MASTER DEVELOPMENT DRAINAGE PLAN
MARKETPLACE AT INTERQUEST
DEVELOPED CONDITIONS DRAINAGE MAP

WATER QUALITY SUMMARY

POND (label)	WQ BASIN AREA (acres)	WQ BASIN % Impervious	WQ VOLUME REQUIRED (acre-feet)	WQ PONDING ELEV. (feet)	WQ PONDING HEIGHT (feet)	# WQ ORIFICE COLUMNS	# WQ ORIFICE ROWS	WQ ORIFICE DIAMETER (inches)
EK-3C	20.2	90	0.811	6700.5	2.5	2	8	0.875
EK-3B	53.7	90	2.156	6632.7	3.7	3	16	0.750
EK-3A	10.9	90	0.438	6634.6	1.8	1	5	1.125
BS-1	44.7	90	1.795	6673.0	3.8	2	11	1.000
BS-2	37.2	90	1.494	6644.3	3.3	1	10	1.375
BS-3	74.2	90	2.979	6601.3	4.3	3	13	0.938

DETENTION POND SUMMARY

POND (label)	RISER DIMENSIONS (feet)	RISER CREST ELEV. (feet)	OUTLET PIPE DIAMETER (inches)	OUTLET PIPE SLOPE (%)	INVERT OF POND (feet)	INVERT OF EMERG. SPILLWAY (feet)	LENGTH OF EMERG. SPILLWAY (feet)	EMERGENCY SPILLWAY FLOW DEPTH (feet)	FREE-BOARD DEPTH (feet)	CREST OF DAM (feet)
EK-3C	7.0' x 4.0'	6707.00	36" RCP	6698.0	2.0	6698.00	6707.00	32	1.0	2.0	6710.00
EK-3B	7.0' x 4.0'	6638.00	48" RCP	6628.2	0.6	6628.00	6641.00	116	1.0	2.8	6642.00
EK-3A	N/A	N/A	24" RCP	6607.5	2.0	6607.50	6611.33	90	1.0	0.7	6613.00
EK-4	7.0' x 4.0'	6637.45	36" RCP	6632.8	1.0	6632.80	6638.00	18	1.0	2.0	6641.00
I25-4	N/A	N/A	24" RCP	6600.0	2.0	6600.00	N/A	N/A	N/A	6.5	6609.00
I25-5	N/A	N/A	24" RCP	6600.0	2.0	6600.00	N/A	N/A	N/A	0.8	6603.00
IBS	N/A	N/A	18" RCP	6786.0	1.4	6786.00	N/A	N/A	N/A	1.0	6791.00
BS-1	7.0' x 4.0'	6675.00	42" RCP	6669.2	2.0	6668.00	6679.00	100	1.0	3.8	6680.00
BS-2	7.0' x 4.0'	6650.10	42" RCP	6641.0	2.0	6641.00	6651.00	62	1.0	2.0	6654.00
BS-3	7.0' x 4.0'	6605.80	48" RCP	6597.0	2.0	6597.00	6607.00	119	1.0	2.0	6610.00

