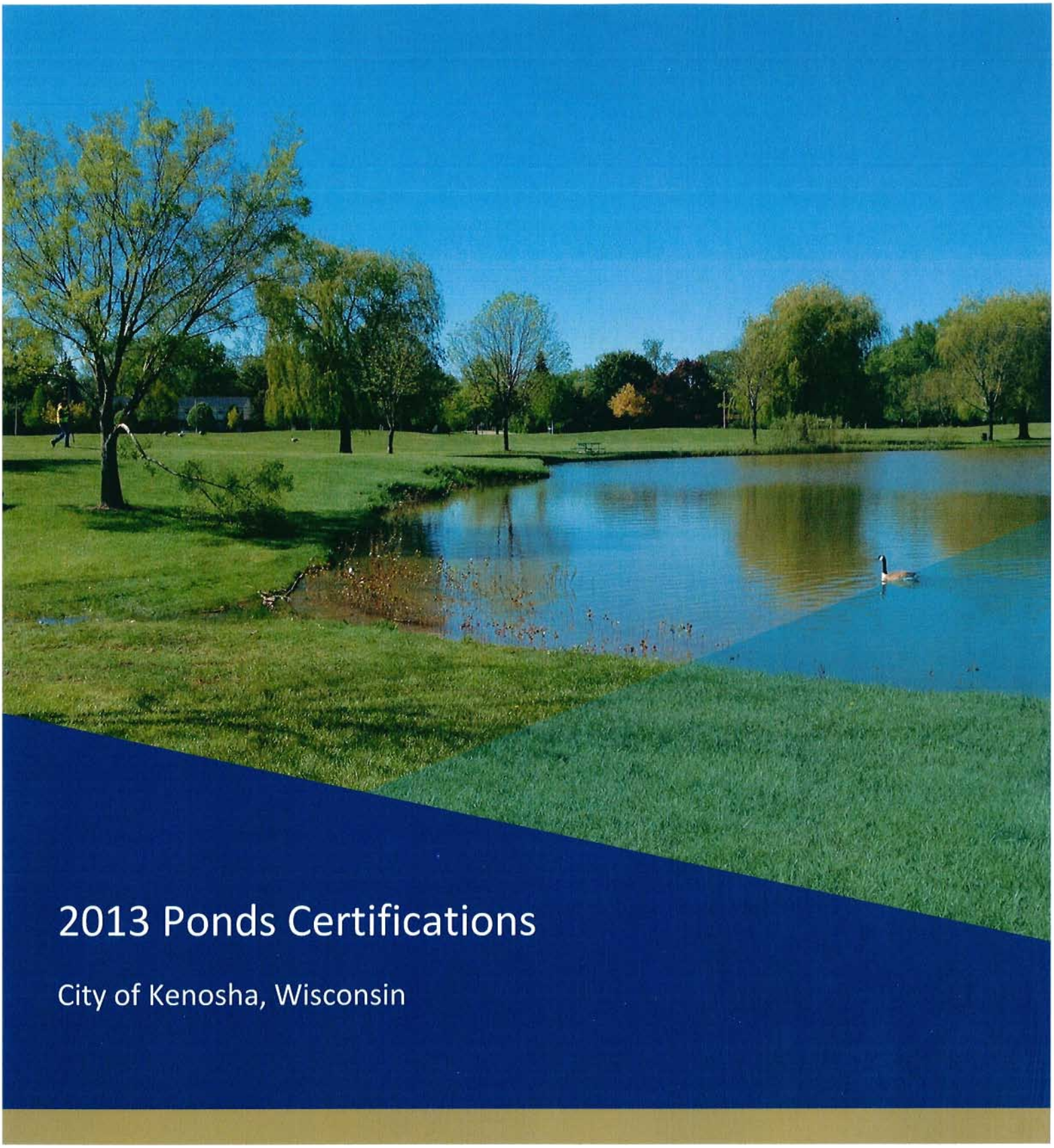

2013 Ponds Certifications

City of Kenosha, Wisconsin

July 9, 2014

Clark Dietz
ENGINEERS

Clark Dietz
ENGINEERS

EXECUTIVE SUMMARY

Clark Dietz, Inc. evaluated the condition of 56 ponds selected by the City of Kenosha. 22 of the ponds are owned and maintained by the City, while the rest are owned privately, but have maintenance agreements with the City for functional maintenance only (not aesthetic). Clark Dietz performed a topographic survey and inspection of each of the ponds, including water and sediment depth measurements. Items such as vegetation growth, inlet and outlet condition, and potential maintenance concerns were noted. This information was then used to prepare a certification report for each of the ponds. Each report includes pond age and design data, a summary of the field findings, recommendations for pond improvements, a layout drawing of the pond and the associated structures, pictures, and the original field notes.

Tables showing the maintenance work required at each pond were prepared and are included with this report. The tables indicate the type of maintenance required, such as vegetation removal, repair of structures, or dredging. Cost estimates were developed for each of the improvements. Each pond was assigned a rank of High, Medium, or Low priority based on the maintenance required. High-priority items are those that present a danger to residents or those that are impeding the function of the pond. Medium-priority items will eventually affect the operation of the pond. Low-priority items are typically minor and/or aesthetic in nature. Two ponds were identified as not requiring any maintenance at this time.

The ponds in the High, Medium, and Low categories were then ranked in the order that improvements should be performed. The maintenance tables are further divided between City-maintained and privately-maintained ponds, but the ponds in each category were prioritized together. Dredging is currently needed at eleven ponds, and five more should be monitored over the next five years. It is recommended that dredging be performed concurrently at several ponds, especially if they are small in size, in order to limit construction costs.

The total cost of all pond improvements was calculated. A schedule of completion was developed based on annual budgets (CIP and/or operational budgets) of $100,000, $200,000, and $300,000. It was assumed that 50% of the annual budget will go toward High-priority improvements, 40% to Medium-priority improvements, and 10% to Low-priority items. The years to completion for each priority category should be added together to obtain the total time to completion for that category. The City can use the schedules to incorporate the pond maintenance projects into the annual budget.

Report Structure

All the pond certification reports are contained in one large binder. The priority ranking tables are included in the front of the binder. The binder is divided into two main sections. The section containing the reports for all the ponds maintained by the City of Kenosha is first, followed by the section containing all the ponds with maintenance agreements. Each of those two sections is divided into four subsections. The subsections are arranged starting with the High-priority improvements and step down in priority ranking to the No-maintenance ponds. The reports in the subsections are also arranged starting with the highest-priority ponds and going down to the lower-priority ponds with that same ranking. The priority ranking tables are included in each subsection.

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
CITY OWNED/MAINTAINED

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
34	Lincoln Park	Yes	Wet	Yes	Yes	Yes	Dredge to remove sediment.	$247,000	$31,440	$44,016	$337,456	High	1	$516,488	10.3	5.2	3.4
							Clear vegetation from north end and inlet.	$5,000									
							Replace outlet structure.	$10,000									
24	Kenosha Industrial Park	Yes	Dry	Yes		Yes	Dredge to original design elevations to restore function.	$103,000	$12,960	$18,144	$139,104	High	2				
							Clear vegetation within and surrounding pond.	$5,000									
21	Bullen	Yes	Dry		Yes		Remove clog from outlet.	$2,000	$720	$1,008	$7,728	High	5				
							Clean flow channel.	$2,000									
							Clean sediment from outlet structure.	$2,000									
26	Whitecaps E	Yes	Dry	Yes	Yes	Yes	Dredge siltation basin.	$17,000	$3,000	$4,200	$32,200	High	6				
							Clean 8" pipe and concrete gutters.	$5,000									
							Remove vegetation from structures.	$2,000									
							Install grate on upper outlet.	$1,000									

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
CITY OWNED/MAINTAINED

#	POND NAME	3 acres or more?	WET/DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
32	Tirabassi		Wet		Yes	Yes	Repair orifice in outlet.	$5,000	$1,800	$2,520	$19,320	Medium	2	$179,032	4.5	2.2	1.5
							Clear brush from outlet and pond perimeter.	$5,000									
							Repair erosion at west inlet structure.	$5,000									
42	Gangler	Yes	Wet		Yes	Yes	Clear debris and repair orifice in outlet structure; note if water level drops.	$5,000	$1,200	$1,680	$12,880	Medium	5				
							Clear vegetation from structures and perimeter.	$5,000									
38	Whitecaps A	Yes	Wet		Yes		Remove clog from outlet structure.	$5,000	$840	$1,176	$9,016	Medium	8				
							Repair 18" and 30" inlet pipes.	$2,000									
33	Anderson Park	Yes	Wet		Yes		Locate inlet/outlet structures and determine cause of pond overflow.	$5,000	$600	$840	$6,440	Medium	9				
27	89th/39th	Yes	Dry		Yes	Yes	Clean channels and structures and keep free of debris.	$2,000	$1,080	$1,512	$11,592	Medium	10				
							Repair first orifice on outlet structure.	$5,000									
							Repair 18" inlet pipe.	$2,000									
31	River Crossing	Yes	Dry		Yes	Yes	Clean channels and structures.	$2,000	$960	$1,344	$10,304	Medium	16				
							Check structures for obstructions.	$5,000									
							Clear vegetation from spillway.	$1,000									
39	Whitecaps B		Wet		Yes	Yes	Clear debris and repair outlet structure.	$5,000	$1,200	$1,680	$12,880	Medium	17				
							Clear vegetation from structures, rip-rap, and perimeter.	$5,000									
40	Whitecaps F		Wet	Yes	Yes		Dredge siltation basin to remove sediment.	$10,000	$1,440	$2,016	$15,456	Medium	18				
							Repair inlet pipe.	$2,000									
35	Nash Park	Yes	Wet	Monitor		Yes	Clear vegetation from inlet and outlet structures.	$2,000	$6,000	$8,400	$64,400	Medium	22				
							Monitor sediment build-up in south end.	$48,000									
44	Payne & Dolan Recycling		Wet	Monitor	Yes	Yes	Clean outlet structure.	$2,000	$1,320	$1,848	$14,168	Medium	24				
							Remove silt fence from drainage swale.										
							Clear cattails from pond and vegetation from rip-rap.	$5,000									
							Monitor need for dredging.	$4,000									
23	Business Park B		Dry		Yes	Yes	Clear debris and vegetation from structures.	$2,000	$240	$336	$2,576	Medium	28				

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
CITY OWNED/MAINTAINED

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
25	Petretti	Yes	Wet & Dry		Yes		Reattach 15" pipe. Clean sediment from concrete gutters.	$1,000 $2,000	$360	$504	$3,864	Low	3	$19,320	1.9	1.0	0.6
22	Business Park A	Yes	Dry			Yes	Clear debris from structures. Clear willow brush. Clean channel.	$1,000 $2,000 $2,000	$600	$840	$6,440	Low	5				
36	Hillside	Yes	Wet			Yes	Clear vegetation from outlet structure. Clean channels.	$1,000 $2,000	$360	$504	$3,864	Low	8				
29	Whitecaps D		Dry		Yes		Clear debris from outlet structure.	$1,000	$120	$168	$1,288	Low	11				
30	Whitecaps C		Dry		Yes		Clear debris from outlet structure.	$1,000	$120	$168	$1,288	Low	12				
37	St. Peter's	Yes	Wet			Yes	Clear debris and vegetation from structures.	$2,000	$240	$336	$2,576	Low	14				

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
CITY OWNED/MAINTAINED

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
41	Whitecaps G		Wet				None.				N/A						

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
PRIVATELY OWNED WITH MAINTENANCE AGREEMENT

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
18	Peterson's Golden Meadow B2		Wet				None.				N/A						

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
PRIVATELY OWNED WITH MAINTENANCE AGREEMENT

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
49	Gateway		Wet	Yes	Yes	Yes	Dredge to remove sediment and restore depth.	$16,000	$3,240	$4,536	$34,776	High	3	$360,640	7.2	3.6	2.4
							Inspect functionality of inlet pipe and make necessary repairs.	$5,000									
							Attach outlet pipe to structure.	$1,000									
							Clear vegetation from structures and perimeter.	$5,000									
56	Heritage Heights 2		Wet	Yes	Yes		Dredge to remove sediment and restore depth.	$13,000	$2,160	$3,024	$23,184	High	4				
							Inspect inlet pipe and outlet structures and clear clogs.	$5,000									
14	Menards	Yes	Wet	Yes	Yes	Yes	Remove vegetation around perimeter and structures.	$2,000	$19,920	$27,888	$213,808	High	7				
							Clean all structures.	$1,000									
							Install grates on 2 inlets.	$1,000									
							Dredge pond to remove sediment.	$162,000									
20	South Port Plaza Basin A	Yes	Wet	Yes			Dredge to remove sediment.	$68,000	$8,160	$11,424	$87,584	High	8				
10	LeMay Buick		Wet		Yes		Clean trash from structures.	$1,000	$120	$168	$1,288	High	9				

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
PRIVATELY OWNED WITH MAINTENANCE AGREEMENT

#	POND NAME	3 acres or more?	WET/DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
15	Midwest Transportation	Yes	Wet		Yes	Yes	Replace grate on outlet structure.	$1,000	$360	$504	$3,864	Medium	1	$926,072	23.2	11.6	7.7
							Remove brush at north end and near 72" inlet.	$2,000									
47	Bradford Estates		Wet	Monitor	Yes		Bolt down loose grates on outlet structure.	$1,000	$960	$1,344	$10,304	Medium	3				
							Clean grates on structures.	$1,000									
							Monitor need for dredging within next five years.	$6,000									
1	Ansari (Barth Storage)		Wet		Yes	Yes	Replace bottom grate on outlet.	$1,000	$480	$672	$5,152	Medium	4				
							Reattach end section on 60" inlet.	$1,000									
							Remove vegetation from rip-rap.	$2,000									
6	Palmen Motors		Wet		Yes	Yes	Construct swale to nearby culvert to remedy drainage problem.	$15,000	$1,920	$2,688	$20,608	Medium	6				
							Clear trees around outlet and spillway.	$1,000									
5	Prairie Lake Estates (Heiberg)	Yes	Wet		Yes	Yes	Clean structures and remove vegetation from rip-rap.	$2,000	$360	$504	$3,864	Medium	7				
							Inspect downstream channel for clogging.	$1,000									
50	Hunters Ridge A		Wet		Yes	Yes	Clean pipe at southeast corner to remove clog.	$2,000	$840	$1,176	$9,016	Medium	11				
							Clear vegetation from structures and pond perimeter.	$5,000									
52	Hunters Ridge C		Wet		Yes	Yes	Reattach inlet pipe.	$1,000	$1,320	$1,848	$14,168	Medium	12				
							Repair two eroded channels.	$5,000									
							Clear vegetation from structures and pond perimeter.	$5,000									
51	Hunters Ridge B		Wet		Yes	Yes	Reattach end sections to inlet pipes.	$2,000	$1,440	$2,016	$15,456	Medium	13				
							Clear vegetation from structures and pond perimeter.	$5,000									
							Inspect structures to determine cause of low water level.	$5,000									
46	Woodman's Basin B		Wet		Yes	Yes	Clear vegetation from outlet structure and perimeter.	$5,000	$1,320	$1,848	$14,168	Medium	14				
							Clean outlet to remove clog; note if water level drops.	$5,000									
							Clear pond area of debris.	$1,000									
45	Woodman's Basin A		Wet	Yes		Yes	Dredge at south end and near outlet structure.	$36,000	$5,040	$7,056	$54,096	Medium	15				
							Clear vegetation from structures and perimeter.	$5,000									
							Clear pond area of debris.	$1,000									
43	Indian Trail Estates - YMCA	Yes	Wet		Yes	Yes	Clear vegetation from structures, rip-rap, and pond perimeter.	$5,000	$840	$1,176	$9,016	Medium	19				
							Repair washed-out rip-rap.	$2,000									
12	Leona's Rolling Meadows Subdivision C1		Wet	Yes		Yes	Dredge to remove sediment.	$23,000	$3,000	$4,200	$32,200	Medium	20				
							Clear vegetation around pond.	$2,000									
11	Leona's Rolling Meadows Subdivision C	Yes	Wet	Yes	Yes		Dredge to remove sediment.	$133,000	$16,080	$22,512	$172,592	Medium	21				
							Clean outlet periodically.	$1,000									
9	KM Property Owners South Port Plaza B		Wet	Monitor	Yes		Sediment is deep in some areas; monitor need for dredging over next five years.	$31,000	$4,320	$6,048	$46,368	Medium	23				
							Clean outlet and check for blockage.	$5,000									
53	Mahone	Yes	Wet	Monitor		Yes	Clear vegetation from structures, rip-rap, and north end of pond.	$2,000	$47,520	$66,528	$510,048	Medium	25				
							Determine design depth of pond and whether dredging is necessary.	$1,000									
							Monitor need for dredging within next five years.	$393,000									
2	Dairyland Greyhound Park (WEST)		Wet			Yes	Remove perimeter vegetation and locate structures.	$2,000	$240	$336	$2,576	Medium	26				
3	Dairyland Greyhound Park (NORTH)	Yes	Wet			Yes	Remove vegetation around perimeter and outlet structure.	$2,000	$240	$336	$2,576	Medium	27				

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
PRIVATELY OWNED WITH MAINTENANCE AGREEMENT

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
16	Peterson's Golden Meadow A		Wet		Yes		Stabilize erosion near outlet structure and clean lower outlet.	$5,000	$600	$840	$6,440	Low	1	$43,792	4.4	2.2	1.5
48	Regal Apartments		Wet		Yes	Yes	Repair end section on 18" pipe.	$1,000	$480	$672	$5,152	Low	2				
							Remove vegetation at structures and spillway.	$2,000									
							Mow area around pond.	$1,000									
7	Kenosha Trade Commerce		Wet		Yes		Reattach end section on 27" inlet.	$1,000	$120	$168	$1,288	Low	4				
54	Heritage Heights 1A		Wet			Yes	Clear vegetation from structures.	$2,000	$840	$1,176	$9,016	Low	6				
							Remove cattails from pond interior.	$5,000									
55	Heritage Heights 1B		Wet			Yes	Clear vegetation from structures.	$2,000	$840	$1,176	$9,016	Low	7				
							Remove cattails from pond interior.	$5,000									
19	North Point Subd. Prayer House of God		Wet			Yes	Remove vegetation from rip-rap and structures.	$2,000	$240	$336	$2,576	Low	9				
17	Peterson's Golden Meadow B1		Wet				Clear debris from grates.	$1,000	$120	$168	$1,288	Low	10				
28	Shagbark	Yes	Wet			Yes	Clear vegetation from inlet structure.	$1,000	$120	$168	$1,288	Low	13				
8	Kenosha Bible Church		Wet			Yes	Remove vegetation around perimeter and outlet structure.	$2,000	$240	$336	$2,576	Low	15				
13	Leona's Rolling Meadows Subdivision F		Wet			Yes	Remove vegetation from rip-rap.	$2,000	$240	$336	$2,576	Low	16				
4	Dairyland Greyhound Park (SOUTH)		Wet			Yes	Remove perimeter vegetation.	$2,000	$240	$336	$2,576	Low	17				

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
PRIVATELY OWNED WITH MAINTENANCE AGREEMENT

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
18	Peterson's Golden Meadow B2		Wet				None.				N/A						

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

Pond Maintenance Priorities
City-Owned Ponds

City of Kenosha

High Priority
Medium Priority
Low Priority
No Maintenance Required
City Limits

Petretti
St. Peter's
Bullen

Map Area

Note: Blue outline indicates area shown on this map

0 500 1,000 2,000 Feet
1 inch = 1,000 feet

Clark Dietz ENGINEERS

Date Created: August 4, 2014

Path: R:\Kenosha\Projects\K0300080_Kenosha-Pond Certs\City-Owned2.mxd

Pond Maintenance Priorities
City-Owned Ponds

City of Kenosha

Business Park of Kenosha - Basin A

Business Park of Kenosha - Basin B

Whitecaps - Basin C

Whitecaps - Basin B

Whitecaps - Basin D

Whitecaps - Basin F

Whitecaps - Basin E

Whitecaps - Basin A

Whitecaps - Basin G

River Crossing Subdivision

- High Priority
- Medium Priority
- Low Priority
- No Maintenance Required
- City Limits

Map Area

Note: Blue outline indicates area shown on this map

0 500 1,000 2,000 Feet

1 inch = 1,000 feet

Date Created: August 4, 2014

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Clark Dietz ENGINEERS

KENOSHA 1850 WISCONSIN

Hillside

Payne/ Dolan Recycling

Nash Park

Kenosha Industrial Park

Gangler

Map Area

Note: Blue outline indicates area shown on this map

High Priority

Medium Priority

Low Priority

No Maintenance Required

City Limits

Pond Maintenance Priorities
City-Owned Ponds

City of Kenosha

Clark Dietz ENGINEERS

0 500 1,000 2,000 Feet

1 inch = 1,000 feet

Date Created: August 4, 2014

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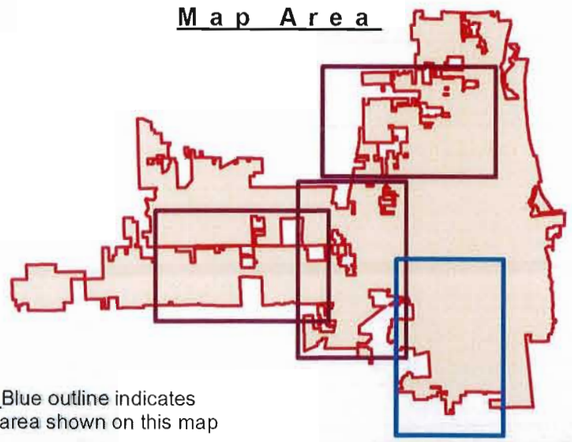
Lincoln Park Lagoon

Anderson Park Pond

Tirabassi

89th St & 39th Ave

Map Area



Note: Blue outline indicates area shown on this map

- High Priority
- Medium Priority
- Low Priority
- No Maintenance Required
- City Limits

Pond Maintenance Priorities
City-Owned Ponds
City of Kenosha

Clark Dietz ENGINEERS

0 500 1,000 2,000 Feet

1 inch = 1,000 feet

Date Created: August 4, 2014

Path: R:\Kenosha\Projects\K0300080_Kenosha-Pond Certs\City-Owned3.mxd

Dairyland West Pond

Dairyland North Pond

Dairyland Dog Track South

Petersen's Golden Meadows - Basin A

Leona's Rolling Meadows Basin F

Midwest Transportation [was Railroad Siding]

Leona's Rolling Meadows Basin C1

Petersen's Golden Meadows - Basin B1

Leona's Rolling Meadows Basin C

Petersen's Golden Meadows - Basin B2

Heiberg Pond

Woodmans - Basin B

Woodmans - Basin A

Gateway Subdivision

Map Area

Note: Blue outline indicates area shown on this map

FRONTAGE RD

53RD PL

I94 SB OFF RAMP

I94 NB OFF RAMP

I94 NB ON RAMP

I94 SB ON RAMP

55TH ST

99TH AVE

95TH AVE

58TH PL

CTH K

60TH PL

61ST ST

61ST PL

120TH AVE

115TH AVE

114TH AVE

113TH AVE

109TH AVE

52ND ST

63RD ST

64TH ST

65TH ST

67TH ST

67TH PL

68TH PL

69TH ST

70TH ST

71ST ST

72ND ST

IH 94

117TH AVE

111TH AVE

108TH AVE

106TH AVE

105TH AVE

104TH AVE

103RD AVE

102ND AVE

111TH CT

118TH AVE

PRIVATE RD

77TH ST

99TH AVE

95TH CT

94TH AVE

93RD AVE

90TH CT

83RD AVE

82ND AVE

85TH AVE

84TH AVE

91ST AVE

89TH

92ND

93RD CT

96TH AVE

97TH AVE

43RD AVE

Low Priority

No Maintenance Required

Medium Priority

High Priority

City Limits

Pond Maintenance Priorities
Private-Owned Ponds
City of Kenosha

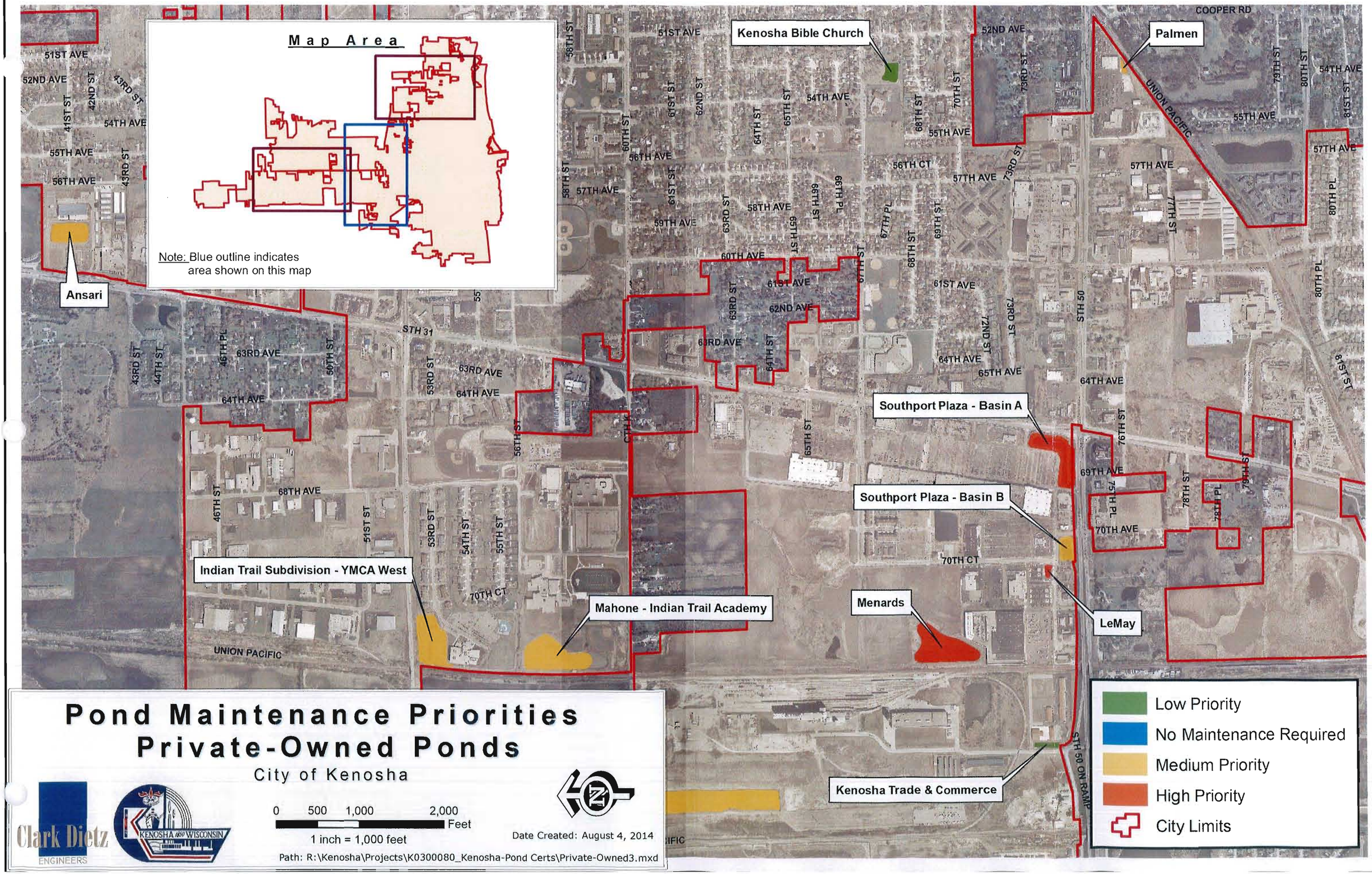
Clark Dietz ENGINEERS

0 500 1,000 2,000 Feet

1 inch = 1,000 feet

Date Created: August 4, 2014

Path: R:\Kenosha\Projects\K0300080_Kenosha-Pond Certs\Private-Owned2.mxd

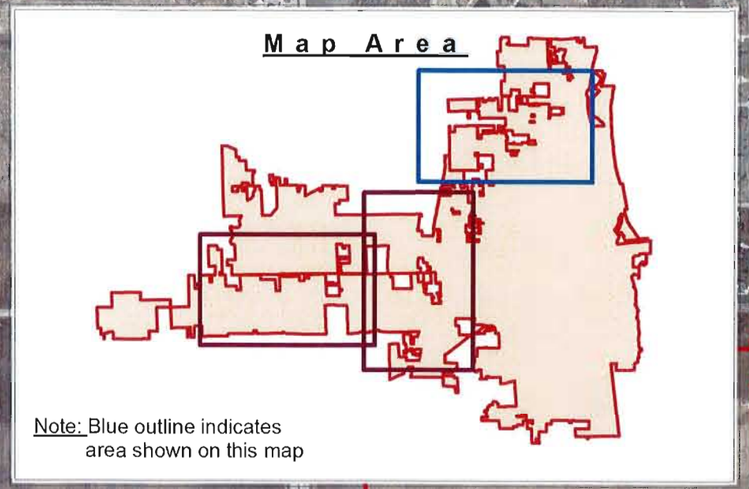


Pond Maintenance Priorities
Private-Owned Ponds

City of Kenosha

Clark Dietz ENGINEERS

KENOSHA 1850 WISCONSIN



Hunter's Ridge Subdivision - Pond A

Hunter's Ridge Subdivision - Pond B

Hunter's Ridge Subdivision - Pond C

North Pointe

Bradford Estates

Bradford - Shagbark

Regal

Low Priority

No Maintenance Required

Medium Priority

High Priority

City Limits

Pond Maintenance Priorities
Private-Owned Ponds

City of Kenosha

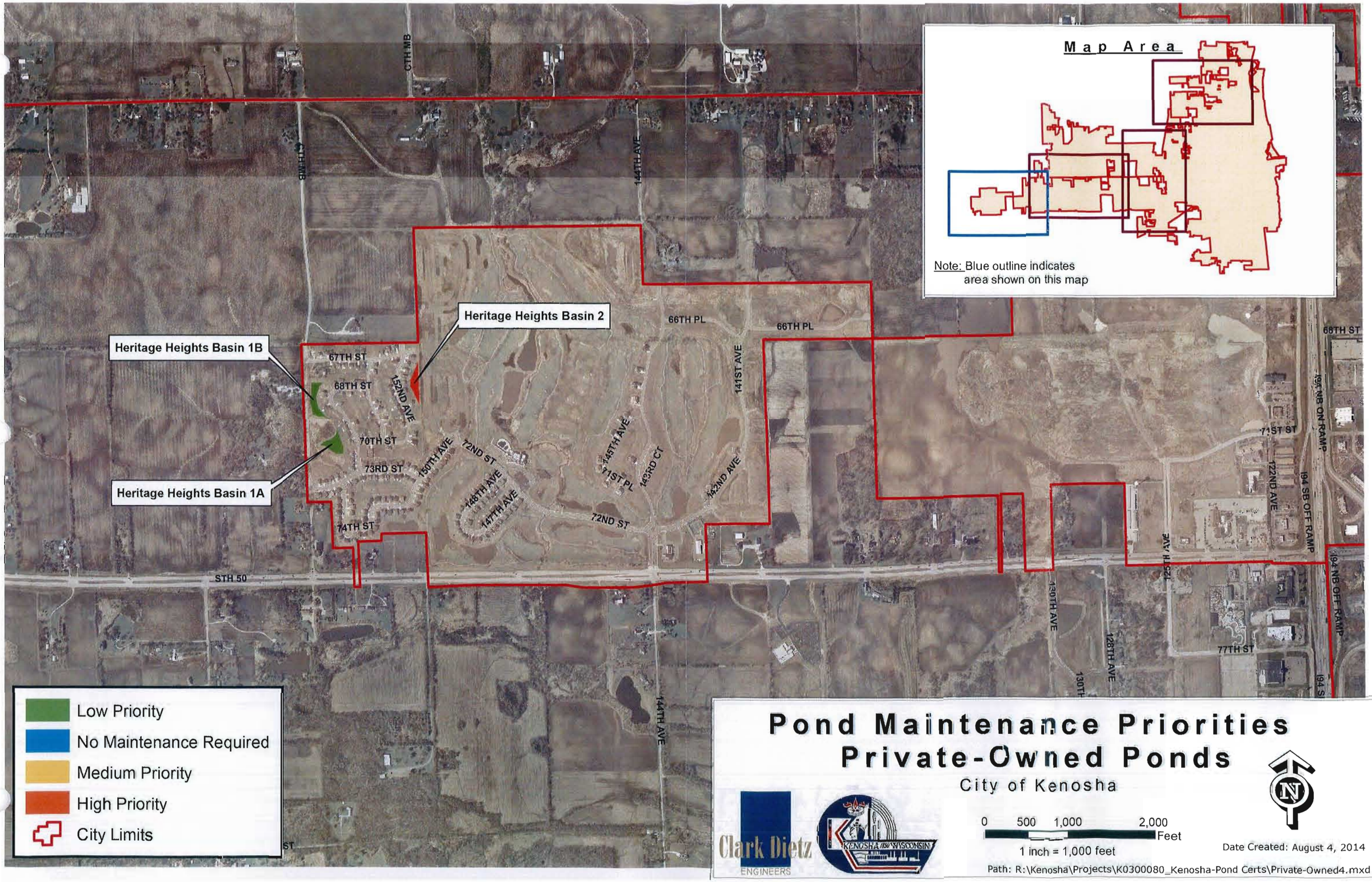
Clark Dietz ENGINEERS

0 500 1,000 2,000 Feet

1 inch = 1,000 feet

Date Created: August 4, 2014

Path: R:\Kenosha\Projects\K0300080_Kenosha-Pond Certs\Private-Owned1.mxd


Map Area
Note: Blue outline indicates area shown on this map
Heritage Heights Basin 1B
Heritage Heights Basin 2
Heritage Heights Basin 1A
CTH MB
144TH AVE
66TH PL
141ST AVE
68TH ST
67TH ST
152ND AVE
70TH ST
73RD ST
150TH AVE
72ND ST
148TH AVE
147TH AVE
145TH AVE
71ST PL
143RD CT
142ND AVE
74TH ST
STH 50
144TH AVE
71ST ST
I94 NB ON RAMP
I94 SB OFF RAMP
122ND AVE
125TH AVE
I94 NB OFF RAMP
130TH AVE
128TH AVE
77TH ST
Low Priority
No Maintenance Required
Medium Priority
High Priority
City Limits
Pond Maintenance Priorities
Private-Owned Ponds
City of Kenosha
Clark Dietz
ENGINEERS
KENOSHA WISCONSIN
0 500 1,000 2,000
Feet
1 inch = 1,000 feet
Date Created: August 4, 2014
Path: R:\Kenosha\Projects\K0300080_Kenosha-Pond Certs\Private-Owned4.mxd

PONDS OWNED AND MAINTAINED

BY CITY OF KENOSHA

HIGH PRIORITY

MAINTENANCE REQUIREMENTS

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
CITY OWNED/MAINTAINED

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
34	Lincoln Park	Yes	Wet	Yes	Yes	Yes	Dredge to remove sediment.	$247,000	$31,440	$44,016	$337,456	High	1	$516,488	10.3	5.2	3.4
							Clear vegetation from north end and inlet.	$5,000									
							Replace outlet structure.	$10,000									
24	Kenosha Industrial Park	Yes	Dry	Yes		Yes	Dredge to original design elevations to restore function.	$103,000	$12,960	$18,144	$139,104	High	2				
							Clear vegetation within and surrounding pond.	$5,000									
21	Bullen	Yes	Dry		Yes		Remove clog from outlet.	$2,000	$720	$1,008	$7,728	High	5				
							Clean flow channel.	$2,000									
							Clean sediment from outlet structure.	$2,000									
26	Whitecaps E	Yes	Dry	Yes	Yes	Yes	Dredge siltation basin.	$17,000	$3,000	$4,200	$32,200	High	6				
							Clean 8" pipe and concrete gutters.	$5,000									
							Remove vegetation from structures.	$2,000									
							Install grate on upper outlet.	$1,000									

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

Ponds Owned and Maintained by City of Kenosha Lincoln Park

Clark Dietz
ENGINEERS

January 15, 2014

Measurement Results for Lincoln Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
N/A	N/A	2.6 – 5.6	2018

Notes

1. The measured water depth in July of 2013 varied between 2.6 feet and 5.6 feet. The original design plans were not available.

