



FEB 14 2006

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PACE DEVELOPMENT

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As Built Pidgeon Park Plat 2

Highway K & Mexico Rd. City of O'Fallon, Missouri

Kuhlmann Design Group - Project #980324-0004

DETENTION ROUTING CALCULATIONS

Revised 11-04-03 — *Orig Design*

In this report:

Calculated volumes stored in the basin and the outfall from the control structure.

Including:

- Cemetery @ 4.5 ac.
- Winding Woods @ 17.20 acres (with detention provided upstream)
- Hwy K C2 area @ 23.20 acres (with detention provided upstream)
- Autumn Chase @ 16.02 acres Developed Condition

Calculated controlled flows exiting the basin:

100 year storm	150.04 cfs	— Revised As-Built →	154.47 124.52 102.52
25 year storm	119.92 cfs		
15 year storm	98.82 cfs		

Calculated flows (developed) from 6.49 acre Pigeon Park:

100 year storm	39.46 cfs	— Revised for Analyses of impervious vs. grass areas.	36.30 28.36 22.99
25 year storm	33.28 cfs		
15 year storm	29.07 cfs		

Calculated total flow into creek outfall:

100 year	150.04	+	39.46	=	189.50 cfs	(less than <u>200.22 cfs allowable</u>)	<u>Actual</u> 190.77
25 year	119.92	+	33.28	=	153.20 cfs	(less than <u>156.58 cfs allowable</u>)	152.88
15 year	98.82	+	29.07	=	127.89 cfs	(less than <u>127.98 cfs allowable</u>)	125.51

S/N: HOM0L0436313 JRK, JR

Pond Pack Ver: 10-9-97 :055 Compute Time: 10:45:53 Date: 11-04-2003

Type.... Pond Routing Summary

Name.... BASIN 9-13-05

Tag: Of 100 yr

File.... J:\1998\980324~1\0001\CIVIL\DETENT~1\9-13-05R.ppk
Title... Control flows and overflow from detention basin

LEVEL POOL ROUTING SUMMARY

HYG Dir = J:\1998\980324~1\0001\CIVIL\DETENT~1\
Inflow HYG file = PACE-03.HYG - PROP INTO BASIN Of 100
Outflow HYG file = NONE STORED - BASIN 9-13-05OUT Of 100

Pond Node Data = P 10
Pond Volume Data = 9-13-05 ASBLT
Pond Outlet Data = Pace Basin Pipes

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 514.80 ft
Starting Volume = 0 cu.ft
Starting Outflow = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout= .00 cfs
Time Increment = .0250 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

=====
Peak Inflow = 199.90 cfs at 12.0750 hrs
Peak Outflow = 154.47 cfs at 12.1750 hrs

As-Built

Peak Elevation = 522.77 ft
Peak Storage = 80466 cu.ft
=====

MASS BALANCE (cu.ft)

+ Initial Vol = 0
+ HYG Vol IN = 634466
- Infiltration = 0
- HYG Vol OUT = 634466
- Retained Vol = 0

Unrouted Vol = -1 cu.ft (.000% of Inflow Volume)

S/N: HOM0L0436313 JRK, JR

Pond Pack Ver: 10-9-97 :055 Compute Time: 14:33:00 Date: 09-13-2005



FIG 1 4 2006

Name.... BASIN 9-13-05 Tag: Of 25 year

File.... J:\1998\980324~1\0001\CIVIL\DETENT-1\9-13-05R.ppk
Title... Control flows and overflow from detention basin

LEVEL POOL ROUTING SUMMARY

HYG Dir = J:\1998\980324~1\0001\CIVIL\DETENT-1\
Inflow HYG file = PACE-03.HYG - PROP INTO BASIN Of 25
Outflow HYG file = NONE STORED - BASIN 9-13-05OUT Of 25

Pond Node Data = P 10

Pond Volume Data = 9-13-05 ASBLT
Pond Outlet Data = Pace Basin Pipes

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 514.80 ft
Starting Volume = 0 cu.ft
Starting Outflow = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout= .00 cfs
Time Increment = .0250 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

=====
Peak Inflow = 159.42 cfs at 12.0750 hrs
Peak Outflow = 124.52 cfs at 12.1750 hrs

Peak Elevation = 521.66 ft
Peak Storage = 62856 cu.ft
=====

As-Built

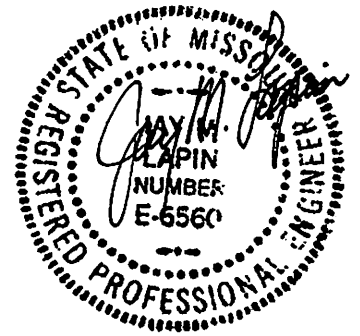
MASS BALANCE (cu.ft)

+ Initial Vol = 0
+ HYG Vol IN = 508545
- Infiltration = 0
- HYG Vol OUT = 508544
- Retained Vol = 0

