

DOMINICAN VALLEY SUBDIVISION PARCEL STORMWATER CONTROL PLAN - WRITEUP

The storm water bioretention treatment will be used in accordance with Marin County Stormwater Pollution Prevention Program (MCSTOPPP) as per Bay Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual to treat all storm water runoff from proposed impervious surface created as a part of new development for this project.

Approximately 172,851 sq. feet new or replaced impervious surface is proposed for this development. Using BASMAA Manual for Design Guidance for Stormwater Treatment and Control for Projects in Marin, Sonoma, Napa, And Solano Counties, a low-impact development approach to implementing provision E.12 of the phase II small MS4 general permit approximately 7,100 sq. feet total bioretention area will be used for stormwater treatment from proposed impervious area.

The proposed bioretention basin and treatment at each existing water sub-shed location will also mitigate the increase in storm water run-off flow after the proposed development. The outlet orifice openings in the bottom of the perforated storm drainpipe inside bioretention restrict the flow rate out of the structure to a rate which is less than the predevelopment conditions. The bioretention structure fills up and detains stormwater as the orifices restrict the outflow rate. The bioretention under-drain bed, the planting depth, and the freeboard above the bioretention will serve as a detention basin. The bioretention basin will comprise 12 inches thick under-drain bed of class 2 permeable material below 18 inches thick bioretention soil mixture of sand (60%-70%) and compost (30%-40%) with a minimum 6 inches freeboard to the top of overflow storm drain structure grate. A 20% porosity is used for the under-drain bed and bioretention soil mixture in hydrograph detention volume calculations.

A stormwater control plan for a regulated project will be prepared during the public works permitting phase for this project.

