

BASIN HYDROLOGY CONSISTENT
WITH APPROVED MDDP (BASIN W-26,
46.1 AC. OF EXIST. SINGLE FAMILY RES.
3 AC.± SIZE LOTS
(Q5 = 12 CFS, Q100 = 75 CFS)

PAINT BRUSH HILLS
FILING NO. 3

NOTE:
SEE FINAL DRAINAGE REPORT FOR PAINT BRUSH
HILLS FILING NOS. 10, 11 & 12, PREPARED BY
CLASSIC CONSULTING, APPROVED AUG. 2003
FOR ADDITIONAL INFORMATION REGARDING THE
EXISTING DETENTION FACILITIES CONSTRUCTED TO
HANDLE DEVELOPED FLOWS FROM THIS DEVELOPMENT.

BASIN RUNOFF SUMMARY

BASIN	Q(5)-CFS	Q(100)-CFS
H-1	16	105
H-2	0.4	3
H-3	4	24
H-4	16	105
H-5	11	74
H-6	1	6
H-7	3	21
H-8	11	44

DESIGN POINT SUMMARY

DESIGN POINT	Q(5)-CFS	Q(100)-CFS
H1	19	105
H2	31	185



200 100 0 200 400

SCALE: 1" = 200'

LEGEND

DESCRIPTION	SYMBOL
EXISTING GROUND CONTOUR	6910
BASIN BOUNDARY	---
BASIN IDENTIFIER	(H1)
AREA IN ACRES	16.0
TIME OF CONCENTRATION LINE	---
DESIGN POINT	(H2)



619 N. Cascade Avenue, Suite 200
Colorado Springs, Colorado 80903
(719) 785-0790
(719) 785-0799 (fax)

PAINT BRUSH HILLS FILING 13C & 13D
FINAL DRAINAGE REPORT
PRE-DEVELOPMENT CONDITIONS MAP

DESIGNED BY	MAW	SCALE	DATE	8-17-16
DRAWN BY	MAW	(H) 1" = 200'	SHEET	1 OF 2
CHECKED BY	(V) 1" = N/A	JOE NO.	2053.40	



FINAL DRAINAGE REPORT - BASIN RUNOFF SUMMARY													
BASIN	CA(2)	WEIGHTED CA(2)	CA(100)	Q(2)	Q(5)	Q(10)	Q(15)	Q(20)	Q(25)	Q(30)	Q(35)	Q(40)	Q(45)
A	0.06	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B	1.16	1.51	2.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C	0.20	0.36	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
J	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Q	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
X	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Y	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Z	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AQ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



NOTES:
THIS MAP IS FOR DRAINAGE PURPOSES ONLY.
SEE GRADING PLAN FOR APPROPRIATE GRADING INFORMATION.

SCALE: 1" = 200'

POND B1 DESIGN DATA:
TRIBUTARY ACREAGE = 104.0 AC. @ 35% IMP
WCV REQ. = 1.44 AC-FT
EURV REQ. = 3.78 AC-FT

RELEASE:
Q5 = 14 cfs @ WSE = 7152.02 (4.32 AC-FT)
Q100 = 107 cfs @ WSE = 7153.57 (7.99 AC-FT)

EMERGENCY SPILLWAY ELEV. = 7156.00
EMERGENCY OVERFLOW ELEV. = 7156.96

POND B1 STRUCTURE DESIGN DATA:
PIPE RUN 9 - 30" RCP (8.23 AC. @ 35% IMP.)
FOREBAY DESIGN:
87 CF REQ. - 92 CF PROVIDED W/8 IN. CURB & 4 IN. NOTCH

PIPE RUN 23 - 30" RCP (10.93 AC. @ 35% IMP.)
FOREBAY DESIGN:
131 CF REQ. - 133 CF PROVIDED W/8 IN. CURB & 6 IN. NOTCH

WITHERBEE DR. CROSSING - 60" RCP (80.0 AC. @ 35% IMP.)
FOREBAY DESIGN:
1,437 CF REQ. - 1,440 CF PROVIDED W/24 IN. WALL & 10 IN. NOTCH

48 HOURS BEFORE YOU DIG,
CALL UTILITY LOCATORS
1-800-922-1987
CITY OF COLORADO SPRINGS DEPT. OF UTILITIES
GAS, ELECTRIC, WATER AND WASTEWATER

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO.	REVISION	DATE
1	REVISED PER COUNTY COMMENTS	11-10-16

REVIEW:
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF
CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

