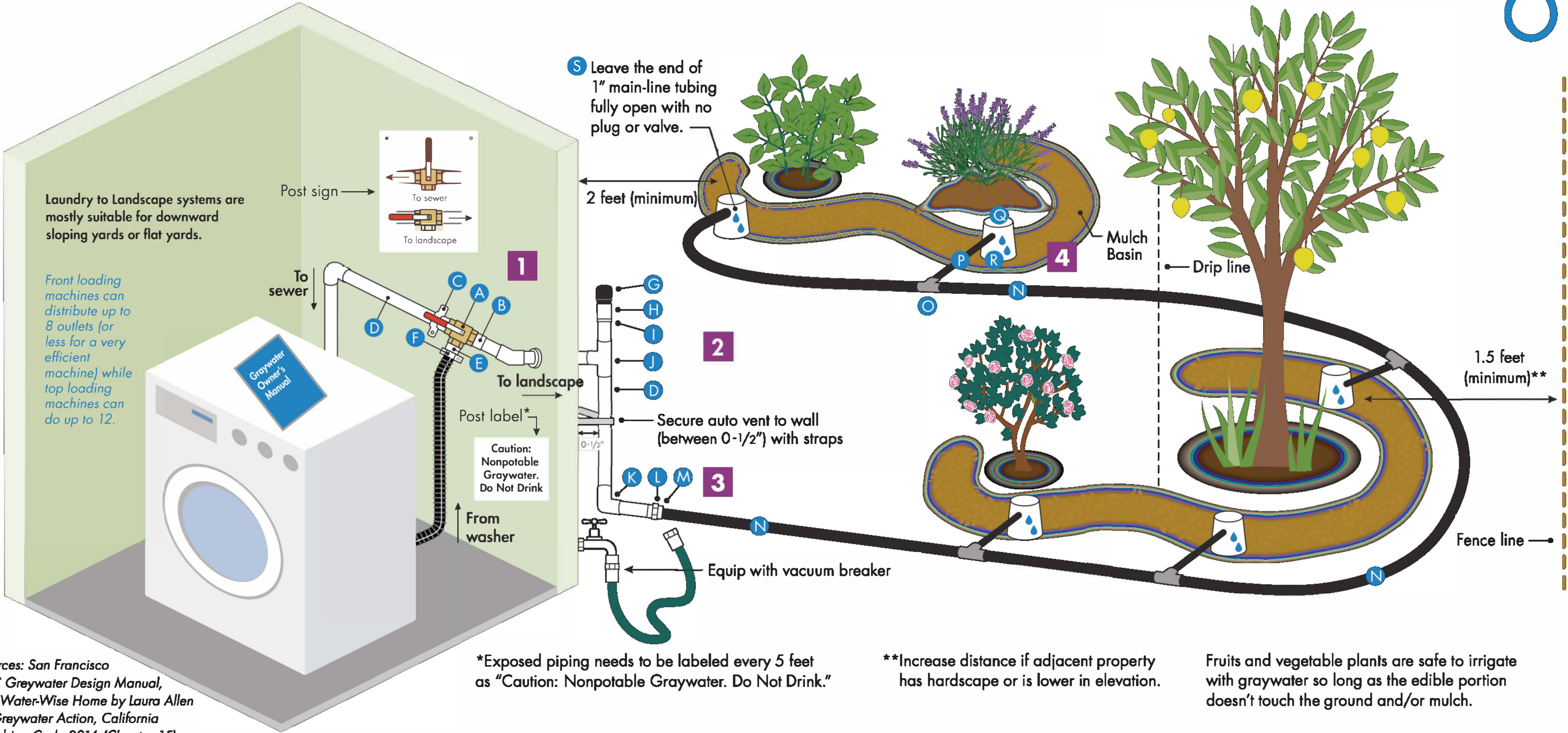
THE KEY TO PROPER IRRIGATION WITH GRAYWATER IS TO KNOW HOW MUCH THE CHOSEN PLANTS NEED GIVEN EVAPOTRANSPIRATION RATES, PLANT WATERING NEEDS, AND EXISTING CANOPY.

RECOMMENDED DETERGENTS:

TO ENSURE PLANT SURVIVAL AVOID SOAPS AND DETERGENTS THAT CONTAIN BORON, SODIUM AND CHLORINE COMPOUNDS. THE FOLLOWING LIST OF COMMERCIAL DETERGENTS ARE RECOMMENDED FOR USE WITH LAUNDRY TO LANDSCAPE GRAYWATER SYSTEMS.

