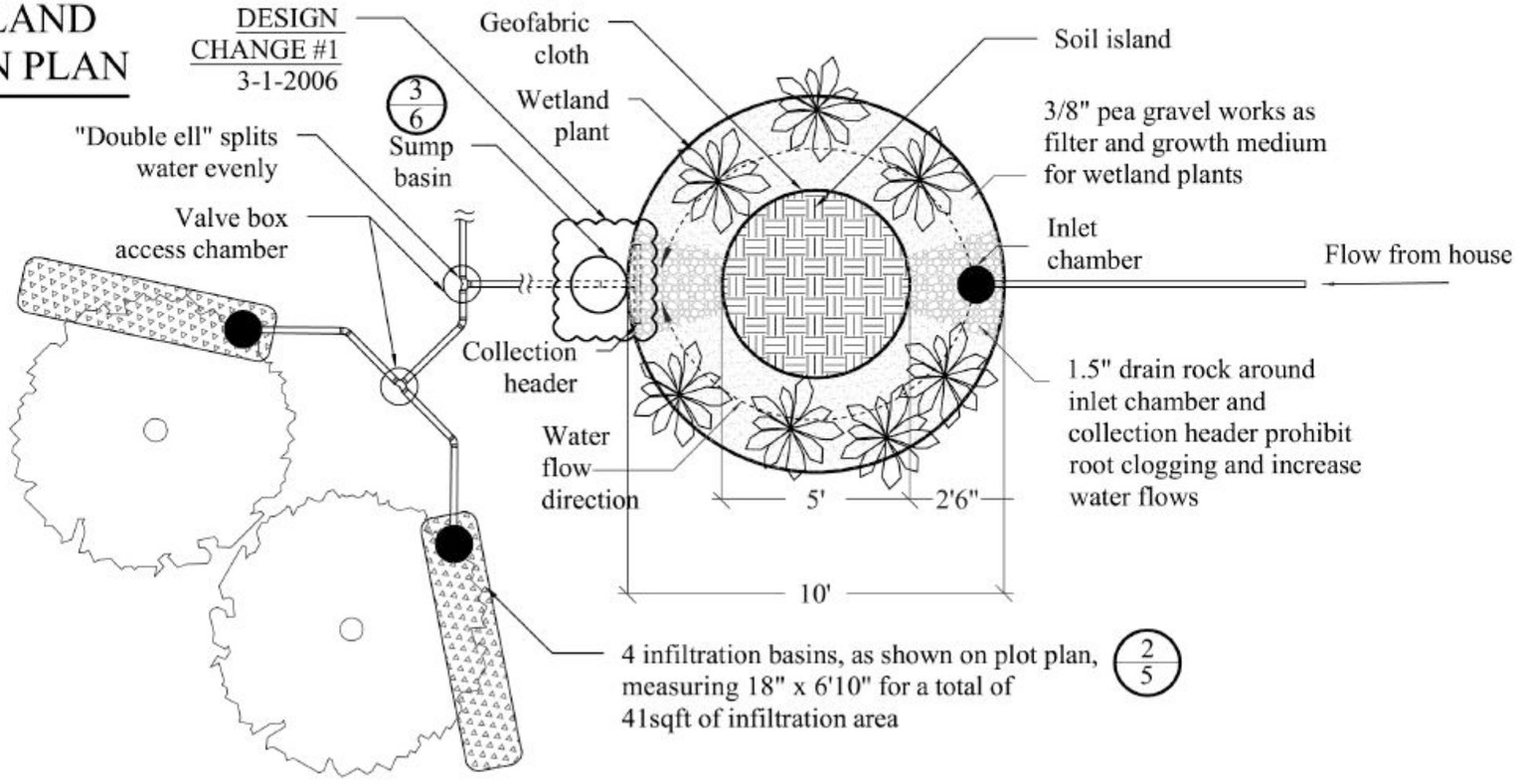
CONSTRUCTED WETLAND & INFILTRATION BASIN PLAN

1/5

SCALE 1/4"= 1'

DESIGN CHANGE #1
3-1-2006

NOTES:
- Collection header to be 2" pipe, 3' long, with holes drilled on bottom every 9".
-2" "Double ell" with inspection/cleanout port to be used to split water equally between infiltration basins. Double ells to be installed level on base of gravel under access chamber for inspection of port.



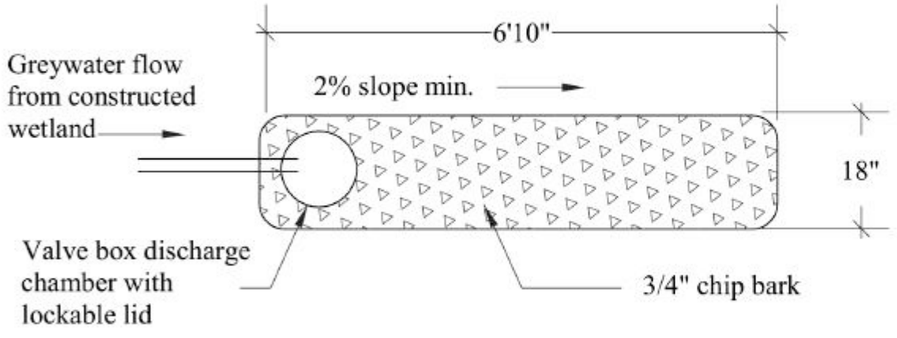
Greywater flow from house is deposited into the constructed wetland in the inlet chamber. This chamber has a lockable access lid for cleanout purposes. 1.5" gravel around inlet chamber and collection header help to evenly distribute and collect flow without clogging while discouraging plant growth. 3/8" pea gravel encourages favorable rooting conditions for wetland plants.

The water flows through the pea gravel where flocculation, sedimentation and filtration act as the primary mechanisms for BOD (Biochemical oxygen demand) and TSS (Total suspended solids) reduction. In addition bacterial mats on plant roots help to further reduce BOD and nitrogen levels. The soil island increases nitrogen removal from greywater by providing increased habitat for bacterial mats and provides asthetic benefits. Constructed wetland design is based on EPA manuel for Constructed Wetlands Treatment of Municipal Wastewaters.

Water flows into the collection header, through the sump basin, and flows to the infiltration basins for sanitary disposal of the greywater. Union pipe fittings in the sump basin allow for wetland draindown and access to the collection header for cleanout. Fruit trees planted at infiltration basin edge utilize greywater for growth.

2/5 INFILTRATION BASIN

SCALE 1/2"= 1'



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Greywater System Plan

BERKELEY ECOHOUSE
1305 Hopkins St.
Berekeley, California

Greywater System Permit Set

DATE	JULY 2006
SCALE	AS SHOWN
DESIGN	John Russell
DRAWN	John Russell
SHEET	5 OF 7
PROJECT#	-