V1_Drainage Report - Preliminary comments.pdf Markup Summary

Callout (27)

which is the control of the control

Subject: Callout Page Label: 7

Author: Daniel Torres Date: 12/7/2023 10:01:23 PM

Status: Color: Layer: Space: will be developed as filing 3 is concurrently being reviewed

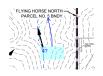


Subject: Callout Page Label: 137 Author: Daniel Torres

Date: 12/7/2023 10:13:06 PM

Status: Color: Layer: Space: Please show and label all the existing culverts along Black Forest Road. Account for and show any off-site basins that impact the development. The narrative (page 4) indicates that flow is conveyed by these culverts from east to west into

the site.



Subject: Callout Page Label: 137

Author: Daniel Torres

Date: 12/7/2023 10:15:16 PM

Status: Color: Layer: Space: 4?

f the off-site flows. Flows from these off-site basins ancel no. 3. Additionally, Black Forest Road which ; 3, 5, and 6, has 3 corrugated metal pipe culvert ; parcel 6

Parcel 4 has 3

culverts draining to it.

Subject: Callout Page Label: 7

Author: Daniel Torres

Date: 12/7/2023 10:20:55 PM **Status:**

Status: Color: Layer: Space: Parcel 4 has 3 culverts draining to it.



Subject: Callout Page Label: 10 Author: Daniel Torres

Date: 12/8/2023 10:01:07 AM

Status: Color: Layer: Space: Per County GIS Allen Ranch Rd is a rural local

road with no curb & gutter. Revise

please label pond 12 on the distribute map.

ly of the first high map high map.

ly of the first high map high

Subject: Callout Page Label: 10 Author: Daniel Torres

Date: 12/8/2023 10:03:24 AM

Status: Color: Layer: Space: please label pond 12 on the drainage map.

Subject: Callout label on the drainage plan Page Label: 10 Author: Daniel Torres Date: 12/8/2023 10:05:32 AM Status: Color: Layer: Space: Subject: Callout OS6 appears to be Tract L Golf Course. Revise Page Label: 10 Author: Daniel Torres Date: 12/8/2023 10:08:28 AM Status: Color: Layer: Space: Subject: Callout OS7 Page Label: 11 Author: Daniel Torres Date: 12/8/2023 10:10:39 AM Status: Color: Layer: Space: Subject: Callout os6 Page Label: 11 Author: Daniel Torres Date: 12/8/2023 10:16:06 AM Status: Color: Layer: Space: Subject: Callout OS7 Page Label: 12 **Author:** Daniel Torres Date: 12/8/2023 10:17:03 AM Status: Color: Layer: Space: Subject: Callout os6 Page Label: 12 Author: Daniel Torres Date: 12/8/2023 10:17:52 AM Status: Color: Layer: Space:

Subject: Callout parcel 4, as parcel 5 is indicated as the recreation Page Label: 12 center parcel in page 3 Author: Daniel Torres Date: 12/8/2023 10:31:05 AM Status: Color: Layer: Space: e eastern most round-about on Old the basin EX23 via a natural draina ircel 5 contains the entirety of parce isin consists mostly of sheet flows the flow from south to north to the asso Subject: Callout 4 Page Label: 12 Author: Daniel Torres Date: 12/8/2023 10:28:31 AM 24.0 CFS) represents flows from exi of the East Cherry Creek Basin. Rur Status: Color: Layer: Space: 1,5=3.3 CFS, Q100=24.0 C Subject: Callout rcel 5 and is part of the Page Label: 12 Author: Daniel Torres Date: 12/8/2023 10:29:45 AM Status: Color: Layer: Space: Subject: Callout Page Label: 13 Author: Daniel Torres Date: 12/8/2023 10:31:19 AM Status: Color: Layer: Space: Subject: Callout please clarify if the irrigation reservoir is providing Page Label: 17 detention and water quality for this and any other **Author:** Daniel Torres basin. Date: 12/8/2023 11:45:15 AM Status: Color: Layer: Space: Subject: Callout analysis of developed flow at this culvert will need Page Label: 17 to be analyzed in the FDR Author: Daniel Torres

Date: 12/8/2023 11:50:47 AM

Status: Color: Layer: Space:

Subject: Callout Page Label: 18 **Author:** Daniel Torres

Date: 12/8/2023 11:52:43 AM Status:

Color: Layer: Space:

Subject: Callout Page Label: 18 Author: Daniel Torres Date: 12/8/2023 12:11:02 PM

Status: Color: Layer: Space:

Please address whether the development has or will obtain the necessary downstream easements to accept the developed flows of this basin as the development of these lots will increase historic flows and they are not being mitigated as required. Analysis of the downstream will be required with the FDR.

