

Summary for Pond 3P: Relocated Pond

Inflow Area = 1.649 ac, 30.20% Impervious, Inflow Depth = 6.70' for 100yr-24HR event
 Inflow = 1.42 cfs @ 15.65 hrs, Volume= 0.920 af
 Outflow = 0.23 cfs @ 24.07 hrs, Volume= 0.920 af, Atten= 84%, Lag= 504.6 min
 Discarded = 0.05 cfs @ 24.07 hrs, Volume= 0.517 af
 Primary = 0.16 cfs @ 24.07 hrs, Volume= 0.403 af

Routing by Stor-Ind method, Time Span= 0.00-480.00 hrs, dt= 0.01 hrs
 Peak Elev= 923.07' @ 24.07 hrs SurfArea= 30,820 sf Storage= 31,056 cf

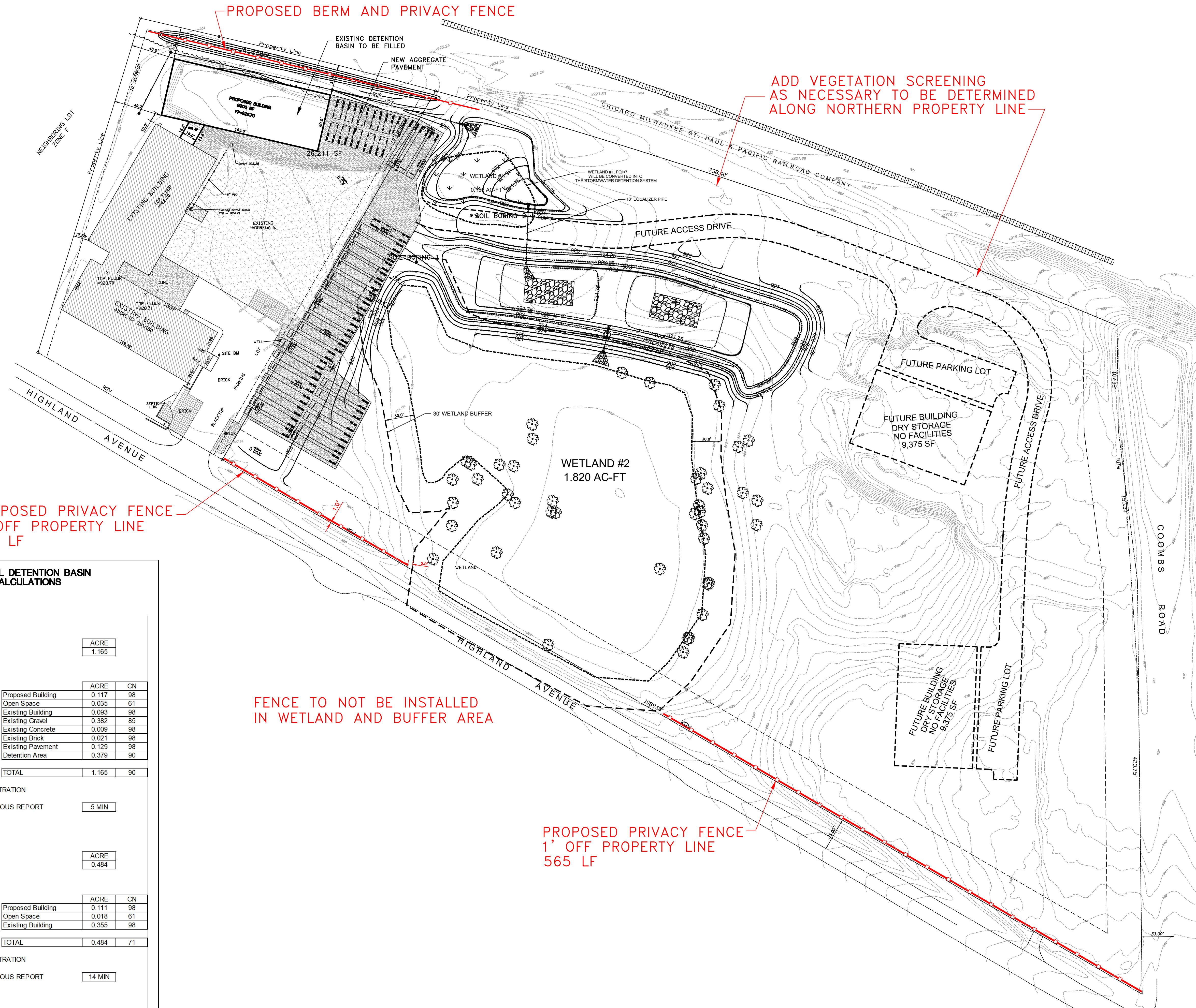
Play-Flow detention time= 2.032 min calculated for 0.920 af (100% of inflow)
 Center-of-Mass det. time= 2.032 min (2,914.7 - 861.8)