DRAINAGE DESIGN POINTS SUMMARY

Design Point (label)	Q 2 Yr. Q (cfs) Ponding (ft)	Q 5 Yr. Q (cfs) Ponding (ft)	Q 10 Yr. Q (cfs) Ponding (ft)	Q 50 Yr. Q (cfs) Ponding (ft)	Q 100 Yr. Q (cfs) Ponding (ft)
20	3.77	54.02	64.24	89.65	99.80
EK3C IN	38.67	54.02	64.24	89.65	99.80
EK3C OUT	0.52 / 6701.92	0.62 / 6703.01	0.68 / 6703.76	0.80 / 6705.51	0.84 / 6706.19
21	0.52	0.62	0.68	0.80	0.84
22	19.79	27.97	33.45	47.21	52.69
23	30.48	42.96	51.28	72.09	80.39
24	61.97	86.58	102.94	143.66	159.91
25	113.78	159.25	189.63	264.77	294.78
EK3B IN	113.78	159.25	189.63	264.77	294.78
EK3B OUT	4.33 / 6634.97	12.73 / 6636.07	20.15 / 6636.81	53.49 / 6638.61	79.95 / 6639.20
5	3.77	8.75	18.14	61.55	91.13
6	3.45	9.22	19.76	68.70	101.13
EK3A IN	4.56	13.91	24.00	63.78	94.28
EK3A OUT	4.03 / 6628.51	10.06 / 6629.19	14.31 / 6629.60	22.49 / 6610.68	24.02 / 6611.20
7	1.84	6.31	10.55	19.70	22.26
26	21.71	30.06	35.61	49.37	54.84
EK4A IN	21.71	30.06	35.61	49.37	54.84
EK4A OUT	0.35 / 6636.28	2.49 / 6638.63	5.78 / 6638.96	22.54 / 6637.65	30.54 / 6637.85
27	0.35	2.49	5.78	22.54	30.54
8	0.52	4.52	10.92	38.88	52.65
I25-4 IN	0.48	4.52	10.92	38.88	52.65
I25-4 OUT	0.39 / 6600.28	3.38 / 6600.86	8.02 / 6601.45	17.99 / 6602.63	21.10 / 6603.12
9	0.45	3.38	8.02	17.99	21.10
10	0.20	2.66	5.48	15.35	20.12
I25-5 IN	0.20	2.66	5.48	15.35	20.12
I25-5 OUT	0.14 / 6600.10	1.32 / 6600.52	3.54 / 6600.89	12.23 / 6601.92	14.29 / 6602.16
11	0.14	1.32	3.54	12.23	14.29
IBS IN	4.29	11.21	14.48	23.05	26.58
IBS OUT	1.79 / 6788.03	2.03 / 6788.46	2.20 / 6788.77	2.63 / 6789.68	2.78 / 6790.03
1	1.94	4.18	7.07	18.32	24.02
2	3.15	4.59	7.30	18.68	24.44
3	3.30	5.58	9.69	25.52	33.57
30	[illegible]	[illegible]	[illegible]	[illegible]	33.87
31	34.05	47.97	57.41	84.02	96.23
32	90.27	126.40	150.56	213.15	239.38
BS-1 IN	90.27	126.40	150.56	213.15	239.38
BS-1 OUT	0.95 / 6672.61	4.67 / 6673.94	9.00 / 6674.43	37.27 / 6675.71	57.62 / 6676.18
12	1.47	5.77	10.90	36.63	54.53
35	61.24	86.55	101.77	142.07	158.06
36	64.53	90.18	107.27	149.70	166.54
BS-2 IN	64.53	90.18	107.27	149.70	166.54
BS-2 OUT	1.08 / 6646.21	1.25 / 6647.87	2.24 / 6648.71	25.25 / 6649.69	42.40 / 6650.17
13	1.09	1.52	2.27	25.69	43.18
41	42.93	61.46	73.85	104.75	117.03
42	70.71	100.66	120.64	170.01	183.49
43	139.38	197.70	236.64	332.91	366.68
BS-3 IN	139.38	197.70	236.64	332.91	366.68
BS-3 OUT	2.11 / 6603.18	2.89 / 6604.66	9.48 / 6605.08	51.56 / 6606.37	83.77 / 6607.07
44	2.11	2.89	9.48	51.56	83.77
14	11.54	15.84	18.68	58.30	91.25