Subject: Callout Page Label: 19 Author: Daniel Torres Date: 12/8/2023 12:15:43 PM

Status: Color: Layer: Space:

3?

Subject: Callout Page Label: 19 Author: Daniel Torres Date: 12/8/2023 12:17:29 PM

Status: Color: Layer: Space:

label on plan



Subject: Callout Page Label: 21 **Author:** Daniel Torres Date: 12/8/2023 12:27:19 PM

Status: Color: Layer: Space:

There are existing Filing 1 lots within this basin. Revise text and ensure that they are accounted

for.



Subject: Callout Page Label: 21 Author: Daniel Torres Date: 12/8/2023 12:25:36 PM

Status: Color: Layer: Space:

filing 4 or parcel 4?



Subject: Callout Page Label: 138

Author: Daniel Torres Date: 12/8/2023 12:30:51 PM

Status: Color: Layer: Space: label pond

Please describe the offsite conditions downstream of ponds that outfall offsite and where this flow will ultimately be conveyed to enrich the second of the conveyed to enrich the second of the second of the conveyed to the second of the sec

Subject: Callout Page Label: 26 Author: Daniel Torres Date: 12/8/2023 1:07:06 PM

Status:
Color: Layer:
Space:

Please describe the offsite conditions downstream of ponds that outfall offsite and where this flow will

ultimately be conveyed to

Il-spectrum detention for tributary basin C. This site. The emergency spillway of this pond is to he pond and is to be directed northwest, directly D

Il-spectrum detention for tributary basin C. This site. The emergency spillway of this pond is to

Subject: Callout Page Label: 26 Author: Daniel Torres Date: 12/8/2023 12:47:33 PM

Status: Color: Layer: Space: D

Highlight (8)



Subject: Highlight Page Label: 137 Author: Daniel Torres

Date: 12/7/2023 10:13:34 PM

Status: Color: Layer: Space:



Subject: Highlight Page Label: 137 Author: Daniel Torres Date: 12/7/2023 10:14:03 PM

Status: Color: Layer: Space:



Subject: Highlight
Page Label: 137
Author: Daniel Torres
Date: 12/7/2023 10:14:11 PM

Status: Color: Layer: Space: oposed PL

Subject: Highlight Page Label: 8

J No. 3 ha Author: Daniel Torres Date: 12/7/2023 10:21:45 PM

is There a Status:

Color: Layer: Space:

N. HOWEVE Subject: Highlight

Page Label: 9 **Author:** Daniel Torres Date: 12/7/2023 10:28:41 PM

Status: Color: Layer: Space:

pass underneath Old Stagecoach F age swale that flows north off-site. harge rates, from the reservoir, for it are 12.0 cfs and 124.0 cfs, respe

is located within the western half ı space with native weeds/grasses

Subject: Highlight Page Label: 15

Author: Daniel Torres Date: 12/8/2023 11:27:44 AM

Status: Color: Layer: Space:

event are !

Status: Color: Layer: Space:

ent rainfall

red.

Page Label: 28 **Author:** Daniel Torres Date: 12/8/2023 1:38:04 PM

Subject: Highlight

Status: Color: Layer: Space:

Subject: Stamp - Stormwater Comment Legend

Page Label: 1

Author: Mikayla Hartford Date: 12/4/2023 12:51:33 PM

Status: Color: Layer: Space:

12.0 cfs and 124.0 cfs,

and is tribute Subject. Inging Page Label: 18 Subject: Highlight s of 15.7% at Author: Daniel Torres Date: 12/8/2023 11:56:55 AM

Stamp - Stormwater Comment Legend (1)

SW - Highlight (19)

oint 6 (Q₅=3.9 CFS, Q₁₀₀=28.8 CFS) represer ithin parcel 3 and is part of the East Cherry sheet flows that drain south off-site into Edmo