Unrouted Vol = -1 cu.ft (.000% of Inflow Volume)

S/N: HOM0L0436313 JRK, JR

Pond Pack Ver: 10-9-97 :055 Compute Time: 14:33:00 Date: 09-13-2005



FEB 14 2006

Calc. Date

Type.... Pond Routing Summary

Name.... BASIN 9-13-05 Tag: Of 15 year

File.... J:\1998\980324-1\0001\CIVIL\DETENT-1\9-13-05R.ppk
Title... Control flows and overflow from detention basin

LEVEL POOL ROUTING SUMMARY

HYG Dir = J:\1998\980324-1\0001\CIVIL\DETENT-1\
Inflow HYG file = PACE-03.HYG - PROP INTO BASIN Of 15
Outflow HYG file = NONE STORED - BASIN 9-13-05OUT Of 15

Pond Node Data = P 10
Pond Volume Data = 9-13-05 ASBLT
Pond Outlet Data = Pace Basin Pipes

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 514.80 ft
Starting Volume = 0 cu.ft
Starting Outflow = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout= .00 cfs
Time Increment = .0250 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

=====
Peak Inflow = 132.62 cfs at 12.0750 hrs
Peak Outflow = 102.52 cfs at 12.1750 hrs
=====

Peak Elevation = 520.83 ft
Peak Storage = 51607 cu.ft
=====

As-Built

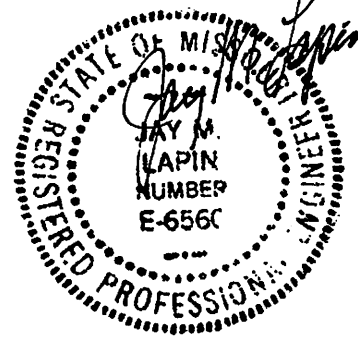
MASS BALANCE (cu.ft)

+ Initial Vol = 0
+ HYG Vol IN = 425912
- Infiltration = 0
- HYG Vol OUT = 425912
- Retained Vol = 0

Unrouted Vol = -1 cu.ft (.000% of Inflow Volume)