DRAINAGE BASIN SUMMARY

BASIN (label)	TOTAL BASIN AREA (acres)	TOTAL BASIN AREA (sq.mi)	WEIGHTED CN	TOTAL LAG TIME (hours)	TOTAL Tc (hours)	Q 2 Yr. (cfs)	Q 5 Yr. (cfs)	Q 10 Yr. (cfs)	Q 25 Yr. (cfs)	Q 50 Yr. (cfs)	Q 100 Yr. (cfs)
02B	12.4	0.0194	61.0	0.2265	0.3774	0.14	1.71	3.56	7.19	10.05	13.24
EX-A	10.5	0.0164	61.0	0.1774	0.2956	0.13	1.74	3.57	7.09	9.94	12.83
EX-B	7.1	0.0111	79.8	0.0654	0.1091	6.63	11.21	14.48	19.87	23.05	26.58
EXC1	0.3	0.0004	85.7	0.0467	0.0833	0.64	0.94	0.97	1.17	1.30	1.43
EXC2	0.4	0.0007	85.7	0.0487	0.0833	0.88	1.22	1.44	1.78	2.00	2.22
PR-D	11.4	0.0178	61.0	0.1876	0.3317	0.12	1.21	2.53	5.17	7.31	9.69
EX-G	1.0	0.0016	98.0	0.0487	0.0833	0.71	0.93	1.06	1.30	1.44	1.59
EXH	1.2	0.0019	98.0	0.0487	0.0833	1.70	2.23	2.58	3.11	3.46	3.81
VP-2	1.2	0.0019	85.7	0.0710	0.1183	1.65	2.51	3.10	4.01	4.63	5.24
VP-3	1.1	0.0017	85.7	0.0671	0.0961	0.00	0.00	0.00	0.00	0.00	0.00
IP-1	1.3	0.0020	85.7	0.1015	0.1692	1.69	2.60	3.24	4.21	4.87	5.53
IP-2	2.0	0.0031	85.7	0.1348	0.2247	2.44	3.80	4.74	6.21	7.20	8.19
SE-1	5.0	0.0078	61.0	0.1467	0.2478	0.07	0.94	1.90	3.72	5.13	6.66
AF-1	11.6	0.0181	61.0	0.1765	0.2941	0.14	1.97	4.03	7.98	11.09	14.50
AF-2	20.5	0.0320	61.0	0.1820	0.3033	0.25	3.33	6.65	13.61	18.94	24.76
AF-3	16.4	0.0256	61.0	0.1931	0.3219	0.19	2.54	5.27	10.82	14.64	19.17
EK-3A	20.2	0.0316	92.5	0.1066	0.1760	38.67	54.02	64.24	79.51	89.65	99.80
EK-3B	8.3	0.0130	92.5	0.0634	0.1390	16.21	22.55	26.78	33.09	37.28	41.46
EK-3C	5.6	0.0088	92.5	0.0667	0.1112	11.10	15.39	18.24	22.50	25.32	28.12
EK-3D	17.3	0.0270	92.5	0.1056	0.1760	33.11	46.27	55.02	68.10	76.78	85.47
EK-3E	15.0	0.0234	92.5	0.0778	0.1297	29.43	40.92	48.56	59.96	67.52	75.06
EK-3F	7.5	0.0117	92.5	0.0667	0.1112	14.87	20.62	24.43	30.13	33.90	37.67
EK-3G	3.5	0.0055	92.5	0.0850	0.1416	6.63	9.50	11.28	13.94	15.71	17.47
EK-4A	10.9	0.0170	92.5	0.0556	0.0927	21.71	30.06	35.61	43.88	49.37	54.84
EK-5A	1.2	0.0019	61.0	0.0739	0.1231	0.03	0.34	0.63	1.17	1.57	2.00
BS-1A	15.4	0.0241	92.5	0.0945	0.1575	29.77	41.52	49.34	61.02	68.77	76.49
BS-1B	14.3	0.0223	92.5	0.0945	0.1575	27.64	38.56	45.82	56.66	63.86	71.02
BS-1C	15.0	0.0234	92.5	0.0834	0.1390	29.31	40.76	48.37	59.72	67.25	74.76
BS-1D	6.8	0.0106	61.0	0.1294	0.2157	0.10	1.40	2.80	5.40	7.40	9.55
BS-2A	6.9	0.0108	92.5	0.1445	0.2409	12.60	17.72	21.18	26.34	29.78	33.20
BS-2B	13.7	0.0214	92.5	0.0778	0.1297	26.89	37.35	44.29	54.65	61.54	68.43
BS-2C	11.4	0.0178	92.5	0.0862	0.1436	22.22	30.92	36.70	45.34	51.07	56.77
BS-2D	1.7	0.0027	92.5	0.0794	0.1324	3.33	4.63	5.49	6.78	7.63	8.49
BS-2E	1.8	0.0028	61.0	0.0961	0.1602	0.03	0.44	0.85	1.62	2.19	2.81
BS-3A	9.1	0.0142	92.5	0.0723	0.1205	17.86	24.83	29.47	36.38	40.97	45.54
BS-3B	15.3	0.0239	92.5	0.0751	0.1251	29.96	41.70	44.80	59.49	64.25	71.38
BS-3C	14.9	0.0233	92.5	0.0751	0.1251	29.17	40.58	48.16	59.49	67.00	74.48
BS-3D	20.4	0.0319	92.5	0.0890	0.1483	38.31	54.90	65.28	80.79	91.07	101.33
BS-3E	12.9	0.0202	92.5	0.0917	0.1529	24.78	34.63	41.19	50.99	57.50	63.98
BS-3F	3.9	0.0061	92.5	0.0767	0.1278	7.62	10.61	12.59	15.56	17.52	19.48
BS-3G	5.6	0.0088	92.5	0.1544	0.2574	9.87	13.91	16.62	20.72	23.48	26.23