Subject: SW - Highlight

Page Label: 10

Author: Mikayla Hartford Date: 12/5/2023 9:05:56 AM

Status: Color: Layer: Space:

oint 8 (Q₅=22.7 CFS, Q₁₅₀=141.0 CFS) repres . Basin OS2 flows into EX8 from the east at in art of the East Cherry Creek Basin. Run-off t within an existing tertiary drainage swale. T

Page Label: 10

Date: 12/5/2023 9:05:59 AM

Status: Color: Layer: Space:

Status: Color:

nt zs (U₀=11.2 UFS, U₁₀₀=82.1 UFS) repre-rithin parcel 5 and is part of the East Cherr neet flows that drain north-west directly of th to the associated design point.

wint 26 (Q_c=7.7 CFS, Q_{toc}=40.8 CFS) repret ust east of basin EX7 and is part of the Ea ostly of sheet flows that drain west towards Flows that enter the site are then naturally use to flow west.

ast east of basin EX7 and is part of the East salty of sheet flows that drain west towards Flows that enter the sile are then naturally to to flow west.

Subject: SW - Highlight

Author: Mikayla Hartford

Subject: SW - Highlight Page Label: 12

Author: Mikayla Hartford Date: 12/5/2023 9:15:32 AM

Layer: Space:

Subject: SW - Highlight

Page Label: 13

Author: Mikayla Hartford Date: 12/5/2023 9:20:06 AM

Status: Color: Layer: Space:

Author: Mikayla Hartford Date: 12/5/2023 9:20:39 AM

Status: Color: Layer: Space:

Subject: SW - Highlight

Page Label: 13

Author: Mikayla Hartford Date: 12/5/2023 9:21:17 AM

Status: Color: Layer: Space:

(Q5=22.4 CFS, Q100=148.9 CFS

(Q5=22.7 CFS, Q100=141.0 CFS

Design Point 19 (Q5=15.0 CFS, Q100=145.7 CFS)

(Q5=7.7 CFS, Q100=40.8 CFS

(Q5=13.1 CFS, Q100=69.9 CFS

(Q5=12.0 CFS, Q100=124.0 CFS) r

Subject: SW - Highlight

Page Label: 16

Author: Mikayla Hartford Date: 12/5/2023 9:23:23 AM

Status: Color: Layer: Space:

100 percent runoff

reduction and are exempt from detention

requirements

east onsite are

family resident

composite imp Subject: SW - Highlight

100-year major Page Label: 17

Basin A1 is ap Author: Mikayla Hartford Date: 12/5/2023 9:43:28 AM

> Status: Color: Layer: Space:

· Basin A1

.....

.....

the runoff rate **Subject:** SW - Highlight

and 29.0 cfs, r Page Label: 17

single-family r

Basin A2 is a Author: Mikayla Hartford east of the exis Date: 12/5/2023 10:04:09 AM

Status: Color: Layer: Space:

· Basin A2

respectively Subject: SW - Highlight

Page Label: 18

Basin H is a Author: Mikayla Hartford half of the fil **Date:** 12/5/2023 10:44:40 AM

Status: Color: Layer: Space:

Basin H

at the filing | **Subject:** SW - Highlight

Page Label: 19

No. 1, west

Basin I is at Author: Mikayla Hartford Date: 12/5/2023 11:14:56 AM

> Status: Color: Layer: Space:

Basin I i

residential lots and a Point 20) at the no Pond/Reservoir (Des has a composite imp and the 100-year mai

Subject: SW - Highlight

Page Label: 19

Author: Mikayla Hartford Date: 12/5/2023 11:15:00 AM

Status: Color: Layer: Space:

Pond/Reservoir

ch outfalls due west through the posite imperviousness of 86.0% ess for most of the developed ace area. The runoff rates for the nt are 72.8 cfs and 132.8 cfs.

al and flats area in Parcel No. 2. ich includes the buildings, access

composite imperviousness of 57.8% 00-year major storm event are 19.0 hasin's west outfall location at the

Subject: SW - Highlight

Page Label: 19

Author: Mikayla Hartford Date: 12/5/2023 11:18:08 AM

Status: Color: Layer: Space:

72.8 cfs and 132.8 cfs

Subject: SW - Highlight which includes the buildings, access uned imperviousness for this basin ement. The basin drains due west xisting Pond 8 in Filing No. 1. This DR/FDR and the 2023 F.H.N. Filing Page Label: 19

