PLANNING & BUILDING DEPARTMENT
250 FRANK H. OGAWA PLAZA. SECOND FLOOR. OAKLAND, CA. 94612
https://www.oaklandca.gov/services/online-permit-center

APPLICATION FOR SIMPLE RESIDENTIAL GRAYWATER IRRIGATION (CLOTHES WASHER AND SIMPLE SYSTEMS) NO STORAGE

Please read the 2019 California Plumbing Code Chapter 15 Alternate Water Sources for Non-potable Applications for design Requirements before completing this form. A complex system will require a separate plumbing permit, engineered plans and plan check review before approval. Upon completion of application, please submit via: Oakland Online Portal (accela.com) by applying for a plumbing permit.

2019 California Plumbing Code (iapmo.org)

Project Address			**Parcel Number**		
Owner Name		**Phone**		**Email**	
Designer		**Phone**		**Email**	
Project Description	*(Include type and number of fixtures to be diverted):*				

Daily Flow Calculation (GDP)			
Number of Bedrooms		Number of Occupants	
		(First bedroom 2, 1 each per bedroom after)	
Showers, bathtubs, and lavatories per day/occupant		*25 gallons (95 L)*	
Laundry		*15 gallons (57 L) per day/occupant*	
Daily graywater flow gallons per day total			

Soil Type Determination	
Choice A	Use table below for absorption rates

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Minimum irrigation field:	*Divide total GPD by the number in the column of Table 1502.10 of your soil type.*

TABLE 1502.10 DESIGN OF SIX TYPICAL SOILS

TYPE OF SOIL	MINIMUM SQUARE FEET OF IRRIGATION OR LEACHING AREA PER 100 GALLONS OF ESTIMATED GRAYWATER DISCHARGE PER DAY	MAXIMUM ABSORPTION CAPACITY IN GALLONS PER SQUARE FOOT OF IRRIGATION/LEACHING AREA FOR A 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

Example: 100 gallon/day of graywater in fine sand soil would need 100/4.0= 25 square feet of irrigation area

Minimum irrigation field size needed based on soil type:	

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Choice B	Soil Test. Gray water system shall be installed only in the area and depth that was tested.
Soil type: (Per Laboratory Soil Test)	
Minimum irrigation field size needed based on soil type:	

I certify that I have the homeowner's manual for this system, that I have read it, and that I will maintain the system as outlined in the manual. I understand that if there is a complaint investigation that verifies a violation of the applicable standards, improper use of the system, or not performing the necessary maintenance, that I will be held responsible for any fines or costs resulting from the investigation.

Owner Signature	

Maintenance and Inspection 1501.5

Inspect and clean filters and screens and replace (where necessary).	In accordance with manufacturer's instructions, and/or the Authority Having Jurisdiction, or every 3 months
Inspect caution labels and marking.	In accordance with manufacturer's instructions, and/or the Authority Having Jurisdiction, or after installation and every 12 months thereafter.
Inspect and maintain mulch basins for gray water irrigation systems.	As needed to maintain mulch depth and prevent ponding and runoff.

Owner' Manual Requirements 1501.6

An operation and maintenance manual for gray water and on-site treated non-potable water systems required to have a permit in accordance with Section 1501.3 and Section 1504.2 shall be supplied to the building owner by the system designer or installer. The operating and maintenance manual shall include the following:

1	Diagram(s) of the entire system and the location of system components.
2	Instructions on operating and maintaining the system.
3	Instructions on maintaining the water quality for on-site treated non-potable water systems.
4	Details on startup, shutdown, and deactivating the system for maintenance or repair.