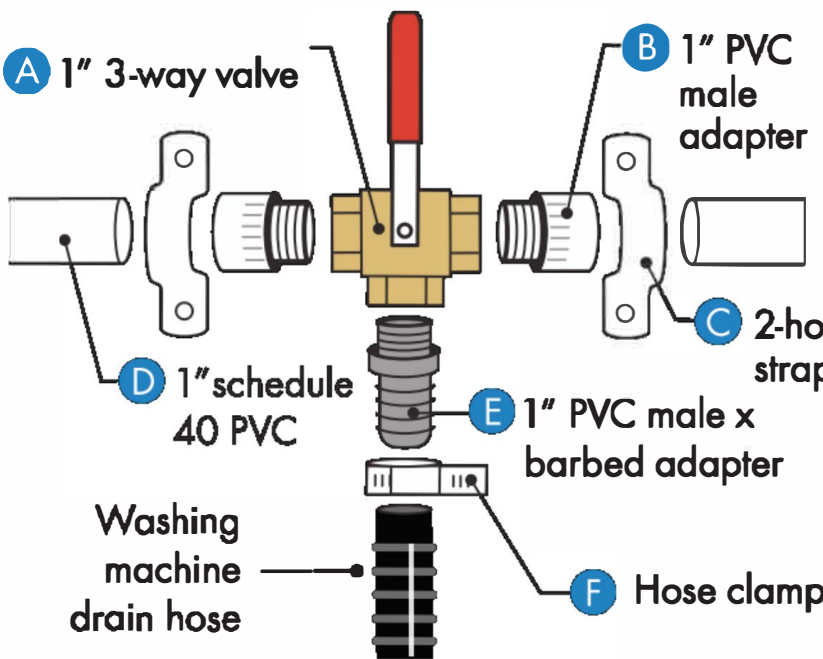
- OASIS LAUNDRY
- BIO PAC LAUNDRY LIQUID
- BIOKLEEN LAUNDRY LIQUID
- ECOVER LAUNDRY WASH (SOME SALT)
- LIQUID ECOS LIQUID DETERGENT
- LIFE TREE LAUNDRY LIQUID
- MOUNTAIN GREEN LAUNDRY DETERGENT
- VASKA HERBATERGENT

Laundry to Landscape: Graywater System Example

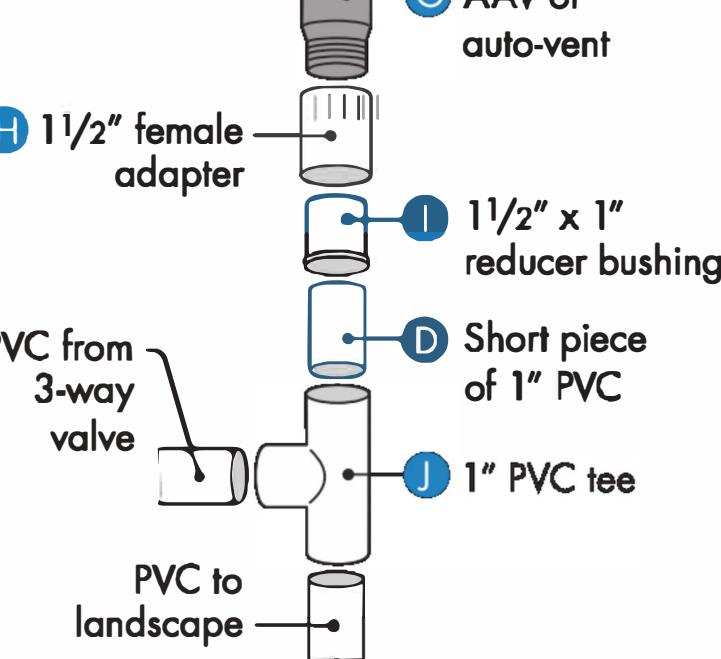


Sources: San Francisco PUC Greywater Design Manual, The Water-Wise Home by Laura Allen of Greywater Action, California Plumbing Code 2016 (Chapter 15)