Author: Mikayla Hartford Date: 12/5/2023 11:23:38 AM

Status: Color: Layer: Space:

Pond 8 in Filing No. 1

Subject: SW - Highlight

Page Label: 20

Author: Mikayla Hartford Date: 12/5/2023 11:26:14 AM

Status: Color: Layer: Space:

hen piped down to a full

spectrum detention pond that releases flows at

historic rates.

osed estate lots are sited. It is a **Subject:** SW - Highlight quired to convey the upstream nt are 9.7 cfs and 71.0 cfs, resp 95.0 acres and represents th

nd 2, Filing No. 1, and Filing No.

iolf course area includes areas

Page Label: 21

Author: Mikayla Hartford Date: 12/5/2023 11:34:19 AM

Status: Color: Layer: Space:

9.7 cfs and 71.0 cfs

posed wate

Subject: SW - Highlight Page Label: 24

of siting an Author: Mikayla Hartford

Date: 12/5/2023 11:58:49 AM nistorical rat

Status: Color: Layer: Space:

siting

adways with Subject: SW - Highlight

Page Label: 25

Ide sited st Author: Mikayla Hartford Date: 12/5/2023 11:59:18 AM ssings. The Status:

Color: Layer: Space:

sited

1 Preliminary Design Summary

EURV 100-Year Total (ac-ft) (ac-ft) Volum

Subject: SW - Highlight

Page Label: 25 Author: Mikayla Hartford Date: 12/5/2023 12:08:59 PM

Status: Color: Layer: Space:

Table 3: Preliminary Pond Design Information

SW - Textbox (11)

X PUDSP234

Subject: SW - Textbox

Page Label: 1

Author: Mikayla Hartford Date: 12/4/2023 12:51:50 PM

Status: Color: ■ Layer: Space:

PUDSP234

Subject: SW - Textbox

Page Label: 10

Author: Mikayla Hartford Date: 12/5/2023 9:06:45 AM

Status: Color: Layer: Space:

Verify highlighted values - the drainage map reports different flows.

mostly Q100 = 646.6

Subject: SW - Textbox

Page Label: 12

Author: Mikayla Hartford Date: 12/5/2023 9:16:54 AM

Status: Color: Layer:

Verify, drainage maps state Q5 = 105.7 and Q100 = 646.6

Space:

Subject: SW - Textbox Page Label: 13

Author: Mikayla Hartford Date: 12/5/2023 9:20:21 AM

Status: Color: ■ Layer: Space:

Verify highlighted values - the drainage map reports different flows.

Subject: SW - Textbox

Page Label: 19

Author: Mikayla Hartford Date: 12/5/2023 11:15:50 AM

Status: Color: Layer: Space:

It will need to be demonstrated that the pond/reservoir has capacity and if being used for WQ separate calculations and verification the pond

is functioning will be required.

he basin consists of the hotel and reach complix with paved fee buildings in addition to the main hotel and event center disliked velocities by journed access recology. The basin drains load K, Deelge Peter 22 which cuttles das event through the right in 1, 1 the part of 1, 1 t

and is in the west commercial and faits was in Pancel Nosain consists of the Plats which includes the buildings, accceptual at this point. Assumed improviousness for this bais and 60% roof and pavement. The basin chains due were and in brokeny to existing Pend 8 in Filing No. 1. To 1016 Classic Consulting PDRFDR and the 2021 F-MN. Fill 4, LLC. The basin has a composite imperviousness of the proviousness of the provio Subject: SW - Textbox Page Label: 19

Author: Mikayla Hartford Date: 12/5/2023 11:18:34 AM

Status: Color: ■ Layer: Space:

Subject: SW - Textbox

Page Label: 19

Author: Mikayla Hartford Date: 12/5/2023 11:24:16 AM

Status: Color: ■ Layer: Space: In final design it must be demonstrated that Pond 8 has sufficient capacity for the contributing flow and that the pond is functioning without maintenance

Verify - drainage map table states 64.4 and 121.2

deficiencies

pected that driveway culvert pipes f-site stormwater runoff. The basin r the 5-year minor storm event and

Subject: SW - Textbox Page Label: 21

Author: Mikayla Hartford Date: 12/5/2023 11:34:42 AM

Status: Color: ■ Layer: Space: Verify, Drainage Map table says 15.9 and 78.8

When we will not be a second or the company of the

Subject: SW - Textbox

Page Label: 16

Author: Mikayla Hartford Date: 12/5/2023 11:54:52 AM

Status: Color: ■ Layer: Space: There are basins that are not being captured by the proposed ponds, see all highlighted basins. Explain in the narrative how WQ is planned on being addressed for these basins. Possible exclusions include I.7.1.B.7 (land disturbance to undeveloped land that will remain undeveloped) and/or I.7.1.C.1 (which allows for 20% not to exceed 1 acre of the applicable development site area to not be captured).