2. The inlets and outlets were inspected and were in good condition.

3. Sediment build-up varied between 0.6 and 2.5 feet, with the thicker silt at the north end of the pond.

4. There is thick cattail growth at the north end of the pond and also in the inlet channel at the south end of the pond. Algae covered most of the pond.

5. The function of the outlet structure is unclear.

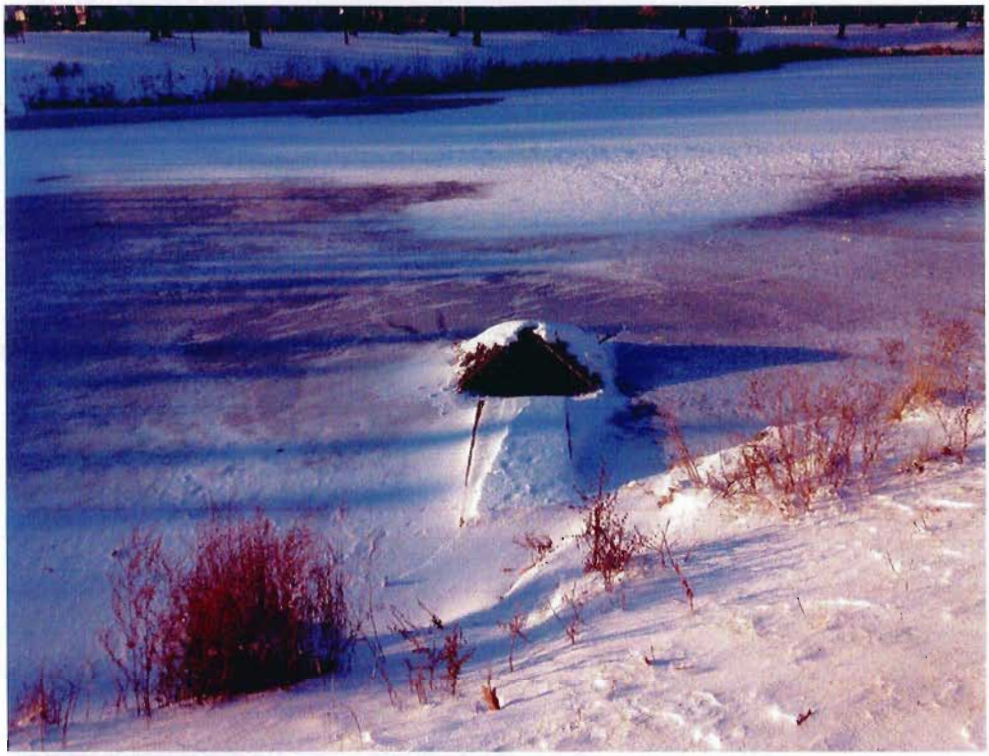
RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the post-dredging measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for the next sediment removal.

2. The outlet structure requires further investigation. Replacement may be necessary if the structure is not functional.

3. The cattails and willows should be cleared from both the north end and the inlet channel.

4. Dredge to remove sediment.



7-3-13 A, 4b C...

LINCOLN PARK

- DEP...S

	T/W &	
30,069	5.1, 7.0	+0.3 ABOVE CONC. OFLOW
	5.6 8.1	
	5.0, 5.6	
	4.0, [illegible]	
	4.2, 4.6	
	2[illegible], —	[illegible]
30,274	1.0, —	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
216[illegible]	[illegible]	19.064
[illegible]	[illegible]	[illegible]
216262.[illegible]	N 2552656.[illegible] E	[illegible]
[illegible]	[illegible]	[illegible]
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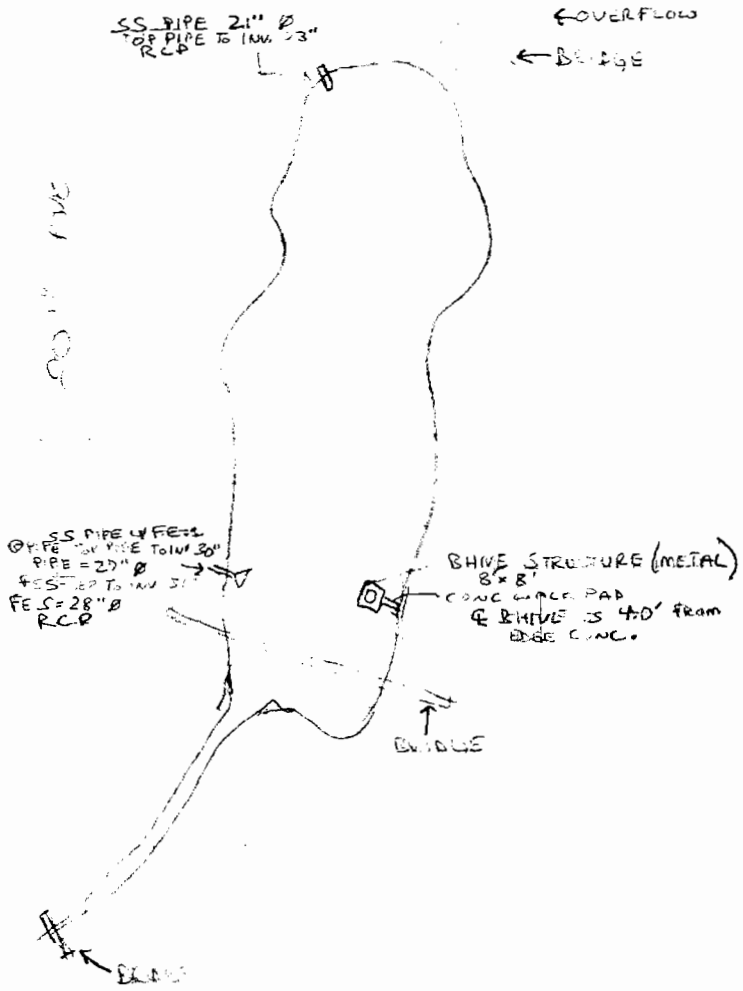
[illegible]	[illegible] E	[illegible]

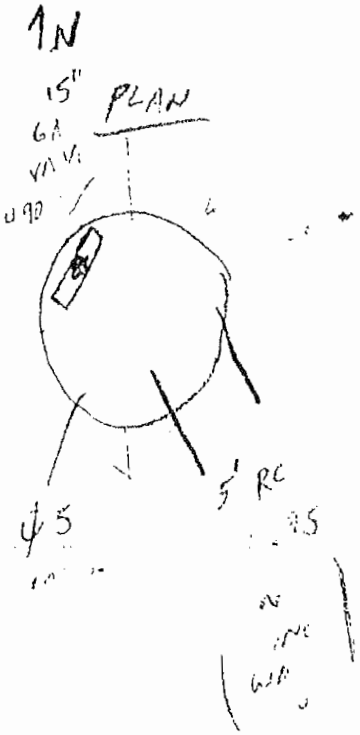
N↑



LINCOLN PARK LAGOON

EAST SIDE INTA - STR TYP, (N) OF RADIE
ON -- OF BND.

1N



LINCOLN PARK

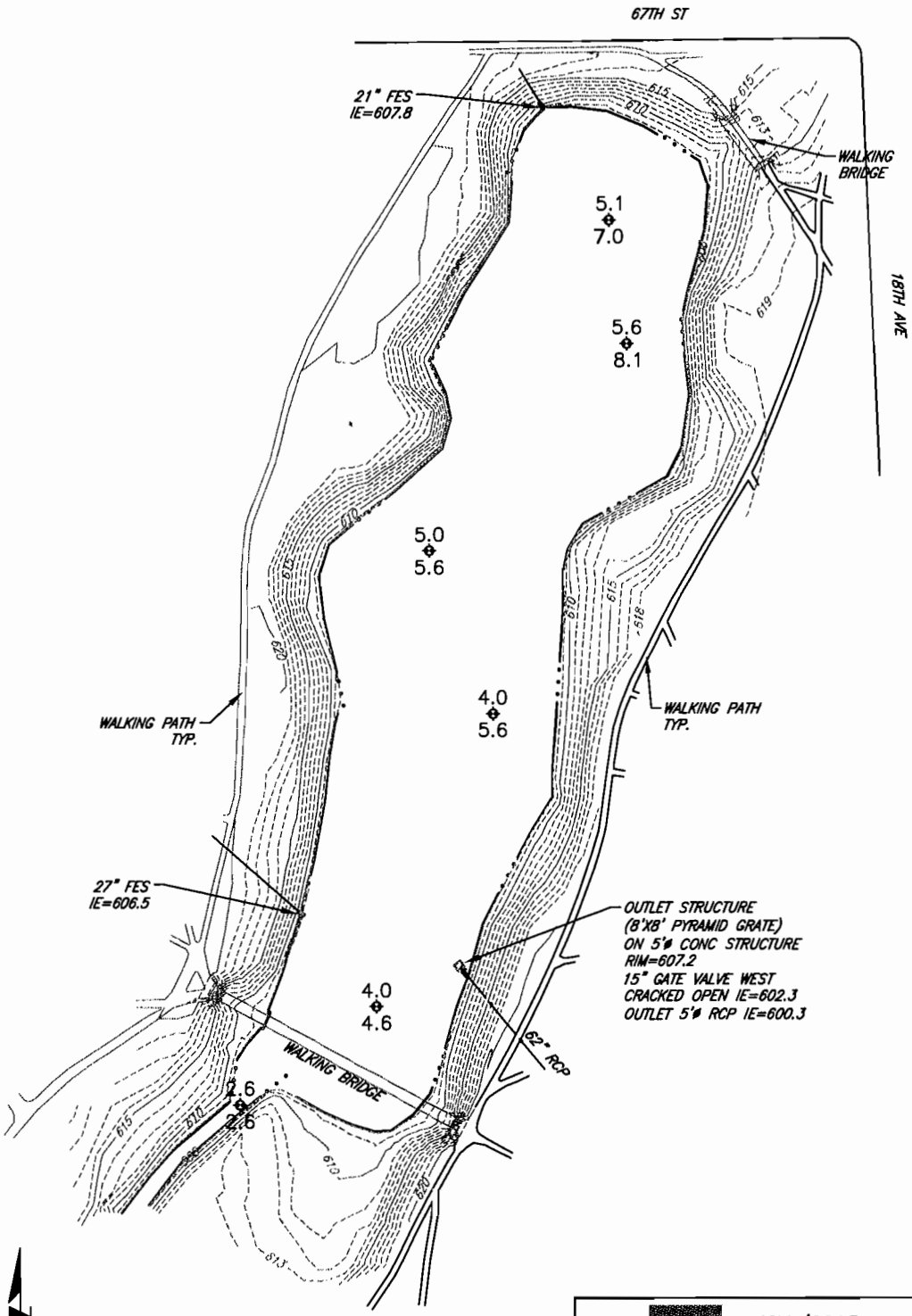
WATER ELEV.= 607.4

DEPTHS BELOW WATER

4.1 (TOP SEDIMENT)

4.5 (BOTTOM)

WATER SURFACE AREA = 182,450 SF



NOV./2013

Clark Dietz ENGINEERS

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained by City of Kenosha Kenosha Industrial Park

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for Kenosha Industrial Park Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1980	4	1 – 1.5	2018

Notes

1. The designed water depth of the pond is approximately 4 feet; the design plans are not clear. The measured water depth in February of 2013 varied between 1 and 1.5 feet. We conclude that the pond is filling with sediment.

2. The pond does not seem to be functioning correctly. The area around the outlet pipe was dry while there was stagnant water in the ends of the pond.

3. The inlet and outlet structures were inspected and were found to be in good structural condition.

4. Sediment build-up varies between 1 and 1.5 feet.

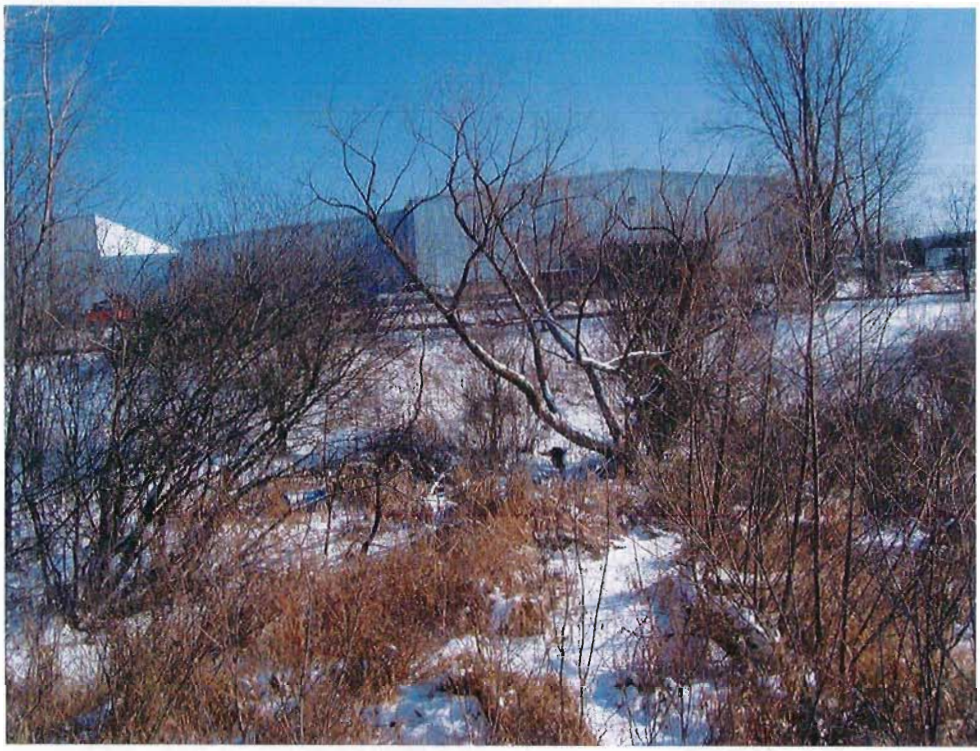
5. The pond is completely full of cattails and there is extensive brush growth on the edges. Vegetation has also grown up around the inlets and outlets.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements.

2. Since the pond is no longer functioning, it should be recut to its original design elevations. Further investigation into the original design of the pond is needed.

3. The cattails and brush within and surrounding the pond should be removed.



2-6-13

KENOSHA INDUSTRIAL PARK

REMNANT SHOTS IN THE 1400+ TO 2000+

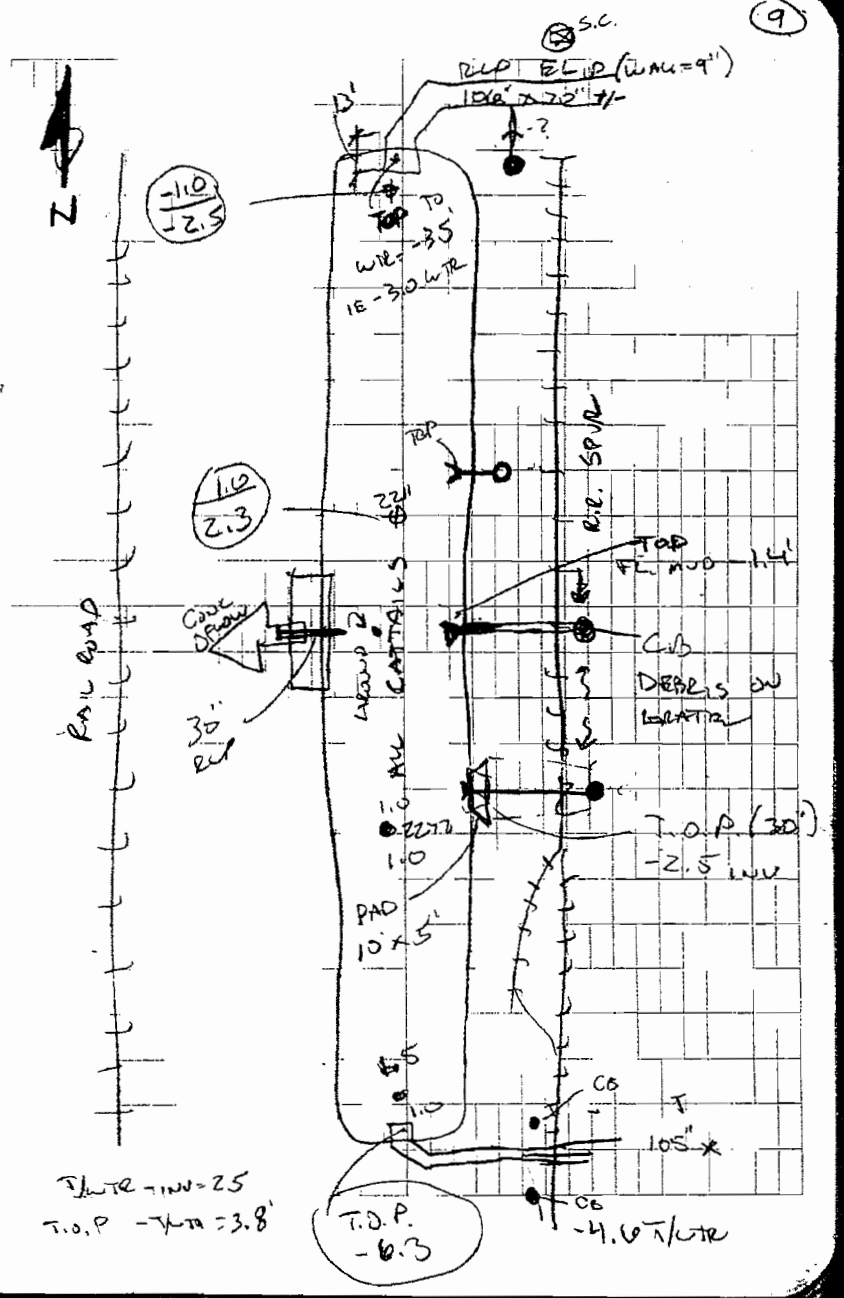
2/14/13 36° AT BB

2250-2364

END # 2364

* RESTRICTOR ?
* HOW IS POND SUPPOSED TO WORK? (DRY LAND NEAR OUTLET, SWAMPY WATER @ ENDS)

- LOT OF MAINTENCE REQ'D
- TREES & BRUSH
- RE-CUT POND

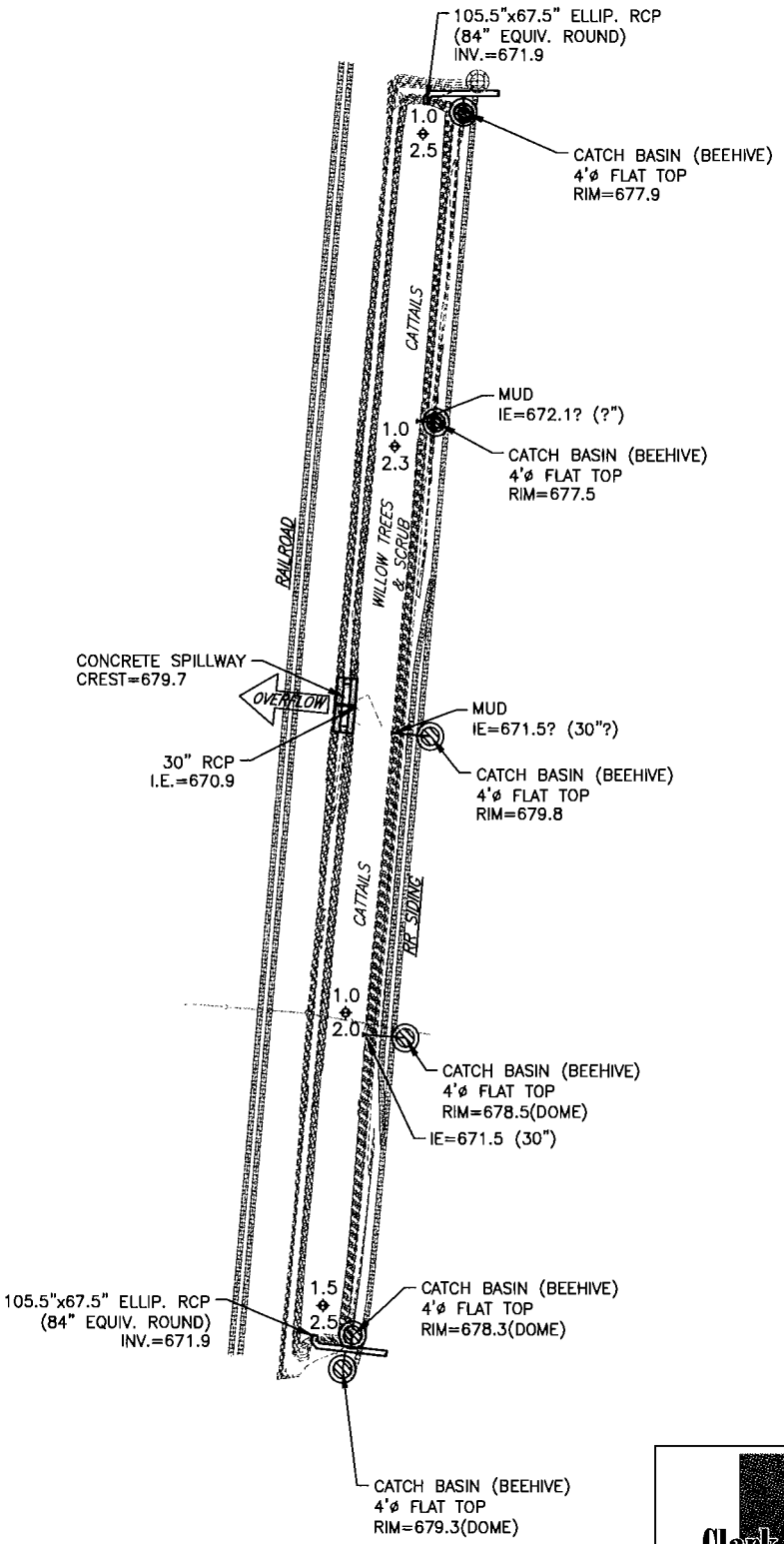


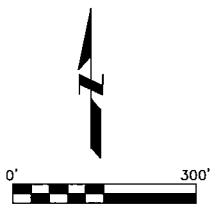
KENOSHA INDUSTRIAL PARK

WATER ELEV. -- VARIES
(DRY BOTTOM DESIGN)

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)





FEB./2013

Clark Dietz ENGINEERS

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
Bullen

January 14, 2014

Measurement Results for Bullen Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Inspection
N/A	N/A	N/A	2018

Notes

1. The dry bottom pond was inspected in June and August of 2013. The original design plans were not available.
2. The channel and structures were flooded during both the June and August inspections. The outlet structure seemed clogged at the orifice.
3. There was heavy silt in the flow channel.
4. The rip-rap area near the flared end section is heavily eroded and silted. Sediment is heavy at the outlet structure.

RECOMMENDATIONS

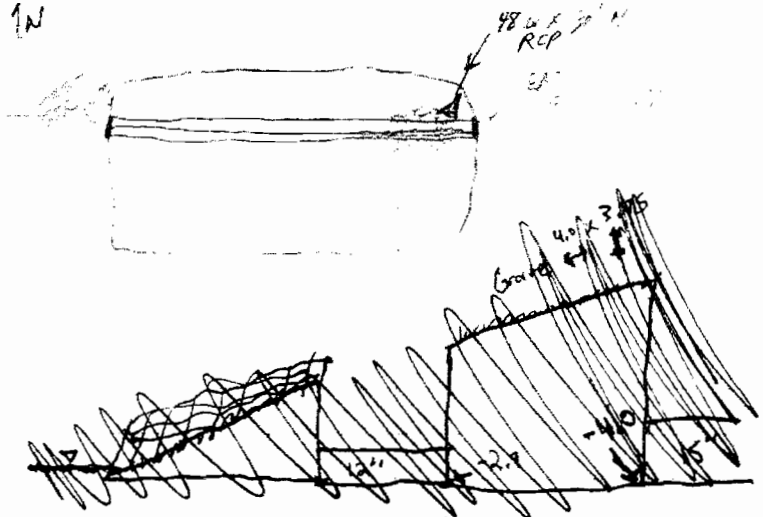
1. The pond should be inspected again in 2018.
2. The outlet structure should be inspected to determine if there is a clog at the orifice and if additional actions are needed.
3. The flow channel should be cleaned.
4. Cleaning and maintenance is required at the outlet structure to remove the built-up sediment and silt.

Butler

6-26-13 cloudy

18540

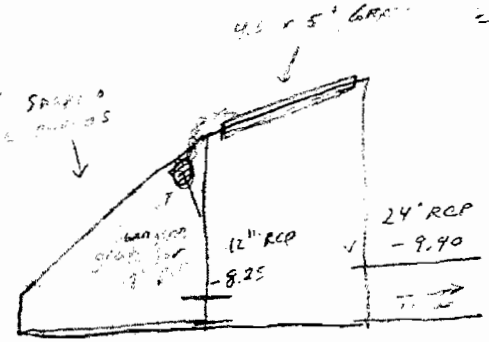
- 8/22 Channel & structures still flooded
  overflow structure seems clogged at orfice



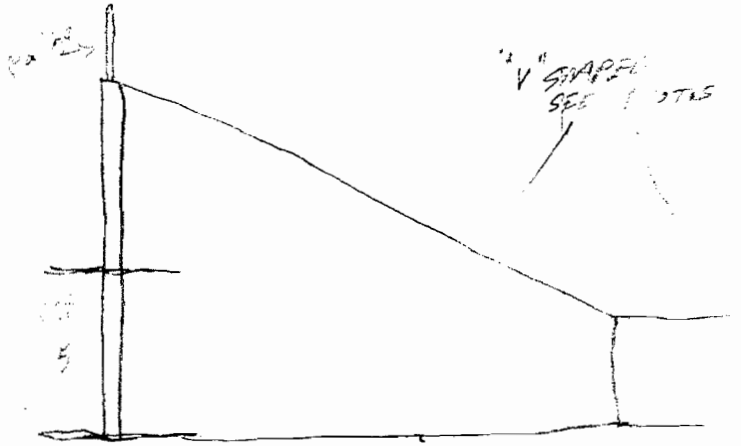
* Flow channel heavily silted, needs cleaning.

* Rip-rap area around outfall pipes heavily eroded and needs maintenance.

EAST STRUCTURE

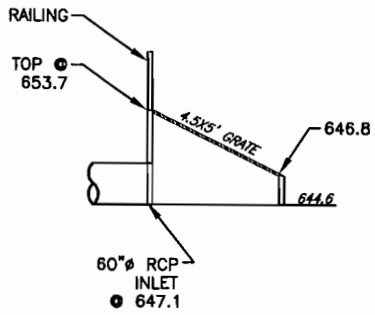


WEST STRUCTURE

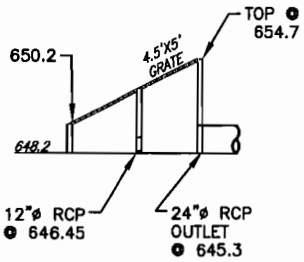


BULLEN

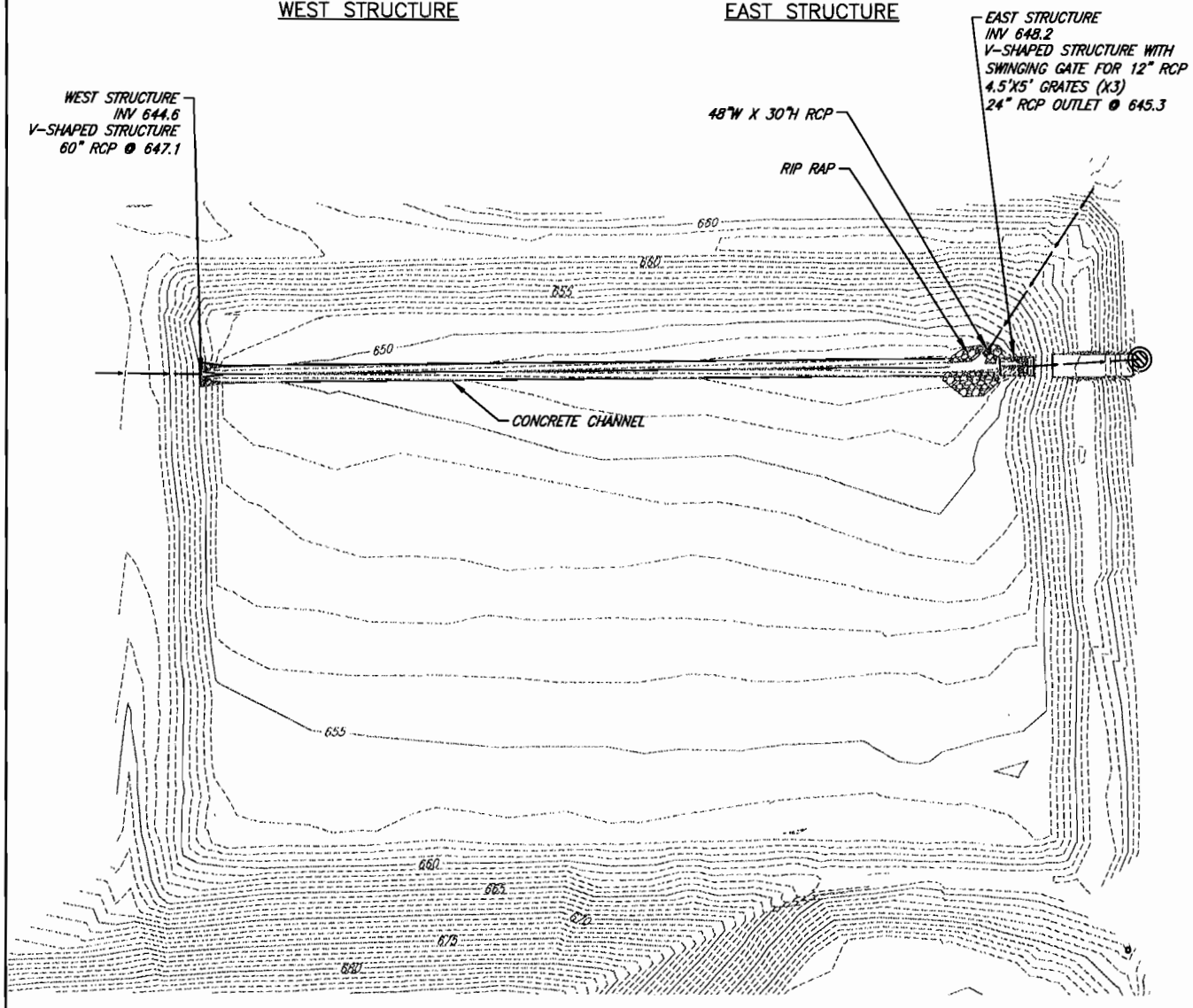
DRY POND

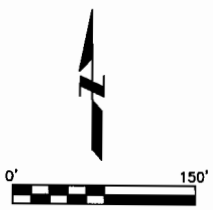


WEST STRUCTURE



EAST STRUCTURE





Clark Dietz ENGINEERS

JUNE/2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
Whitecaps E

Clark Dietz
ENGINEERS

October 31, 2013

Measurement Results for WhiteCaps E Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1990	6.4	1.5	2018

Notes

1. The designed water depth of the small siltation basin at this dry pond is 6.4 feet. The measured water depth in February of 2013 was 1.5 feet. The basin is full of sediment.

2. The inlet and outlet pipes were inspected. There was debris on the outlet structure. The size of the outlet orifice could not be determined.