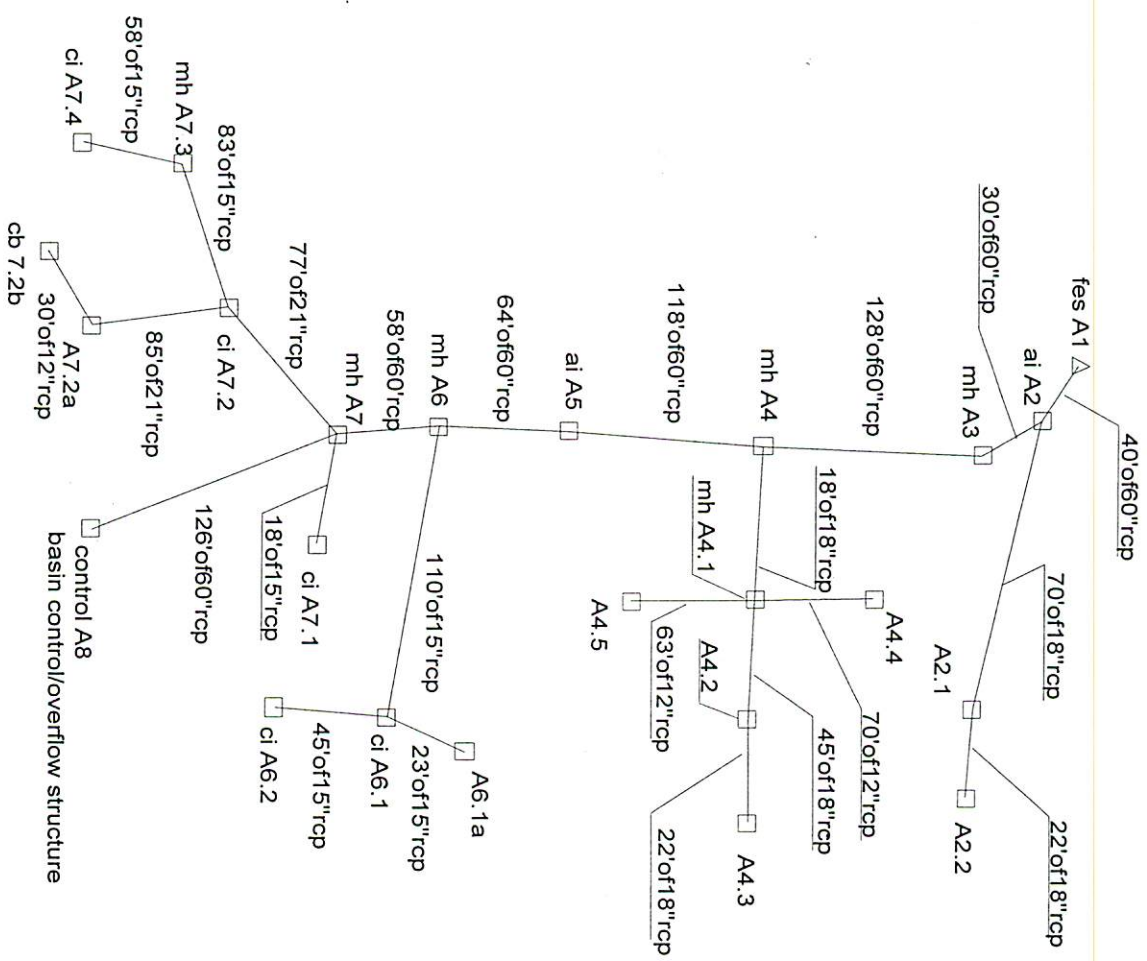
S/N: HOM0L0436313 JRK, JR

Pond Pack Ver: 10-9-97 :055 Compute Time: 14:33:00 Date: 09-13-2005



FEB 14 2006

(A)



As Built Calc's
Pace Development, O'Fallon, Missouri
KdG project #980324-0004
(15 year storm)

Project Title: Pace Development, O'Fallon, Missouri
j:\... \0004\civil\15-12-06 as built\sa1-a8 as.stm
08/03/06 01:12:28 PM

© Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666
KUHLMANN DESIGN GROUPS

Project Engineer: KdG
StormCAD v1.5 [158]
Page 1 of 1

Professional Engineer Seal: State of Missouri, License No. E-65560, KdG

KdG Structure Report

Node	C	I (in/hr)	TC (min)	Inlet A (acres)	Inlet Q (cfs)	Sump (ft)	Gr Elev (ft)	Rim (ft)	HGL In (ft)	HGL Out (ft)
cb 7.2b	0.83	4.60	20.00	0.71	2.73	526.58	529.60	530.60	527.28	527.28
ci A7.4	0.85	4.60	20.00	0.08	0.31	526.40	530.60	531.60	526.62	526.62
A7.2a	0.00	4.60	20.00	0.00	0.00	520.17	526.81	527.81	520.77	520.77
mh A7.3	0.00	4.60	20.00	0.00	0.00	524.29	528.74	529.74	524.55	524.51
A6.1a	0.00	7.40	0.00	0.00	0.00	519.96	523.65	524.65	519.96	519.96
ci A6.2	0.83	4.60	20.00	0.17	0.65	520.54	525.06	526.06	520.86	520.86
ci A7.1	0.83	4.60	20.00	0.32	1.23	515.14	524.30	525.30	516.27	516.27
control A8	0.00	4.60	20.00	0.00	0.00	513.99	520.00	520.00	516.81	516.81
ci A7.2	0.83	4.60	20.00	0.51	1.96	517.87	525.87	526.87	518.85	518.69
ci A6.1	0.84	4.60	20.00	0.20	0.77	518.44	524.58	525.58	519.06	518.91
mh A7	0.00	7.40	0.00	0.00	0.00	512.57	526.29	526.29	516.26	515.48
A4.3	0.83	4.60	20.00	0.90	3.47	515.68	520.29	521.29	516.39	516.39
mh A6	0.00	4.60	20.00	0.00	0.00	512.02	525.91	525.91	515.56	514.95
A4.2	0.84	4.60	20.00	0.21	0.81	514.46	520.28	521.28	515.41	515.25
A4.4	0.85	4.60	20.00	0.08	0.31	514.74	519.17	520.17	514.97	514.97
A4.5	0.84	4.60	20.00	0.23	0.89	516.79	521.25	522.25	517.18	517.18
ai A5	0.83	4.60	20.00	0.24	0.92	511.46	525.39	526.39	515.02	514.41
mh A4.1	0.00	4.60	20.00	0.00	0.00	512.80	521.12	521.12	514.22	514.13
A2.2	0.83	4.60	20.00	1.39	5.35	512.75	516.15	517.15	513.64	513.64
mh A4	0.00	7.40	0.00	0.00	0.00	510.14	522.51	522.51	514.11	513.66
A2.1	0.85	4.60	20.00	0.10	0.39	512.02	516.97	517.97	513.73	513.65
mh A3	0.00	7.40	0.00	0.00	0.00	509.03	519.14	519.14	513.79	513.43
ai A2	0.83	4.60	20.00	0.79	3.04	508.72	518.14	519.14	513.44	512.97
fes A1	N/A	N/A	N/A	N/A	N/A	508.02	518.00	518.00	513.02	513.02