Subject: SW - Textbox
Page Label: 25
Author: Mikayla Hartford

Status: Color: Layer: Space: Some of these ponds are greater than 10'. Know that if they are 10 feet or greater and in a fill embankment that they may qualify as a jurisdictional or if they are >10' and in a fill embankment they may qualify as a

non-jurisdictional dam.



Subject: SW - Textbox Page Label: 89

Author: Mikayla Hartford Date: 12/5/2023 12:47:27 PM

Date: 12/5/2023 12:16:08 PM

Status: Color: ■ Layer: Space: All pond MHFD Detention Spreadsheets will be reviewed in Final Design once pond details are finalized.

SW - Textbox with Arrow (4)



Subject: SW - Textbox with Arrow

Page Label: 16

Author: Mikayla Hartford Date: 12/5/2023 11:47:45 AM

Status: Color: ■ Layer: Space: For reference, basins providing 100% RR for WQ, will require calculations in the FDR

Control of the contro

Subject: SW - Textbox with Arrow

Page Label: 138 Author: Mikayla Hartford Date: 12/5/2023 10:17:13 AM

Status: Color: ■ Layer: Space: Label pond



Subject: SW - Textbox with Arrow

Page Label: 138 Author: Mikayla Hartford Date: 12/5/2023 10:17:40 AM

Status: Color: ■ Layer: Space: Label Ponds



Subject: SW - Textbox with Arrow

Page Label: 20

Author: Mikayla Hartford Date: 12/5/2023 11:26:42 AM

Status: Color: ■ Layer: Space: Please provide the pond name and the filing it was built with. In final design it must be demonstrated that Pond 8 has sufficient capacity for the contributing flow and that the pond is functioning

without maintenance deficiencies

Text Box (5)



Subject: Text Box Page Label: 5 Author: eschoenheit Date: 12/7/2023 5:15:26 PM

Status: Color: Layer: Space: A floodplain statement shall be provided indicating whether any portion of the development is in a designated floodplain as delineated on the current FEMA mapping.



Subject: Text Box Page Label: 16 Author: Daniel Torres Date: 12/8/2023 11:40:38 AM

Status: Color: Layer: Space: 100% RR for detention will also require analysis/calcs in FDR.

area basins and as the Final Drainage Report is locidation will be required to assess proposed storm in a comparison of the proposed storm contained to the proposed storm phases be address the rear lots that are within OS6 and OS7 as these will also require water qualify treatment. Assumption is steroon-life that the areason, Best right, yilly, the contained the proposed section of the provider examinating please clarity.

Colorado

Subject: Text Box Page Label: 22 Author: Daniel Torres Date: 12/8/2023 12:32:16 PM

Status: Color: Layer: Space: please be address the rear lots that are within OS6 and OS7 as these will also require water quality treatment. Assumption is that the irrigation Reservoir will provide treatment. Please clarify.

Hydraulic Calculations
hydraulic calculations will further
be reviewed in the FDR to be
submitted with the final plat

Subject: Text Box Page Label: 55 Author: Daniel Torres Date: 12/8/2023 1:39:26 PM

Status:
Color: Layer:
Space:

hydraulic calculations will further be reviewed in the FDR to be submitted with the final plat

application(s)

mwater collection and conveyance at the preliminary

Please address the floodplain at the Northwest corner of the site and the requirement to demonstrate baseflood elevations(CLOMR/LOMR) with the final plat application. Subject: Text Box Page Label: 30 Author: Daniel Torres Date: 12/8/2023 2:13:17 PM

Status: Color: Layer: Space: Please address the floodplain at the Northwest corner of the site and the requirement to demonstrate baseflood elevations(CLOMR/LOMR) with the final plat application.