ENG-PUDSP22001-R1-PDR.pdf Markup Summary

1 (1)		
	Subject: SW - Textbox with Arrow Page Index: 1 Date: 3/14/2022 12:28:10 PM Author: Glenn Reese - EPC Stormwater Color: Layer: Space: Page Label: 1	PUDSP221
4 (1)		
and the transford mapping in the test of the structure of	Subject: Callout Page Index: 4 Date: 3/25/2022 5:53:46 PM Author: dsdrice Color: Layer: Space: Page Label: 4	Mention C1 and D2 construction timing
5 (1)		
Moderate Medium Moderate Paso County Area, Colorador are provided in A not found? Anot found? Anot found? Phis report, the soil of each basin are assume provident and provided in the source is located weat side intent to utilize some of the open space under Anot found?	Subject: Callout Page Index: 5 Date: 3/25/2022 6:00:35 PM Author: dsdrice Color: Layer: Space: Page Label: 5	not found?
8 (1)		
Aff of the stand data system to the adding table of formation, see the design point discu- 13.cBc for the 4010-year ations werent. S Show on plan — The Boaleward, Exand will be discussed of the will be Boaleward. Should will be discussed of the will be the standard will be discussed of the standard to 1. For more detailed information, see the standard beam in 3.2cbs and 5.8cbs for the 610	Subject: Callout Page Index: 8 Date: 3/28/2022 10:09:21 AM Author: dsdrice Color: Layer: Space: Page Label: 8	show on plan
9 (9)		
ted west via R sump inl w from this c	Subject: Page Index: 9 Date: 3/28/2022 10:13:42 AM Author: dsdrice Color: Layer: Space: Page Label: 9	sump

Basin E1.2 This basin consis Hocking Trail and westerly via curb/ information, see th for the 5/100-year	Subject: Page Index: 9 Date: 3/28/2022 10:15:23 AM Author: dsdrice Color: Layer: Space: Page Label: 9	Hocking Trail
basin is 2.6cfs and 9.9cfs for the at-grade? eacchil Valley Lake Estates sub If is directed overland northweste Flow is routed west via curbig d by a Type R solvin linet. Fc Jeveloped flow from this offsite I	Subject: Callout Page Index: 9 Date: 3/28/2022 10:17:01 AM Author: dsdrice Color: Layer: Space: Page Label: 9	at-grade?
awtoth Ridge Way to Design Point catel Information Set 100-sign 20 .054 and 134-56 for the Srifosign 20 .054 and 134 and 58 who have a set of the local set of the Srifosign 20 .054 and 134 an	Subject: Callout Page Index: 9 Date: 3/28/2022 10:17:13 AM Author: dsdrice Color: Layer: Space: Page Label: 9	delete?
even full Valay Lake Estates subdivision of its nuclear confinements of a solution or distated routiness to the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution to reage for the solution of the solution of the solution.	Subject: Callout Page Index: 9 Date: 3/28/2022 10:24:39 AM Author: dsdrice Color: Layer: Space: Page Label: 9	13/46?
Peaceful Valley Lake Estate Runoff is routed northwesterly more detailed information, si iin is 4.5cfs and 30.2cfs for the sectod to the couth and weet	Subject: Page Index: 9 Date: 3/28/2022 10:24:59 AM Author: dsdrice Color: Layer: Space: Page Label: 9	4.5cfs and 30.2cfs
The second secon	Subject: Page Index: 9 Date: 3/28/2022 10:25:35 AM Author: dsdrice Color: Layer: Space: Page Label: 9	and westerly Sawtooth Ridge Way