3. Sediment build-up in the siltation basin measured 1.5 feet.

4. The 8-inch pipe between the west structure and the siltation basin is dirty and clogged.

5. There is muck in the concrete gutters.

6. Willows are growing near the siltation basin.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. If the siltation basin is necessary or desired, dredging is recommended.

3. Clean the 8-inch pipe and clear all structures of vegetation.

4. Scrape the muck from the concrete gutters.

5. Further investigation of the outlet structure is necessary to determine elevations.

6. Install a fence or grate on the upper outlet structure.

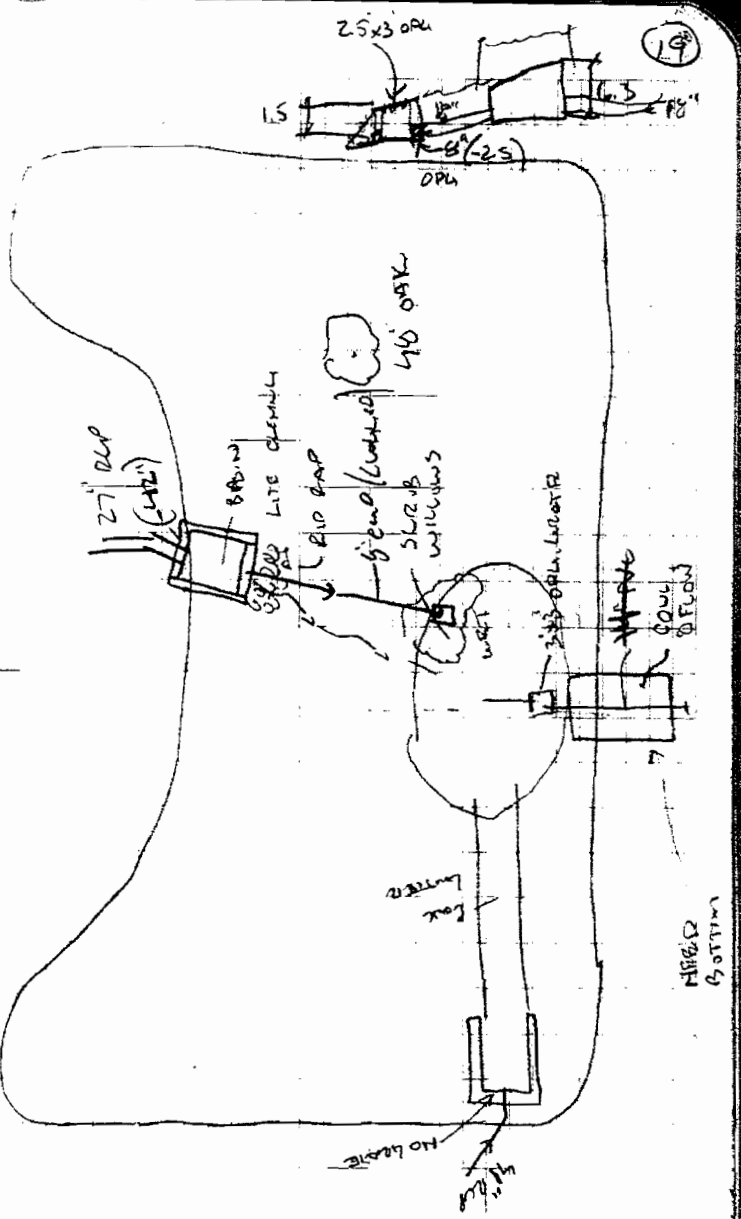
2/26/13 AT, BB CLOUDY 31°
WINDY

WHITECAPS BASIN E

5500

MAINT. NEEDS
- SUMP WORKS
- CLEAN OUT 8" FROM CV. BASIN TO "POND"
- SCRAPE MUCK FROM GUTTER
- IS "POND" NEEDED OR DESIGNED? (FILL IN & KEEP DRY!) OR DEEPEN MUCK)
- DEBRIS ON OUTLET

- NEED - CONC. GUTTERS ✓
  - LOWER OUTLET STR. ✓
  - "WET POND" ✓ AVG D = 1.5' (max 1.5')
  - LOWER OFLOW CONC. ✓
  - FENCE ON UPPER OUTLET ✓



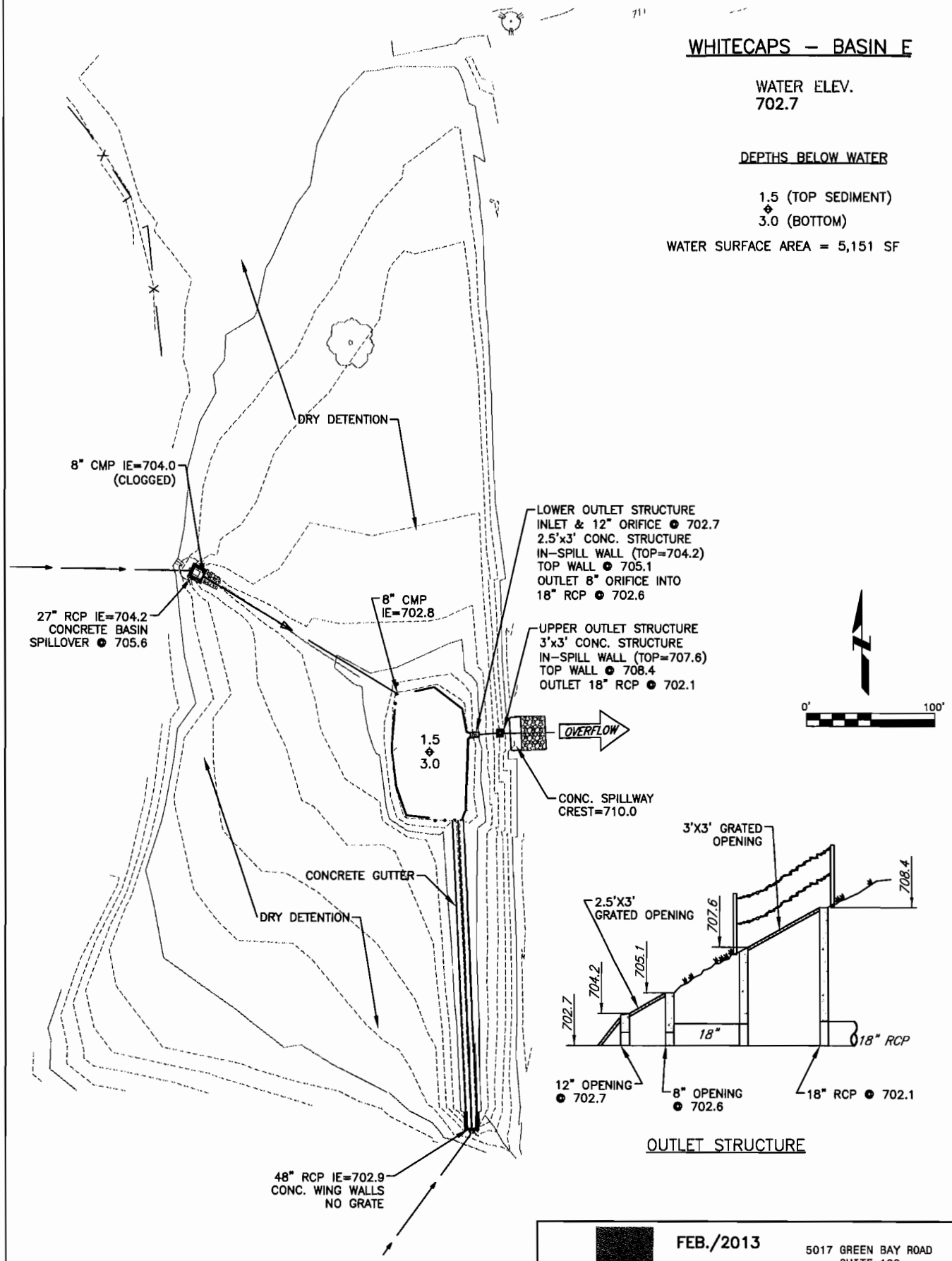
WHITECAPS – BASIN E

WATER ELEV.
702.7

DEPTHS BELOW WATER

1.5 (TOP SEDIMENT)
3.0 (BOTTOM)

WATER SURFACE AREA = 5,151 SF



OUTLET STRUCTURE

Clark Dietz ENGINEERS

FEB./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

MEDIUM PRIORITY

MAINTENANCE REQUIREMENTS

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
CITY OWNED/MAINTAINED

#	POND NAME	3 acres or more?	WET/DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
32	Tirabassi		Wet		Yes	Yes	Repair orifice in outlet. Clear brush from outlet and pond perimeter. Repair erosion at west inlet structure.	$5,000 $5,000 $5,000	$1,800	$2,520	$19,320	Medium	2				
42	Gangler	Yes	Wet		Yes	Yes	Clear debris and repair orifice in outlet structure; note if water level drops. Clear vegetation from structures and perimeter.	$5,000 $5,000	$1,200	$1,680	$12,880	Medium	5				
38	Whitecaps **A**	Yes	Wet		Yes		Remove clog from outlet structure. Repair 18" and 30" inlet pipes.	$5,000 $2,000	$840	$1,176	$9,016	Medium	8				
33	Anderson Park	Yes	Wet		Yes		Locate inlet/outlet structures and determine cause of pond overflow.	$5,000	$600	$840	$6,440	Medium	9				
27	89th/39th	Yes	Dry		Yes	Yes	Clean channels and structures and keep free of debris. Repair first orifice on outlet structure. Repair 18" inlet pipe.	$2,000 $5,000 $2,000	$1,080	$1,512	$11,592	Medium	10				
31	River Crossing	Yes	Dry		Yes	Yes	Clean channels and structures. Check structures for obstructions. Clear vegetation from spillway.	$2,000 $5,000 $1,000	$960	$1,344	$10,304	Medium	16	$179,032	4.5	2.2	1.5
39	Whitecaps B		Wet		Yes	Yes	Clear debris and repair outlet structure. Clear vegetation from structures, rip-rap, and perimeter.	$5,000 $5,000	$1,200	$1,680	$12,880	Medium	17				
40	Whitecaps F		Wet	Yes	Yes		Dredge siltation basin to remove sediment. Repair inlet pipe.	$10,000 $2,000	$1,440	$2,016	$15,456	Medium	18				
35	Nash Park	Yes	Wet	Monitor		Yes	Clear vegetation from inlet and outlet structures. Monitor sediment build-up in south end & need for dredging in next 5 years.	$2,000 $48,000	$6,000	$8,400	$64,400	Medium	22				
44	Payne & Dolan Recycling		Wet	Monitor	Yes	Yes	Clean outlet structure. Remove silt fence from drainage swale. Clear cattails from pond and vegetation from rip-rap. Monitor need for dredging in next five years.	$2,000 $5,000 $4,000	$1,320	$1,848	$14,168	Medium	24				
23	Business Park B		Dry		Yes	Yes	Clear debris and vegetation from structures.	$2,000	$240	$336	$2,576	Medium	28				

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

Ponds Owned and Maintained
by City of Kenosha
Tirabassi

Clark Dietz
ENGINEERS

September 3, 2013

Measurement Results for Tirabassi Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1998	5 & 13	5.4 – 15.8	2018

Notes

1. The designed water depth of most of the pond is 5 feet, with a section designed for a normal depth of 13 feet. The measured water depth in June of 2013 varied between 5.4 and 15.8 feet. We conclude that the pond was over-excavated at the time of construction.

2. One orifice opening in the outlet structure is broken. There is also heavy brush and plant growth around the outlet structure.

3. The west inlet structure is full of clay silt. This indicates an erosion issue.

4. Sediment build-up varied between 0.3 and 1.4 feet.

5. The pond perimeter area is occasionally mowed. Brush has grown up around most of the pond.

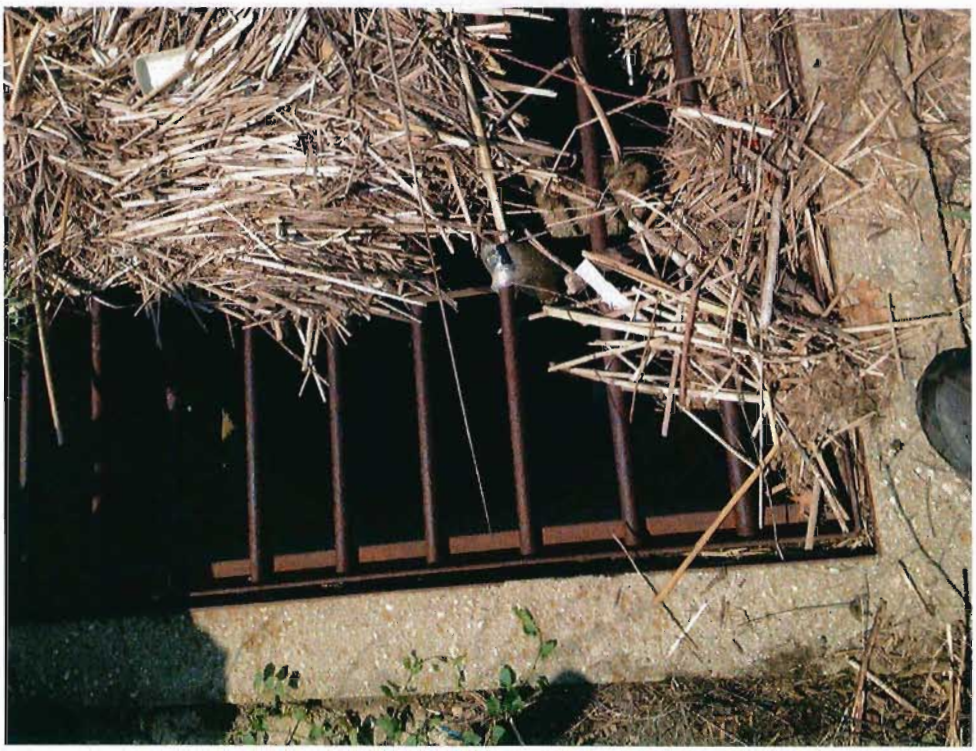
RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Repair the orifice opening in the outlet structure.

3. Clear the brush from the outlet structure and remove other growth around the pond as necessary.

4. Investigate and repair the cause of the siltation problem at the west inlet structure.



6/3/13 AT, 44 SUNNY 70°

TIRABASSI

#14400 - 14638

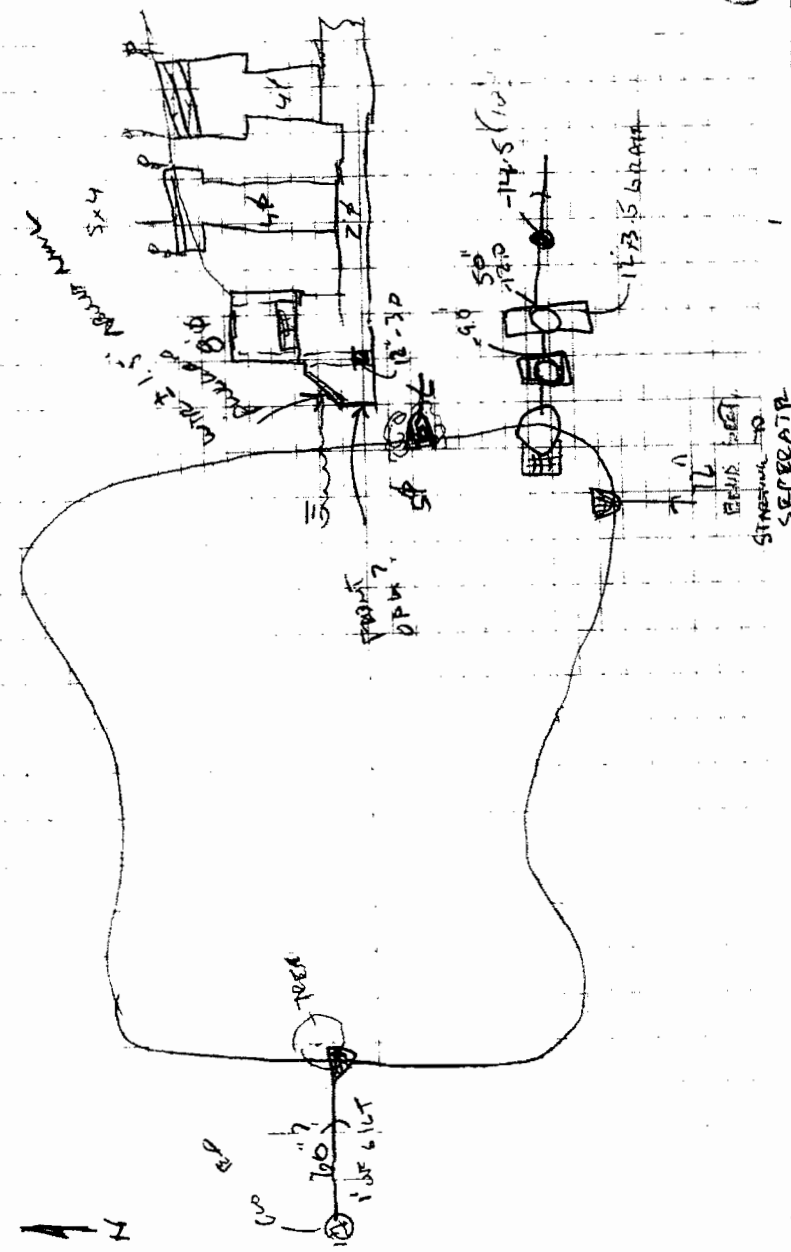
MAINTENANCE

- BRUSH SCRUB & DREDGE/CLEAR AROUND OUTFALL

W INLET PIPE MUST HAVE BAD EROSION ISSUES/SILTED IN W/CLAY SILT

6/20/13, WTR ELEV = 611.40

4140,	6.1, 6.5	14651	5.4, –
	13, 13.6	12.0	12.9, 13.7
	9.4, 10.8		15.8, 16.2
	10.0, –		14.1, 14.9
	13.8, 14.5	14655	9.3, 9.7
	6.1, 6.6		
	14.1, 14.7		
	5.8, 6.1		
4,648	14.3, 14.7		
	6.8, –		
	14.8, 15.3		



TIRABASSI

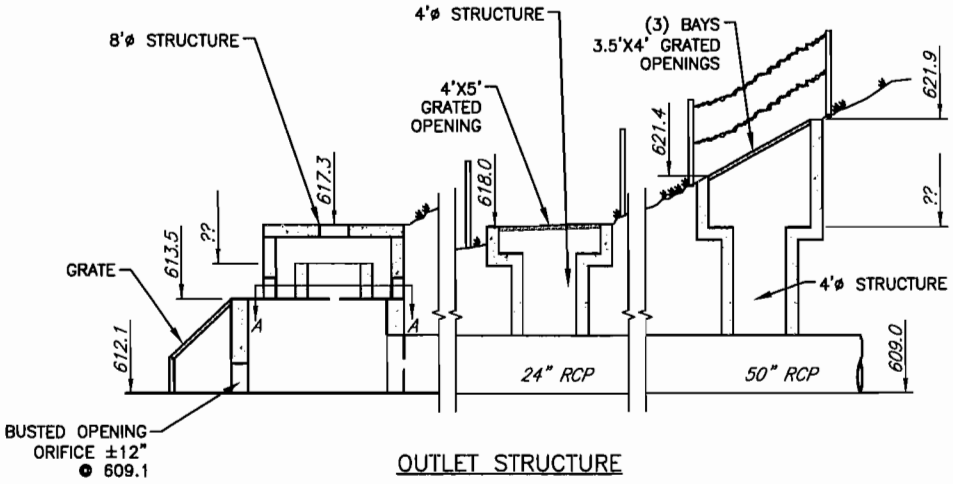
WATER ELEV.= 611.4

DEPTHS BELOW WATER

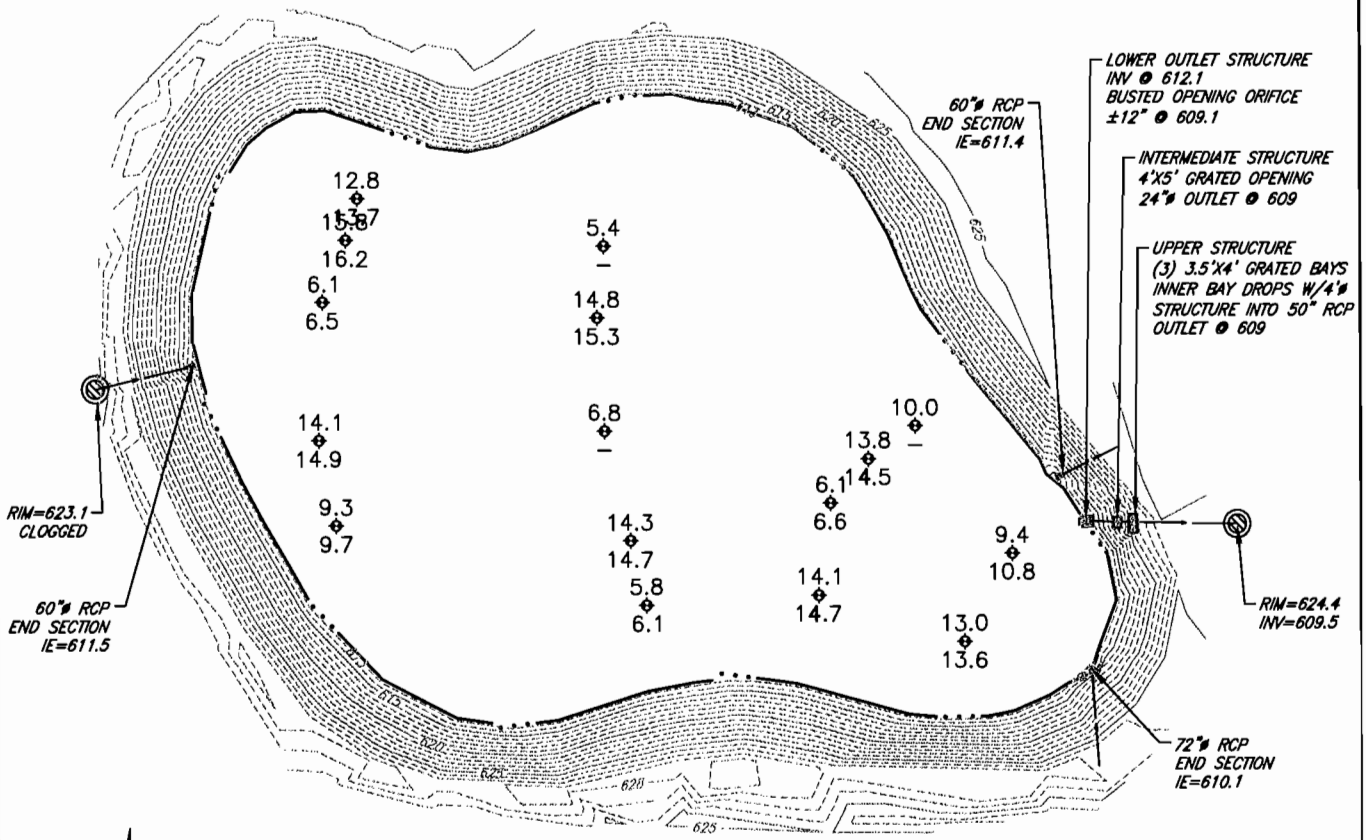
10.7 (TOP SEDIMENT)

12.1 (BOTTOM)

WATER SURFACE AREA = 287,868 SF



OUTLET STRUCTURE



0' 150'

JUNE/2013

Clark Dietz ENGINEERS

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained by City of Kenosha

Gangler

Clark Dietz
ENGINEERS

September 3, 2013

Measurement Results for Gangler Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2001	4.4	5.6 – 6.6	2018

Notes

1. The designed water depth of the pond is 4.4 feet. The measured water depth in May of 2013 varied between 5.6 and 6.6 feet.

2. There is a broken orifice opening in the lower outlet structure. There was also some brush and debris buildup at the outlet structure.

3. Sediment build-up varied between 0 and 0.8 feet.

4. The pond perimeter has been mowed occasionally.

5. Soft ground was found on the west side of the pond, indicating groundwater seepage.

6. The water level is higher than the knee wall of the inlet structure.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Brush should be removed near the outlet structure and the orifice opening should be repaired. The outlet should be kept clean.

3. Remove brush as necessary around the perimeter of the pond.

4. The high water level indicates that the pond may not be draining properly. Record whether repairs to the outlet structure decrease the water level.

5/31/13 AT SUNNY 80°

LANGLER

SUBTRACT 0.4' DUE TO DIFF WTR EL ON DAY OF TOPO

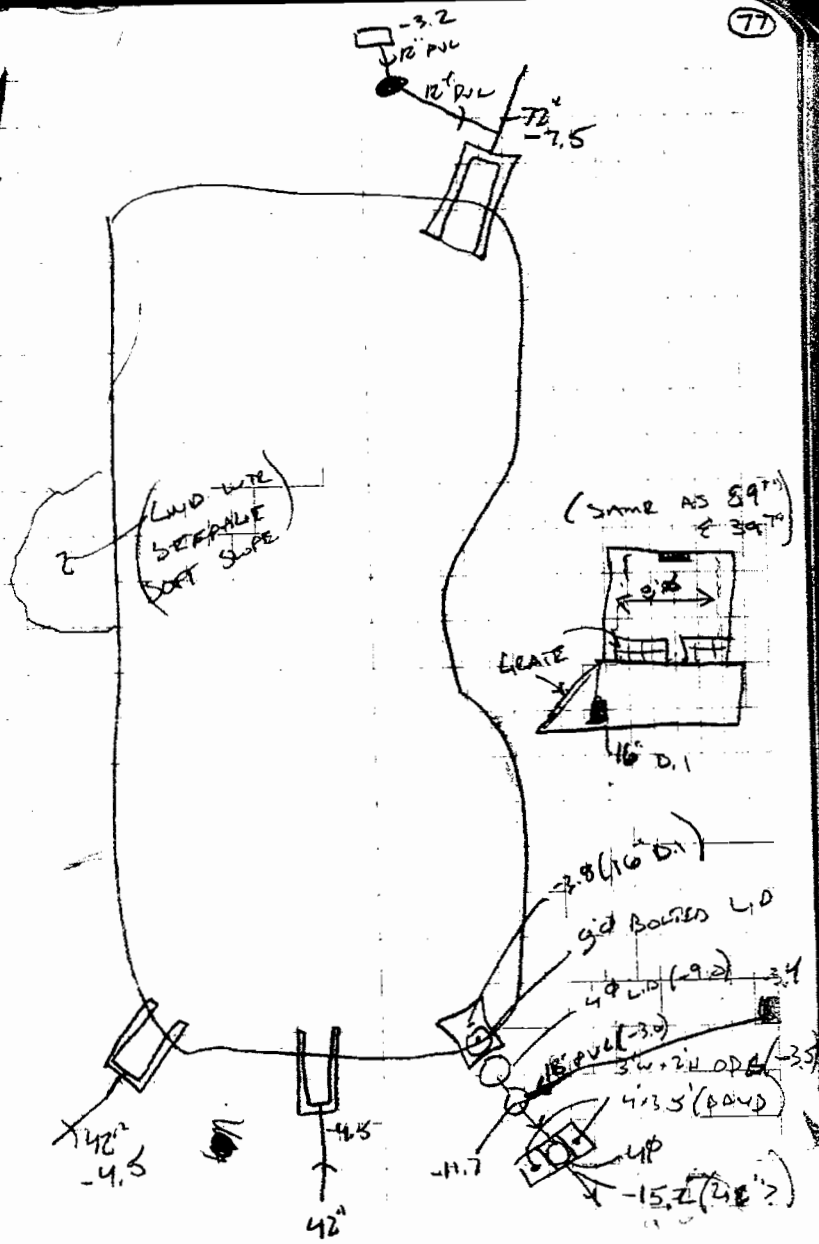
#14100	5.7, 6.2	
	5.0, 6.2	
	5.1, 6.0	= 4.9, 5.2
	5.8, 6.4	
	5.6, 6.2	
	6.0, 6.0	
(30 E, 14105)	6.4, 6.4	
14105	6.0, 6.4	
	6.7, 6.7	
	6.4, 7.0	
	6.6, 6.6	
	6.3, 6.5	
14110	5.7, 6.5	

(WITH LWL TOP KNEE WALL)

MAINTENANCE

- SCATTERED BRUSH REMOVAL
- KEEP OUTLET CLEAN

END #14300



GANGLER

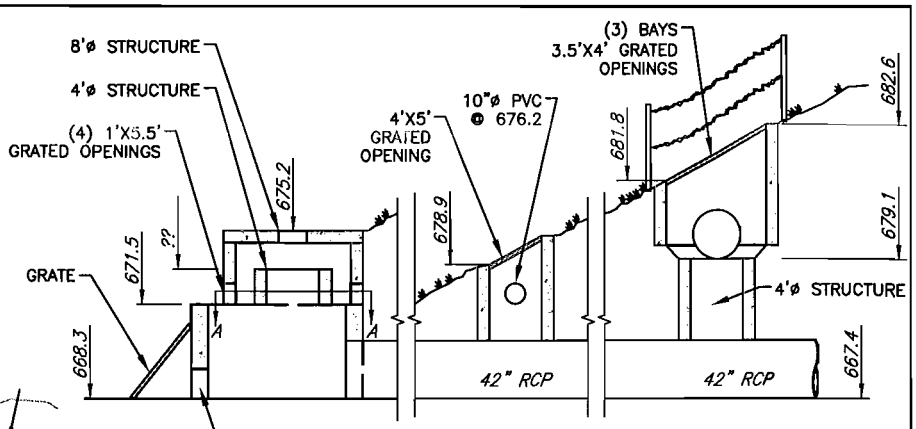
WATER ELEV.= 668.9

DEPTHS BELOW WATER

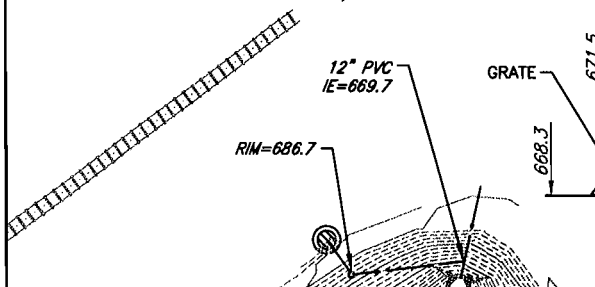
6.0 (TOP SEDIMENT)

6.2 (BOTTOM)

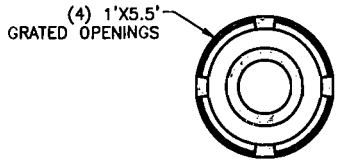
WATER SURFACE AREA = 201,900 SF



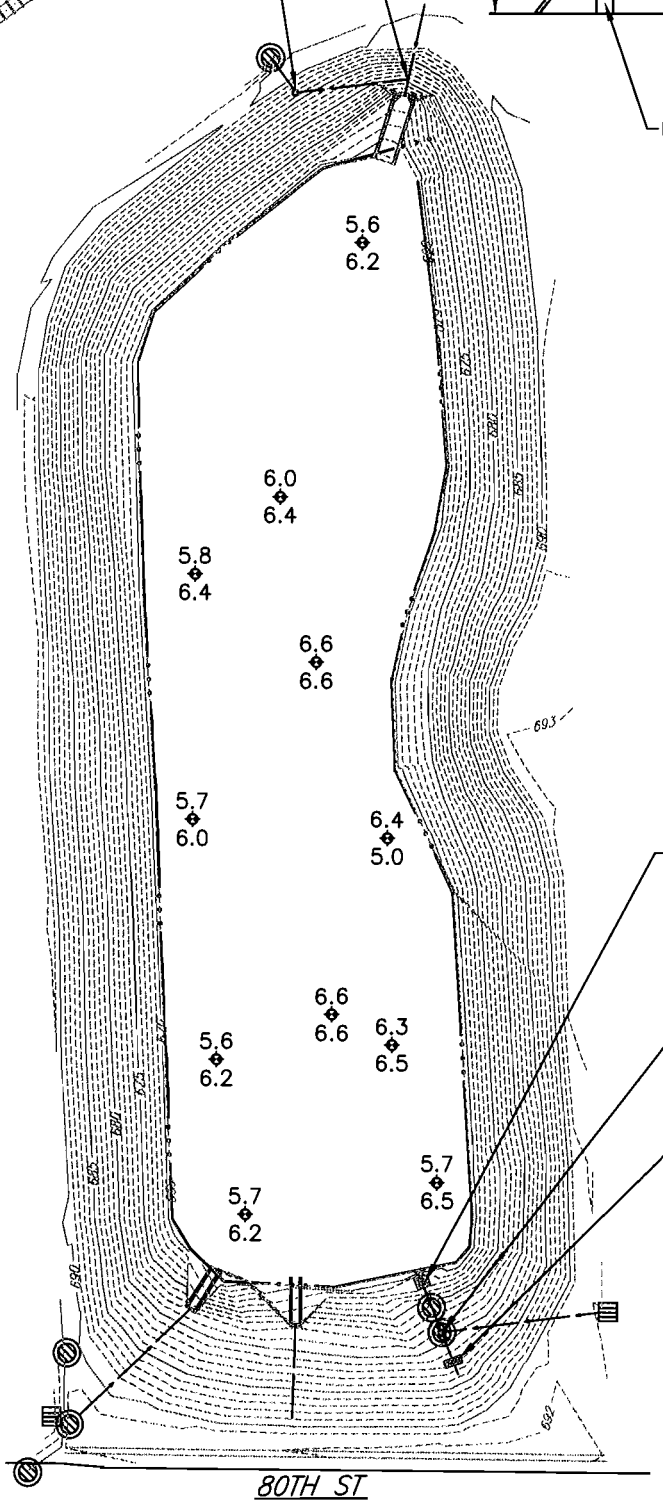
OUTLET STRUCTURE



BUSTED OPENING ORIFICE ±16" @ 667.7



SECTION A–A



55TH AVE

80TH ST

LOWER OUTLET STRUCTURE
INV @ 668.3
BUSTED OPENING ORIFICE ±16" @ 667.7
GRATED OPENINGS 1'X5.5' @ 671.5
BOLTED RIM @ 675.2

INTERMEDIATE STRUCTURE
4'X5' GRATED OPENING
IN-SPILL 678.9
42"ø OUTLET @ 668.3

UPPER STRUCTURE
(3) 3.5'X5' GRATED BAYS
OUTER BAYS CONNECTED TO INNER W/30" RCP @ 679.1
INNER BAY DROPS W/4'ø STRUCTURE INTO 42" RCP OUTLET @ 667.4

N

0' 150'

MAY/2013

Clark Dietz ENGINEERS

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
Whitecaps A

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for WhiteCaps A Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1996	6	5.6 – 7.8	2018

Notes

1. The designed water depth of the pond is 6 feet. The measured water depth in March of 2013 varied between 5.6 and 7.8 feet. We conclude that the pond was over-excavated at the time of construction.