1 Diverter (3-way) Valve

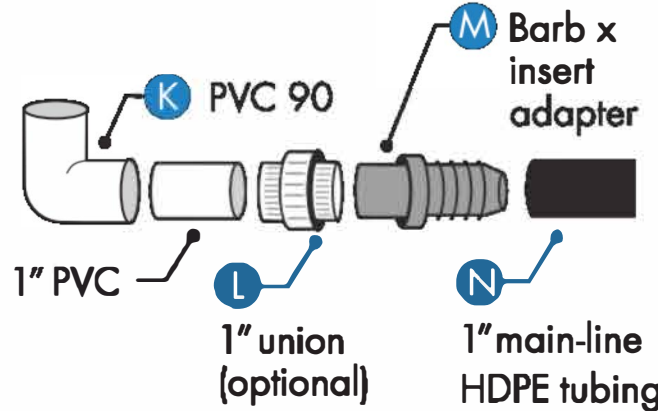


2 Auto Vent

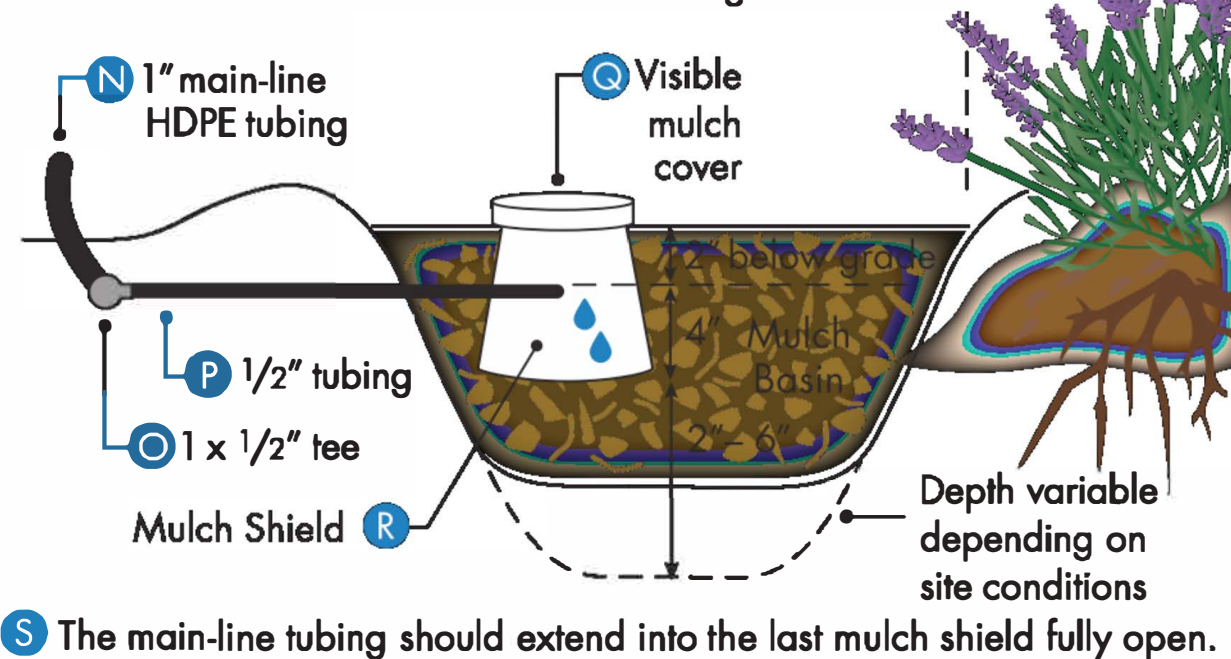


3 System Clean-out

This facilitates flushing clogs out of the landscape side of the system



4 Mulch Basin



BY USING THESE PLANS, I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP, ITS MEMBERS, SONOMA-COUNTY WATER AGENCY, CITY OF SAN JOSE, SANTA BARBARA WATER DISTRICT, NORTH MARIN WATER DISTRICT, CITY OF ROSS, CITY OF REDWOOD CITY, CITY OF SAN ANTONIO, CITY OF SAN JOSE, CITY OF SAN MATEO, CITY OF SAN PABLO, CITY OF SAN RAFAEL, CITY OF SANTA CLARA, CITY OF SANTA CRUZ, CITY OF SAN VICENTE, CITY OF SEABOARD, CITY OF SEASIDE, CITY OF SEASIDE-CLAY, CITY OF SEASIDE-EMERALD, CITY OF SEASIDE-FLORISSANT, CITY OF SEASIDE-GRANDVIEW, CITY OF SEASIDE-MAJESTIC, CITY OF SEASIDE-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-EMERALD, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-FLORISSANT, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-GRANDVIEW, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-CLAY, CITY OF SEASIDE-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJESTIC-MAJEST