DRAINAGE CONVEYANCE SUMMARY

Conveyance Label	Type	Length ft.	Upper Invert ft.	Lower Invert ft.	Bottom Width ft.	Slope %	Side Slope H to 1	Manning's N value	Available Depth ft.	Q 5 Yr. cfs	Q 100 Yr. cfs	Q Capacity cfs
C1	Grass Lined Channel	1200	6794.00	6784.58	4.0	0.7850	3.0	0.035	1.5	1.02	11.56	46.20
C2	18" RCP	100	6786.00	6784.58	1.5	1.4200	N/A	0.013	1.5	2.03	2.78	7.41
C3	36" RCP	250	6784.58	6782.00	3.0	1.0000	N/A	0.013	3.0	4.18	24.02	66.69
C4	Grass Lined Channel	1060	6782.08	6746.00	4.0	3.4362	3.0	0.035	2.0	4.33	23.87	177.86
C5	36" RCP	250	6746.00	6743.50	3.0	1.0000	N/A	0.013	3.0	5.67	33.52	66.69
C9	Grass Lined Channel	1250	6636.00	6607.50	3.0	2.2800	5.0	0.035	1.5	8.72	87.27	102.10
C10	24" RCP	100	6607.50	6605.50	2.0	2.0000	N/A	0.013	2.0	6.31	21.26	31.99
C11	24" RCP	100	6600.00	6598.00	2.0	2.0000	N/A	0.013	2.0	3.38	21.10	31.99
C12	24" RCP	100	6600.00	6598.00	2.0	2.0000	N/A	0.013	2.0	1.32	14.29	31.99
C14	36" RCP	50	6698.00	6697.00	3.0	2.0000	N/A	0.013	3.0	0.62	0.84	94.33
C15	42" RCP	1300	6697.00	6690.50	3.5	0.5000	N/A	0.013	3.5	6.82	51.84	71.14
C16	48" RCP	800	6683.00	6669.00	4.0	0.5000	N/A	0.013	4.0	27.71	52.45	101.57
C17	48" RCP	200	6640.00	6639.00	4.0	0.5000	N/A	0.013	4.0	42.90	80.31	101.57
C18	54" RCP	850	6669.00	6664.75	4.5	0.5000	N/A	0.013	4.5	45.92	85.20	136.05
C19	60" RCP	250	6646.00	6644.75	5.0	0.5000	N/A	0.013	5.0	88.44	159.80	184.16
C20	48" RCP	300	6629.50	6627.50	4.0	0.5000	N/A	0.013	4.0	12.13	79.95	101.57
C21	36" RCP	100	6632.80	6631.80	3.0	1.0000	N/A	0.013	3.0	2.49	30.54	66.70
C22	Grass Lined Channel	1000	6631.80	6600.00	10.0	3.1800	5.0	0.035	1.5	2.48	90.90	234.33
C25	42" RCP	1350	6743.50	6736.75	3.5	0.5000	N/A	0.013	3.5	6.71	33.25	71.14
C26	54" RCP	900	6697.00	6692.50	4.5	0.5000	N/A	0.013	4.5	47.59	85.38	136.05
C27	48" RCP	700	6711.00	6707.50	4.0	0.5000	N/A	0.013	4.0	40.49	74.42	101.57
C28	36" RCP	200	6697.50	6697.00	3.5	2.0000	N/A	0.013	3.5	4.87	57.62	94.32
C29	42" RCP	800	6673.00	6669.00	3.5	0.5000	N/A	0.013	3.5	37.05	68.18	71.14
C31	60" RCP	150	6653.00	6652.25	5.0	0.5000	N/A	0.013	5.0	85.56	158.06	184.16
C32	42" RCP	200	6641.00	6637.00	3.5	2.0000	N/A	0.013	3.5	1.35	42.40	142.28
C35	36" RCP	1100	6665.00	6659.50	3.0	0.5000	N/A	0.013	3.0	24.35	45.05	47.16
C36	48" RCP	1100	6646.00	6640.50	4.0	0.5000	N/A	0.013	4.0	60.08	109.01	101.57
C37	60" RCP	1400	6632.00	6625.00	5.0	0.5000	N/A	0.013	5.0	98.13	182.44	184.16
C38	42" RCP	650	6610.75	6607.50	3.5	0.5000	N/A	0.013	3.5	34.02	61.42	71.14
C39	48" RCP	200	6597.00	6593.00	4.0	2.0000	N/A	0.013	4.0	2.89	83.77	203.14
C40	Grass Lined Channel	400	6593.00	6591.00	4.0	0.5000	3.0	0.035	2.5	2.89	83.96	110.63