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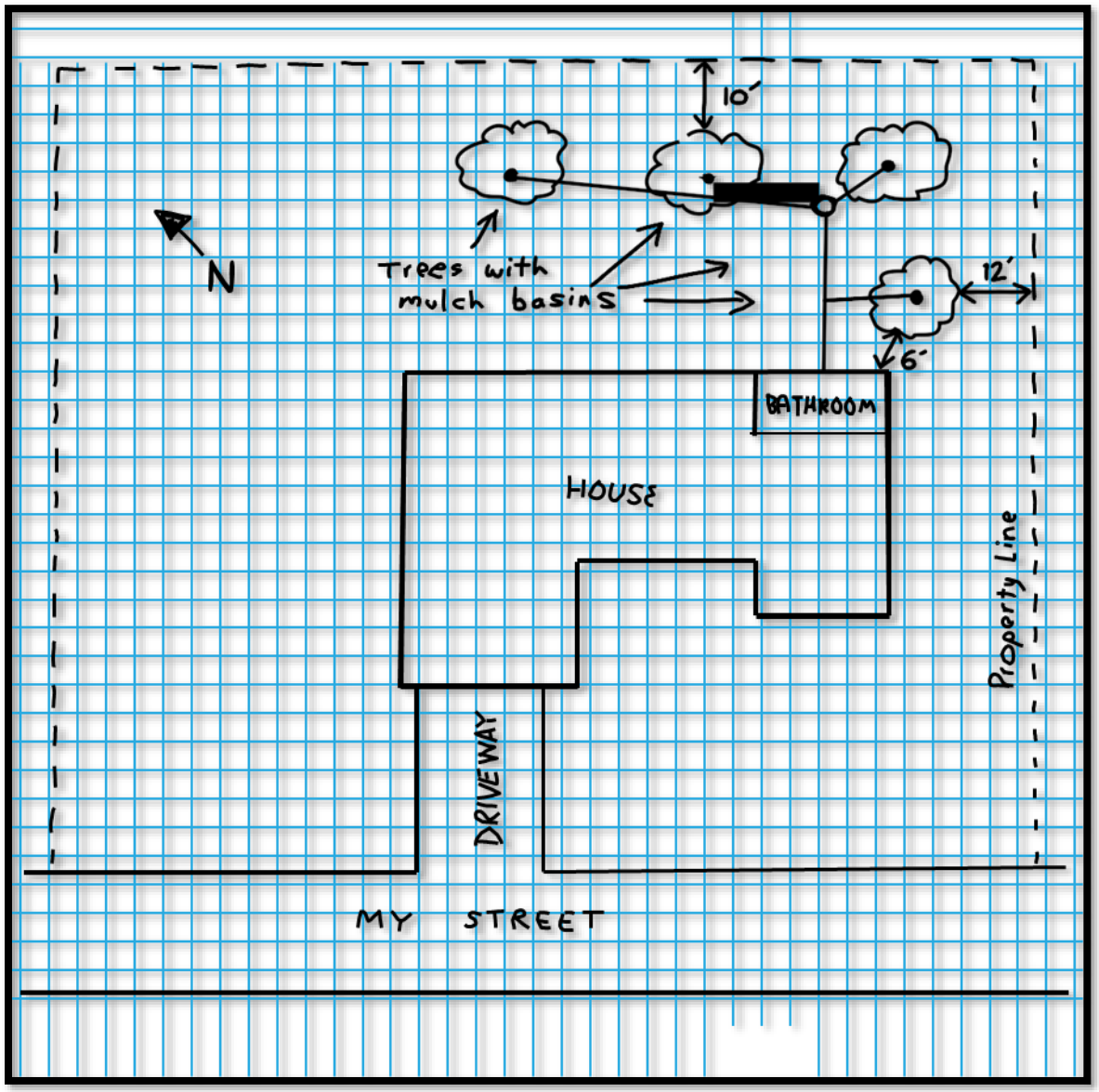
5	Applicable testing, inspection, and maintenance frequencies in accordance with Section 1501.5.
6	A method of contacting the installer and/or manufacturer(s).
7	Directions to owner/occupant that the manual shall remain on the building during the life of the structure.