APPLICANT INFORMATION:

BRANCHED DRAIN SYSTEM OVERVIEW:

A BRANCHED-DRAIN SYSTEM DISTRIBUTES GRAYWATER FROM SHOWERS AND/OR BATHROOM SINKS THROUGH A SERIES OF BRANCHING 1.5-INCH OR 2-INCH PIPES AND IS DISPERSED INTO THE LANDSCAPE VIA MULCH BASIN OUTLETS. PLUMBING FOR GRAYWATER SOURCES MUST BE SEPARATED FROM BLACK WATER SOURCES (TOILET, KITCHEN SINK). IF POSSIBLE DUE TO CLOSE PROXIMITY, A LAUNDRY MACHINE CAN ALSO BE ADDED INTO THE DISTRIBUTION PIPING. THIS SYSTEM IS DRIVEN BY GRAVITY FLOW AS NO PRESSURE IS PROVIDED BY A WASHING MACHINE PUMP OR ANY OTHER PUMP. AS THIS SYSTEM REQUIRES CUTTING INTO EXISTING SEWER PIPES FROM SHOWER DRAINS OR SINKS, IT DOES REQUIRE A SIMPLE OVER THE COUNTER PLUMBING PERMIT. IF INSTALLING AS PART OF NEW BUILDING CONSTRUCTION OR REMODEL, SHOW SEPERATED PLUMBING IN PLAN SETS AND STUB OUT PIPING FOR EXTERIOR GRAYWATER SYSTEM COMPONENTS DURING BUILDING CONSTRUCTION.

BRANCHED DRAIN GRAYWATER REQUIREMENTS TO COMPLY WITH CALIFORNIA PLUMBING CODE (CPC) STANDARDS:

- NOTIFY ENFORCING AGENCY AND SECURE PERMIT FOR INTERIOR PLUMBING COMPONENTS
- BE ABLE TO REDIRECT TO SEWER
- NO POTABLE WATER CONNECTION
- CONTAIN GRAYWATER ONSITE
- DIRECT AND CONTAIN GRAYWATER WITHIN MULCH BASINS (IRRIGATION OR DISPOSAL FIELD) BELOW THE GROUND SURFACE
- NO PONDING OR RUNOFF
- OUTLETS COVERED BY AT LEAST 2-INCHES OF MULCH, ROCK, OR A SHIELD (E.G. VALVE BOX LID)
- MINIMIZE CONTACT WITH HUMANS AND ANIMALS
- DIVERT WATER TO THE SEWER IF IT CONTAINS DIAPERS, OIL, OTHER CHEMICALS
- GRAYWATER DIVERTED TO LANDSCAPE SHALL NOT CONTAIN HAZARDOUS CHEMICALS
- FOLLOW ALL APPLICABLE CODE OR LAWS
- POST OPERATION AND MAINTENANCE MANUAL
- THE SYSTEM SHALL HAVE A DISCHARGE CAPACITY OF 250 GALLONS PER DAY OR LESS

INSTALLATION & DESIGN CONSIDERATIONS:

WITH A HIGHER POTENTIAL VOLUME OF WATER COMING FROM A SHOWER AND SINK, A BRANCHED DRAIN SYSTEM IS BEST SUITED FOR IRRIGATING TREES, BUSHES, SHRUBS, AND OTHER LARGER PERENNIAL PLANTS. THIS IS A SIMPLE SYSTEM AND DOES NOT REQUIRE ELECTRICITY OR A PUMP. HOWEVER, THE LANDSCAPE AREA MUST BE LOWER IN ELEVATION THAN THE GRAYWATER SOURCE,

AND THE ENTIRE SYSTEM MUST HAVE A DOWNWARD SLOPE OF 2 % (¼ INCH PER FOOT) TO ENSURE EVEN DISTRIBUTION. INSTALLATION DIFFICULTY DEPENDS ON THE EXISTING HOUSEHOLD PLUMBING, ACCESS TO PIPES AND THE SLOPE OF LANDSCAPE. WHILE OUTDOOR COMPONENTS CAN BE INSTALLED BY A HOMEOWNER, A PROFESSIONAL PLUMBER IS NEEDED FOR INSTALLATION OF 3-WAY DIVERTER VALVE ON THE SEWER LINE. THE HOMEOWNER HAS THE OPTION TO INSTALL AN ACTUATOR, WHICH ALLOWS EASY DIVERSION OF GRAYWATER BETWEEN LANDSCAPE AND THE SEWER LINE.