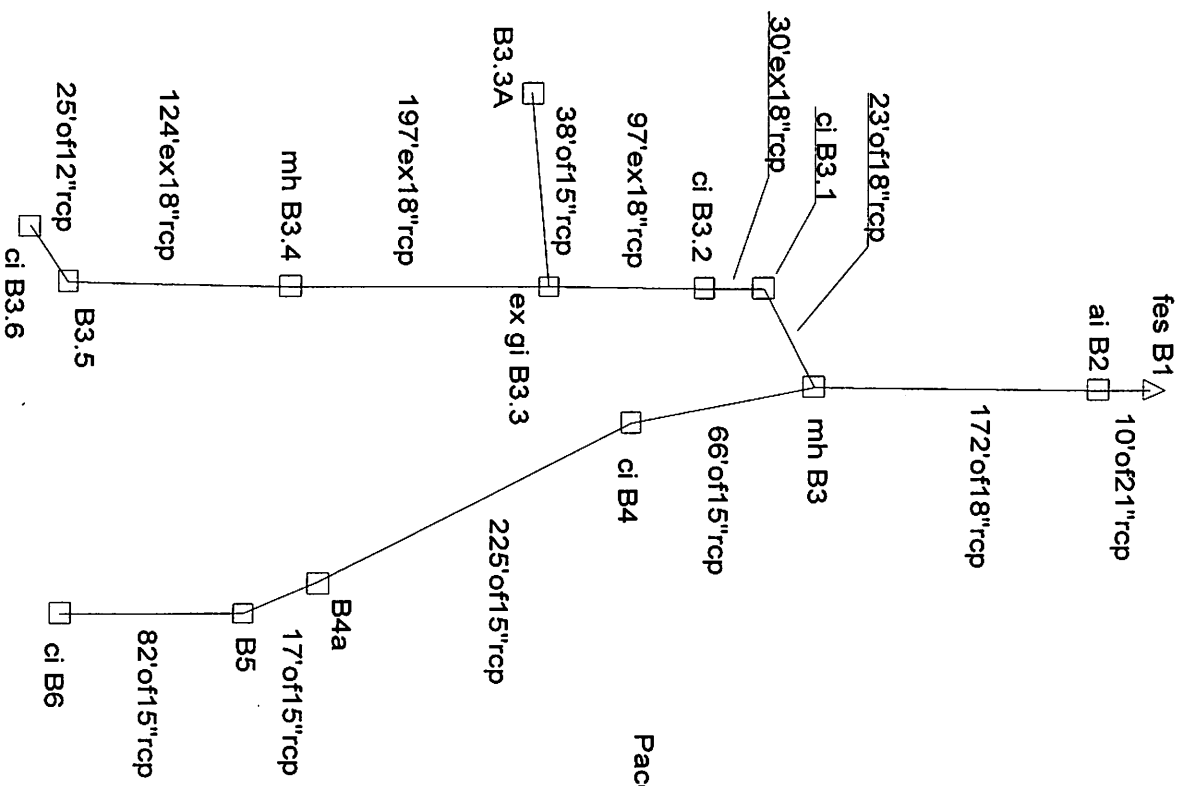
KdG Hydraulic Calc's

Up Node	Inlet Discharge (cfs)	Up Invert (ft)	Pipe	Dn Node	Dn Invert (ft)	Length (ft)	Size	S (ft/ft)	n	V avg (ft/s)	Q (cfs)	Cap (cfs)	Dn HGL (ft)	Dn Rim (ft)	Up HGL (ft)	Up Rim (ft)
cb 7.2b	2.73	526.58	30'of12"rcp	A7.2a	523.92	30.00	12 inch	0.089	0.013	7.64	2.73	11.83	524.27	527.81	527.28	530.60
ci A7.4	0.31	526.40	58'of15"rcp	mh A7.3	524.29	58.00	15 inch	0.036	0.013	1.97	0.31	12.32	524.55	529.74	526.62	531.60
A7.2a	0.00	520.17	85'of21"rcp	ci A7.2	517.87	85.00	21 inch	0.027	0.013	2.86	2.73	26.06	518.85	526.87	520.77	527.81
mh A7.3	0.00	524.29	83'of15"rcp	ci A7.2	522.25	83.00	15 inch	0.025	0.013	2.96	0.31	10.13	522.40	526.87	524.51	529.74
A6.1a	0.00	519.96	23'of15"rcp	ci A6.1	518.44	23.00	15 inch	0.066	0.013	0.00	0.00	16.61	519.06	525.58	519.96	524.65
ci A6.2	0.65	520.54	45'of15"rcp	ci A6.1	518.44	45.00	15 inch	0.047	0.013	1.88	0.65	13.95	519.06	525.58	520.86	526.06
ci A7.1	1.23	515.14	18'of15"rcp	mh A7	513.94	18.00	15 inch	0.067	0.013	1.03	1.23	16.68	516.26	526.29	516.27	525.30
control A8	0.00	513.99	126'of60"rcp	mh A7	512.57	126.00	60 inch	0.011	0.013	7.46	98.10	276.47	516.26	526.29	516.81	520.00
ci A7.2	1.96	517.87	77'of21"rcp	mh A7	515.36	77.00	21 inch	0.033	0.013	4.26	5.01	28.61	516.26	526.29	518.69	526.87
ci A6.1	0.77	518.44	110'of15"rcp	mh A6	513.14	110.00	15 inch	0.048	0.013	2.27	1.44	14.18	515.56	525.91	518.91	525.58
mh A7	0.00	512.57	58'of60"rcp	mh A6	512.02	58.00	60 inch	0.009	0.013	7.91	104.35	253.60	515.56	525.91	515.48	526.29
A4.3	3.47	515.68	22'of18"rcp	A4.2	514.46	22.00	18 inch	0.055	0.013	3.57	3.47	24.74	515.41	521.28	516.39	521.29
mh A6	0.00	512.02	64'of60"rcp	ai A5	511.46	64.00	60 inch	0.009	0.013	7.96	105.83	243.61	515.02	526.39	514.95	525.91
A4.2	0.81	514.46	45'of18"rcp	mh A4.1	512.80	45.00	18 inch	0.037	0.013	3.49	4.28	20.17	514.22	521.12	515.25	521.28
A4.4	0.31	514.74	70'of12"rcp	mh A4.1	512.80	70.00	12 inch	0.028	0.013	1.32	0.31	6.61	514.22	521.12	514.97	520.17
A4.5	0.89	516.79	63'of12"rcp	mh A4.1	512.80	63.00	12 inch	0.063	0.013	2.05	0.89	10.00	514.22	521.12	517.18	522.25