and westerly Sawtooth 8, then continues to an Drive. For more detailed sin is 2.5cfs and 11.2cfs	Subject: Page Index: 9 Date: 3/28/2022 10:26:05 AM Author: dsdrice Color: Layer: Space: Page Label: 9	2.5cfs and 11.2cfs
ocated to the south and westerny Saw w to design point 18, then continues udjacent for Trappe Drive. For more de sid how from this basin is 2.5ds and 11 d calculations.	Subject: Callout Page Index: 9 Date: 3/28/2022 10:26:26 AM Author: dsdrice Color: Layer: Space: Page Label: 9	4.2/15.1?
11 (4)		
leacon Butte Terrace and northwester surbiguiter to Design Point 32 and will bu te the design point discussions. The (0)-year storm event. See the superakt I Keynot rom residential development. Critton O ets then flow continues southerly in Key pr Point 34 and will be collected by a xint discussions. The developed flow frc I. See the accounds for detailed calculat	Subject: Callout Page Index: 11 Date: 3/28/2022 10:32:22 AM Author: dsdrice Color: Layer: Space: Page Label: 11	Keynot
nt, <mark>Crafto</mark> n C itherly in Key	Subject: Page Index: 11 Date: 3/28/2022 10:32:30 AM Author: dsdrice Color: Layer: Space: Page Label: 11	Crafto
era a seral option of instabilish development, spore large a development of the series development of the series o	Subject: Callout Page Index: 11 Date: 3/28/2022 10:36:45 AM Author: dsdrice Color: Layer: Space: Page Label: 11	State which FSD pond this flows to
CE Data consists of nond from a small portion of re- train consists of nond from a small portion of re- on Rev. For more detailed information, see th and ROW tract for Road 9	Subject: Callout Page Index: 11 Date: 3/28/2022 10:37:34 AM Author: dsdrice Color: Layer: Space: Page Label: 11	and ROW tract for future Meridian Road

12 (3)		
	Subject: Callout Page Index: 12 Date: 3/28/2022 10:39:25 AM Author: dsdrice Color: Layer: Space: Page Label: 12	State that the future Meridian Road drains to the east and WQ will be determined by that project
Estates subdivision. Runoff le spreader channel, these 2. For more detailed inform sin is 4.4cfs and 18.9cfs fc if this report and the Deve	Subject: Page Index: 12 Date: 3/28/2022 10:44:17 AM Author: dsdrice Color: Layer: Space: Page Label: 12	4.4cfs and 18.9
ge swale. For more deta this basin is 4.4cfs and tions. verify > back of this report and -year storm event amoun	Subject: Callout Page Index: 12 Date: 3/28/2022 10:44:30 AM Author: dsdrice Color: Layer: Space: Page Label: 12	verify
13 (1)		
41.3 29.7 38.3	Subject: Page Index: 13 Date: 3/28/2022 10:45:16 AM Author: dsdrice Color: Layer: Space: Page Label: 13	29.7
14 (1)		
located uppears of resident location of the second location of the s	Subject: Callout Page Index: 14 Date: 3/28/2022 11:18:59 AM Author: dsdrice Color: Layer: Space: Page Label: 14	38.5 per DP 5?
16 (1)		
In the second se	Subject: Callout Page Index: 16 Date: 3/28/2022 11:29:17 AM Author: dsdrice Color: Layer: Space: Page Label: 16	State that any overflows will flow to the west in Lorson Blvd.

17 (1)

Indef Store: Stype R, supp	Subject: Callout Page Index: 17 Date: 3/28/2022 11:32:47 AM Author: dsdrice Color: Layer: Space: Page Label: 17	Describe the emergency overflow path
18 (1)		
	Subject: Callout Page Index: 18 Date: 3/28/2022 11:34:24 AM Author: dsdrice Color: Layer: Space: Page Label: 18	Describe the emergency overflow path
19 (1)		
	Subject: Callout Page Index: 19 Date: 3/28/2022 11:37:07 AM Author: dsdrice Color: Layer: Space: Page Label: 19	Describe the emergency overflow path
23 (3)		
Flow Intercepted: 26,2cfs Intel Size: 30 type R,3es.grade Street Capacity: Syleet slope = 1.5%, 23.9?	Subject: Callout Page Index: 23 Date: 3/28/2022 12:05:45 PM Author: dsdrice Color: Layer: Space: Page Label: 23	23.9?
An analysis of the second seco	Subject: Callout Page Index: 23 Date: 3/28/2022 12:06:03 PM Author: dsdrice Color: Layer: Space: Page Label: 23	25'?
ed: 1.7cfs to [Subject: Page Index: 23 Date: 3/28/2022 12:06:16 PM Author: dsdrice Color: Layer: Space: Page Label: 23	1.7cfs