2. The final section on the 18" pipe is completely separated. The final section on the 30" pipe is beginning to separate.

3. The lower orifice on the outlet is plugged.

4. Sediment build-up varies between 0.5 and 1.1 feet.

5. The whole pond perimeter is mowed.

6. The pond is functioning at the second overflow level.

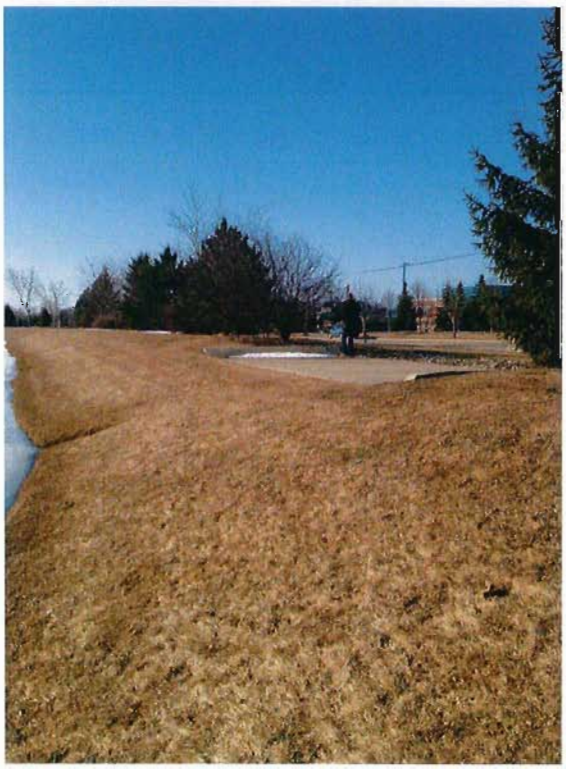
RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Perform dredging at the outlet to remove clogging materials.

3. Make repairs to the end sections on the 18" and 30" pipes.

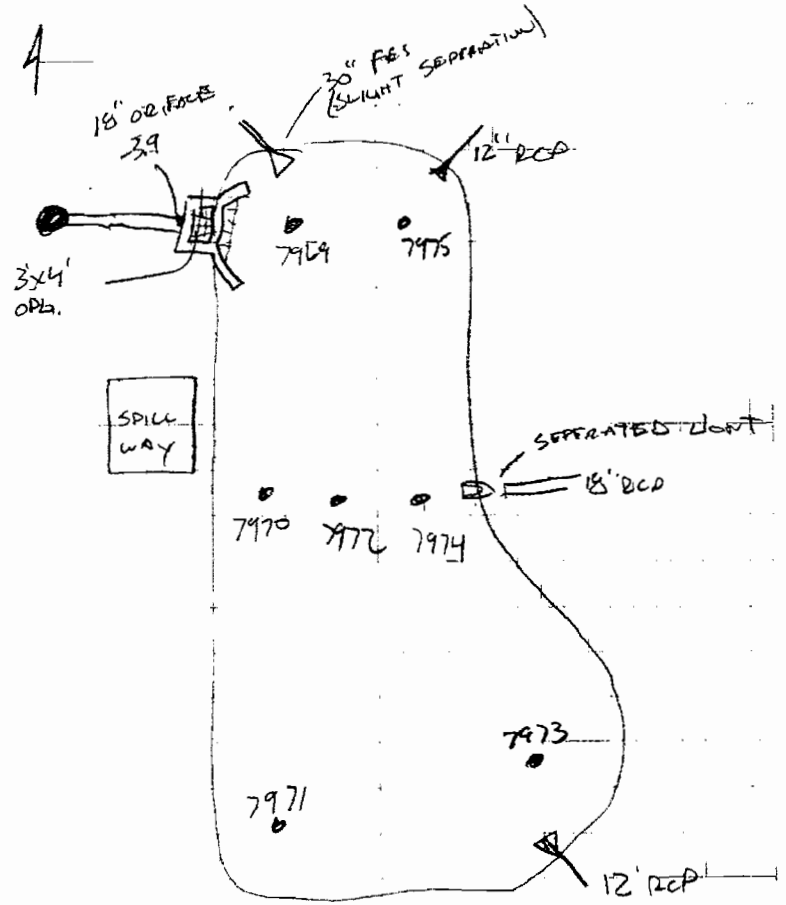
4. When mowing, leave a grass strip around the pond to improve safety and deter geese.



3-29-13 SUNNY 40°
AT, BB

WHITECAPS BASIN A

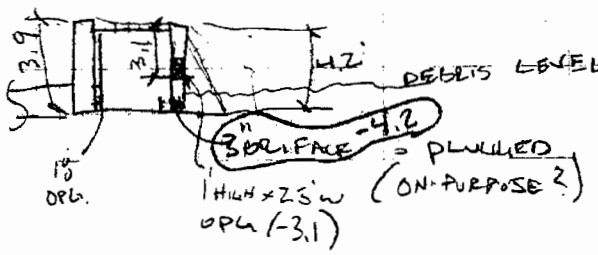
START # 7800, 7930 → 7975



* DREDGE @ OUTLET (GARBAGE & SLUDGE)
* OUTLET LOWER ORIFACE PLUGGED. D.I REDUCER SIZE ? x 3"ø
* 30" & 18" F.E.S. SEPERATED 18" IS COMPLETELY "
* POND IS FUNCTIONING @ 2ND ARY. O'FLOW LEVEL — OTHERWISE POND IN GOOD SHAPE

3-27-13

7930	EW1 → 7968	7974	6.6, 7.5
7969	5.6, 6.6	7972	7.6, 8.1
-70	6.4, 7.3	7975	7.7, 8.8
-71	7.8, 8.9		
-73	7.5, 8.3		



WHITECAPS – BASIN A

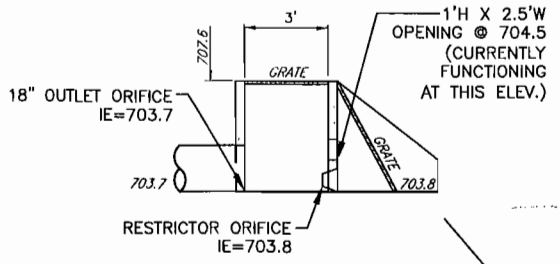
WATER ELEV. = 704.7

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)

0.0 (BOTTOM)

WATER SURFACE AREA ≙ 55,390 SF



OUTLET STRUCTURE

OUTLET STRUCTURE
4'x3' OPEN TOP
BAY WALL (TOP=707.6)
1'H X 2.5'W OPENING @ 704.5
HAS ?"X3" D.I. REDUCER @ 703.8
OUTLET 18" ORIFICE @ 703.7

IE=703.6
30" END SECTION

IE=703.1
12" END SECTION

IE=703.6
18" END SECTION

IE=703.6
12" END SECTION

OVERFLOW

CONCRETE SPILLWAY
CREST=707.9

104TH AVE

5.6
6.6

7.7
8.8

6.6
7.3

6.6
7.5

7.6
8.1

7.5
8.3

7.8
8.8

ENTRANCE

0' 60'

FEB./2013

K0300080

Clark Dietz ENGINEERS

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained by City of Kenosha

Anderson Park

Clark Dietz
ENGINEERS

October 31, 2013

Measurement Results for Anderson Park Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
N/A	N/A	4.9 – 8.0	2018

Notes

1. The measured water depth in May of 2013 varied between 4.9 to 8.0 feet. The original design plans were not available.

2. The structures were inspected. One submerged inlet pipe was found. No outlet structure was visible. There is also no spillway.

3. Sediment build-up varied between 0.3 and 2.3 feet.

4. The whole pond perimeter is mowed. There are some pockets of willow scrub.

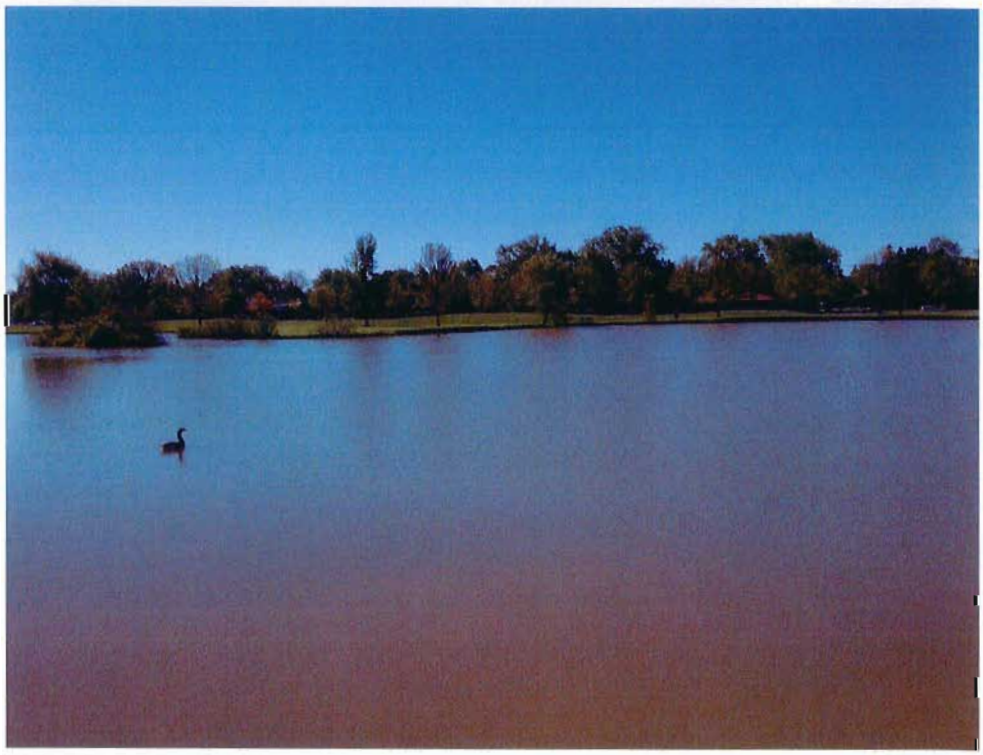
5. The water level appeared high. Water had overflowed the pond in one area.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Further investigation is necessary to locate the outlet structure and determine why it is not functioning properly.

3. Leave a one-foot wide strip around the pond when mowing to deter geese.



847-347-7750

5-24-13 AT ; HA SUNNY 45°

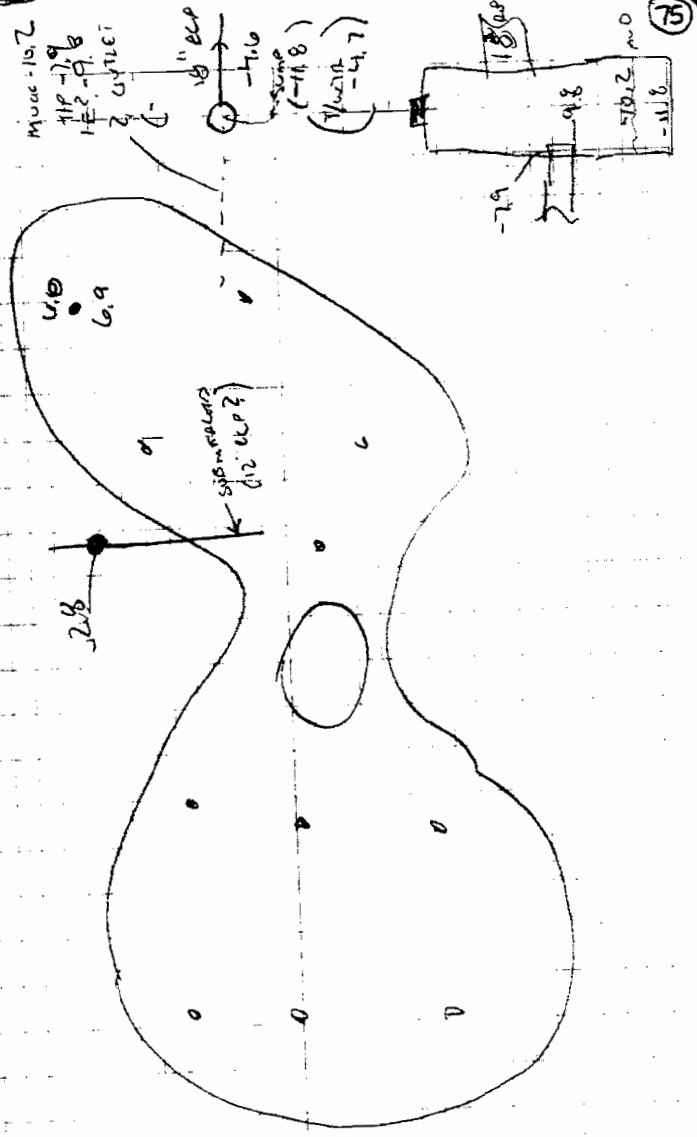
ANDERSON PARK

#13800

* ONLY 1 SUBMERGED PIPE
* NO OUTLET VISIBLE
- NO SPILLWAYS

* SMALL POCKETS OF WILLOW SCRUB

#14031 6.0, 6.9
6.5, 6.8
6.3, 6.6
7.5, 6.2
4.9, 5.5
6.7, 6.2
7.4, 7.9
8.0, 10.3
7.3, 8.3
7.7, 8.4
#1404 7.5, 8.2
END 14052



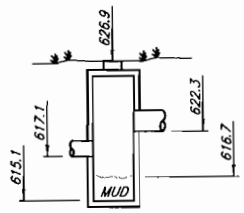
ANDERSON PARK

WATER ELEV.= 622.1

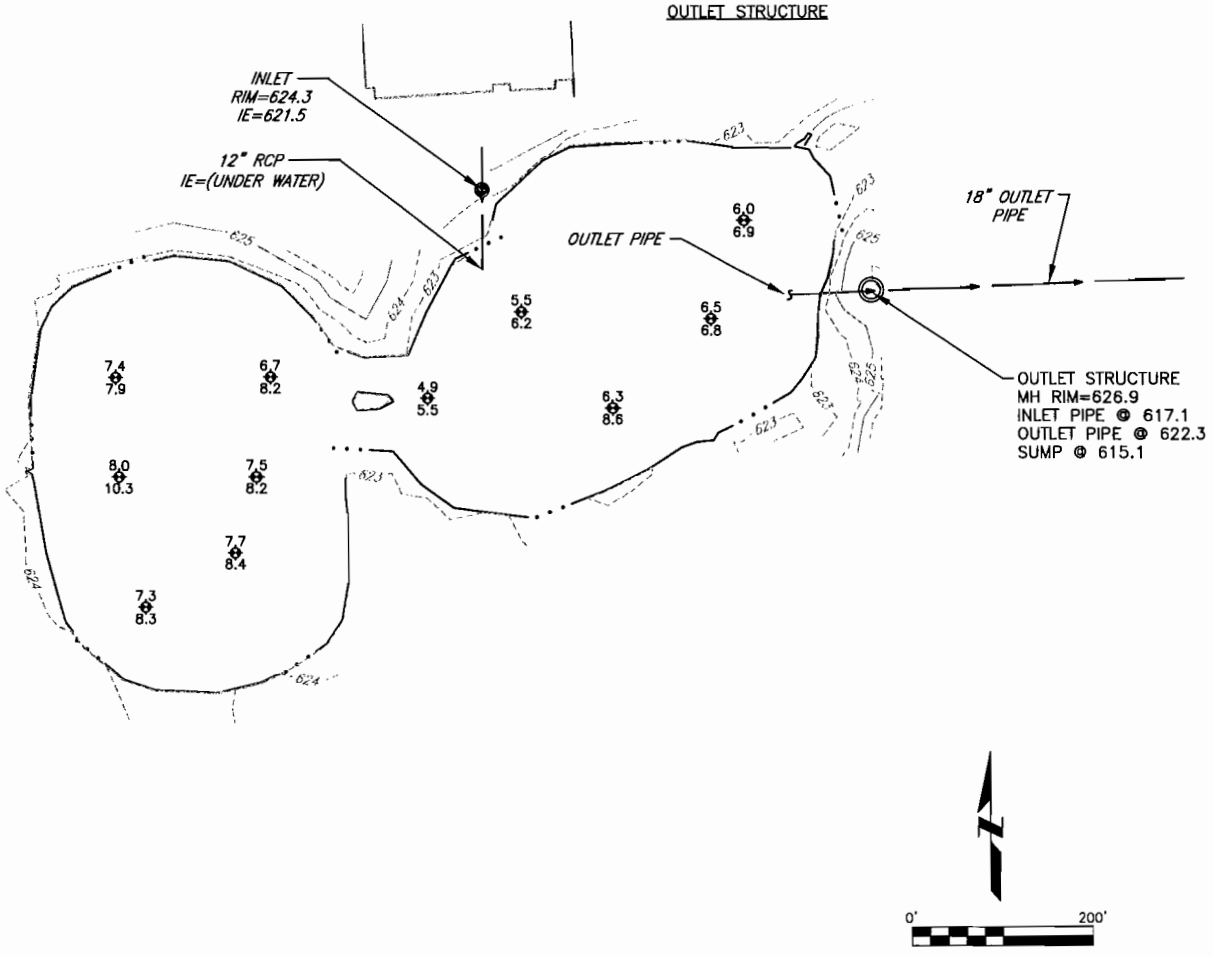
DEPTHS BELOW WATER

6.7 (TOP SEDIMENT)
7.6 (BOTTOM)

WATER SURFACE AREA = 291,228 SF



OUTLET STRUCTURE



MAY/2013

Clark Dietz ENGINEERS

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained by City of Kenosha 89th/39th

Clark Dietz
ENGINEERS

June 20, 2013

Measurement Results for 89th and 39th Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Inspection
1983	N/A	N/A	2018

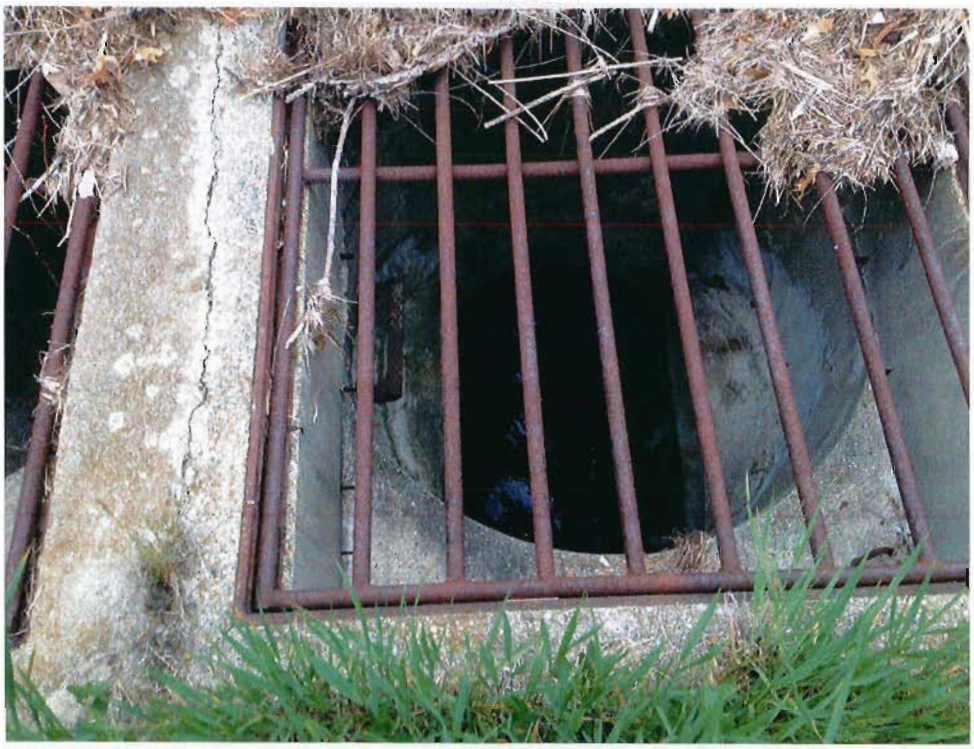
Notes

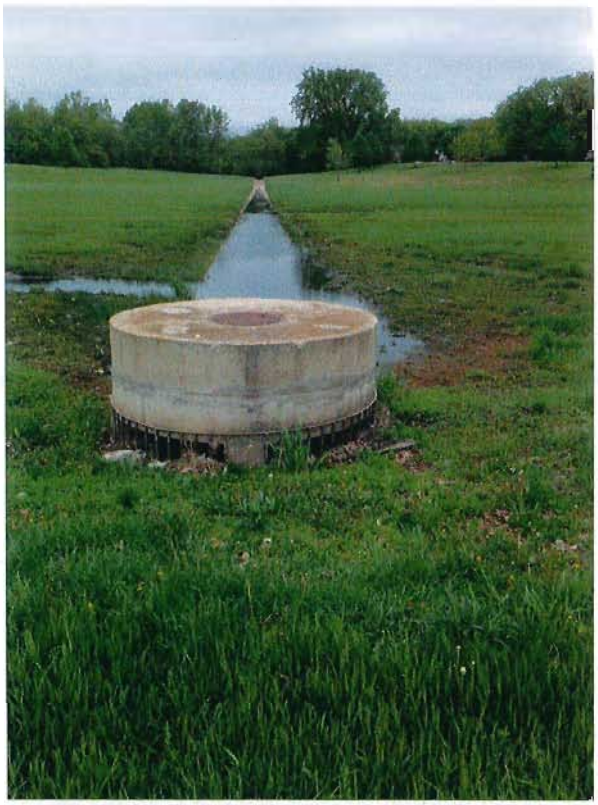
1. This dry-bottom pond was inspected in May of 2013.
2. The first orifice opening on the outlet structure is broken.
3. The inlet and outlet structures were clogged with grass clippings and debris.
4. The pond area had been mowed earlier in the spring.
5. The concrete channels were coated with mud.
6. The frame on the 18" inlet pipe was offset, creating a dangerous condition.

RECOMMENDATIONS

1. The pond should be inspected in 2018 to compare to the 2013 findings.
2. The concrete channels should be scraped clean.
3. The inlet and outlet structures should be cleaned and maintained regularly.
4. The first orifice in the outlet should be repaired.
5. Repair the 18" inlet pipe.
6. Remove grass clippings from the structures after mowing.


DANGER
WHEN
FLOODED





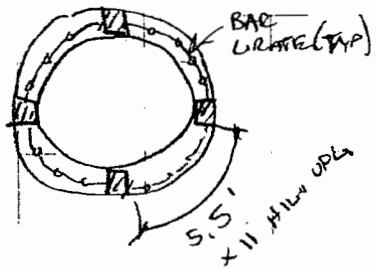
5-23-13 AT, 4L Clear 50°

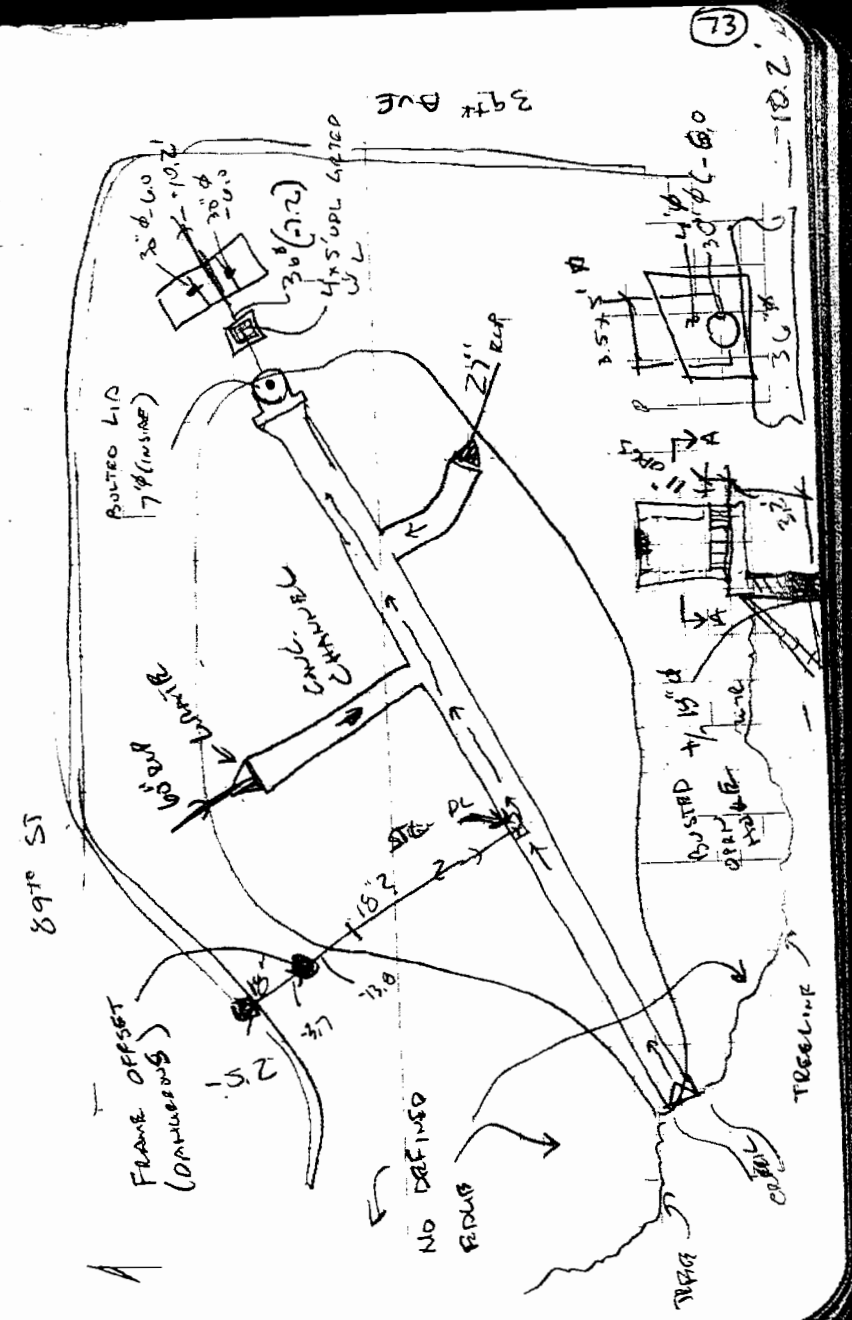
89TH ST & 39TH AVE

#13500 → 13730

- ★ PRIMARY OUTLET BUSTED TO ± 18" Ø
- ★ SCRAPE OUT GUTTERS
- ★ KEEP OUTLET GRATE FREE OF DEBRIS
- ★ MOWED GRASS CLIPPINGS CLOG. STRUCTURES

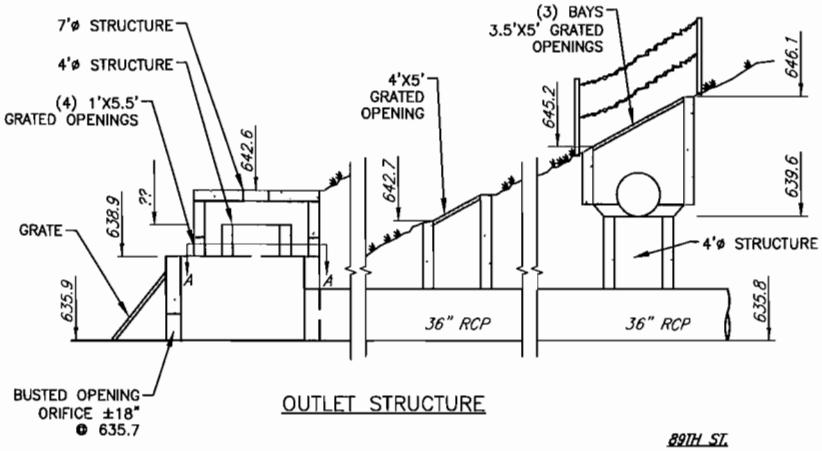
- 13605 LG NOT MH





89TH/39TH

DRY BOTTOM



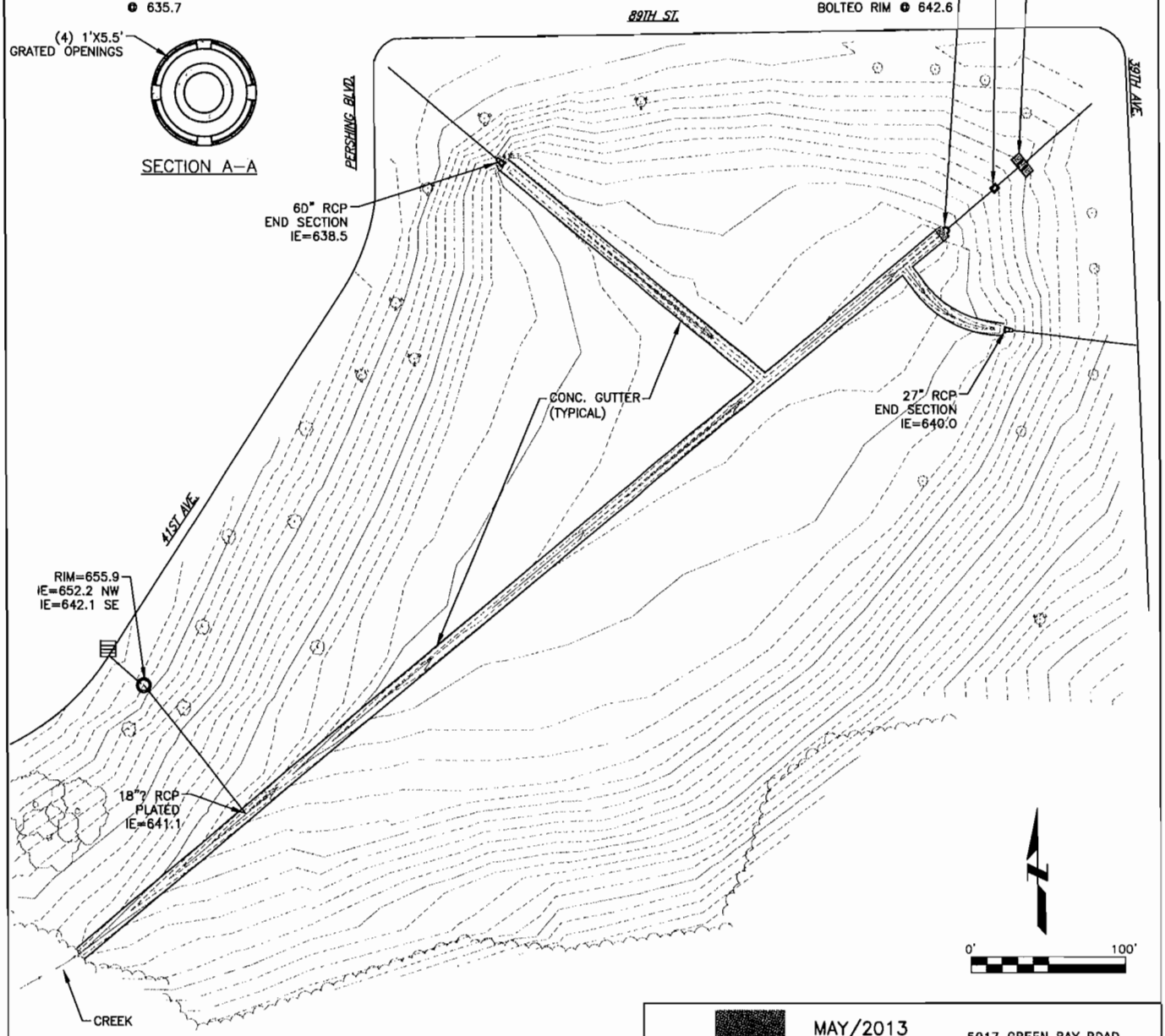
OUTLET STRUCTURE

UPPER STRUCTURE
(3) 3.5'x5' GRATED BAYS OUTER BAYS CONNECTED TO INNER W/ 30" RCP ⌀ 639.6
INNER BAY DROPS W/4'ø STRUCTURE INTO 36" RCP OUTLET ⌀ 635.8

INTERMEDIATE STRUCTURE
4'x5' GRATED OPENING IN-SPILL 642.7
36"ø OUTLET ⌀ 635.9

LOWER OUTLET STRUCTURE
INV ⌀ GUTTER = 635.9
BUSTED OPENING ORIFICE ±18" ⌀ 635.7
GRATED OPENINGS 1'X5.5' ⌀ 638.9
BOLTED RIM ⌀ 642.6

SECTION A-A



Clark Dietz ENGINEERS

MAY/2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
River Crossing

Clark Dietz
ENGINEERS

July 16, 2013

Measurement Results for River Crossing Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Inspection
N/A	N/A	1.5	2018

Notes

1. There was approximately 1.5 feet of standing water in this dry-bottom pond when it was inspected in May of 2013. The original design plans were not available.

2. The inlets and outlets were inspected and were found to be in good structural condition. There is standing water over the beehive structure, however, indicating it is not functioning. The outlet structure is operating at the level of the second orifice.