SYSTEM COSTS & REBATES: THE COSTS CAN RANGE FROM A THOUSAND DOLLARS WHEN PRIMARILY INSTALLED BY A HOMEOWNER TO SEVERAL THOUSAND IF INSTALLED BY A PROFESSIONAL. WHILE MORE COSTLY TO CONSTRUCT THAN A LAUNDRY TO LANDSCAPE SYSTEM, A BRANCHED DRAIN SYSTEM REQUIRES LITTLE MAINTENANCE AND LASTS A LONG TIME, SINCE IT HAS NO MOVING PARTS TO BREAK.

RECOMMENDED SOAPS:

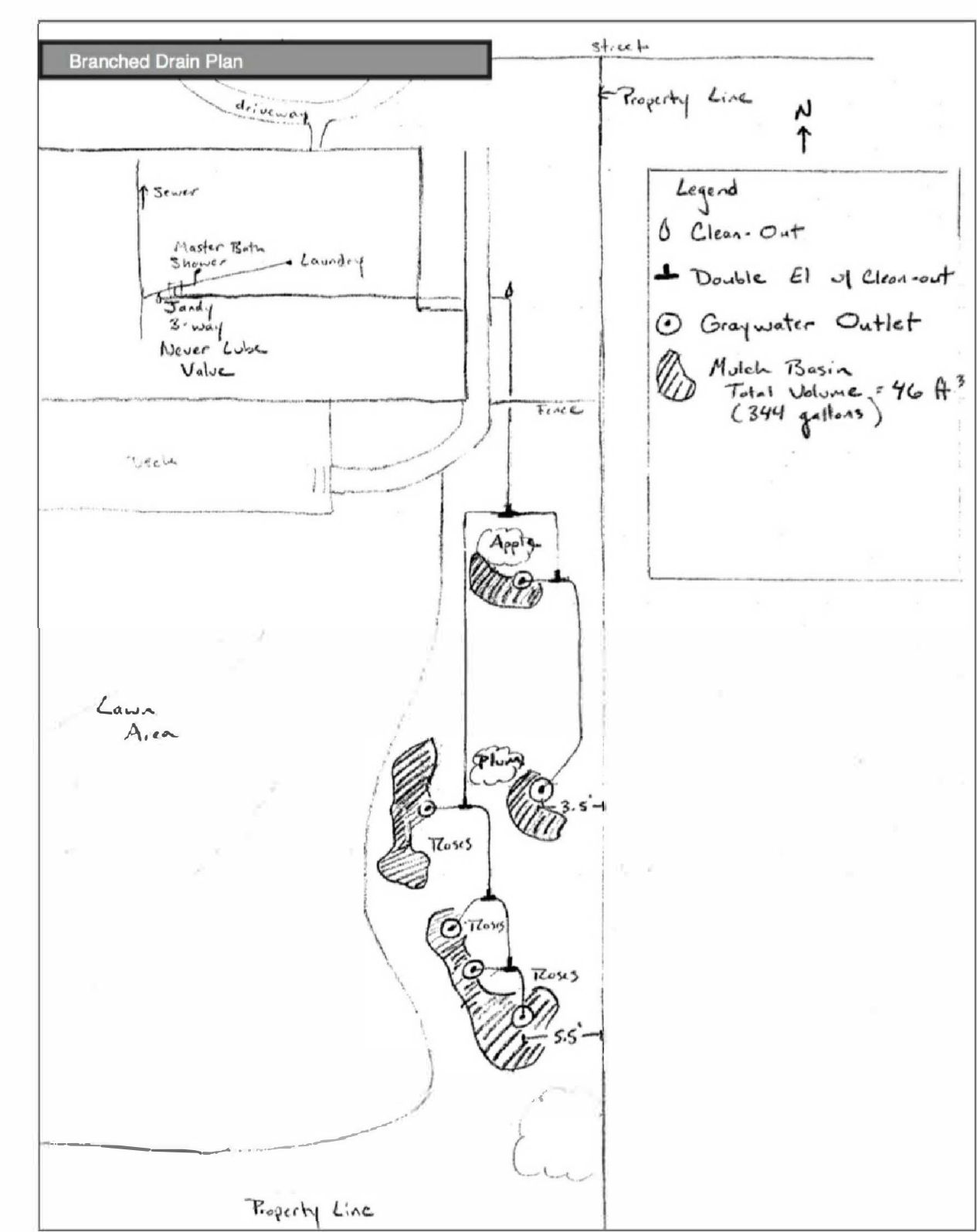
MORE SOAPS ARE COMING OUT ALL THE TIME, BUT IT IS ALWAYS IMPORTANT TO READ THE INGREDIENTS LIST. BELOW ARE SEVERAL THAT ARE KNOWN TO BE GRAYWATER COMPLIANT.