ai A5	0.92	511.46	118'of60"rcp	mh A4	510.14	118.00	60 inch	0.011	0.013	7.63	106.77	275.44	514.11	522.51	514.41	526.39
mh A4.1	0.00	512.80	18'of18"rcp	mh A4	512.10	18.00	18 inch	0.039	0.013	3.17	5.43	20.71	514.11	522.51	514.13	521.12
A2.2	5.35	512.75	22'of18"rcp	A2.1	512.02	22.00	18 inch	0.033	0.013	3.96	5.35	19.13	513.73	517.97	513.64	517.15
mh A4	0.00	510.14	128'of60"rcp	mh A3	509.03	128.00	60 inch	0.009	0.013	6.72	112.27	242.52	513.79	519.14	513.66	522.51
A2.1	0.39	512.02	70'of18"rcp	ai A2	510.33	70.00	18 inch	0.024	0.013	3.25	5.74	16.32	513.44	519.14	513.65	517.97
mh A3	0.00	509.03	30'of60"rcp	ai A2	508.72	30.00	60 inch	0.010	0.013	6.00	112.48	264.73	513.44	519.14	513.43	519.14
ai A2	3.04	508.72	40'of60"rcp	fes A1	508.02	40.00	60 inch	0.018	0.013	6.49	121.08	344.51	513.02	518.00	512.97	519.14

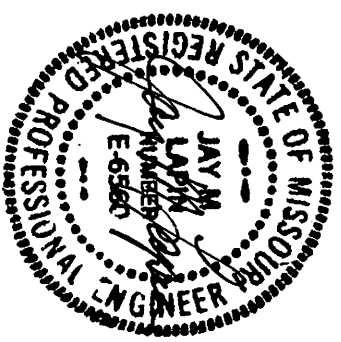


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B



As Built Calc's
 Pace Development, O'fallon Missouri
 KdG project #980324-0004



AUG 11 2006

KdG Structure Report

Node	C	I (in/hr)	TC (min)	Inlet A (acres)	Inlet Q (cfs)	Sump (ft)	Gr Elev (ft)	Rim (ft)	HGL In (ft)	HGL Out (ft)
ci B3.6	0.83	4.60	20.00	1.18	4.54	537.31	542.85	543.35	538.20	538.20
B3.5	0.00	7.40	0.00	0.00	0.00	535.95	539.84	540.84	536.94	536.77
ci B6	0.83	4.60	20.00	0.84	3.23	527.12	532.31	533.31	527.84	527.84
B3.3A	0.72	5.30	15.00	0.33	1.27	522.90	527.10	528.10	523.34	523.34
mh B3.4	0.00	7.40	0.00	0.00	0.00	527.79	536.00	536.00	528.77	528.61
B5	0.84	4.60	20.00	0.14	0.54	523.65	531.50	532.50	524.62	524.44
ex gi B3.3	0.85	4.60	20.00	0.08	0.31	513.96	527.06	527.06	515.10	514.90
B4a	0.83	4.60	20.00	0.25	0.96	523.27	527.27	527.57	524.37	524.15
ci B3.2	0.83	4.60	20.00	0.19	0.73	509.32	523.00	524.00	510.84	510.73
ci B4	0.83	4.60	20.00	0.69	2.66	519.28	525.21	526.21	521.05	520.72
ci B3.1	0.83	4.60	20.00	0.56	2.16	508.68	523.52	524.00	510.62	510.37
mh B3	0.00	7.40	0.00	0.00	0.00	507.91	524.74	524.74	510.21	509.34
ai B2	0.83	4.60	20.00	0.74	2.85	502.95	518.58	519.58	505.06	504.52
fes B1	N/A	N/A	N/A	N/A	N/A	502.43	505.00	505.00	504.18	504.18



