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May 28, 2021

Lee Alverson
Commerce City Public Works
8602 Rosemary Street
Commerce City, CO 80022

**Re: Commons at 104th 1st Amendment
Drainage Letter**

Lee,

Commons at 104th 1st Amendment is a 16.57-acre vacant parcel located south of the intersection of E. 104th Avenue, between Blackhawk Street and Potomac Street. According to the Commons at 104th 1st Amendment PUD Zone Document the entire property is zoned for mixed-use development. Current conceptual plans anticipate the construction of a mixture of commercial and multi-family uses.

According to FEMA flood insurance rate map 08001C0339H, dated March 5, 2007 the entire property is located in Zone X which is defined as "0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile."

This property currently drains primarily from the southeast corner to the northwest corner. Therefore, nearly the entire property currently drains to a storm inlet located in an onsite sump near the intersection of 104th Avenue and Potomac Street. This drainage pattern is depicted by the existing contour lines and flow arrows provided on the accompanying drainage plan. The existing inlet at the southeast corner of 104th & Potomac drains northwesterly through a 15" RCP. Runoff continues downstream through a combination of public storm sewer and open channel before releasing into Reign Creek approximately 2/3 of a mile northwest of the project site. Reign Creek outfalls to the S. Platte River approximately 3 miles to the north.

In the proposed condition, runoff from the property will be collected by private storm sewer and conveyed to the proposed detention and water quality facility to be constructed in the southwest corner of the property. Stormwater will be released through proposed storm sewer which will carry these flows to the existing storm sewer at the southeast corner of 104th & Potomac from which point they will continue downstream along the historic drainage path.

A second storm inlet is located in an onsite sump at the southwest corner of 104th Avenue and Blackhawk Street. This inlet is drained by a 15" RCP which drains northerly to the public storm sewer which drains easterly in 104th Avenue. This public storm sewer turns north at Sable Blvd. and releases flows into an open channel which outfalls to Second Creek approximately 1 mile to the north.

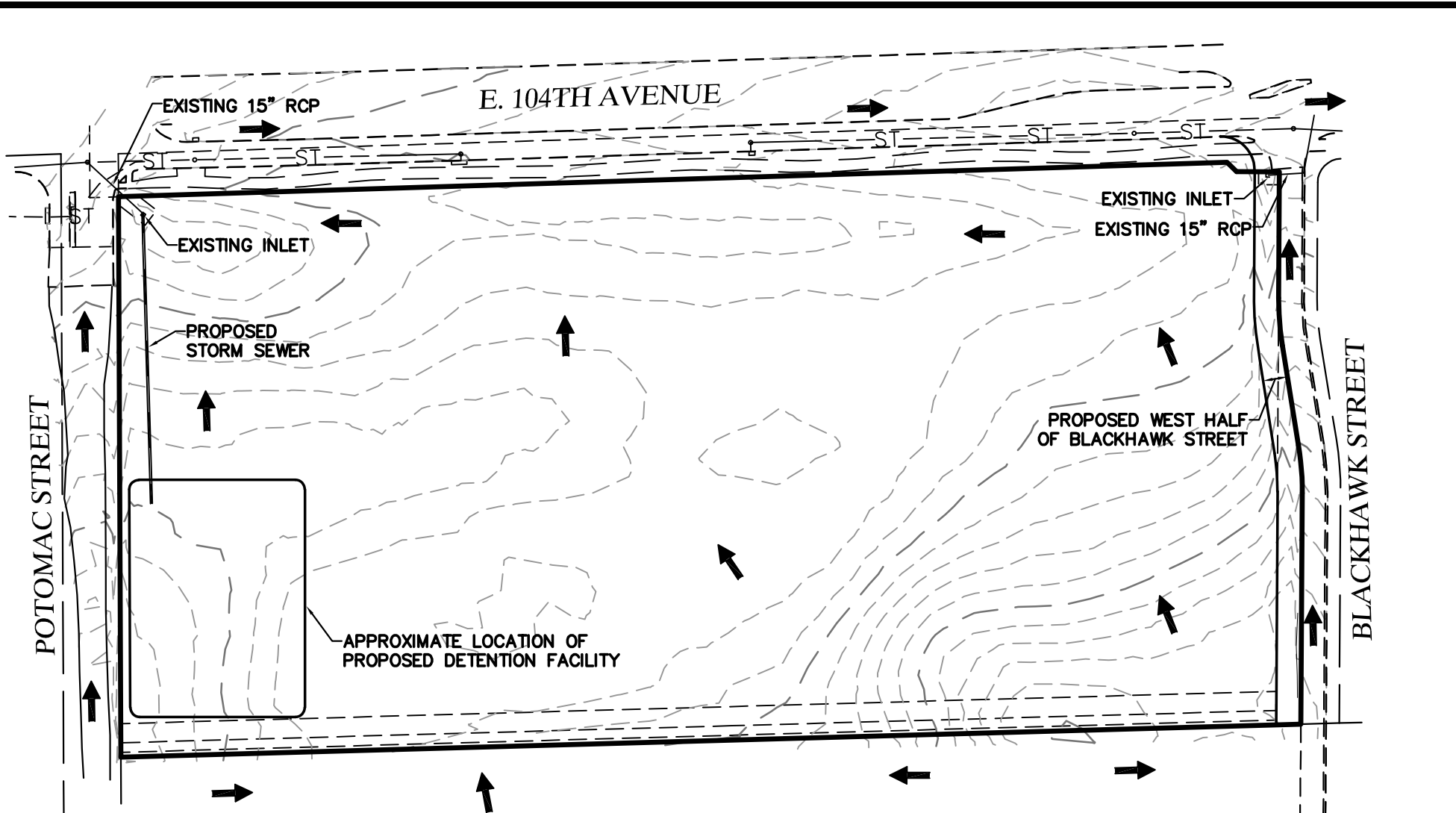
The only portion of the project site which is historically tributary to this eastern drainage path is the future west half of Blackhawk Street. This roadway will be completed as a part of the proposed development. At that time public storm sewer will be constructed in Blackhawk Street to collect runoff from the roadway and convey it to the eastern storm sewer which drains to Second Creek as described above.

If you have any further questions or comments please do not hesitate to contact me.

Sincerely,

Brian Krombein, PE, PLS
Vermilion Peak Engineering LLC





POTOMAC STREET

BLACKHAWK STREET

E. 104TH AVENUE

EXISTING 15" RCP

EXISTING INLET
EXISTING 15" RCP

EXISTING INLET

PROPOSED
STORM SEWER

PROPOSED WEST HALF
OF BLACKHAWK STREET

APPROXIMATE LOCATION OF
PROPOSED DETENTION FACILITY



0 75 150
SCALE: 1" = 150'

DRAINAGE PLAN
COMMONS AT 104TH
JOB NO. 18010
DATE: MAY 28, 2021
SHEET 1 OF 1

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