27 (2)		
 A second s	Subject: SW - Highlight Page Index: 27 Date: 3/14/2022 7:21:06 PM Author: Glenn Reese - EPC Stormwater Color: Layer: Space: Page Label: 27	There are three permanent full spectrum ponds proposed for this development which will incorporate storm water quality features and comply with the Lorson Ranch East MDDP
Part of the second part of the s	Subject: SW - Textbox with Arrow Page Index: 27 Date: 3/15/2022 7:47:32 AM Author: Glenn Reese - EPC Stormwater Color: Layer: Space: Page Label: 27	Add text: "and one existing pond (Pond C1) will also be utilized." Since part of this PUDSP will be conveyed to it.
28 (1)		
82?	Subject: Callout Page Index: 28 Date: 3/28/2022 12:35:09 PM Author: dsdrice Color: Layer: Space: Page Label: 28	82?
29 (4)		
An encode of a the stream of t	Subject: SW - Textbox with Arrow Page Index: 29 Date: 3/15/2022 7:47:08 AM Author: Glenn Reese - EPC Stormwater Color: Layer: Space: Page Label: 29	And mention that all of the "C" basins within this PUDSP are tributary to Pond C1 (per map on pdf pg 108 of PDR)
existing? <u>v Design</u> y will be provided by three berms th the exception of Basin H1 and I w for Basin H1 and C2 draining on	Subject: Callout Page Index: 29 Date: 3/28/2022 12:37:16 PM Author: dsdrice Color: Layer: Space: Page Label: 29	existing?
<text><text><text><text><text><text><text></text></text></text></text></text></text></text>	Subject: Callout Page Index: 29 Date: 3/28/2022 12:42:39 PM Author: dsdrice Color: Layer: Space: Page Label: 29	Also address flows to the east

Eliside at Lorson Ran se basir in El Paso C jourty regulations re scordation process.	this located with lounty and Uppe puine drainage a	in the Jimmy r Williams Cn nd bridge fee	Camp Creek drain lek which is an ur s to be paid for pi	age basin v studied bar atting of la
orson Ranch Metro D ridge fees for the ap me frame.	Netrict will comp proved plats an Platese in singge Facility C	le and submi d shall show clude in th	to the county on all credits they ha a appendix einbursable)	a yearly ba ve received
iten	Quantity	Unit	Unit Cost	tan 1
Rip Rap	150	CY	\$SOICY	\$7,5
iniets/Manholes	42	EA .	\$3000/EA	\$126
19" Storm	1108	15	\$25	\$38,7
24" Storm	2275	LF	\$40	\$91,0
30° Storm	345	LF	\$45	\$106,

Subject: Callout Page Index: 29 Date: 3/28/2022 12:43:22 PM Author: dsdrice Color: Layer: Space: Page Label: 29

30 (1)

Based and a the second and a se

Subject: Callout Page Index: 30 Date: 3/28/2022 12:46:21 PM Author: dsdrice Color: Layer: Space: Page Label: 30 Add a statement about matching existing flows to

Please include in the appendix

Upper Williams Creek basin.

Will this overtop and flow west at 3.6 inches?

72 (1)



Subject: Callout Page Index: 72 Date: 3/30/2022 7:48:57 AM Author: dsdrice Color: Layer: Space: Page Label: 72

107 (2)

city of particle black, have been preliminarily recreased and policitory remains have been possible or a surveying. But these design and surgerying survey with the Samager Tayout Hand to be surveying the discretion of the Samager Tayout Hand to be an exclusion of approach with the Samager Tayout Hand to be an exclusion discretion of the Samager Tayout Hand to be an exclusion of approach with the Samager Tayout Hand to be an exclusion of the same state of the Samager Tayout Hand to be an exclusion of the same state of the Samager Tayout Hand to be an exclusion of the same state of the Samager Tayout Hand to be an exclusion of the same state of the sa Subject: SW - Textbox Page Index: 107 Date: 3/14/2022 7:23:52 PM Author: Glenn Reese - EPC Stormwater Color: ■ Layer: Space: Page Label: 107

(If storm drain system is being constructed wi early grading final details are needed.) Subject: Callout Page Index: 107 Date: 3/28/2022 11:52:59 AM Author: dsdrice Color: Layer: Space: Page Label: 107 Note: all pond details have been preliminarily reviewed and preliminary comments have been provided as a courtesy. But these details and accompanying calcs in the Drainage Report will need to be reviewed again and approved with the

Subsequently, all comments in this Appendix D do not have to be resolved at this PUDSP stage.

Final Plat submittal.

(If storm drain system is being constructed with early grading final details are needed.)

108 (6)



Subject: SW - Textbox Page Index: 108 Date: 3/14/2022 6:28:26 PM Author: Glenn Reese - EPC Stormwater Color: ■ Layer: Space: Page Label: 108

If there are any areas that are not treated by a PBMP, please delineate and properly label them with the applicable exclusion labeled (ex: 20% up to 1ac of development can be excluded per ECM App I.7.1.C.1 and exclusions listed in ECM App I.7.1.B.#). A summary table on the current map would also be acceptable (example provided below). If no excluded areas, you can ignore this comment.