AUG 11 2006

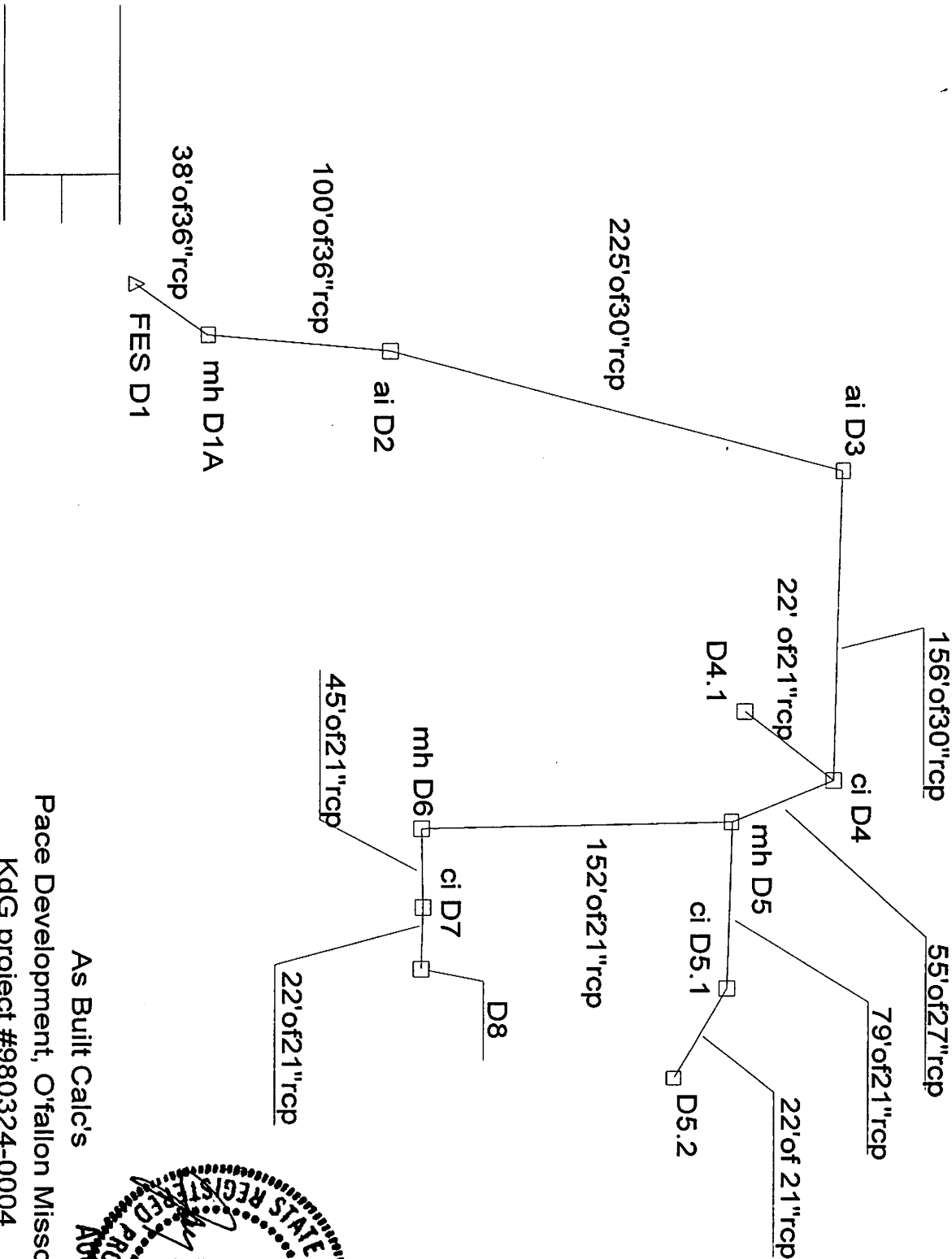
KdG Hydraulic Calc's

Up Node	Inlet Discharge (cfs)	Up Invert (ft)	Pipe	Dn Node	Dn Invert (ft)	Length (ft)	Size	S (ft/ft)	n	V avg (ft/s)	Q (cfs)	Cap (cfs)	Dn HGL (ft)	Dn Rim (ft)	Up HGL (ft)	Up Rim (ft)
ci B3.6	4.54	537.31	25'of12"rcp	B3.5	535.95	25.00	12 inch	0.054	0.013	5.65	4.54	9.26	536.94	540.84	538.20	543.35
B3.5	0.00	535.95	124'ex18"rcp	mh B3.4	527.79	124.00	18 inch	0.066	0.013	4.17	4.58	26.95	528.77	536.00	536.77	540.84
ci B6	3.23	527.12	82'of15"rcp	B5	523.65	82.00	15 inch	0.042	0.013	3.78	3.23	13.29	524.62	532.50	527.84	533.31
B3.3A	1.27	522.90	38'of15"rcp	ex gi B3.3	522.06	38.00	15 inch	0.022	0.013	4.34	1.27	9.60	522.37	527.06	523.34	528.10
mh B3.4	0.00	527.79	197'ex18"rcp	ex gi B3.3	513.96	197.00	18 inch	0.070	0.013	3.89	4.55	27.83	515.10	527.06	528.61	536.00
B5	0.54	523.65	17'of15"rcp	B4a	523.27	17.00	15 inch	0.022	0.013	3.97	3.77	9.66	524.37	527.57	524.44	532.50
ex gi B3.3	0.31	513.96	97'ex18"rcp	ci B3.2	509.32	97.00	18 inch	0.048	0.013	4.21	5.92	22.97	510.84	524.00	514.90	527.06
B4a	0.96	523.27	225'of15"rcp	ci B4	519.28	225.00	15 inch	0.018	0.013	4.48	4.72	8.60	521.05	526.21	524.15	527.57
ci B3.2	0.73	509.32	30'ex18"rcp	ci B3.1	508.68	30.00	18 inch	0.021	0.013	3.80	6.63	15.34	510.62	524.00	510.73	524.00
ci B4	2.66	519.28	66'of15"rcp	mh B3	518.70	66.00	15 inch	0.009	0.013	6.28	7.39	6.06	519.78	524.74	520.72	526.21
ci B3.1	2.16	508.68	23'of18"rcp	mh B3	507.91	23.00	18 inch	0.033	0.013	4.97	8.79	19.22	510.21	524.74	510.37	524.00
mh B3	0.00	507.91	172'of18"rcp	ai B2	502.95	172.00	18 inch	0.029	0.013	9.21	16.13	17.84	505.06	519.58	509.34	524.74