MARC A. WHORTON, COLORADO P.E. #37155 DATE

CLASSIC
CONSULTING
ENGINEERS & SURVEYORS

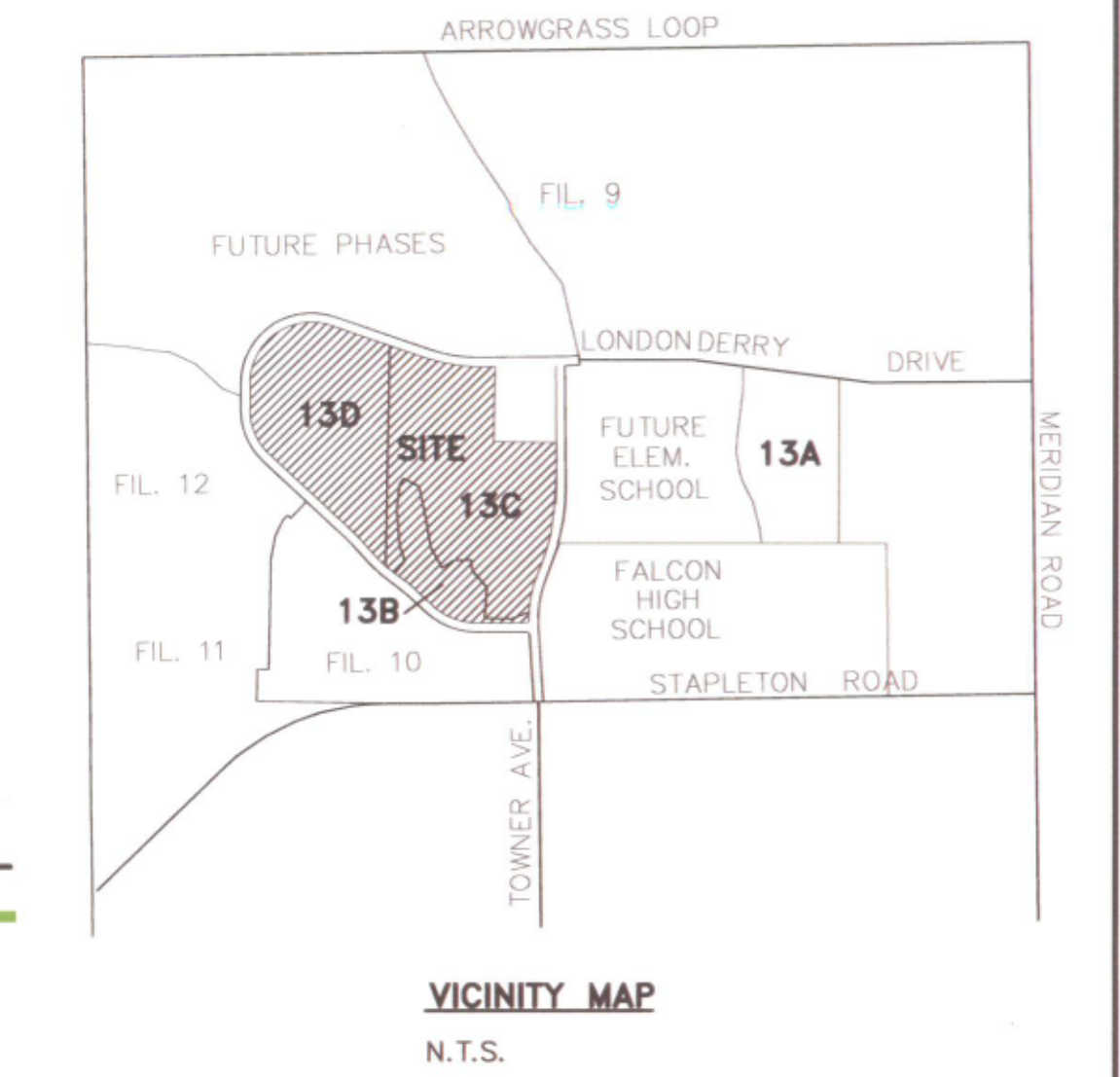
619 N. Cascade Avenue, Suite 200
Colorado Springs, Colorado 80903

(719)785-0790
(719)785-0799 (Fax)

**PAINT BRUSH HILLS
FILING NO. 13C & 13D
FINAL DRAINAGE REPORT
PROPOSED CONDITIONS DRAINAGE MAP**

DESIGNED BY: MAW SCALE: DATE: 11/30/16
DRAWN BY: MAW (H) 1" = 200' SHEET: 2 OF 2
CHECKED BY: (V) 1" = N/A JOB NO.: 2053.40

DESCRIPTION	SYMBOL
EXISTING GROUND CONTOUR	6910
PROPOSED FINISHED CONTOUR	6910
BASIN BOUNDARY	---
DESIGN POINT	3
BASIN IDENTIFIER	BB
AREA IN ACRES	10.0
EXISTING DIRECTION OF FLOW	→
PROPOSED DIRECTION OF FLOW	→
PROPOSED STORM SEWER	—
PROPOSED STORM SEWER INLETS	□
STORM PIPE RUN SIZING	20
TIME OF CONCENTRATION	