Subject: Image Page Index: 108 Date: 3/14/2022 6:27:10 PM Author: Glenn Reese - EPC Stormwater Color: Layer: Space: Page Label: 108



Subject: SW - Textbox Page Index: 108 Date: 3/14/2022 6:27:15 PM Author: Glenn Reese - EPC Stormwater Color: ■ Layer: Space: Page Label: 108

Subject: SW - Textbox with Arrow

Author: Glenn Reese - EPC Stormwater

Date: 3/14/2022 7:23:18 PM

Page Index: 108

Page Label: 108

Color: Layer: Space: Runoff Reduction: Provide a figure showing all proposed UIA and RPA areas to be utilized for runoff reduction. All RPA areas will need to be within a no build/drainage easement and discussed in the maintenance agreement and O&M manual. Wetlands are not an acceptable RPA per the MS4 Permit and MHFD guidelines. Also make sure to show RPA limits on GEC Plans (not just FDR) so our SW inspectors know that these areas are to remain pervious and vegetated post-construction.

label as "Hillside at Lorson"



Subject: SW - Textbox with Arrow Page Index: 108 Date: 3/14/2022 7:23:14 PM Author: Glenn Reese - EPC Stormwater Color: Layer: Space: Page Label: 108

since these areas have separate RPA's they should be shown as separate columns on the runoff reduction calcs (on pdf pg 143)

Law loss multiple second of the second secon

Subject: Callout Page Index: 108 Date: 3/25/2022 5:59:43 PM Author: dsdrice Color: Layer: Space: Page Label: 108

Large lots may be excluded if imperviousness is limited to less than10% (Exclusion E)

121 (2)



Subject: SW - Textbox with Arrow Page Index: 121 Date: 3/14/2022 1:23:46 PM Author: Glenn Reese - EPC Stormwater Color: ■ Layer: Space: Page Label: 121

Per ECM Chap 3.2.8.B, "The proposed project or developed land use shall not change historical runoff values, cause downstream damage, or adversely impact adjacent properties." Increases from the historical flowrates is allowable (with or without full spectrum detention) if it is shown (via text and/or calcs) that the flow increase can be accommodated downstream (ie: show that there is a suitable outfall, per ECM, Chap 3.2.4). If applicable, reference the downstream facilities in a DBPS or MDDP.

Subject: Callout Add a note on this page to see discussion of Page Index: 121 DP43. Date: 3/28/2022 12:15:08 PM Author: dsdrice Color: 📘 Layer: Space: Page Label: 121 125 (1) Subject: Describe means of providing energy dissipation at Page Index: 125 concentrated Date: 3/30/2022 8:30:33 AM inflow locations: Author: dsdrice Color: Laver: Space: Page Label: 125 129 (3) Subject: Callout Show access road Page Index: 129 Date: 3/28/2022 12:32:51 PM Author: dsdrice Color: Layer: Space: Page Label: 129 Subject: Callout Will there be an attenuator block(s)? Page Index: 129 Date: 3/30/2022 8:24:40 AM Author: dsdrice Color: Layer: Space: Page Label: 129 Subject: Callout See other comments about spillway location Page Index: 129 Date: 3/30/2022 8:34:57 AM Author: dsdrice Color: Layer:

131 (2)



Space:

Page Label: 129

Subject: SW - Textbox with Arrow Page Index: 131 Date: 3/14/2022 3:04:24 PM Author: Glenn Reese - EPC Stormwater Color: ■ Layer: Space: Page Label: 131

Per ECM Chap 3.2.8.B, "The proposed project or developed land use shall not change historical runoff values, cause downstream damage, or adversely impact adjacent properties." Increases from the historical flowrates is allowable (with or without full spectrum detention) if it is shown (via text and/or calcs) that the flow increase can be accommodated downstream (ie: show that there is a suitable outfall, per ECM, Chap 3.2.4). If applicable, reference the downstream facilities in a DBPS or MDDP.
 Market of the second second

Subject: Callout Page Index: 131 Date: 3/28/2022 11:20:54 AM Author: dsdrice Color: Layer: Space: Page Label: 131

135 (1)

Section Section 2.2 Section Section 2.2 Section Section 2.2 S

Subject: Page Index: 135 Date: 3/30/2022 8:30:17 AM Author: dsdrice Color: Layer: Space: Page Label: 135

141 (1)



Subject: Callout Page Index: 141 Date: 3/30/2022 8:33:29 AM Author: dsdrice Color: Layer: Space: Page Label: 141

Add a note on this page to see discussion of

Describe means of providing energy dissipation at concentrated inflow locations:

Attenuation?