- OASIS - ALL-PURPOSE CLEANER FOR HAND-WASHING, BODY & SHAMPOO
- DR. BRONNER'S MAGIC SOAPS (LIQUID)
- AUBREY ORGANICS SHAMPOOS

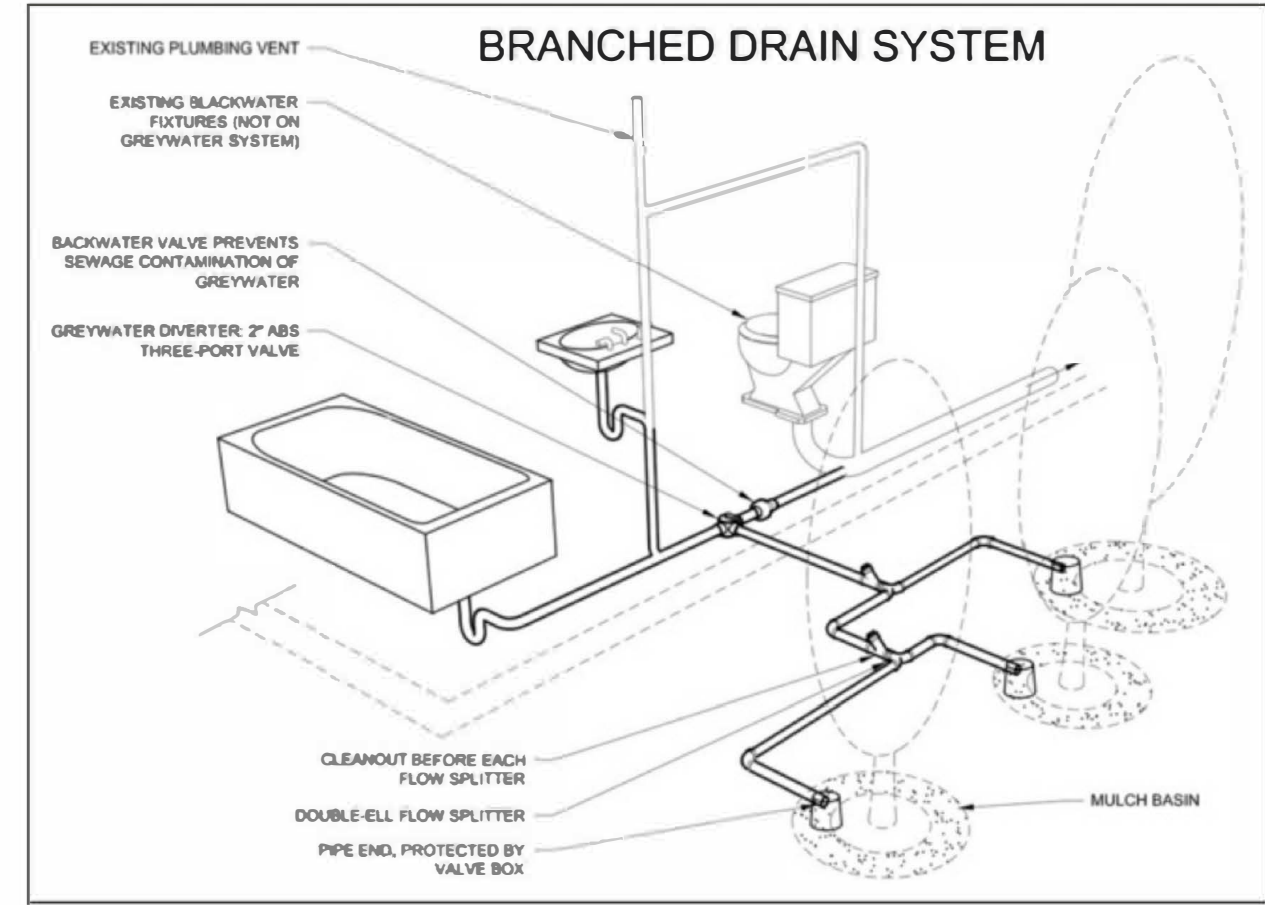
APPLICANT INSTRUCTIONS:

1. ESTIMATE YOUR GRAYWATER SUPPLY USING THE CALCULATION SECTION THIS SHEET.
2. ESTIMATE MULCH BASIN SIZES, AREA AND VOLUME USING TABLE 3.
3. DEVELOP A GRAYWATER SITE PLAN SHOWING THE SYSTEM LAYOUT FOR THE PERMIT APPLICATION. SHOW ALL THE PLAN ELEMENTS LISTED IN #4 -GRAYWATER PLAN BELOW. REVIEW THE SAMPLE PLAN SHOWN IN DETAIL #1 THIS SHEET. SHOW TREE AND PLANT LOCATIONS TO BENEFIT FROM GREYWATER.
4. SUBMIT FOR BUILDING PERMIT EITHER WITH FULL SITE DRAWINGS OR AS A SEPARATE SUBMITTAL.
5. REVIEW PIPE AND VALVE LOCATIONS WITH ARCHITECT, ENGINEER AND CONTRACTOR TO INSURE THERE ARE NO CONFLICTS WITH OTHER SITE ELEMENTS. CONFIRM COMPONENTS TO BE INSTALLED AT TIME OF FOUNDATION SYSTEM CONSTRUCTION, INCLUDING PIPE STUB OUT FOR EXTERIOR GRAYWATER SYSTEM DEVELOPMENT.

Example Greywater Irrigation Plan



1 BRANCHED DRAIN SAMPLE SITE PLAN NTS



2 BRANCHED DRAIN SYSTEM DIAGRAM AND INSTALL PHOTO NTS

CALCULATIONS SECTION

1. Estimate Daily Graywater Production

Calculation Method (choose one and check box)

☐ California Plumbing Code Estimate (Assign 2 occupants to master bedroom and 1 occupant to each additional bedroom)

Laundry: _____ occupants x 15 gallons/day _____ gals/day

Shower/Sink: _____ occupants x 25 gallons/day ÷ 7(days/week) _____ gals/day

TOTAL _____ gals/day

☐ Estimate of graywater produced from winter (Dec-Feb) water use records (attach utility bill)

Laundry: Avg. water use <30 days _____ (gals/day) X .22 _____ (gals/day)

Shower: Avg. water use <30 days _____ (gals/day) X .17 _____ (gals/day)

Sink: Avg. water use <30 days _____ (gals/day) X .22 _____ (gals/day)

TOTAL _____ (gals/day)

2. Determine Minimum Mulch Basin Size

Minimum Mulch Basin Area:

_____ (gal/day) ÷ _____ gal/ft²/day = _____ ft²

From 1 above Maximum Absorption Capacity (from column 3 in table below)

*Dig mulch basin to a depth of 1 ft to ensure sufficient surge capacity for water leaving the laundry machine.

Design of Six Soil Types	Min SQ Ft of Irrigation/ Leaching Area Per 100 Gallons of Estimated Graywater Discharge Per Day	Max Absorption Capacity in Gallons Per SQ Ft of Irrigation/ Leaching Area for an 24-Hour Period
Coarse sand or gravel	20	5.0
Fine Sand	25	4.0
Sandy Loam	40	2.5
Sandy Clay	60	1.7
Clay with considerable sand or gravel	90	1.1
Clay with small amounts of sand or gravel	120	0.8

3. Determine Mulch Basin Required Volume (Complete section below)

Gravity to Mulch Basins (Branched Drain)

Total mulch basin surge capacity: _____ gal/day ÷ 7.48 gal/ft³ ÷ 0.80 = _____ ft³

From Section 1

4. Graywater Plan

Using graph paper, or a copy of your site plan, draw a map and legend of graywater system components that shows the pathway of piping from the fixture(s) inside the building to the landscape/irrigation field. If graywater is directed to the front yard, show the street frontage and your driveway. In your drawing, include the location of all:

- Graywater valves
- Graywater pipes and fittings (indicate material and size)
- Clean-outs
- Graywater outlets and mulch basins
- Setback of graywater outlets to property lines and buildings*
- Setback of graywater outlets to onsite wastewater treatment system tanks and leachfields* (if applicable).
- Setback of greywater outlets to wells and drainages* (if applicable).