3. There was approximately 1.5 feet of sediment build-up underneath the standing water.

4. The pond had not been mowed due to the wet conditions. Trees and brush are growing adjacent to the concrete spillway.

RECOMMENDATIONS

1. The pond should be inspected in 2018 to compare to the 2013 measurements.

2. All outlet structures should be cleaned and checked for possible obstructions.

3. The concrete channel should be cleaned.

4. The trees and brush near the spillway should be cleared.

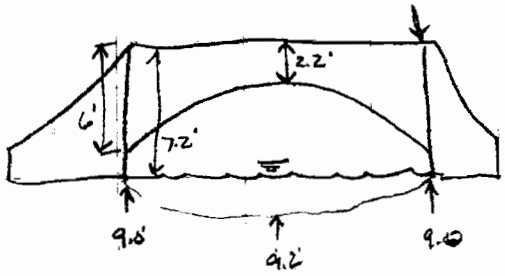
* TO START 12,500

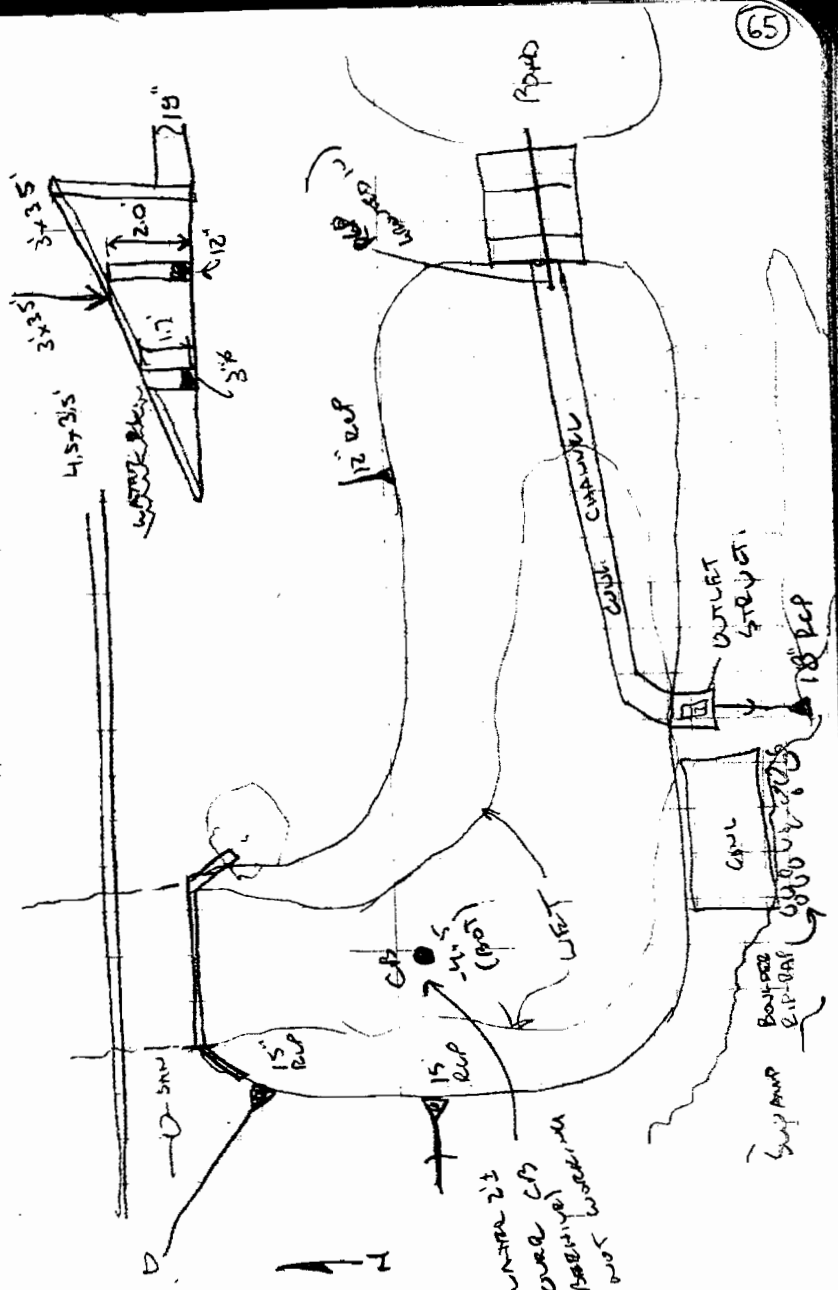
5-14-13 AT (SUNNY 65°)

RIVER CROSSINGS

+ OPERATING e 2ND ARM OVERFLOW
* TREES & BRUSH e SPILLWAY
+ LIGHT MAINT (SCRAPE COUL CHANNEL CLEAN OUT END SECTIONS)

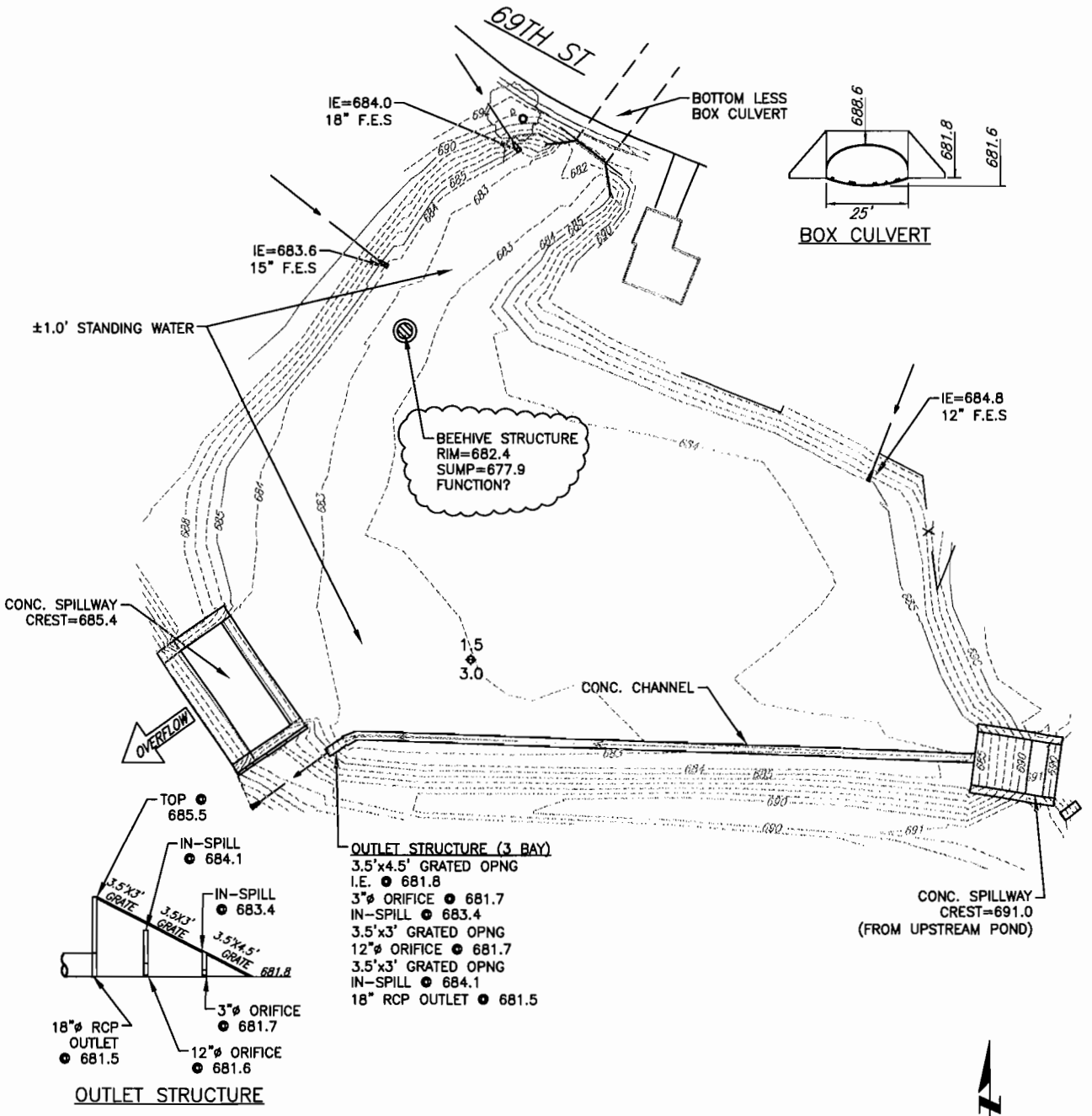
BUBOT SHOTS (RIV MEAD.CRS) #12900 → 12850
→ TOE12 = TOE2





RIVER CROSSING

DRY BOTTOM



Clark Dietz ENGINEERS

MAY./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
Whitecaps B

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for WhiteCaps B Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1992	6	5.3 – 7.5	2018

Notes

1. The designed water depth of the pond is 6 feet. The measured water depth in March of 2013 varied between 5.3 and 7.5 feet. We conclude that the pond was over-excavated at the time of construction.

2. The outlet structure is not functioning correctly. It is operating at the secondary overflow level since the lower restrictor orifice is clogged. There is also rip-rap inside the structure.

3. Sediment build-up averages 1.0 feet, with a minimum measurement of 5" and a maximum of 2.3'.

4. Cattails and willow are growing around most of the pond perimeter.

5. The rip-rap areas are silted and overgrown.

6. The inlet and outlet structures are overgrown with vegetation.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Vegetation around the inlet and outlet structures and within rip-rap should be cleared, along with thick growth in other areas.

3. The outlet structure should be cleared of debris and repaired as necessary.

3-29-13 SU 40°
AT, BB

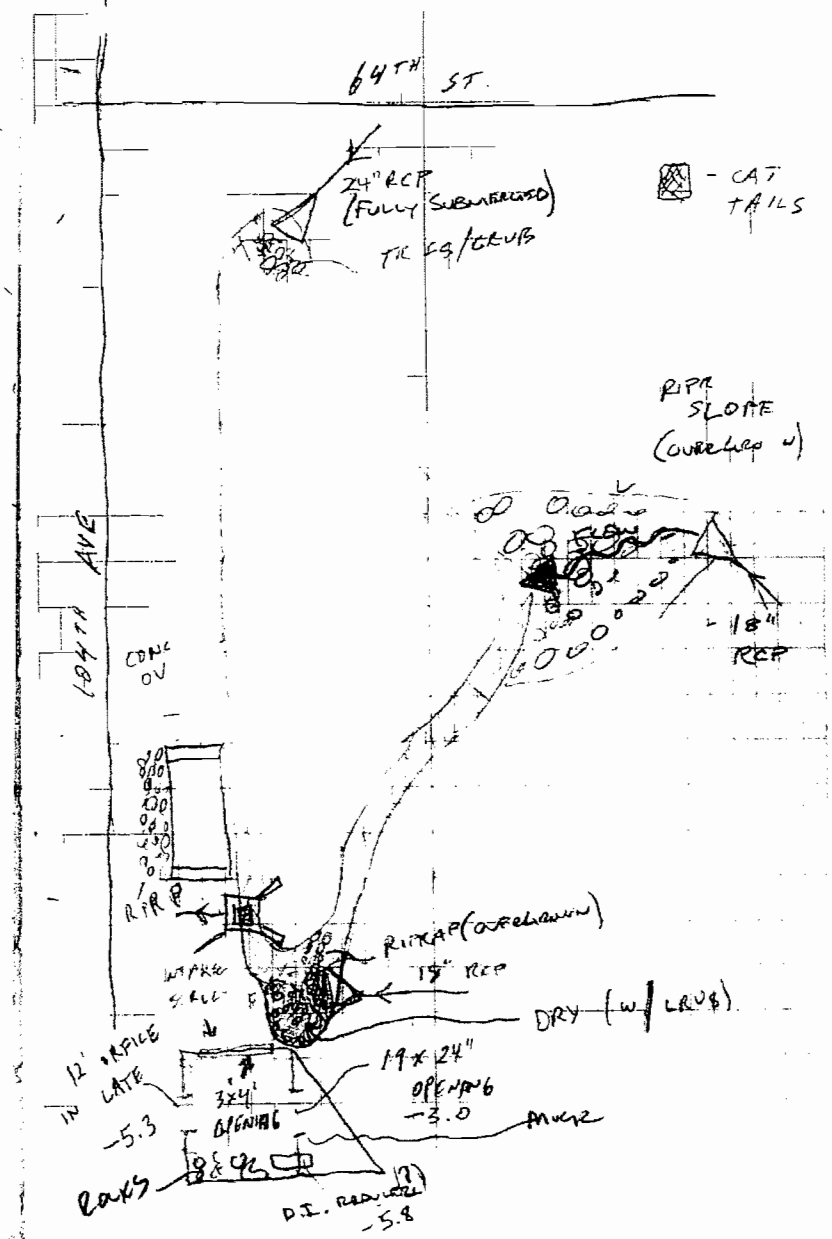
WHITE CAPS BASIN B

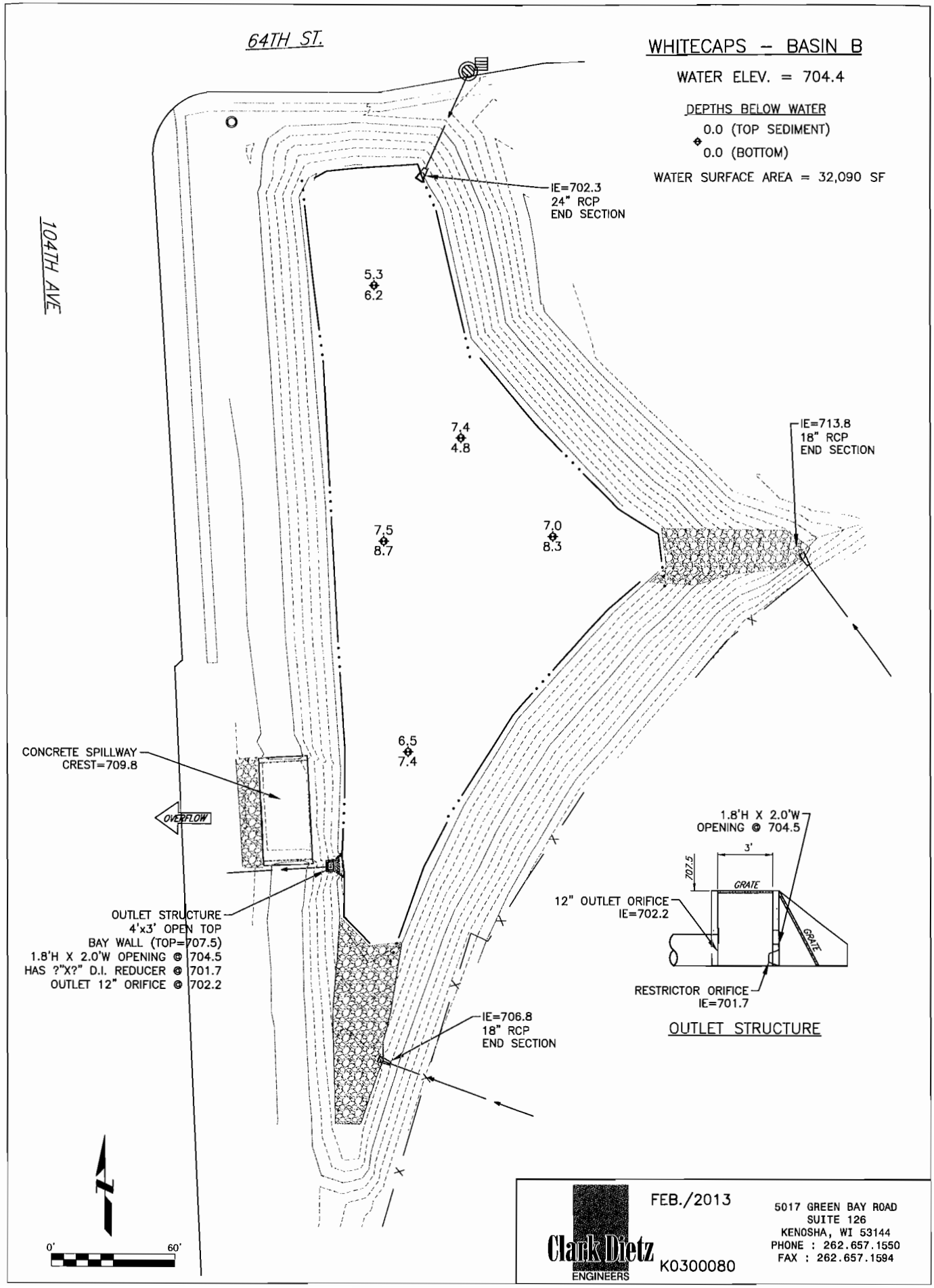
START # 8 000-

* WILLOW BRUSH / & CATTAILS
* RIP RAP SILTED & OVERGROWN
* OUTLET STRUCTURE NOT FUNCTIONING PROPERLY
- OPERATING e 2ND ARY OVERFLOW LEVEL
- RIP RAP LOOSE
- LOWER RESTRICTOR CLOGGED

6-27-13

#		
8160	5.3, 6.2	
61	7.0, 8.0	TO 8.0
62	7.0, 8.3	
63	6.5, 7.4	
8164	7.5, 8	





FEB./2013

K0300080

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KENOSHA, WI 53144
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FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
Whitecaps F

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for WhiteCaps F Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1992	4	2.5 – 3.1	2018

Notes

1. The designed water depth of the pond is 4 feet. The pond consists of a wet area at the east end and a dry detention area. The measured water depth in March of 2013 varied between 2.5 and 3.1 feet. The dry area had a few scattered puddles. We conclude that the pond is starting to fill up with sediment.

2. The outlet structure is in good condition but the final section of the inlet is separated from the pipe.

3. Sediment build-up in the pond averages 1.0 feet.

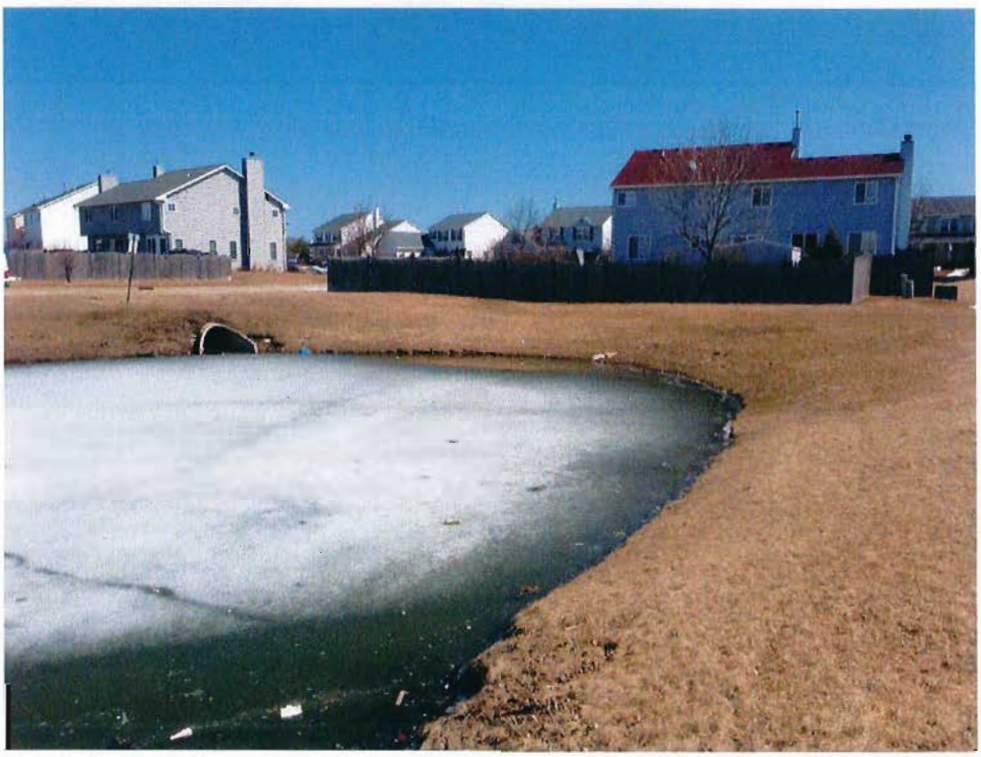
4. The dry detention area and the pond perimeter are mowed.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. When mowing, leave a grass strip around the perimeter of the pond to improve safety and deter geese.

3. Dredging of the pond should be considered.



3-29-2013 SUNNY, 40°

AT, BB

WHITE CAPS BASIN 'F'

START # 8300

* F.E.S. SEPARATED @ CONNECTION JOINT

4-27-13

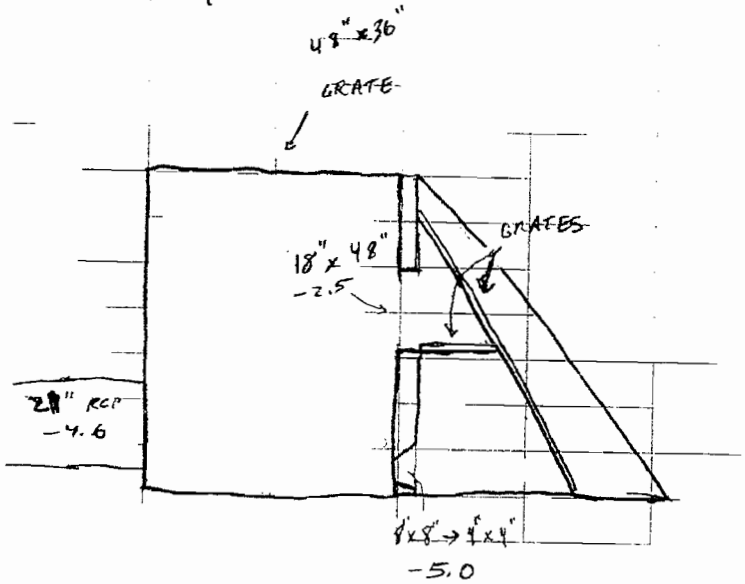
* 8487 EWATR → 8496

8497 - 2.7, 3.6

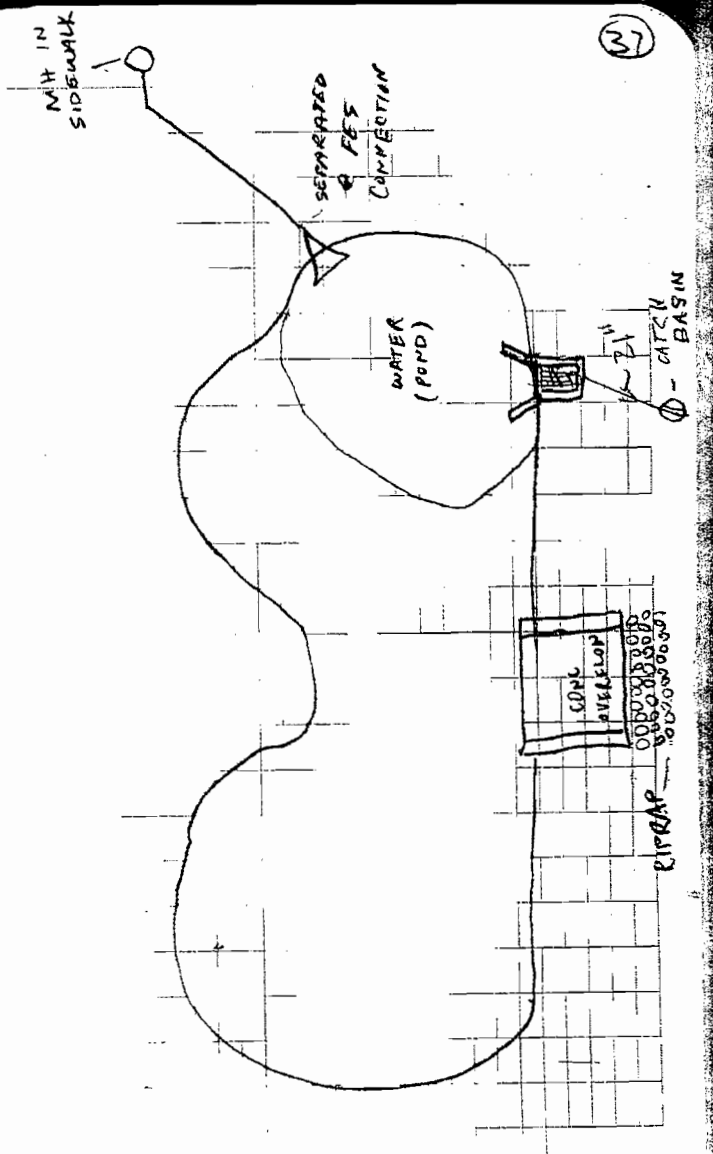
3.0, 4.1

- 2.5, 3.6

8683 3.1, 4.0



(37)



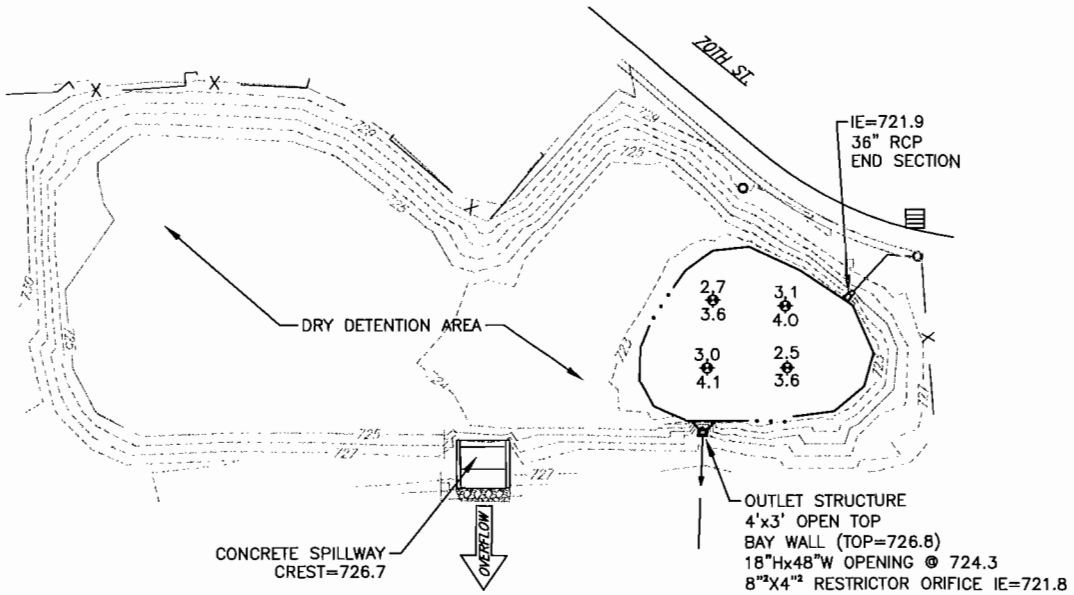
WHITECAPS – BASIN F

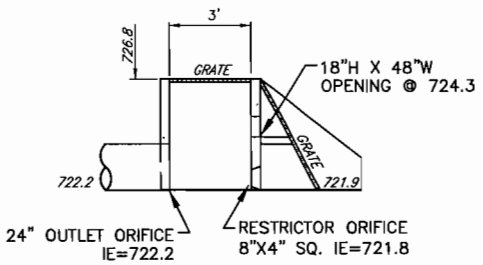
WATER ELEV.= 722.3

DEPTHS BELOW WATER

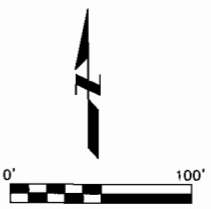
0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 9,213 SF





OUTLET STRUCTURE



Clark Dietz ENGINEERS

FEB./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
Nash Park

Clark Dietz
ENGINEERS

September 5, 2013

Measurement Results for Nash Park Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2001	12	9 – 12.2	2018

Notes

1. The designed water depth of the pond is 12 feet. The measured water depth in June of 2013 ranged between 9.0 and 12.2 feet. The south end of the pond is shallower than the rest.

2. The inlet and outlet structures were inspected and were found to be in good condition.

3. Sediment build-up of 0.4 feet was found in one location.

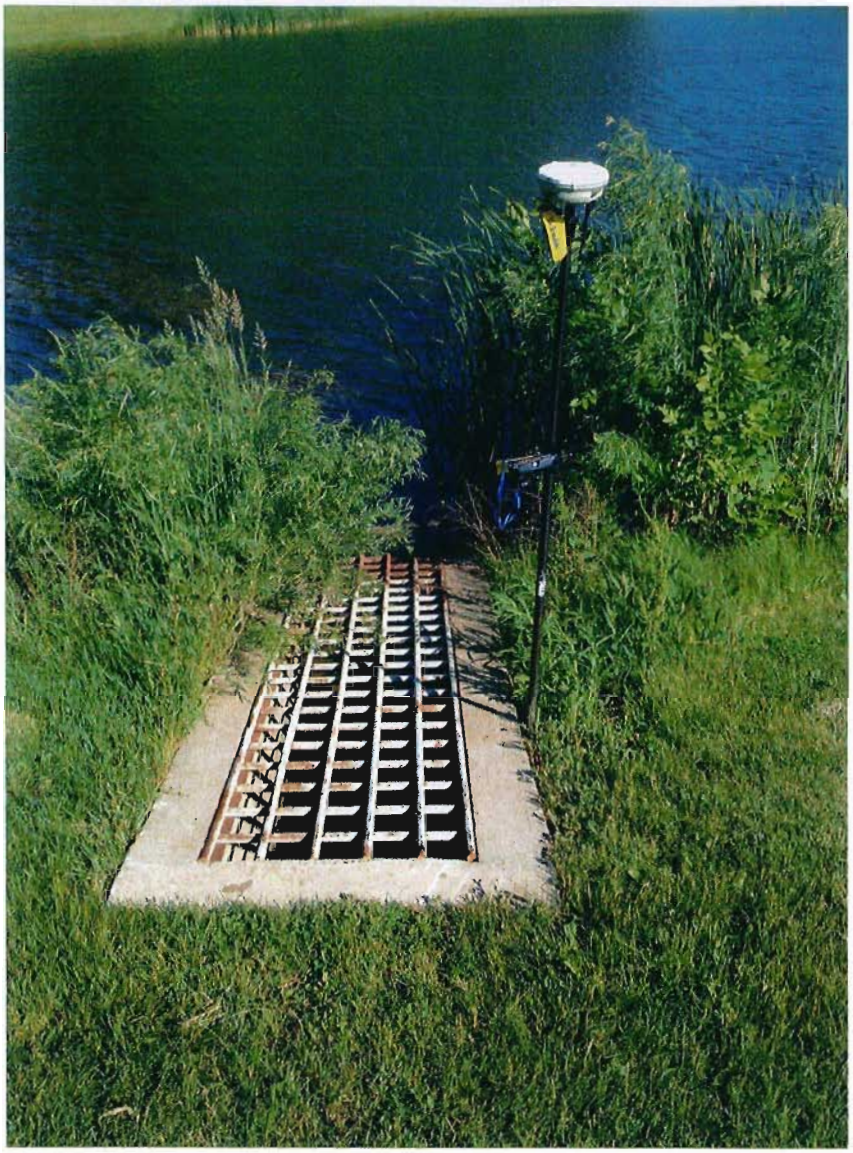
4. The whole pond perimeter is mowed. Vegetation has grown up in certain areas around the pond, including near the outlet and inlets.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Spotty brush removal is necessary, especially around the inlet and outlet structures.

3. The south area of the pond may be filling with sediment, creating the shallower depth. Future dredging of this area may be necessary.