FINAL DRAINAGE REPORT - SURFACE ROUTING SUMMARY									
Design Point(s)	Contributing Basins	Equivalent CA(5)	Equivalent CA(100)	Maximum Tc	Intensity		Flow		Inlet Size
					I(5)	I(100)	Q(5)	Q(100)	
1	A, B1	1.98	3.01	16.7	3.36	5.64	7	17	6" Type R
2	D1, D2	2.35	3.92	17.2	3.32	5.57	8	22	8" Type R
3	B2	0.38	0.63	11.8	3.88	6.51	1	4	4" Type R
4	C1, C2	2.44	4.07	17.0	3.33	5.60	8	23	8" Type R
5	H	0.40	0.66	10.3	4.08	6.85	2	5	24" Chase
6	E, F, G	5.00	8.92	18.1	3.24	5.44	16	38	Ex. 14" Type R
7	H, I, K, DPS Flowby	4.04	7.18	22.5	2.91	4.89	12	35	Ex. 18" Type R
8	J	0.97	1.82	21.4	2.99	5.02	3	9	4" Type R
9	L	1.09	2.05	21.4	2.99	5.02	3	10	6" Type R
10	13X, Y	2.72	3.44	23.2	2.87	4.82	8	17	Ex. 24" RCP
11	S, DP10	7.54	8.68	24.8	2.77	4.65	21	40	36" RCP
12	O3	0.38	0.56	9.2	4.25	7.14	2	4	4" Type R
13	O1, T	3.01	4.15	14.7	3.56	5.96	11	25	12" Type R
14A	O2	1.79	2.63	16.3	3.40	5.71	6	15	12" Type R
14	P1, P3, O2 Flowby	2.80	4.30	14.4	3.58	6.01	10	26	12" Type R
15	N	1.82	2.67	16.3	3.40	5.71	6	15	6" Type R
16	P2	1.18	1.73	13.8	3.65	6.13	4	11	4" Type R
17	Q	0.27	0.40	9.0	4.28	7.19	1	3	4" Type R
18	R1, R2	2.64	3.88	12.8	3.76	6.32	10	25	12" Type R
19	M, V2	2.38	2.53	9.0	4.29	7.20	10	18	Ex. 8" Type R
20	W, 20X	5.58	6.70	23.2	2.87	4.82	16	32	Ex. 14" Type R
24	DD1	1.96	4.09	18.2	3.23	5.43	6	22	12" Type R
25	DD2, DD1 Flowby	1.61	3.87	18.7	3.19	5.36	5	21	8" Type R
26	EE	0.89	1.49	11.7	3.89	6.54	3	10	4" Type R
27	GG, FF	2.15	4.49	20.1	3.08	5.18	7	23	10" Type R
28	HH	1.87	3.12	15.5	3.47	5.83	6	18	8" Type R
29	II, KK	1.69	2.54	15.4	3.48	5.84	6	15	6" Type R
30	JJ	0.28	0.46	9.5	4.21	7.07	1	3	4" Type R
31	LL, MM	4.01	5.42	17.8	3.27	5.48	13	30	Ex. 12" Type R
32	NN	0.92	0.98	7.6	4.56	7.64	4	7	Ex. 6" Type R
33	RR	1.26	2.10	14.9	3.53	5.93	4	12	4" Type R
34	SS	1.35	2.82	17.8	3.27	5.48	4	15	6" Type R
34A	Total Inflow to Future Pond D	16.93	34.28	27.2	2.63	4.41	45	151	
34B	Total Outflow at Ex. 36" RCP incl. Basins LL, MM & NN	SEE POND PACK CALCULATIONS FOR ROUTING					21	82	
34C	Total Flow in channel incl. Basin U1 and Pipe Run 7	SEE POND PACK CALCULATIONS FOR ROUTING					45	132	
34D	Total Flow at road crossing (Prop. 60" RCP Culvert)	SEE POND PACK CALCULATIONS FOR ROUTING					87	189	
	Total Inflow to Pond B1	SEE POND PACK CALCULATIONS FOR ROUTING					106	251	

FLOOD PLAIN STATEMENT:
NO PORTION OF THIS SITE IS LOCATED WITHIN A FEMA FLOODPLAIN AS DETERMINED BY THE FLOOD INSURANCE RATE MAPS (F.I.R.M.) MAP NUMBERS 08041C 0535F AND 08041C 0575, WITH EFFECTIVE DATES OF MARCH 17, 1997 (SEE APPENDIX).