ai B2	2.85	502.95	10'of21"rcp	fes B1	502.43	10.00	21 inch	0.052	0.013	8.12	19.00	36.13	504.18	505.00	504.52	519.58

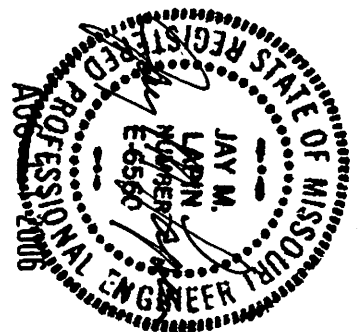


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(D)



As Built Calc's
Pace Development, O'Fallon Missouri
KdG project #980324-0004

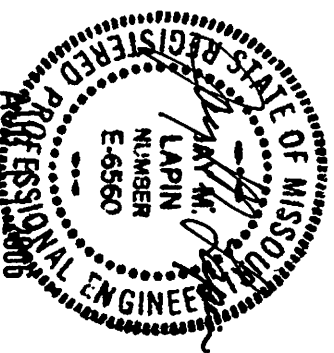


KdG Structure Report

Node	C	I (in/hr)	TC (min)	Inlet A (acres)	Inlet Q (cfs)	Sump (ft)	Gr Elev (ft)	Rim (ft)	HGL In (ft)	HGL Out (ft)
D8	0.72	5.30	15.00	1.61	6.20	506.99	511.48	512.48	508.35	508.23
ci D7	0.83	4.60	20.00	0.40	1.54	506.61	511.74	512.74	508.27	508.18
D5.2	0.72	5.30	15.00	2.90	11.17	501.65	509.28	510.28	508.53	508.33
mh D6	0.00	7.40	0.00	0.00	0.00	506.10	513.99	513.99	508.11	508.00
ci D5.1	0.84	4.60	20.00	0.12	0.46	501.18	509.51	510.51	508.22	508.04
mh D5	0.00	7.40	0.00	0.00	0.00	500.57	510.64	510.64	507.71	507.45
D4.1	0.72	5.30	15.00	0.41	1.58	504.64	509.01	510.01	507.29	507.29
ci D4	0.84	4.60	20.00	0.16	0.62	499.78	508.10	509.10	507.29	507.07
ai D3	0.83	4.60	20.00	0.64	2.46	498.28	508.16	509.16	506.73	506.51
ai D2	0.83	4.60	20.00	0.88	3.39	496.11	507.62	508.62	505.89	505.79
mh D1A	0.00	7.40	0.00	0.00	0.00	495.33	506.19	506.19	505.65	505.55
FES D1	N/A	N/A	N/A	N/A	N/A	494.86	507.00	507.00	505.50	505.50

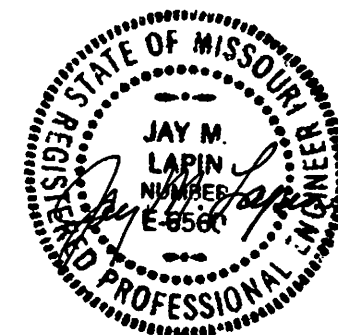
Project Title: Pace Development, O'Fallon, Missouri
 J:\10004\civil\15-12-06 as built\std1-d8 ab.stm
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KUHLMANN DESIGN GROUPS
 © Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666