6/13/13 SUNNY 75° AT

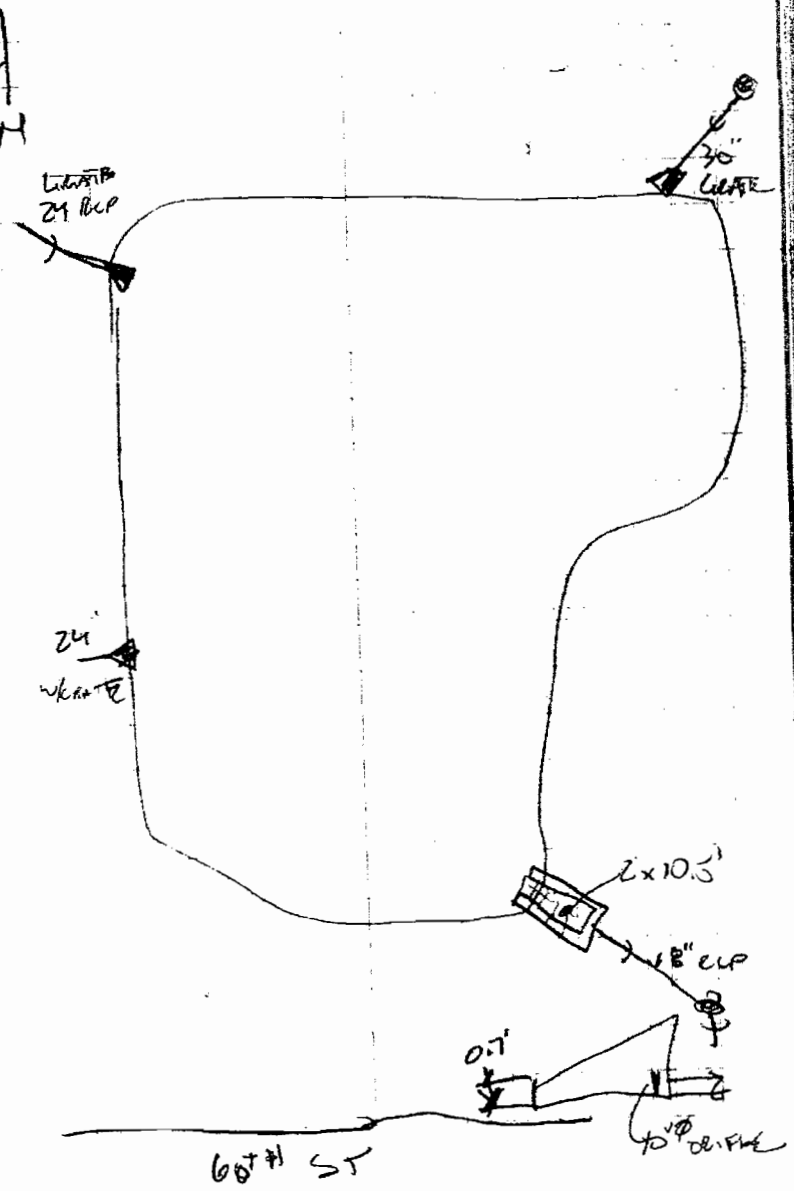
ALASH PARK

START 14800 → 14990)15300 →

MAINTENENCE

SPOTTY SAPLING REMOVAL

7-2-13	TW	TE
30,039	9.0,	9.4
	9.7,	–
	12.0,	–
	11.6,	–
	12.4,	–
	12.2,	–



NASH PARK

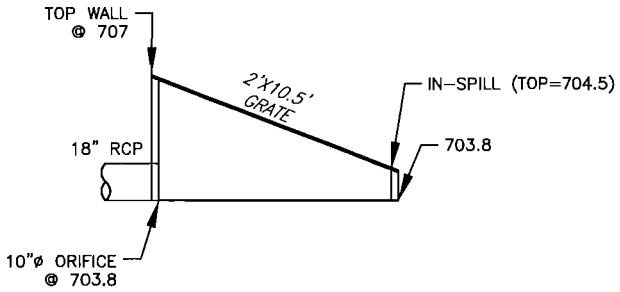
WATER ELEV.=704.3

DEPTHS BELOW WATER

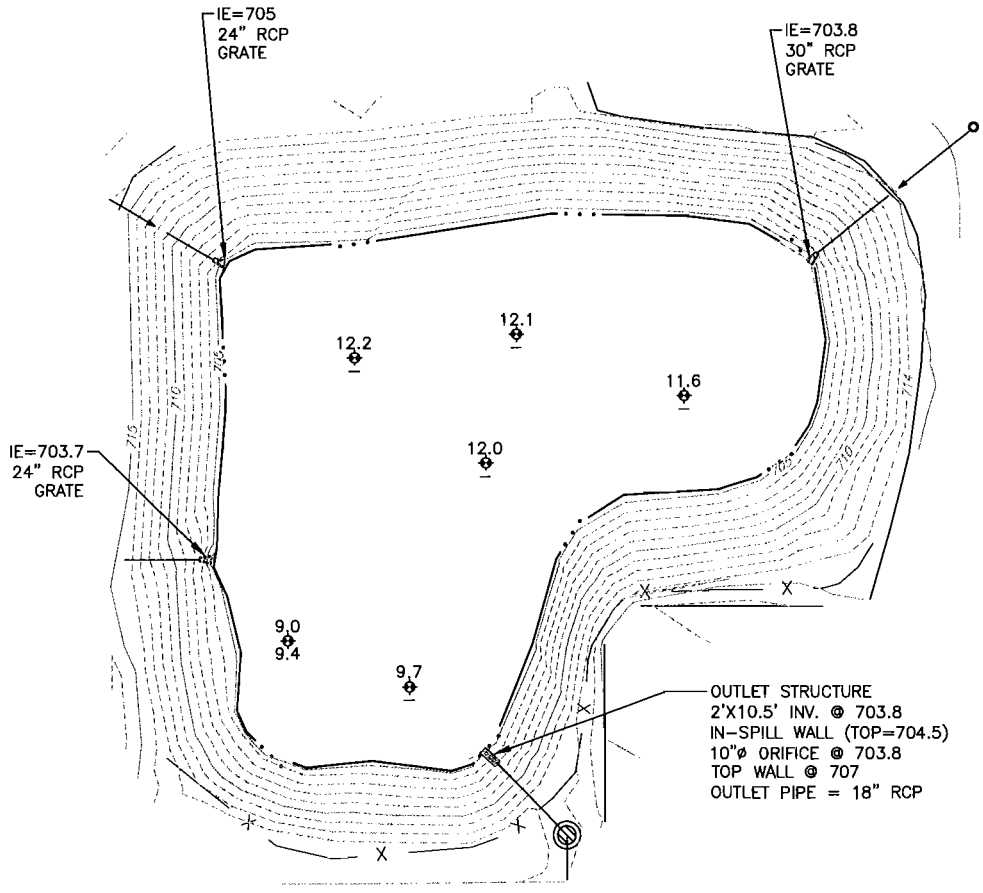
11.1 (TOP SEDIMENT)

– (BOTTOM)

WATER SURFACE AREA = 1,430,908 SF



OUTLET STRUCTURE



Clark Dietz ENGINEERS

JUNE/2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
Payne & Dolan Recycling

Clark Dietz
ENGINEERS

July 22, 2013

Measurement Results for Payne & Dolan Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1996	5	4.5	2018

Notes

1. The designed water depth of the pond is 5 feet. The measured water depth in May of 2013 was 4.5 feet. The pond may be starting to fill with sediment.

2. The outlet pipe was inspected and was found to be in good structural condition. The structure interior was dirty.

3. An old piece of silt fence is crossing one of the drainage swales into the pond.

4. Sediment depth varied from 0.2 to 0.4 feet.

5. The pond perimeter had not been mowed. Rip-rap areas have vegetation growing in them.

6. Cattail growth is overtaking the pond.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Cattails should be removed from the pond and vegetation should be removed from the rip-rap.

3. The outlet structure should be cleaned.

4. Remove the silt fence from the drainage swale.

5. Dredging of this small pond may be necessary within the next five years.

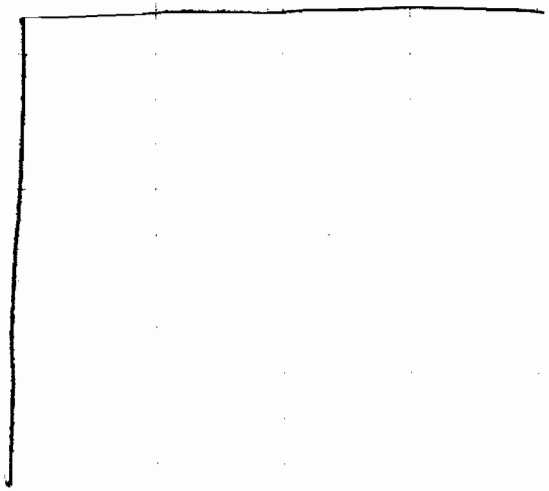

MEYER

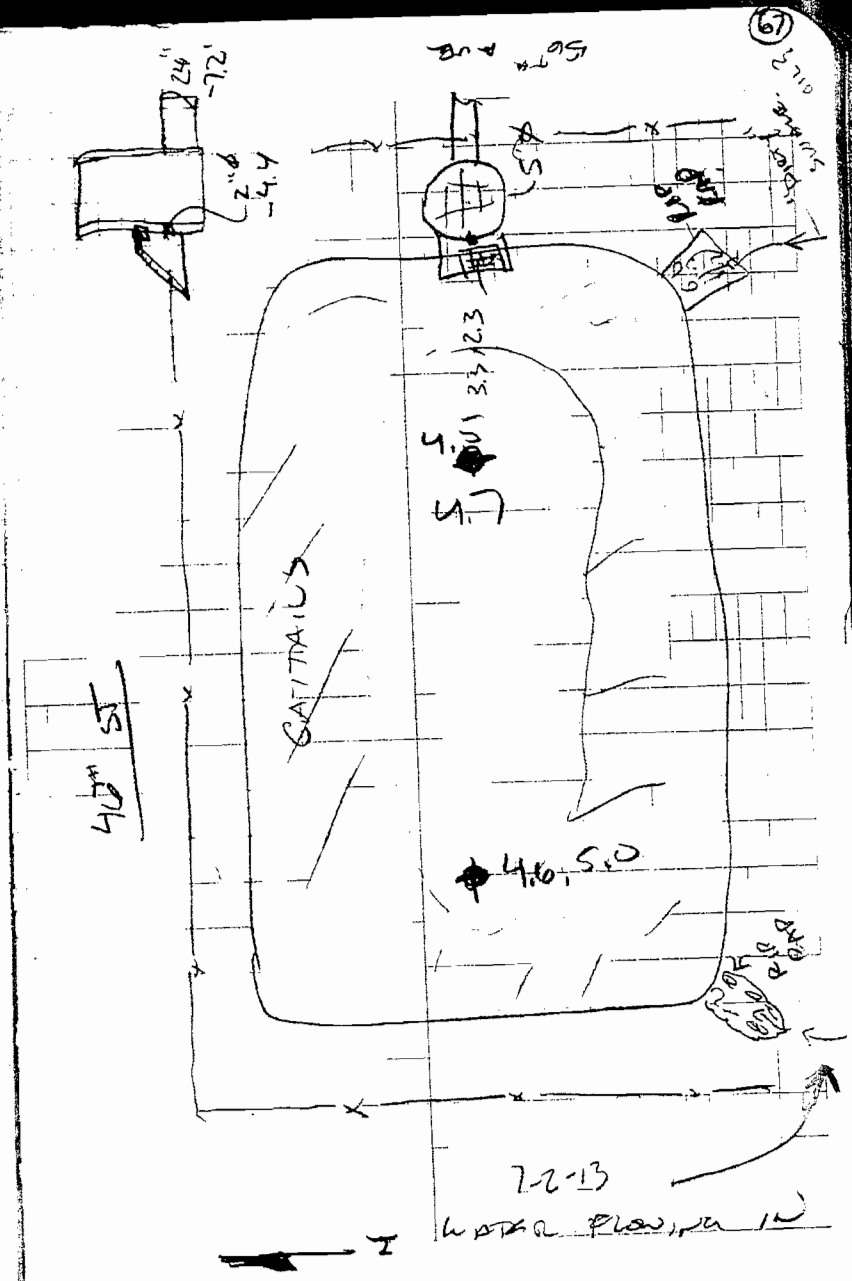
5-14-13
AT SUNNY 75°

PAYNE DOLAN RECYCLING

12900 → 12999

* STINKY WATER
* GRIME IN OUTLET STRUCT.
* CATTAILS





PAYNE & DOLAN

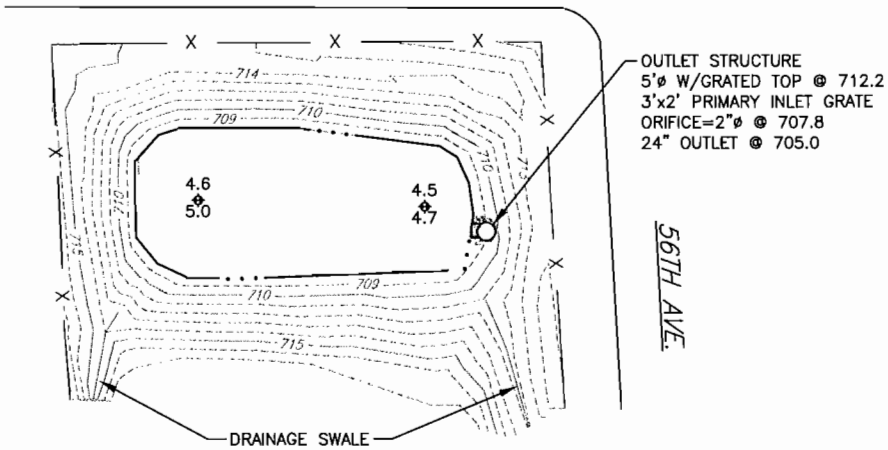
WATER ELEV.= 708.1

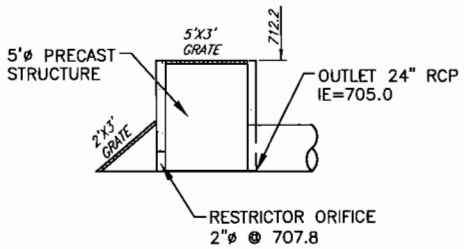
DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

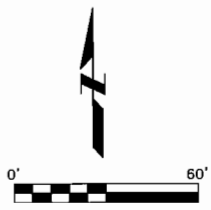
WATER SURFACE AREA = 4,587 SF

46TH ST.





OUTLET STRUCTURE



Clark Dietz ENGINEERS

MAY./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
Business Park B

Clark Dietz
ENGINEERS

July 11, 2013

Measurement Results for Business Park Basin B Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2003	NA	NA	NA

Notes

1. This dry bottom pond was inspected in February of 2013.
2. The inlet and outlet structures were inspected and were in good condition.
3. Some muck has built up around the structures and plugged the holes on the sides.
4. The pond area is mowed.

RECOMMENDATIONS

1. The pond should be inspected again in 2018.
2. Long grass, vegetation, and muck should be cleared away from the structures as necessary.

2-20-2013 - THURSDAY

BUSINESS PARK KENOSHA - BASIN B

BB, TEMP: 25° F, CLOUDY

START: 10:15 END:

START POINT # 4000 → 4294

#4001

PROFILE

14" RCP −3.1

DOME STYLE OPEN LID

#4181 - 15" RCP F.E.S

#4192 - (38" x 24") ELLIPTICAL RCP FES

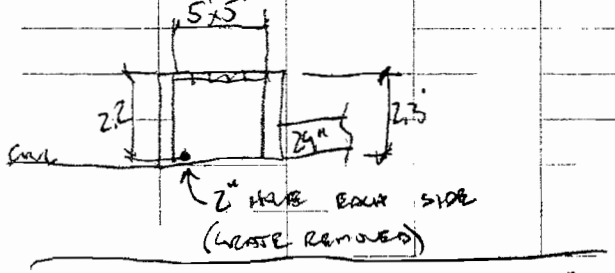
#4027 - 28" x 15" RCP FES (ELLIPTICAL)

#4087 - 36" x 21" RCP FES (ARCH' TYPE)

#4122 - 5.4' x 5.4' GRATE, 24" RCP (SE)

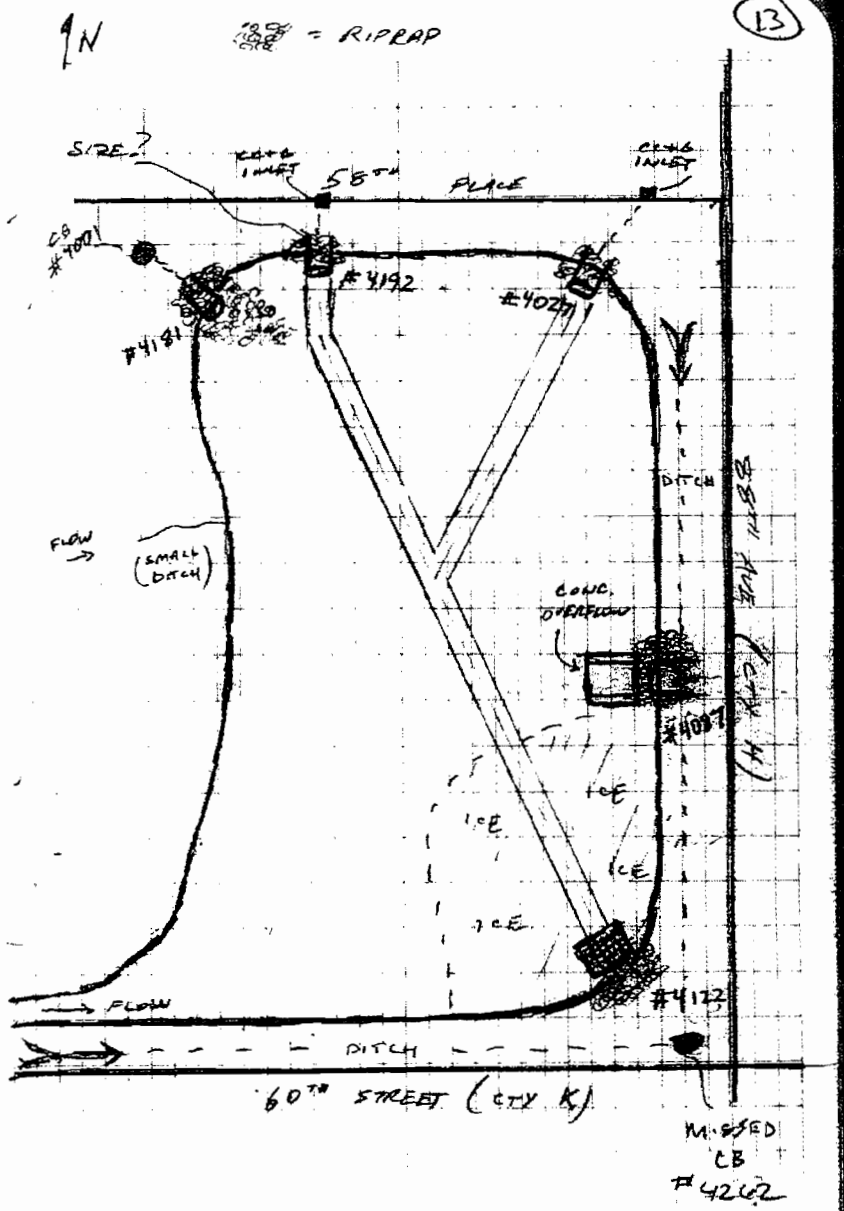
END 4262 → 4294

* NEED - CB (ANGLE) ✓
- CHANNEL (S.E. CORNER)
- NEW PIPE SIZES ✓



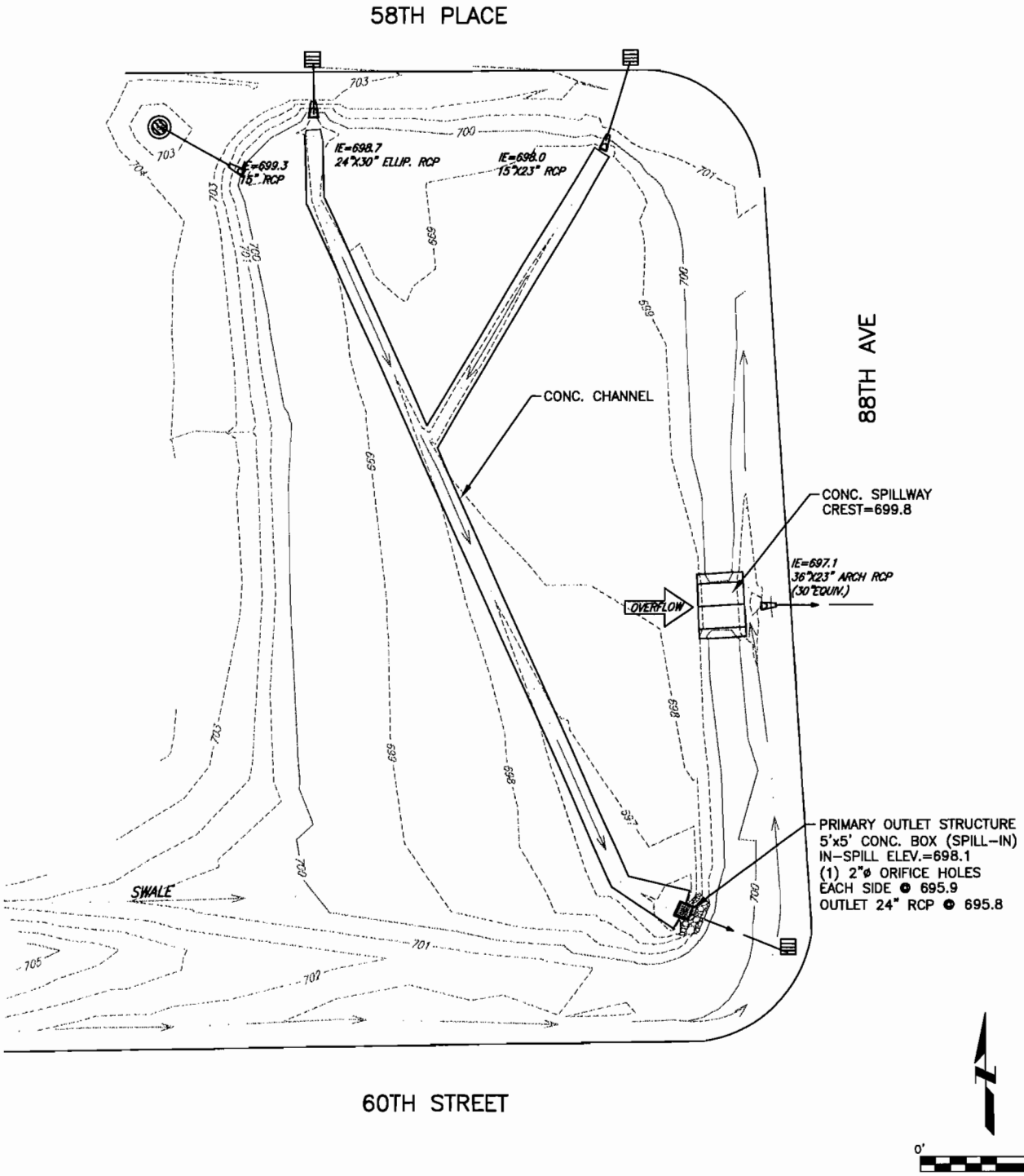
MAINT ISSUES: MUCK BUILD UP & 2" HOLES

13



KENOSHA BUSINESS PARK – BASIN B

DRY BOTTOM



Clark Dietz ENGINEERS

FEB./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

LOW PRIORITY

MAINTENANCE REQUIREMENTS

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
CITY OWNED/MAINTAINED

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
25	Petretti	Yes	Wet & Dry		Yes		Reattach 15" pipe. Clean sediment from concrete gutters.	$1,000 $2,000	$360	$504	$3,864	Low	3	$19,320	1.9	1.0	0.6
22	Business Park A	Yes	Dry			Yes	Clear debris from structures. Clear willow brush. Clean channel.	$1,000 $2,000 $2,000	$600	$840	$6,440	Low	5				
36	Hillside	Yes	Wet			Yes	Clear vegetation from outlet structure. Clean channels.	$1,000 $2,000	$360	$504	$3,864	Low	8				
29	Whitecaps D		Dry		Yes		Clear debris from outlet structure.	$1,000	$120	$168	$1,288	Low	11				
30	Whitecaps C		Dry		Yes		Clear debris from outlet structure.	$1,000	$120	$168	$1,288	Low	12				
37	St. Peter's	Yes	Wet			Yes	Clear debris and vegetation from structures.	$2,000	$240	$336	$2,576	Low	14				

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

Ponds Owned and Maintained
by City of Kenosha
Petretti

Clark Dietz
ENGINEERS

September 5, 2013

Measurement Results for Petretti Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Inspection
N/A	N/A	4.8	2018

Notes

1. The original design plans for the pond were not available. This dry pond had 4.8 feet of water in the north end in June of 2013.

2. The inlet and outlet structures were inspected and were found to be in good condition. The 15-inch pipe was starting to separate.

3. There is some sediment build-up in the concrete gutters.

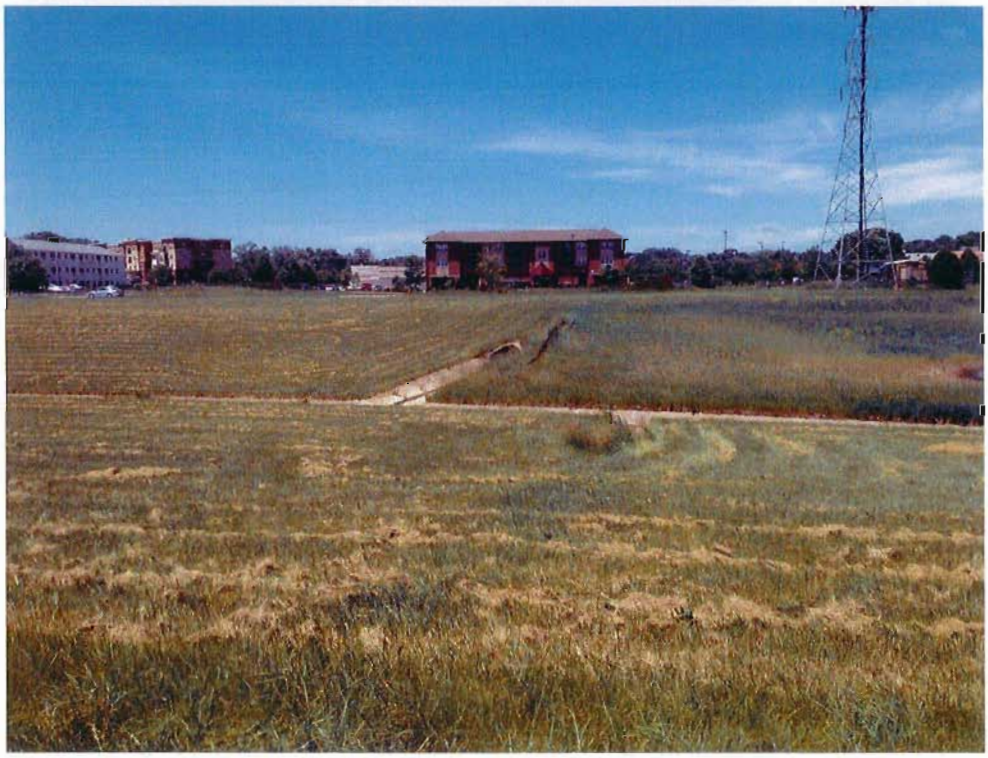
4. The pond area had been mowed, but not recently.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will indicate whether sediment is accumulating in the small wet portion of the pond.

2. The concrete gutters should be cleaned.

3. Reattach 15-inch pipe.



6/18/13 SUNNY 60° AT, dL

PETRETTI

#16200 – 16437

NO ☐ IN BSL ✓

MAINT

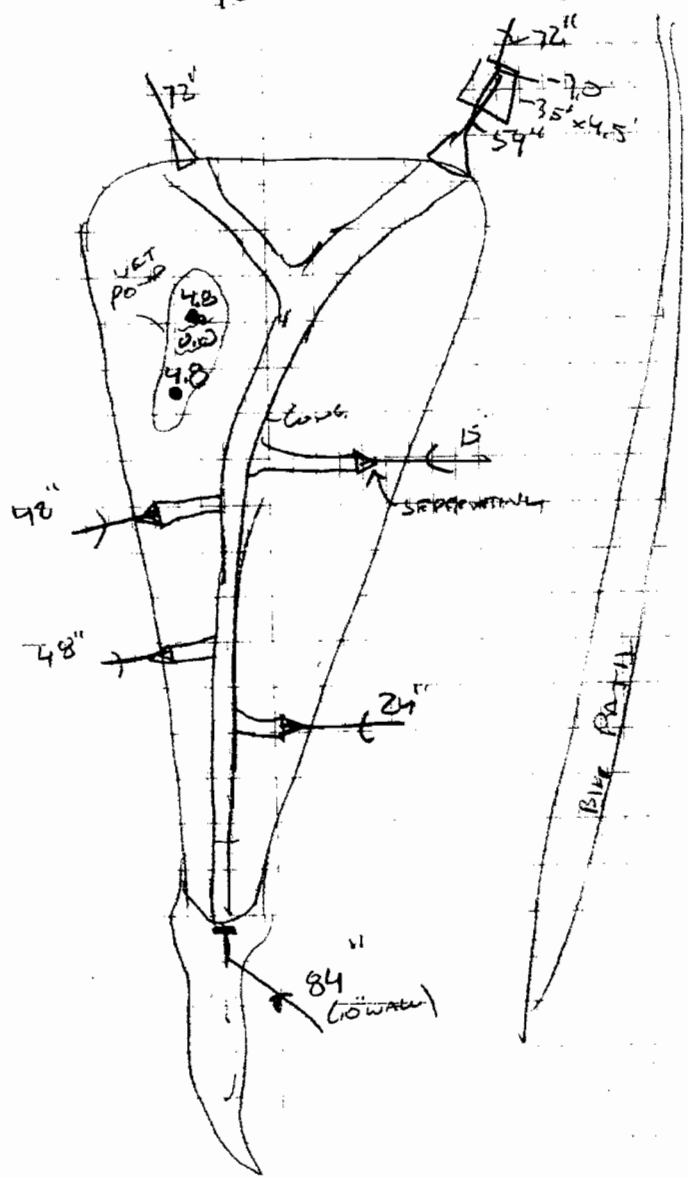
CLEAN GUTTERS

1

N

(91)

19TH ST



NORTH POINTE

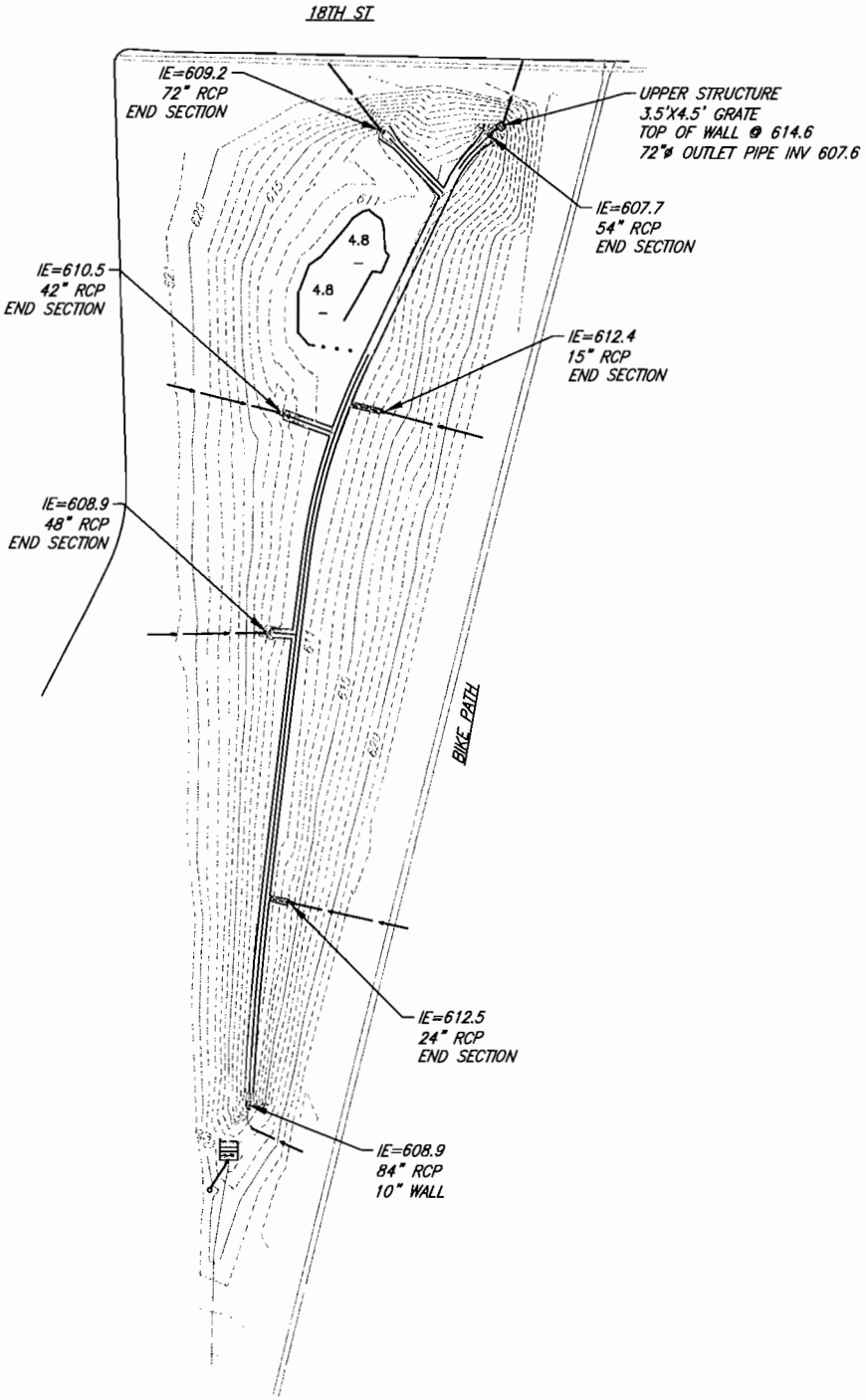
WATER ELEV.=610.2

DEPTHS BELOW WATER

4.8 (TOP SEDIMENT)

– (BOTTOM)

WATER SURFACE AREA = 392 SF



JUNE/2013

K0300080

Clark Dietz ENGINEERS

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
Business Park A

Clark Dietz
ENGINEERS

July 11, 2013

Measurement Results for Business Park Basin A Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Inspection
1994	NA	NA	2018

Notes

1. This dry bottom pond was inspected in February of 2013.
2. The inlets and outlets were inspected and were found to be in good structural condition.
3. Grass clippings were completely covering some of the structures.
4. The whole pond area was mowed, with some willow brush. The low end of the concrete channel was covered in muck.

RECOMMENDATIONS

1. The pond should be inspected again in 2018.
2. Remove grass clippings from the inlet and outlet structures after mowing.
3. Clear willow brush as necessary.

2-13-2013 – WEDNESDAY

BUSINESS PARK KENOSHA – BASIN 'A'

BB, TEMP: 35° F, SUNNY

START: 07:30 END: 4:00 PM

SQUARE INTAKE GRATE: (N)

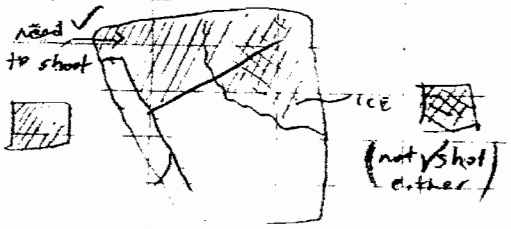
5.0' × 5.0' ODs

INVERT: -2.9'

(E) RCP (24") → -2.9'

★ ALL SHOTS TAKEN WITH (+) SHOULD BE (–) FOR CURVES!