Sample Plot Plan of Gray Water System



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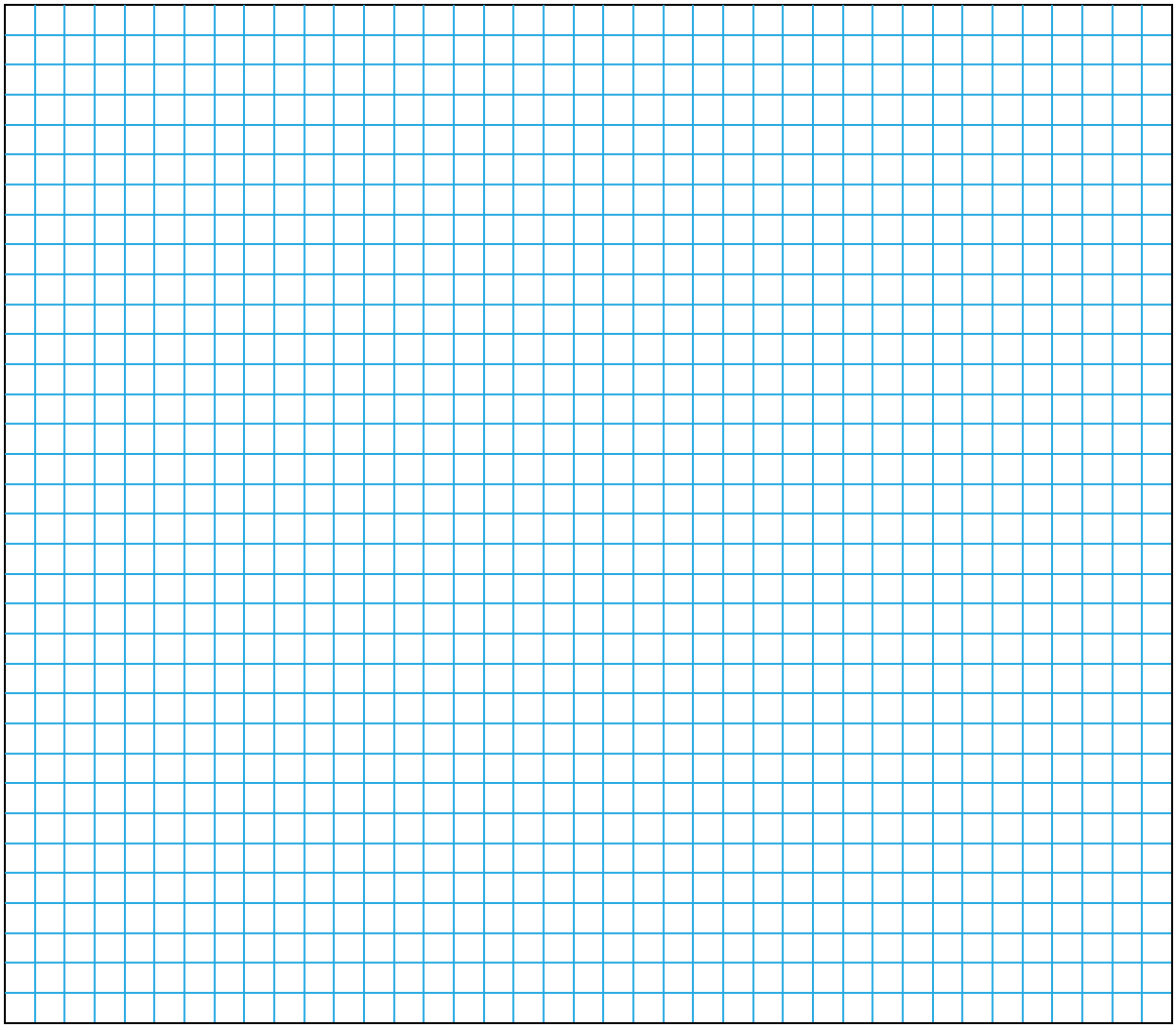
Setback distance for greywater irrigation systems (Table 1502.4)	
MINIMUM HORIZONTAL DISTANCEIN CLEAR REQUIRED FROM	Disposal Field
Building structures:	5 ft.
Property line:	5 ft.
Streams and lakes:	100 ft.
Onsite domestic water service line:	0 ft.
Pressurized public water main:	10 ft

Sample Plot or Site Plan

Using the graph below, indicate where on the property the graywater will be used (see sample site plan on the previous page). Indicate setbacks to property lines, house and other structures, drainage ways, 30% slopes, and drinking water lines. Show street frontage and your driveway.



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