Volume #1	Invert	Avail. Storage	Storage Description
921.50		38,744 cf	Pond (Prismatic) Listed below
Elevation (feet)	Surf Area (sq-ft)	Inc. Store (cubic-feet)	Cum. Store (cubic-feet)
921.50	2,500	0	0
921.75	10,869	1,646	1,646
921.90	15,184	1,939	3,585
922.00	17,343	1,626	5,211
923.00	29,973	23,658	28,869
923.25	33,020	7,874	36,744

Device #1	Routing	Invert	Outlet Devices
#1	Primary	922.00'	2.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	922.75'	2.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Discarded	921.50'	0.130 in/hr Exfiltration over Surface area from 921.50' - 922.00' Conductivity to Groundwater Elevation = 919.75' Excluded Surface area = 2,500 sf

Discarded Outflow Max=0.08 cfs @ 24.07 hrs HW=923.07' (Free Discharge)
 =3-Exfiltration (Controls 0.08 cfs)

Primary Outflow Max=0.16 cfs @ 24.07 hrs HW=923.07' (Free Discharge)
 =1-Orifice/Grate (Orifice Controls 0.10 cfs @ 4.78 fps)
 =2-Orifice/Grate (Orifice Controls 0.05 cfs @ 2.34 fps)



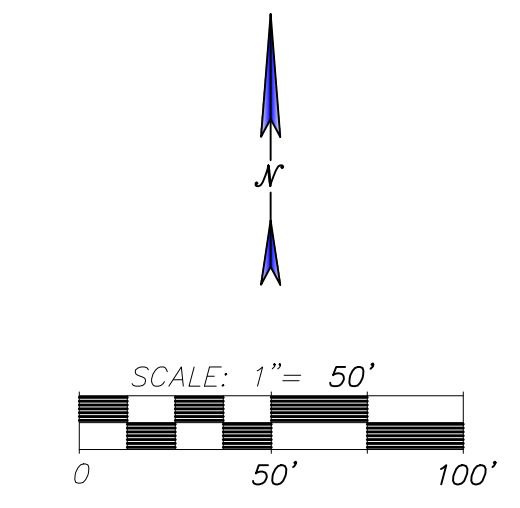
PROPOSED PRIVACY FENCE
 1' OFF PROPERTY LINE
 218 LF

FENCE TO NOT BE INSTALLED
 IN WETLAND AND BUFFER AREA

PROPOSED PRIVACY FENCE
 1' OFF PROPERTY LINE
 565 LF

ORIGINAL DETENTION BASIN CALCULATIONS

EAST AREA	
TRIBUTARY AREA	ACRE 1.165
AREA AND CN	
	ACRE CN
Proposed Building	0.117 98
Open Space	0.035 61
Existing Building	0.093 98
Existing Gravel	0.382 85
Existing Concrete	0.009 98
Existing Brick	0.021 98
Existing Pavement	0.129 98
Detention Area	0.379 90
TOTAL	1.165 90
TIME OF CONCENTRATION	
TOTAL PER PREVIOUS REPORT	5 MIN
WEST AREA	
TRIBUTARY AREA	ACRE 0.484
AREA AND CN	
	ACRE CN
Proposed Building	0.111 98
Open Space	0.018 61
Existing Building	0.355 98
TOTAL	0.484 71
TIME OF CONCENTRATION	
TOTAL PER PREVIOUS REPORT	14 MIN
TOTAL	
TOTAL ACREAGE	1.649 CFS
ALLOWABLE	0.16 CFS 100-yr
	0.07 CFS 2-yr
(0.1 per acre for 100-yr)	
(0.04 per acre for 2-yr)	



DATE	REMARKS	<p>1814 GRANDSTAND PLACE ELGIN, ILLINOIS 60123 phone 847.697.7095 fax 847.697.7099 schefloweng.com Firm License No. 184-001104</p>	KANE COUNTY CUSTOM COLOR INK 39W030 AND 39W180 HIGHLAND AVE OVERALL SITE CONCEPT EXHIBIT	ILLINOIS SCALE 1"=50' DATE 8/9/23 DRAWN BY PCS 5716 CHECKED BY FCC SHEET NO. 1 of 1