DP5b.

143 (1)



Subject: SW - Textbox with Arrow Page Index: 143 Date: 3/14/2022 7:22:55 PM Author: Glenn Reese - EPC Stormwater Color: ■ Layer: Space: Page Label: 143

separate each RPA area into it's own column, unless all the RPA's have the same Width and other inputs.

163 (8)



Subject: Callout Page Index: 163 Date: 3/28/2022 10:08:57 AM Author: dsdrice Color: Layer: Space: Page Label: 163

Label existing pipes and which pond it flows to (Hills at Lorson D2?)

Subject: Arrow Page Index: 163 Date: 3/25/2022 5:41:38 PM Author: dsdrice Color: Layer: Space: Page Label: 163



Label D1.4

Subject: Callout connected? Page Index: 163 Date: 3/25/2022 5:41:56 PM Author: dsdrice Color: Layer: Space: Page Label: 163 Subject: Callout Label to Pond C1 Page Index: 163 Date: 3/25/2022 5:45:07 PM LAND TO THE Author: dsdrice Color: Layer: Space: Page Label: 163 _____ Subject: Callout Label existing inlets -- DP47c and d? Page Index: 163 Date: 3/28/2022 10:10:35 AM Author: dsdrice Color: Layer: Space: Page Label: 163 Subject: Callout Label D1.4 Page Index: 163 Date: 3/28/2022 10:10:01 AM Author: dsdrice Color: Layer: Space: Page Label: 163 . Subject: Callout Add label for which pond this flows to (E2?) Page Index: 163 Date: 3/28/2022 10:19:12 AM Author: dsdrice Color: Laver: Space: Page Label: 163 Subject: Callout Show maintenance access roads Page Index: 163 Date: 3/28/2022 10:34:59 AM Author: dsdrice Color: Layer: Space: Page Label: 163

164 (3)

	Subject: SW - Textbox with Arrow Page Index: 164 Date: 3/14/2022 7:10:06 PM Author: Glenn Reese - EPC Stormwater Color: ■ Layer: Space: Page Label: 164	add a leader line that points to this area. Otherwise it is unclear where this area is.
Hatching would help as well	Subject: Text Box Page Index: 164 Date: 3/25/2022 10:42:33 AM Author: dsdrice Color: Layer: Space: Page Label: 164	Hatching would help as well
Hency overflow	Subject: Text Box Page Index: 164 Date: 3/25/2022 10:43:56 AM Author: dsdrice Color: Layer: Space: Page Label: 164	Show maintenance access to PBMPs
165 (8)		
revise to "2"	Subject: SW - Textbox with Arrow Page Index: 165 Date: 3/14/2022 6:33:47 PM Author: Glenn Reese - EPC Stormwater Color: ■ Layer: Space: Page Label: 165	revise to "2"
HIGGANT HUND HIGGANT H	Subject: Callout Page Index: 165 Date: 3/25/2022 10:39:07 AM Author: dsdrice Color: Layer: Space: Page Label: 165	Please hatch the required 50'
	Subject: Page Index: 165 Date: 3/25/2022 10:41:29 AM Author: dsdrice Color: Layer: Space: Page Label: 165	

Subject: Text Box Page Index: 165 Date: 3/25/2022 10:44:54 AM Author: dsdrice Color: Layer: Space: Page Label: 165

.....



Show maintenance access to PBMPs



aintena to PBM

Subject: Callout Page Index: 165 Date: 3/28/2022 10:43:00 AM Author: dsdrice Color: Layer: Space: Page Label: 165

.



Subject: Page Index: 165 Date: 3/28/2022 10:44:46 AM Author: dsdrice 0' WIDE RUNC Color: Layer: Space: Page Label: 165

Subject: Callout Page Index: 165 Date: 3/28/2022 12:17:18 PM Author: dsdrice Color: Layer: Space: Page Label: 165

Recommend directing emergency overflow to the

southeast, maybe also provide a berm/swale to get overflow to the spreader area



Subject: Arrow Page Index: 165 Date: 3/28/2022 12:17:32 PM Author: dsdrice Color: Laver: Space: Page Label: 165