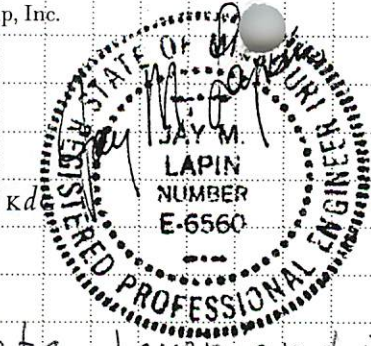


KdG Hydraulic Calc's

Up Node	Inlet Discharge (cfs)	Up Invert (ft)	Pipe	Dn Node	Dn Invert (ft)	Length (ft)	Size	S (ft/ft)	n	V avg (ft/s)	Q (cfs)	Cap (cfs)	Dn HGL (ft)	Dn Rim (ft)	Up HGL (ft)	Up Rim (ft)
D8	6.20	506.99	22'of21"rcp	ci D7	506.61	22.00	21 inch	0.017	0.013	3.01	6.20	20.82	508.27	512.74	508.23	512.48
ci D7	1.54	506.61	45'of21"rcp	mh D6	506.10	45.00	21 inch	0.011	0.013	2.97	6.93	16.87	508.11	513.99	508.18	512.74
D5.2	11.17	501.65	22'of 21"rcp	ci D5.1	501.18	22.00	21 inch	0.021	0.013	4.65	11.19	23.16	508.22	510.51	508.33	510.28
mh D6	0.00	506.10	152'of21"rcp	mh D5	504.33	152.00	21 inch	0.012	0.013	2.88	6.94	17.10	507.71	510.64	508.00	513.99
ci D5.1	0.46	501.18	79'of21"rcp	mh D5	500.57	79.00	21 inch	0.008	0.013	4.23	10.18	13.92	507.71	510.64	508.04	510.51
mh D5	0.00	500.57	55'of27"rcp	ci D4	499.78	55.00	27 inch	0.014	0.013	4.31	17.13	37.12	507.29	509.10	507.45	510.64
D4.1	1.58	504.64	22' of21"rcp	ci D4	503.96	22.00	21 inch	0.031	0.013	0.66	1.58	27.86	507.29	509.10	507.29	510.01
ci D4	0.62	499.78	156'of30"rcp	ai D3	498.28	156.00	30 inch	0.010	0.013	3.89	19.12	40.22	506.73	509.16	507.07	509.10
ai D3	2.46	498.28	225'of30"rcp	ai D2	496.11	225.00	30 inch	0.010	0.013	4.40	21.58	40.28	505.89	508.62	506.51	509.16
ai D2	3.39	496.11	100'of36"rcp	mh D1A	495.33	100.00	36 inch	0.008	0.013	3.53	24.95	58.90	505.65	506.19	505.79	508.62
mh D1A	0.00	495.33	38'of36"rcp	FES D1	494.86	38.00	36 inch	0.012	0.013	3.53	24.95	74.17	505.50	507.00	505.55	506.19



AUG 11 2006



FEB 14 2006

CALCULATION SHEET

Project Name: Pidgeon Park West Plat 2
 Project Number: 980324-0007
 Computed By: JML Date: 2/14/06
 Checked By: _____ Date: _____
 Sheet No.: 1 Of 1

Separate lawn and impervious area on Pidgeon Park areas included in detention calculations.

<u>Location</u>	<u>Total Area</u>	<u>Grass Area</u>	<u>Impervious Area</u>
Lot 1	1.68 ac.	0.226 ac.	1.454 ac.
Lot 2	1.68	0.193	1.487
Lot 5	0.65	0.182	0.468
Lot 6	0.89	0.254	0.636
Road	<u>1.60</u>	<u>0.175</u>	<u>1.425</u>
Σ	6.50 ac.	1.030 ac.	5.470 ac.

Discharge from these parcels:

Including saturation factors:

$$15 \text{ year storm: } 3.85 \overset{21.059}{(5.470)} + 1.87 \overset{1.926}{(1.030)} = 22.99$$

$$25 \text{ year storm: } 4.75 \overset{25.982}{(5.470)} + 2.31 \overset{2.379}{(1.030)} = 28.36$$

$$100 \text{ year storm } 6.08 \overset{33.258}{(5.470)} + 2.95 \overset{3.038}{(1.030)} = 36.30$$

Total flow @ creek discharge:

	<u>Basin</u>	<u>Parcels</u>	<u>Total</u>	<u>Allowable</u>
15 year storm:	102.52	22.99	<u>125.51</u>	127.98
25 year storm:	124.52	28.36	<u>152.88</u>	156.58
100 year storm:	154.47	36.30	<u>190.77</u>	200.22