COMPARISION OF FLOWS

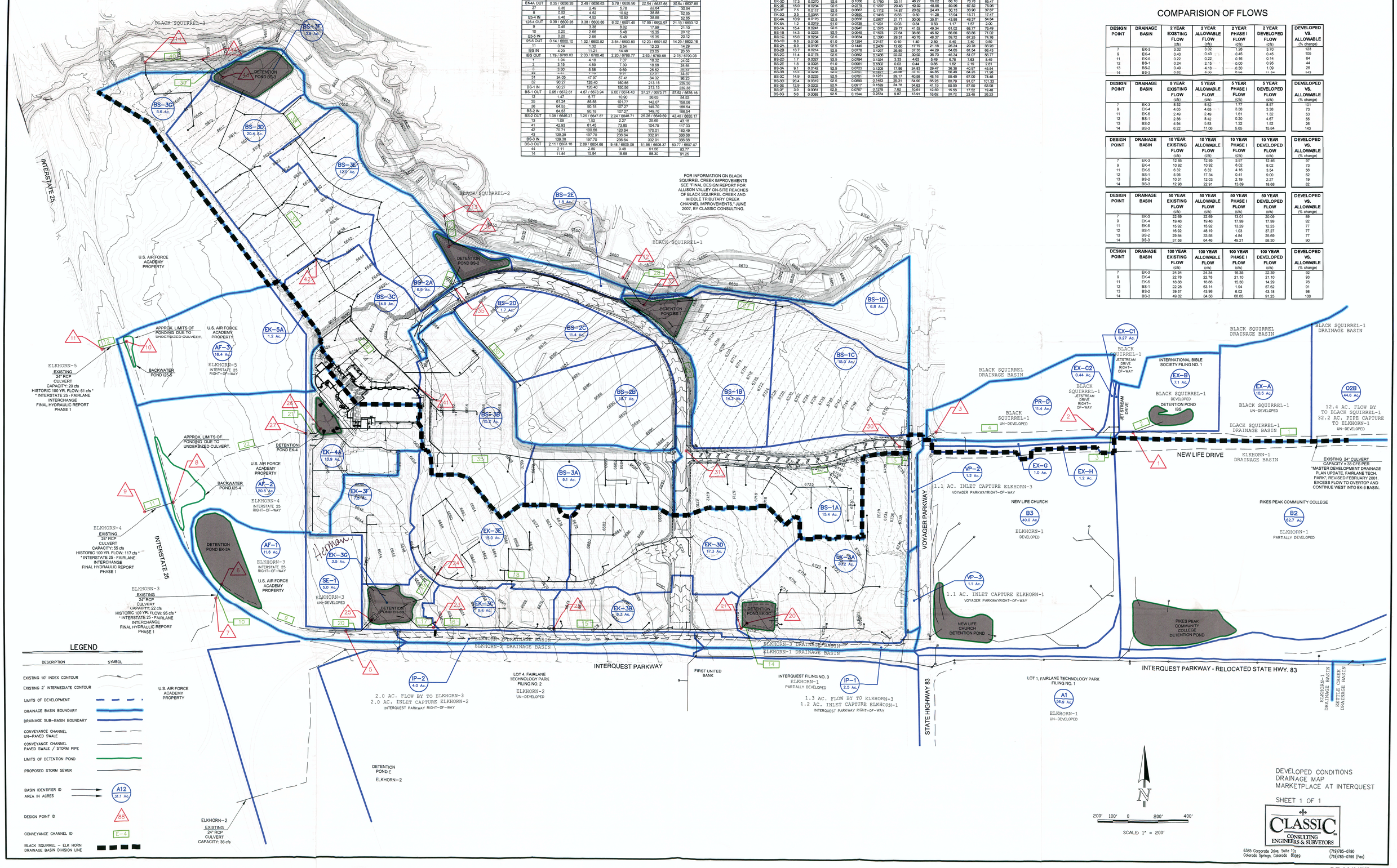
DESIGN POINT	DRAINAGE BASIN	2 YEAR EXISTING FLOW (cfs)	2 YEAR ALLOWABLE FLOW (cfs)	2 YEAR PHASE I FLOW (cfs)	2 YEAR DEVELOPED FLOW (cfs)	DEVELOPED VS. ALLOWABLE (% change)
7	EK-3	3.02	3.02	1.26	3.70	123
9	EK-4	0.43	0.43	0.45	0.45	105
11	EK-5	0.22	0.22	0.16	0.14	64
12	BS-1	0.24	2.15	0.00	0.00	46
13	BS-2	0.49	4.18	0.30	1.09	26
14	BS-3	0.62	4.09	0.98	11.54	143

