

P.O. Box 3901
Eagle, Colorado 81631

**YARNELL CONSULTING &
CIVIL DESIGN, LLC**
(970) 323-7008 • 5/24/2023

229 Midland Ave.
Basalt, Colorado 81621

Dennis Wike, Engineer
Town of Eagle
200 Broadway
P.O. Box 509
Eagle, Colorado 81631
Dennis.Wike@TownOfEagle.org

Subject: 263 Sawatch Road (Lot 2, 700 Chambers Avenue Subdivision)
Drainage Memorandum

Dennis:

Sawatch 263 Rd, LLC has contracted Yarnell Consulting & Civil Design, LLC (YCCD) to serve as the civil engineer-of-record for the proposed 18 live/work units spread over three (3) buildings on Lot 2 of the 700 Chambers Avenue Subdivision, with associated landscaping, sidewalks, parking, and utilities. This letter is intended to address the drainage impacts of the development on the downstream system.

Existing Conditions

There is a large, regional detention pond located on the westerly one-half of the subject parcel. This pond presently receives run-on from an approximately 50-acre drainage basin that stretches as far east as the detention facility, north to include a portion of Interstate 70 right-of-way, and south to the railroad tracks. An extensive hydrologic analysis of the pond and its tributary basins was completed by YCCD in a drainage report titled *700 Chambers Avenue Subdivision Regional Detention Pond* and dated 25 January 2022. It was accepted by the town of Eagle later that year.

The analysis of the report assumed each lot in the subdivision is constructed with a maximum 80% imperviousness to coincide with current zoning regulations regarding site coverage. Any properties that opt to exceed this value must complete a subsequent evaluation of the drainage basins and modify the pond if deemed necessary.

Proposed Conditions

The proposed project will construct three (3) live/work buildings with associated landscaping, sidewalks, parking, and utilities. As calculated by Martin | Manley Architects, the proposed landscape area of the site is estimated to be 38,390 square feet. Relative to the total lot size of 71,177 square feet, 53.9% of the site will be pervious which means 46.1% will be impervious. This is well under the 80% threshold noted previously. As such, the proposed project is in conformance with the design parameters for the existing regional pond. No further analysis or modifications of the regional pond are required.

For purposes of optimizing the on-site drainage condition, it is proposed to construct a private storm sewer system that will primarily receive roof run-off but also from low points on the ground. This system is only sized for small, frequent storm events. During larger storm events, the system

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will become overwhelmed, and drainage will flow overland along historic drainage paths into the regional detention pond. The site grading has been designed to keep the buildings sufficiently high to remain dry during large storm events. Since it is not necessary to size the private storm system for a particular event, no further analysis of the system is required.

Summary

In summary, the proposed development of Lot 2 within the 700 Chambers Subdivision will be in conformance with the design parameters of the existing, regional detention pond on the west portion of the subject property. Flows from frequent, low-intensity storm events will be collected by a proposed, private storm sewer system and piped into the pond. Flows from larger storm events will flow overland along historic drainage paths into the pond. The project is in conformance with applicable regulations of the town.

Please let know if you have any further questions regarding this letter.

Sincerely,



Justin J. Yarnell, PE
Colorado PE Number 47241