★ ~~ALL~~ LINE WORK STOPPED @ SQ GRATE. CONTINUE SHOOTING TB1, TOE 1 AND GE1 ALL (GE1) NORTH OF NE/SW RUNNING DITCH:



~~END @ 3460~~

– 2/21/2013 – THURSDAY BB

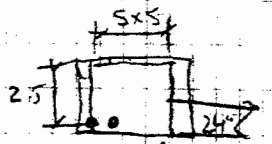
TEMP: 25° F

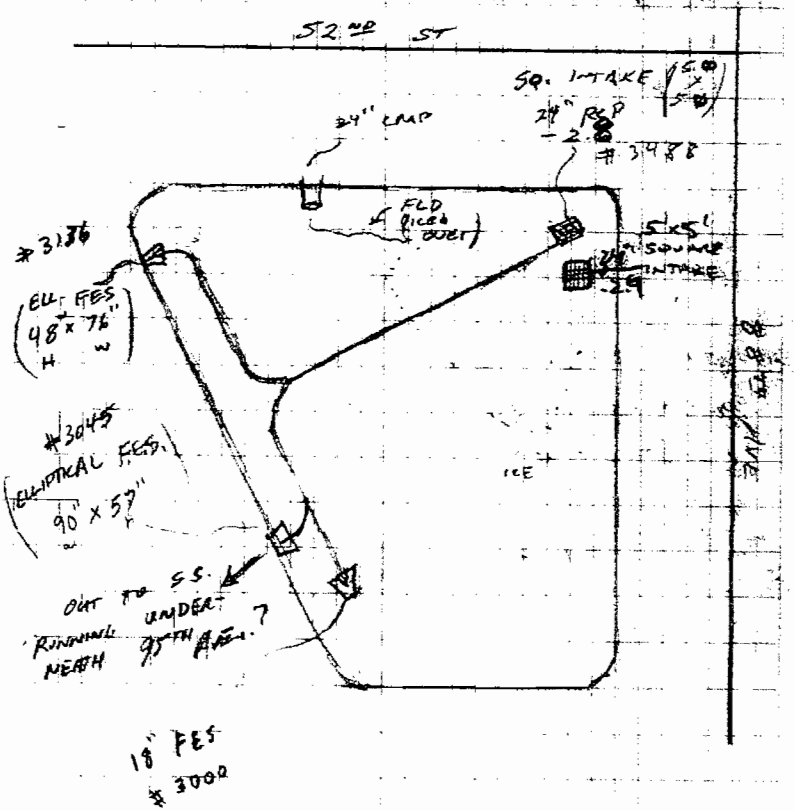
START: 7:00 END: 10:00

END @ 3610 → 3700

N1

11





MAINT.

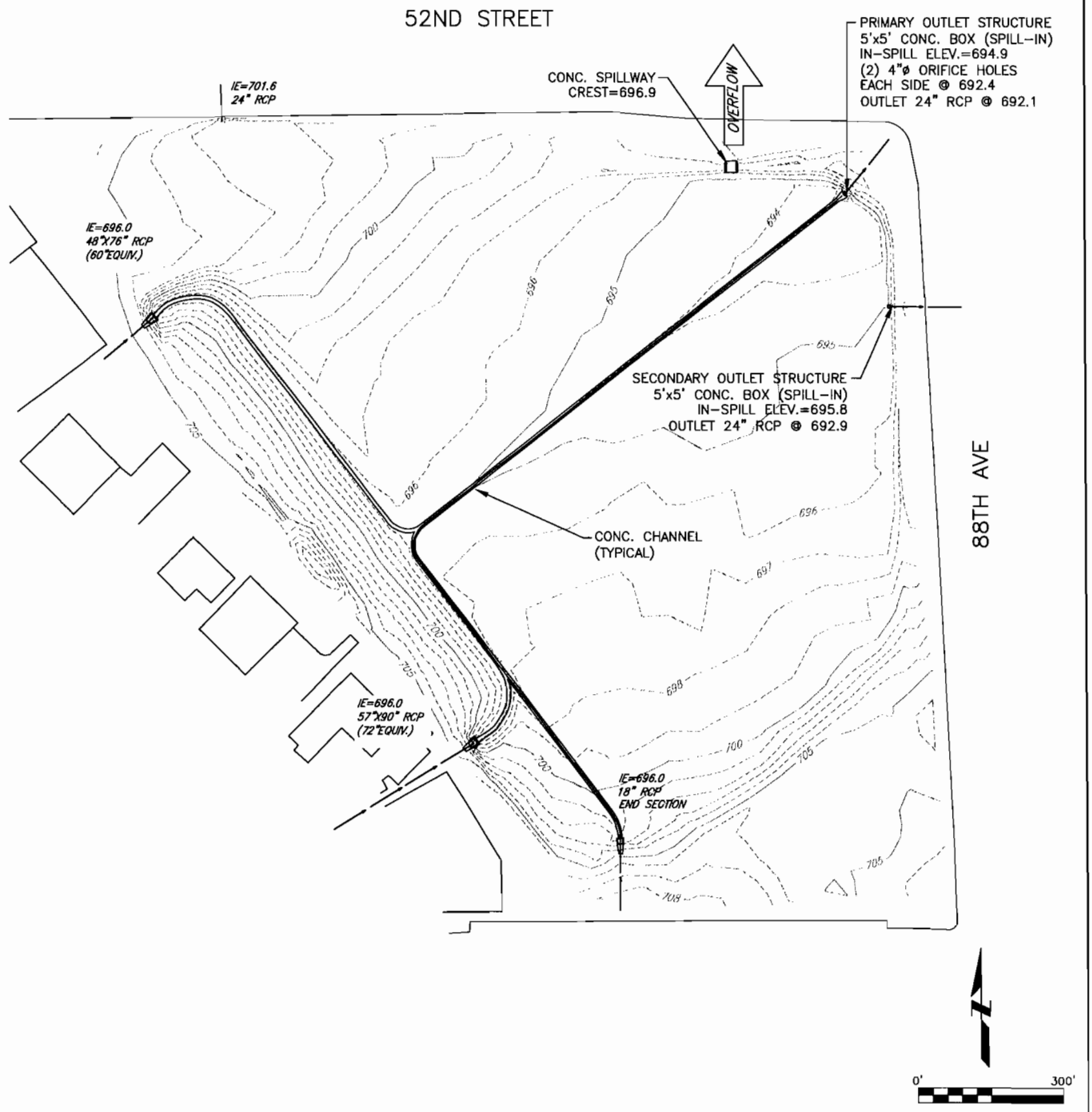
★ BASS CLIPPINGS CLOG GRATES

¥ CONC (LOW END) COVERED IN MUCK

@ NEED SCRUB

KENOSHA BUSINESS PARK – BASIN A

DRY BOTTOM



FEB./2013

K0300080

Clark Dietz
ENGINEERS

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained by City of Kenosha

Hillside

Clark Dietz
ENGINEERS

September 5, 2013

Measurement Results for Hillside Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2005	4.5	4.2 – 5.2	2018

Notes

1. The designed water depth of the pond is 4.5 feet. The measured water depth in July of 2013 varied between 4.2 and 5.2 feet.

2. The inlet and outlet structures were inspected and were found to be in good condition. There was some vegetation growing around the outlet structure.

3. Sediment build-up varied between 0.4 and 0.8 feet.

4. Sections of the pond perimeter had been mowed, with the grass left longer near the pond. The rip-rap area was clear.

5. Some sediment has built up in the concrete gutters.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The concrete gutters should be cleaned.

3. Vegetation should be cleared around the outlet structure.

6/19/13 4 SUNNY 75°

HILLSIDE

16500 → 6864

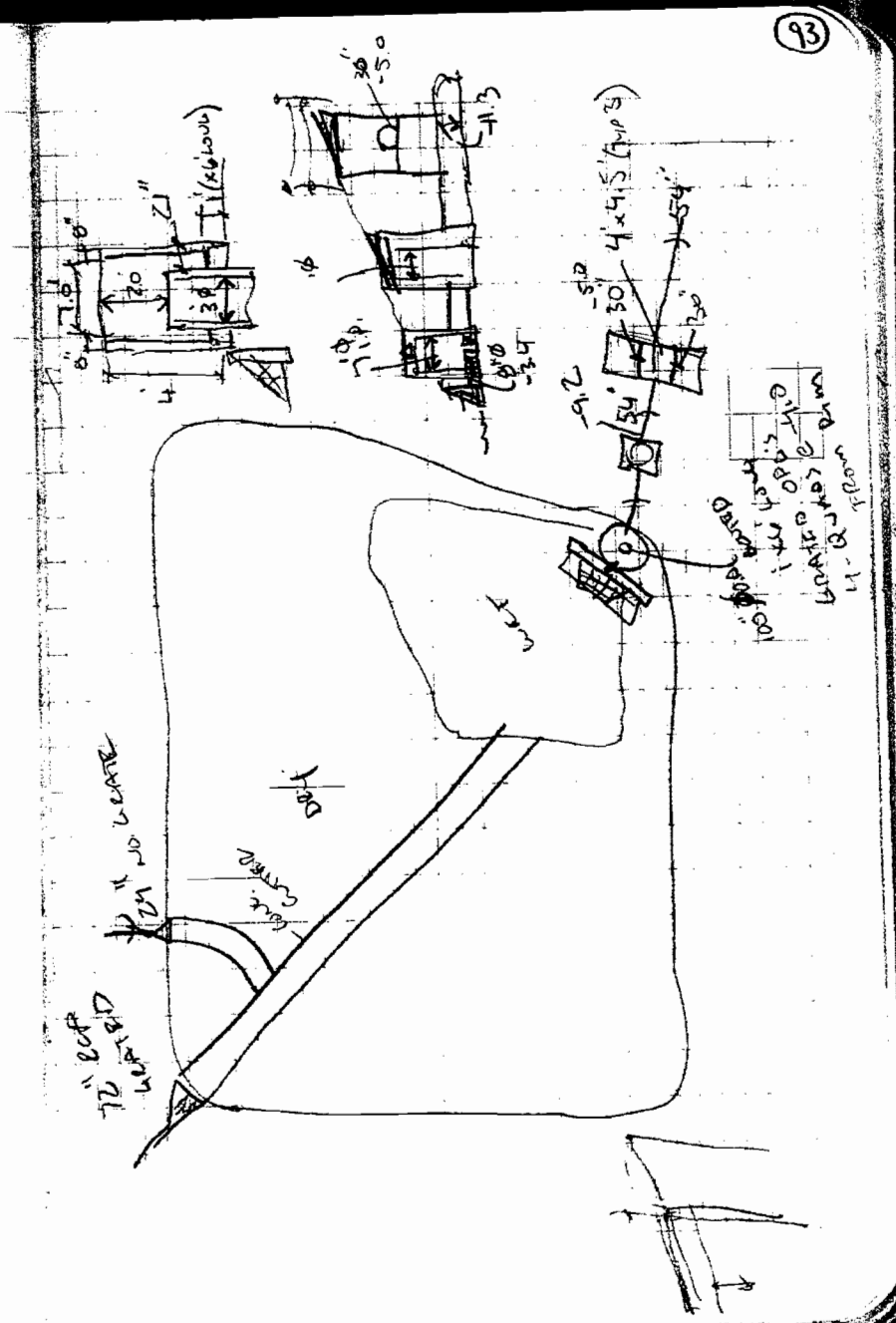
- NEED ALL WITHIN TB

MAINTENANCE

★ LIGHT - CLEAN GUTTERS

7-2-13

30,055	49, 5.6
56	4.9, 5.3
+7	5.2, 6.9
30,058	4.2, ~



HILLSIDE

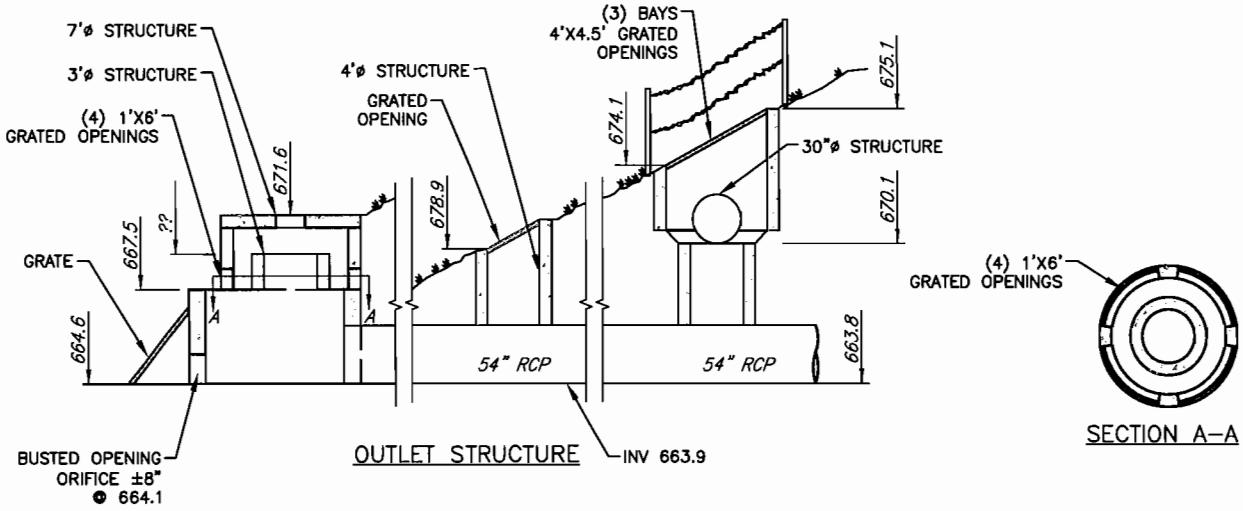
WATER ELEV.= 664.2

DEPTHS BELOW WATER

4.8 (TOP SEDIMENT)

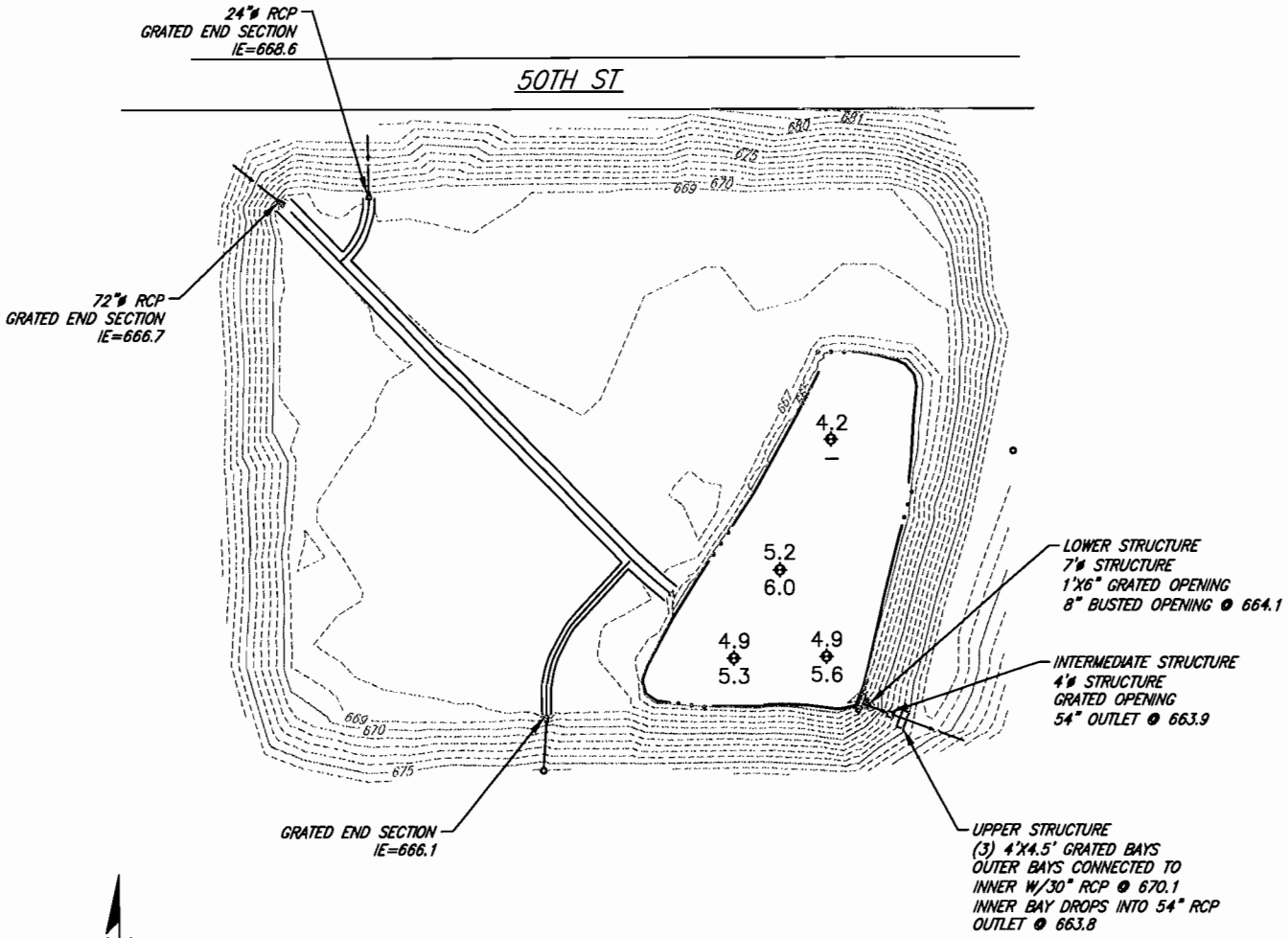
5.6 (BOTTOM)

WATER SURFACE AREA = 626,467 SF



OUTLET STRUCTURE

SECTION A–A



JUNE/2013

K0300080

Clark Dietz ENGINEERS

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
Whitecaps D

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for WhiteCaps D Pond

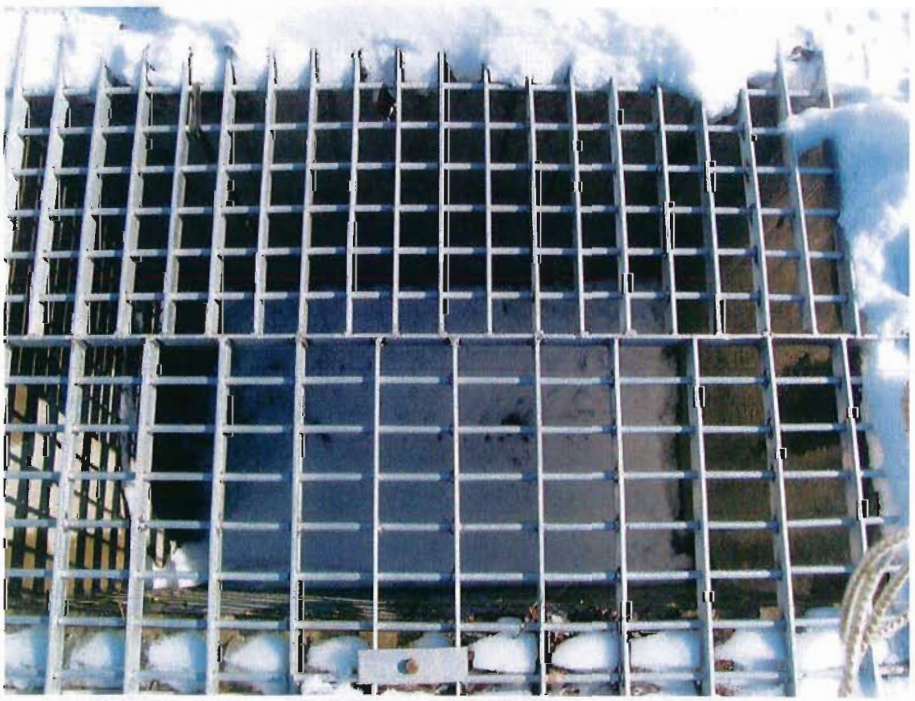
Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1992	NA	NA	NA

Notes

1. This dry pond was inspected in February of 2013.
2. The inlet and outlet pipes were inspected and were found to be in good structural condition.
3. Leaves and debris were built-up in front of the outlet grate to a height of about 3 feet.
4. The entire pond area is mowed.

RECOMMENDATIONS

1. Remove debris from the outlet grate periodically to prevent back-ups.



2/25/13 20° SUNNY

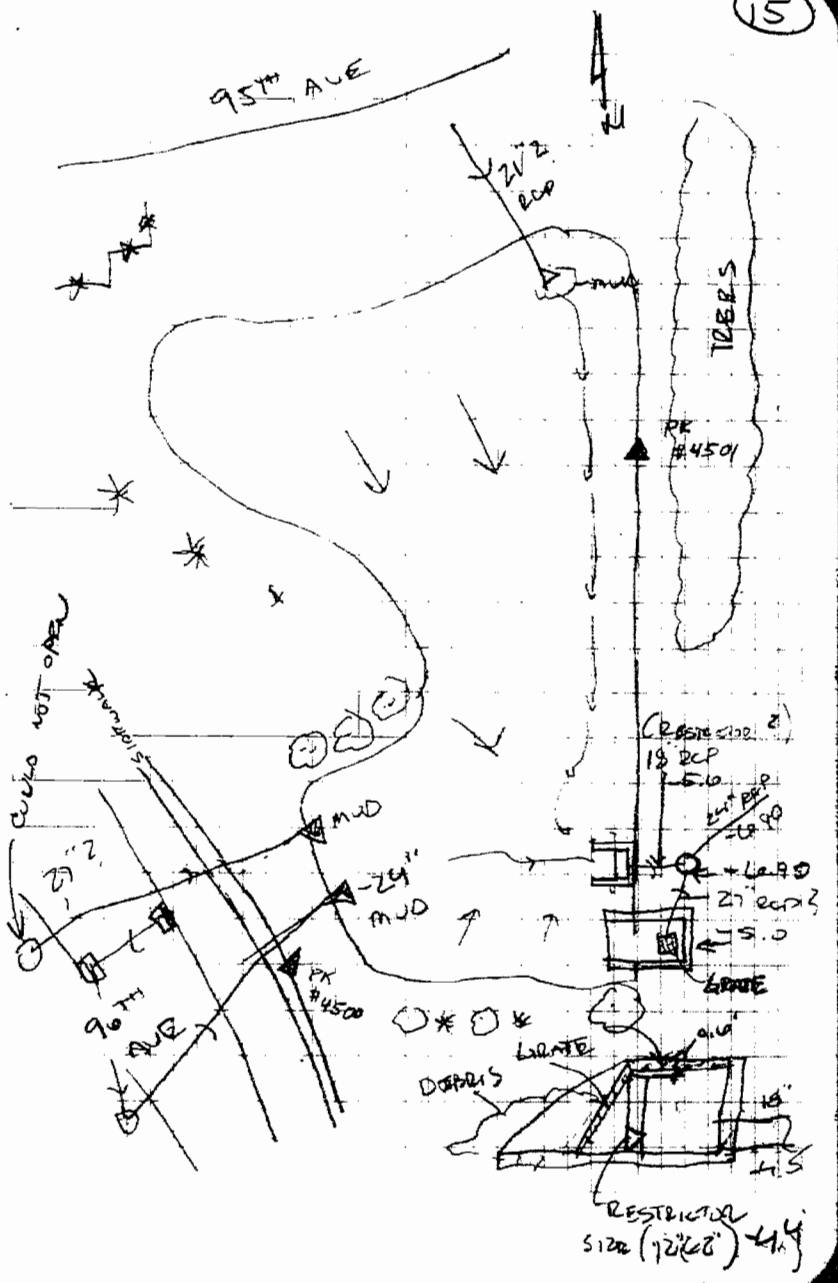
WHITE CAPS BASIN D

LAYER OF ICE 3+" & SNOW ON EVERYTHING

OC # 4501 BS # 4500
HI = 5.43 HR = 4.50

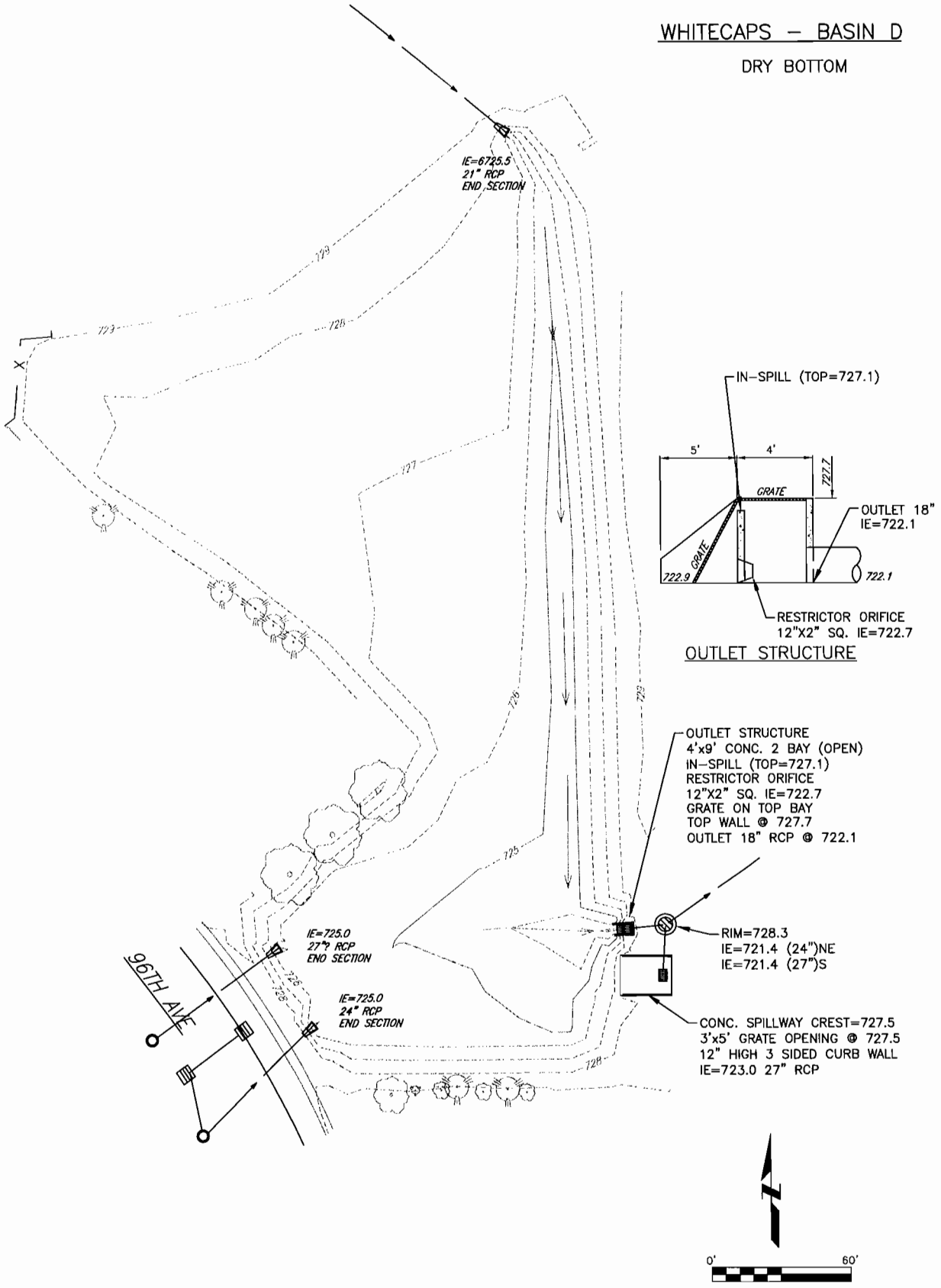
- RESTRICTOR SIZE(?) ICED IN
- 6"+ OF LEAVES & DEBRIS PACKED AGAINST OUTLET GRATE TO ± 3' HIGH CAUSING BACK UPS

- COME BACK FOR RESTRICTOR SIZE (12"x2") -4.4'



WHITECAPS – BASIN D

DRY BOTTOM



FEB./2013

K0300080

Clark Dietz ENGINEERS

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
Whitecaps C

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for WhiteCaps C Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1992	NA	NA	NA

Notes

1. This dry pond only had scattered puddles when inspected in Spring of 2013.
2. The inlet and outlet pipes were inspected and were found to be in good structural condition.
3. Leaves and debris were clogging a portion of the outlet grate.
4. The entire pond is mowed.

RECOMMENDATIONS

1. The pond should be maintained to keep the outlet opening clear.

2/26/13 AI, BB 31° CLOUDY / WINDY

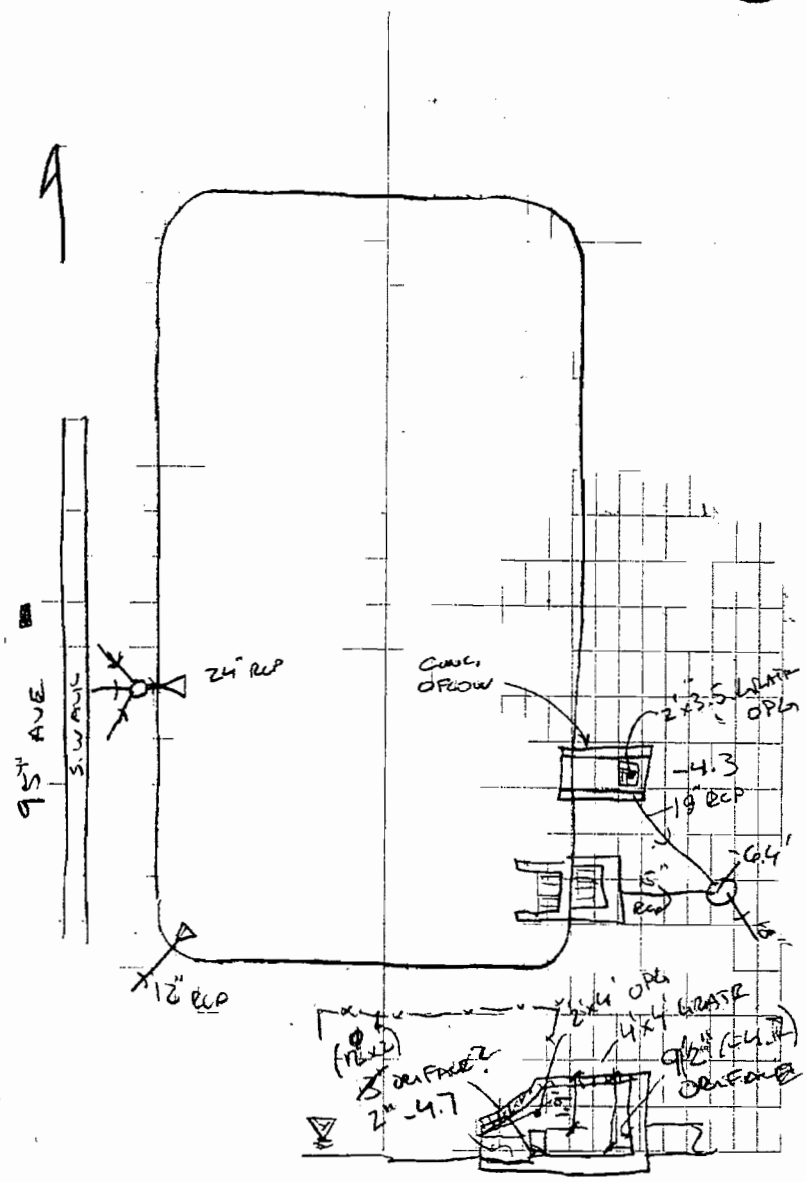
WHITE CARS BASIN C

#6700

** LIGHT MAINTENCE

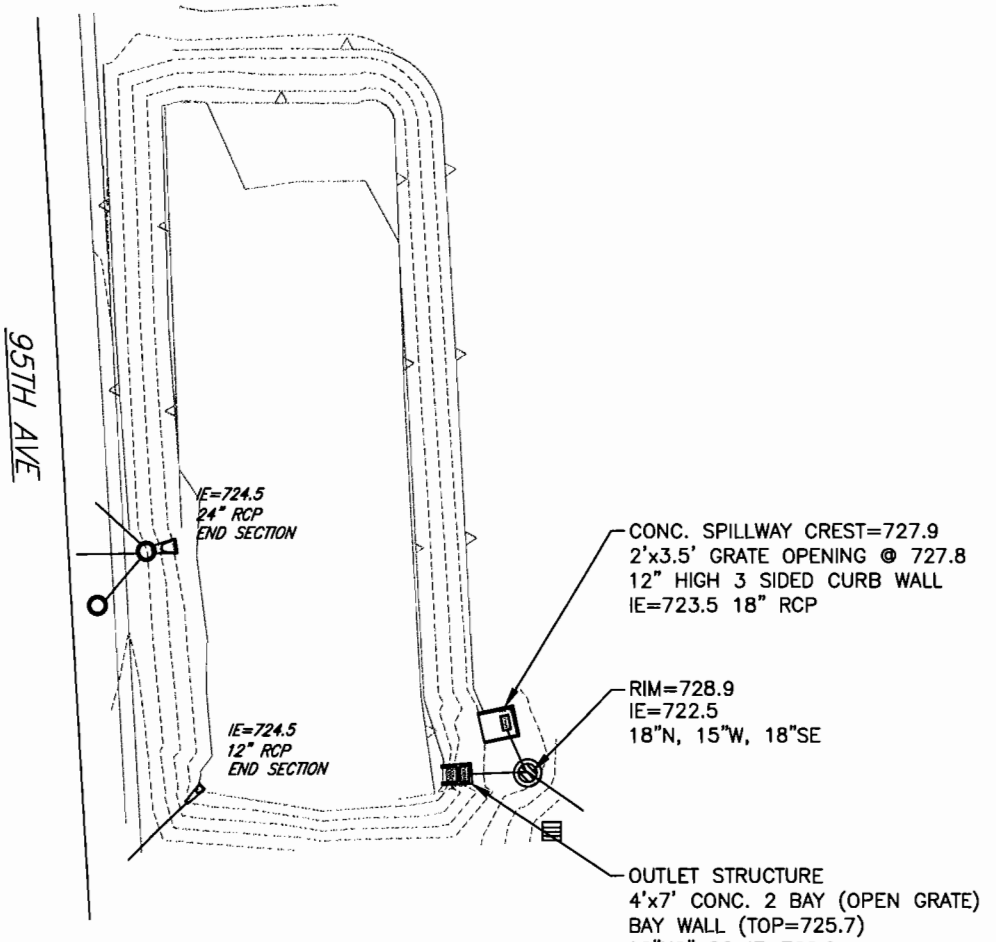
NEED • RESTRICTOR ORIFACE (2"Φ TO 2"Φ)
• I.E OUTLET PIPE
• TOP 2ND ACT OFLOW

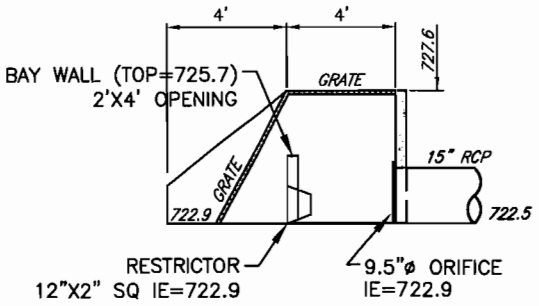
• OUTLET WEATE 6+ INCHES PACKED WRAPPED & DEBRIS CASSING HIGH OUTLET



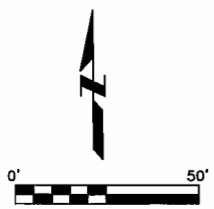
WHITECAPS – BASIN C

DRY BOTTOM





OUTLET STRUCTURE



FEB./2013

Clark Dietz ENGINEERS

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
by City of Kenosha
St. Peter's

Clark Dietz
ENGINEERS

October 1, 2013

Measurement Results for St. Peters Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1997	12	7.2 – 11.0	2018

Notes

1. The designed water depth of the pond is 12 feet. The measured water depth in June of 2013 varied between 7.2 and 11.0 feet. We conclude that the pond is filling with sediment.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition. Some debris was built up on the structures.