*See table below for required setbacks. See the California Plumbing Code for additional notes about setbacks.

CPC Table 1502.4 -- LOCATION OF GREY WATER SYSTEM

MINIMUM HORIZONTAL DISTANCE IN CLEAR REQUIRED FROM	SUBSURFACE AND SUBSOIL IRRIGATION FIELD AND MULCH BASIN (feet)
Building structures	2
Property line adjoining private property	1.5
Water supply wells	100
Streams and lakes	100
Sewage pits or cesspools	5
Sewage disposal field	4
Septic tank	5
On-site domestic water service line	0
Pressurized public water main	10

BY USING THESE PLANS, I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF SAN ANGELES, JAVIN HANCOCK, WATER DISTRICT, NORTH BAY AREA WATER DISTRICT, CITY OF ROSENTHAL, CITY OF FIDELMIA, CITY OF COVIL, CITY OF SONOMA, WALES OF THE NICHOLSON DISTRICT, AND THE CITY OF SONOMA) AND THEIR DIRECTORS, OFFICERS, AGENTS, EMPLOYEES, LANDSCAPE DESIGN CONSULTANTS, ADVISORS AND LANDSCAPE DESIGN CONSULTANTS HAVE NO RESPONSIBILITY FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SONOMA-MARIN SAVING WATER PARTNERSHIP ITS MEMBERS (SONOMA COUNTY WATER AGENCY, CITY OF



- NOTES:

- A. PREFERRED DRY CONVEYANCE IF TANKS ARE NEXT TO DOWNSPOUT**

- B. OVERFLOW: 3 IN. DRAINAGE PIPE: SLOPED 2 PERCENT FOR HORIZONTAL SECTIONS**

- C. 530 GALLON BUSHMAN SLIMLINE RAIN HARVESTING TANK OR EQUIVALENT**

- D. HOSE BIB OR OPTIONAL CONNECTION TO PUMP AND PRESSURE TANK (SEE NOTE 2)**

- E. 4 INCHES COMPACTED BASEROCK WITH 2 INCHES OF PEA GRAVEL ON TOP**

- #### F. OVERFLOW TO RAINGARDEN (SHOWN)/SWALE/SPLASHBLOCK

- G. 5 INCHES OF DECORATIVE GRAVEL WITH 2 INCHES OF PONDED WATER ABOVE**

- H. 12 INCHES AMENDED SOIL: 1/2 COMPOST, 1/2 NATIVE SOIL

- ### I. UNDISTURBED NATIVE SOIL

- ## J. FIRE SAFER LEAF GUARD

- K. GUTTER

- ## L. NORMAL DOWNSPOUT

- M. OPTIONAL BUSHMAN LEAF DIVERTER (WITH 20X20 SCREEN IF USING WET CONVEYANCE) (REDUNDANT WITH LEAF GUARD ON GUTTERS)

- N. 3 IN. PVC DRAINAGE TEE**

- ### O. 4 IN. TO 3 IN. PVC DRAINAGE REDUCER

- P. 4 IN. DRAINAGE PIPE FOR THE FIRST FLUSH (THIS REMOVES THE FIRST, DIRTY WATER FROM A RAINSTORM)

- ### Q. BUSHMAN FLOAT BALL

- R. BUSHMAN FIRST FLUSH FILTERS (TO KEEP EMITTER FROM CLOGGING)**

- ### S. BUSHMAN DRIP EMITTER TO DRAIN DIRTY WATER BETWEEN STORMS

- T. "WET" CONVEYENACE 3 IN. DRAINAGE PIPE
(WATER STAYS IN PIPE BETWEEN STORMS)

- U. THREE SEPARATE 3/32 INCH HOLES TO DRAIN WATER FOR MOSQUITO CONTROL

- ## V. CLEAN GRAVEL TO IMPROVE DRAINAGE FROM DRILLED HOLES