DESIGN POINT	DRAINAGE BASIN	5 YEAR EXISTING FLOW (cfs)	5 YEAR ALLOWABLE FLOW (cfs)	5 YEAR PHASE I FLOW (cfs)	5 YEAR DEVELOPED FLOW (cfs)	DEVELOPED VS. ALLOWABLE (% change)
7	EK-3	8.52	8.52	1.77	8.57	101
9	EK-4	4.65	4.65	3.38	3.38	73
11	EK-5	2.49	2.49	1.61	1.32	53
12	BS-1	2.86	8.42	0.20	4.67	55
13	BS-2	4.94	5.83	1.32	1.52	26
14	BS-3	6.22	11.06	5.65	15.84	143

DESIGN POINT	DRAINAGE BASIN	10 YEAR EXISTING FLOW (cfs)	10 YEAR ALLOWABLE FLOW (cfs)	10 YEAR PHASE I FLOW (cfs)	10 YEAR DEVELOPED FLOW (cfs)	DEVELOPED VS. ALLOWABLE (% change)
7	EK-3	12.85	12.85	3.87	12.46	97
9	EK-4	10.92	10.92	8.02	8.02	73
11	EK-5	6.32	6.32	4.16	3.54	56
12	BS-1	5.95	17.34	0.41	9.00	52
13	BS-2	10.31	12.03	2.19	2.27	19
14	BS-3	12.96	22.91	13.89	18.68	82

DESIGN POINT	DRAINAGE BASIN	50 YEAR EXISTING FLOW (cfs)	50 YEAR ALLOWABLE FLOW (cfs)	50 YEAR PHASE I FLOW (cfs)	50 YEAR DEVELOPED FLOW (cfs)	DEVELOPED VS. ALLOWABLE (% change)
7	EK-3	22.69	22.69	13.01	20.09	89
9	EK-4	19.46	19.46	17.99	17.99	92
11	EK-5	15.92	15.92	13.29	12.23	77
12	BS-1	16.92	48.19	1.03	37.27	77
13	BS-2	29.84	33.58	4.84	25.69	77
14	BS-3	37.58	64.46	49.21	58.30	90

DESIGN POINT	DRAINAGE BASIN	100 YEAR EXISTING FLOW (cfs)	100 YEAR ALLOWABLE FLOW (cfs)	100 YEAR PHASE I FLOW (cfs)	100 YEAR DEVELOPED FLOW (cfs)	DEVELOPED VS. ALLOWABLE (% change)
7	EK-3	24.34	24.34	16.35	22.39	92
9	EK-4	22.78	22.78	21.10	21.10	93
11	EK-5	18.88	18.88	15.30	14.29	76
12	BS-1	22.28	63.14	1.94	57.62	91
13	BS-2	36.57	43.98	6.02	43.18	98
14	BS-3	49.82	84.58	68.65	91.25	108



DEVELOPED CONDITIONS DRAINAGE MAP
MARKETPLACE AT INTERQUEST

SHEET 1 OF 1

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SCANNED