

10-9-14

Drainage Report – Stormwater Quality Treatment and Detention Requirement Summary

Proposed Subdivision Improvements

Proposed Lot C Revised, Owen Mann Subdivision

Basin Location: Old Lime Creek Drainage Basin Design Plan (Ferber Engineering 2000)

Sub Basin: Basin E (See Figure 2).

Future Land Use: Residential (See Figure 3).

Basin Plan anticipated impervious (Developed Condition): 87% (See Figure 8).

Proposed impervious percentage for Lot C Revised 58.9% (less than 87%)

NOTE: No detention requirements are triggered – the proposed impervious percentage is less than anticipated in the Basin Design Plan.

Rapid City Municipal Code 8.48.020 Design Requirement threshold for Stormwater Quality: 15% (expressed as percentage of impervious surface for the site).

Proposed improvements demonstrate compliance with stormwater quality requirements by effectively disconnecting the impervious elements. The proposed building and parking/circulation will drain through Grass Swales and Porous Landscape Detention. Each directed runoff point will pass through one grass swale and three PLDs before being discharged into the street/curb conveyance.

SOURCES:

95% Design Plans – Subdivision improvements for Lot C Revised of Owen Mann Subdivision

Old Lime Creek Drainage Basin Design Plan

Rapid City Municipal Code (Section 8.48.020.A)

Rapid City Stormwater Quality Manual (2009)



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