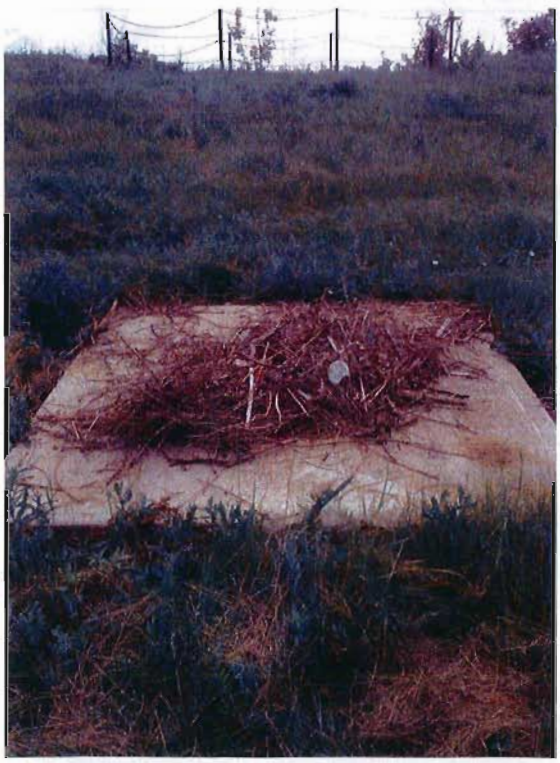
3. Sediment build-up averaged 1.1 feet.

4. Vegetation is growing in the spillway and structures. The pond perimeter had not been mowed recently.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Clear vegetation and debris from the inlet and outlet structures.



Maintenance

- Clearing debris buildup on CB's
- Vegetation growth in concrete spillway

St PETERS

- 6/21/13 Cloudy 75°

Started 7:30 – 11:40 A.M.

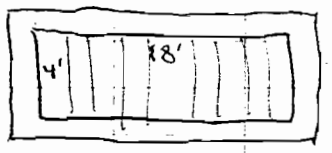
Shots 17000 – 17597

CB1 – Diameter 46"
water level 57"
bottom of struct. 7'
water flow
Could not see pipes in/out
approx 12" in & 18" out

CB2 – Diameter 46"
water level 122"
bottom struct 137"
approx 18" in, 15" out
water flowing
Could not see pipe
15" Opening leaving

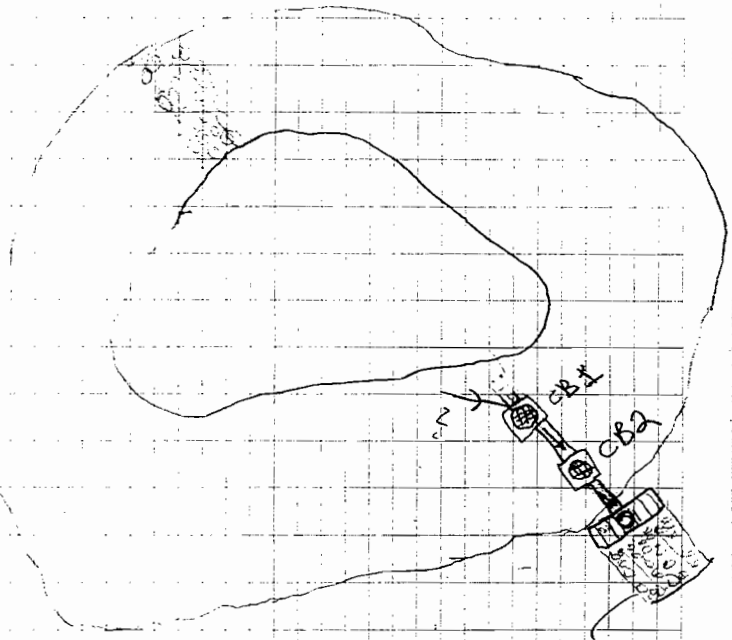
DEPTHS	6-20-13
17000	7.2, 8.2
	9.5, 10.7
	9.4, 10.4
	8.6, 9.6
	9.0, 10.0
	11, 12
17057	8.3, 9.5

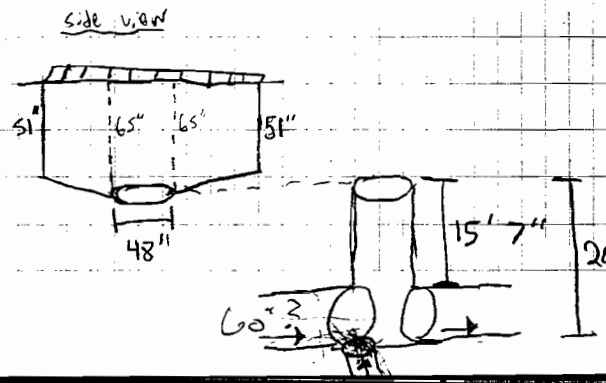
Struc. Top



4'×18' Grate

Ended at 17598





ST PETERS

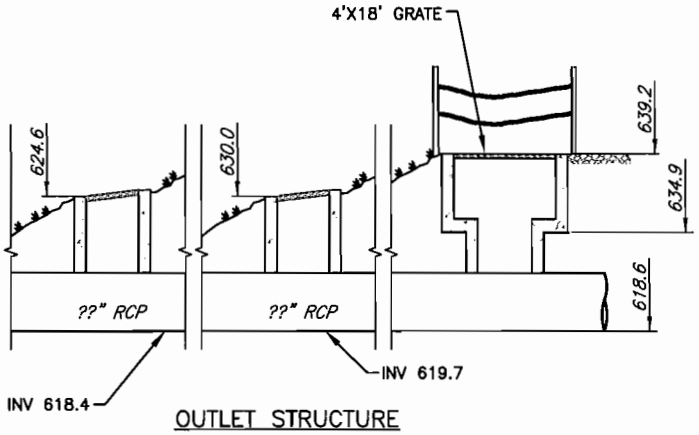
WATER ELEV.= 619.8

DEPTHS BELOW WATER

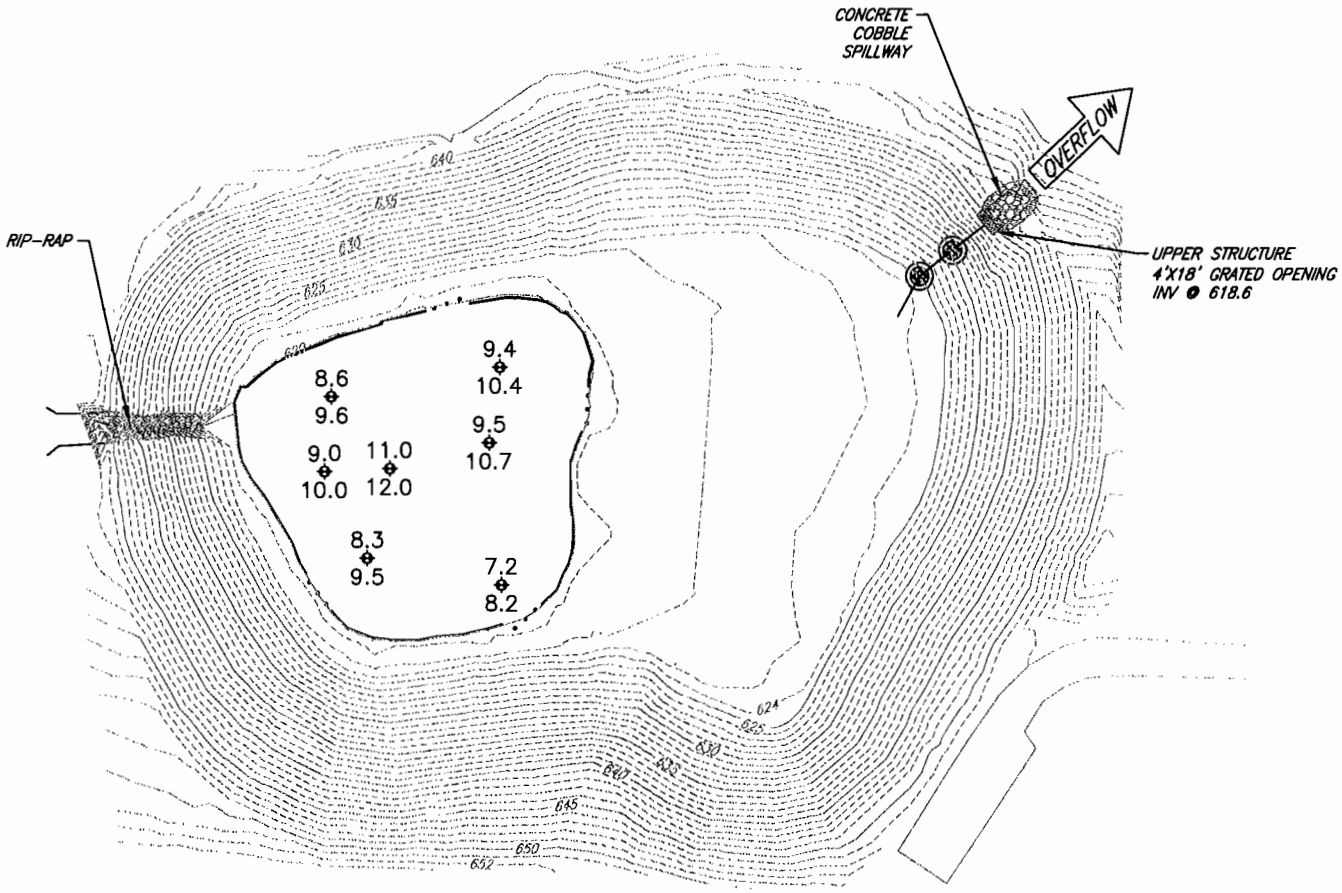
9.0 (TOP SEDIMENT)

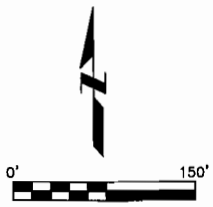
10.0 (BOTTOM)

WATER SURFACE AREA = 1,041,280 SF



OUTLET STRUCTURE





JUNE/2013

Clark Dietz ENGINEERS

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

NO MAINTENANCE REQUIREMENTS

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
CITY OWNED/MAINTAINED

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
41	Whitecaps G		Wet				None.				N/A						

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

Ponds Owned and Maintained
by City of Kenosha
Whitecaps G

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for WhiteCaps G Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1992	5.75	5.6 – 6.2	2018

Notes

1. The designed water depth of the pond is 5.75 feet. The measured water depth in June of 2013 varied between 5.6 and 6.2 feet. We conclude that the pond was over-excavated at the time of construction.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition.

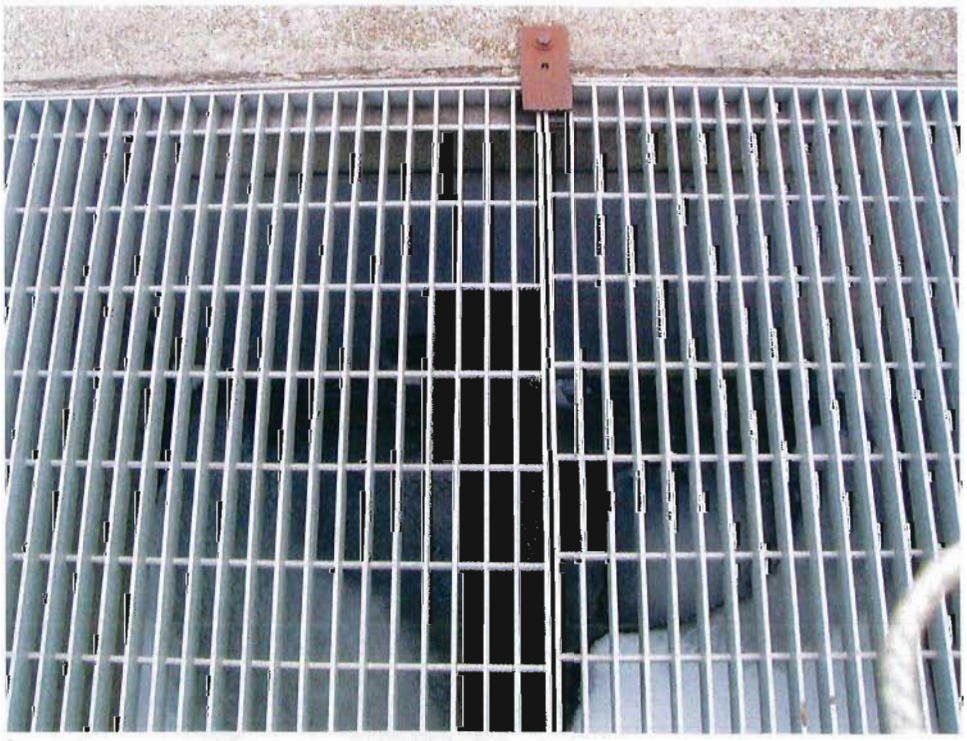
3. Sediment build-up varied between 0 and 0.3 feet.

4. The whole pond perimeter is mowed.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. When mowing, leave a grassy strip around the pond perimeter to improve safety and deter geese.



2/25/13 | WHITE CAPS POND 6

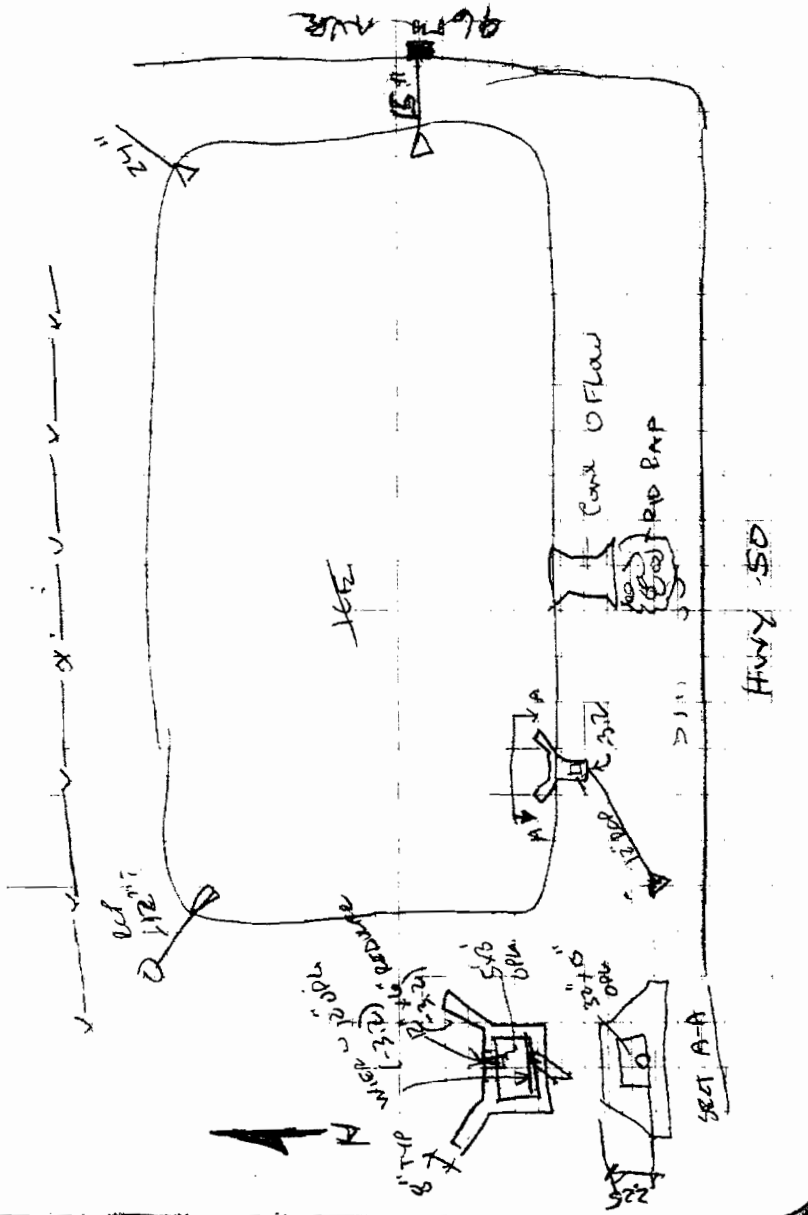
\# 5000 →

NEED # 4552 TO 5,000'S

NEED - EDGE WATER
- SOUNDINGS
- ~~PIPE SIZE (N.W. CORNER)~~ 12"
- INV OF EAST END F.E.S.

MAINT.
- NONE

6-27-13
5110, 11 = ESC
5112 - 6.2, 6.5
13 - 6.1, 6.3
14 - 6.1, 6.3
15 - 5.6, 5.8
16 - 6.1, 6.2
19 - 6.2, 6.2
} T/WTR
5118 - 5141 EDGE OF WATER



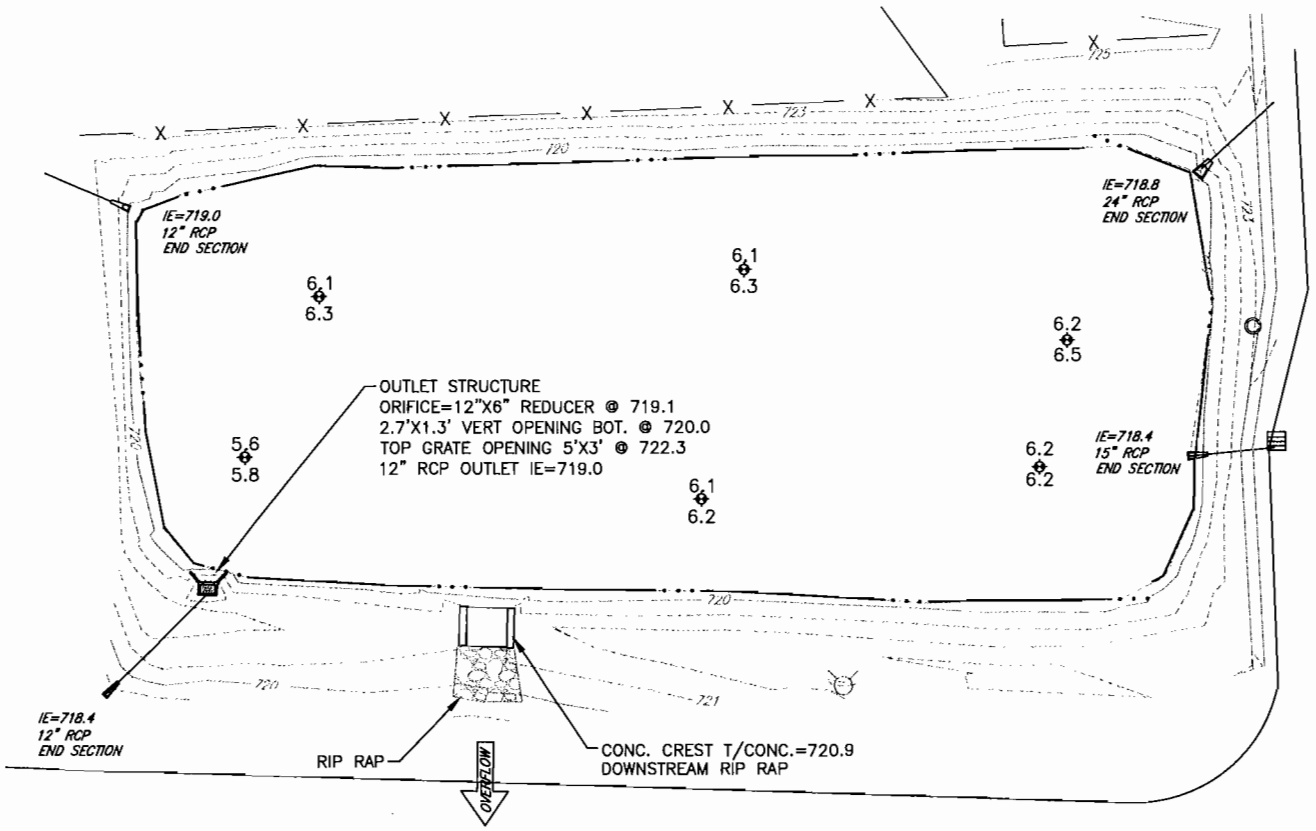
WHITECAPS BASIN G

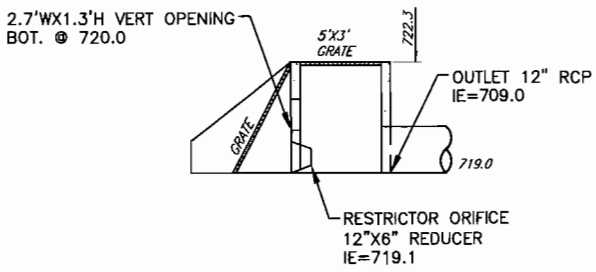
WATER ELEV. = 718.8

DEPTHS BELOW WATER

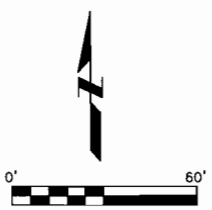
0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 48,093 SF





OUTLET STRUCTURE



Clark Dietz ENGINEERS

FEB./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

PONDS OWNED AND MAINTAINED

BY PRIVATE OWNER

HIGH PRIORITY

MAINTENANCE REQUIREMENTS

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
PRIVATELY OWNED WITH MAINTENANCE AGREEMENT

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
49	Gateway		Wet	Yes	Yes	Yes	Dredge to remove sediment and restore depth.	$16,000	$3,240	$4,536	$34,776	High	3	$360,640	7.2	3.6	2.4
							Inspect functionality of inlet pipe and make necessary repairs.	$5,000									
							Attach outlet pipe to structure.	$1,000									
							Clear vegetation from structures and perimeter.	$5,000									
56	Heritage Heights 2		Wet	Yes	Yes		Dredge to remove sediment and restore depth.	$13,000	$2,160	$3,024	$23,184	High	4				
							Inspect inlet pipe and outlet structures and clear clogs.	$5,000									
14	Menards	Yes	Wet	Yes	Yes	Yes	Remove vegetation around perimeter and structures.	$2,000	$19,920	$27,888	$213,808	High	7				
							Clean all structures.	$1,000									
							Install grates on 2 inlets.	$1,000									
							Dredge pond to remove sediment.	$162,000									
20	South Port Plaza Basin A	Yes	Wet	Yes			Dredge to remove sediment.	$68,000	$8,160	$11,424	$87,584	High	8				
10	LeMay Buick		Wet		Yes		Clean trash from structures.	$1,000	$120	$168	$1,288	High	9				

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

Ponds Owned and Maintained
By Private Owner
Gateway

Clark Dietz
ENGINEERS

October 31, 2013

Measurement Results for Gateway Subdivision Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
N/A	N/A	0 – 0.3	2018

Notes

1. The original design plans for the pond were not available. The measured water depth in March of 2013 was 0 at the west end of the pond and 0.3 feet at the east end. The pond is full of sediment.

2. The inlet pipe was dry and may no longer be functional.

3. Sediment build-up averaged between 0.8 and 1.1 feet.

4. The entire pond is full of cattails. Willow shrubs have grown up around the east and south sides of the pond. Vegetation is also growing in and around the inlet and outlet structures.

5. The outlet structure has separated from the adjacent pipe.

6. A possible emergency outflow is located at the southeast corner.

RECOMMENDATIONS

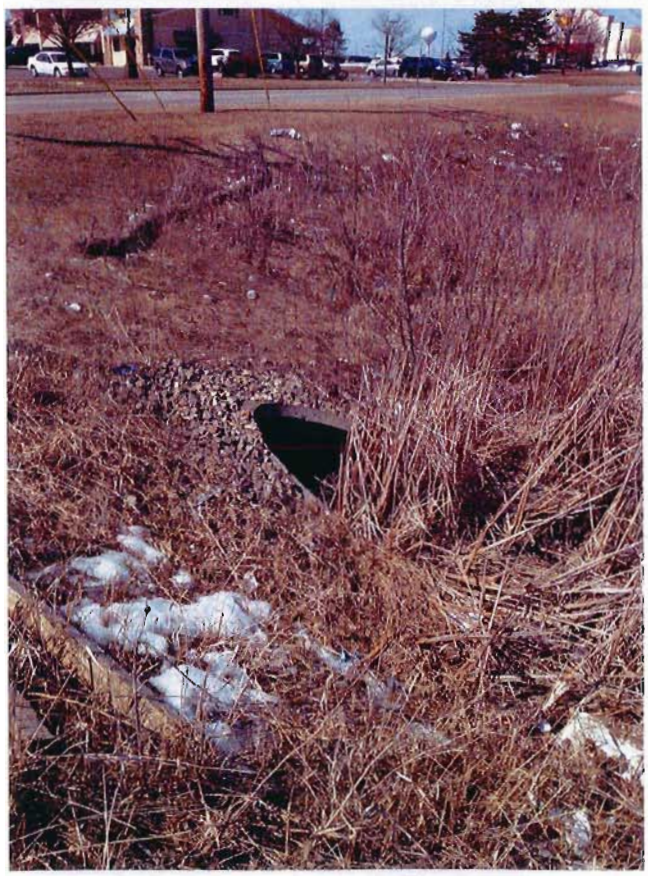
1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The outlet structure should be repaired and reattached to the adjacent pipe.

3. The pond should be dredged to its original design depth.

4. The cattails and willows should be cleared, especially from the structures.

5. Further investigation is necessary to determine if the inlet pipe is functional or in need of repair.



(24)

3-28-13 Sunny 45°

AT, RB

ENTIRE WAY SUBDIVISION

START # 7400

* SOLID CATTAILS
* COULD USE A DEPRESSION
* FIX 18" OUTLET F.E.S. (SEPERATED)
* NEED DEPTHS ?

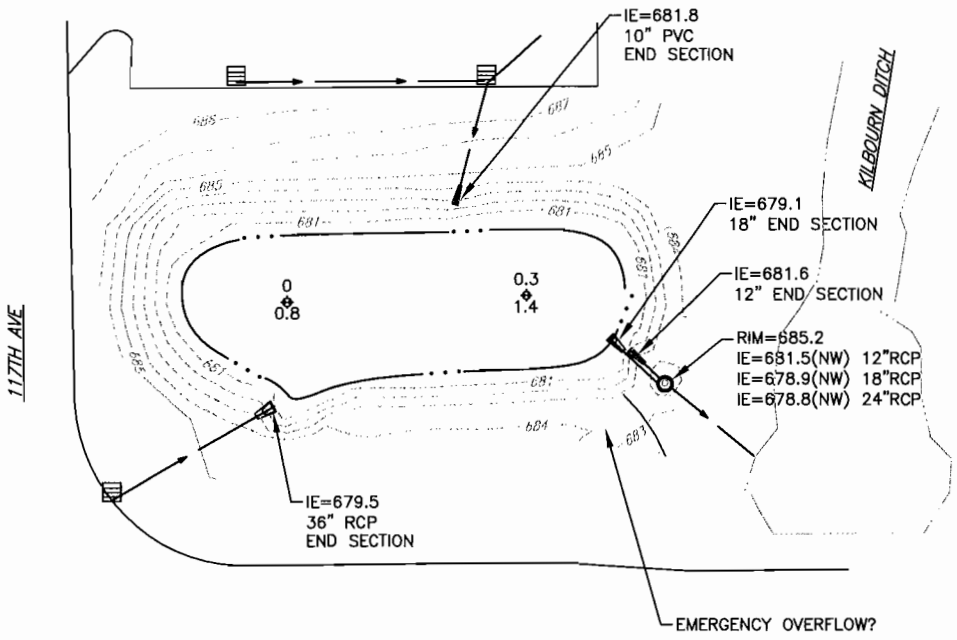
GATEWAY

WATER ELEV.= 679.1

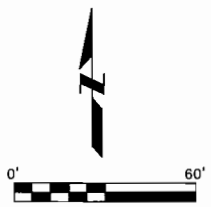
DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 6,300 SF



STH 50



Clark Dietz ENGINEERS

APR./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Heritage Heights 2

Clark Dietz
ENGINEERS

October 30, 2013

Measurement Results for Heritage Heights 2 Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2005	4	0.9 – 1.7	2018

Notes

1. The designed water depth of the pond is 4 feet. The measured water depth in October of 2013 varied between 0.9 and 1.7 feet. The pond is apparently filling with sediment.

2. The inlet and outlet structures were inspected and are not functioning. The water level in the pond is above the elevation of the structures. Water is covering the outlet grate and stagnant water is sitting in the outlet structure.

3. Sediment build-up varied between 0.3 and 1.3 feet.

4. The pond perimeter has been mowed.

5. Water in the pond is stagnant and partially covered with surface vegetation. Stems from old vegetation remain in the water.

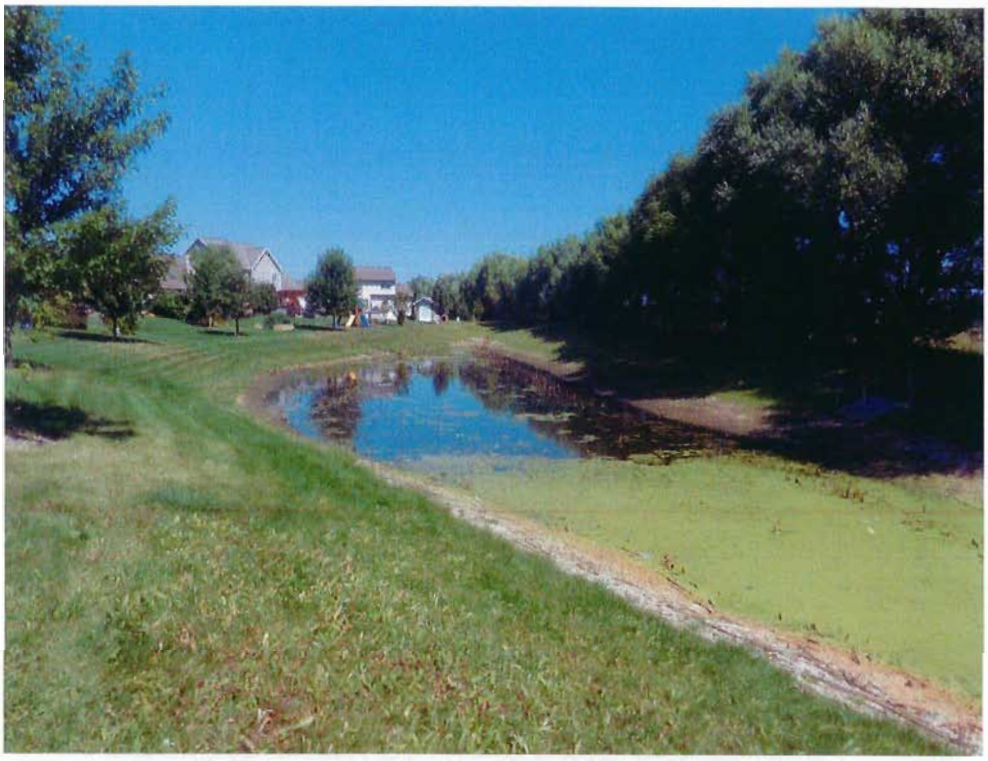
RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. There is heavy sediment buildup in the pond. It should be dredged to its original design depth.

3. If dredging does not restore the operation of the inlet and outlet structures, further investigation is needed to determine the cause of the problem.

4. The pond perimeter should be mowed to within a foot of the water.

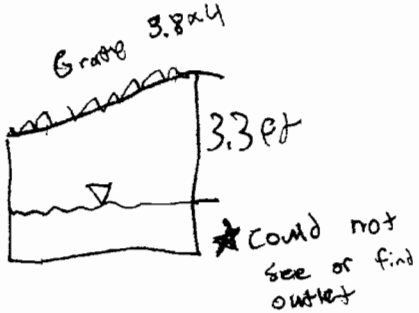


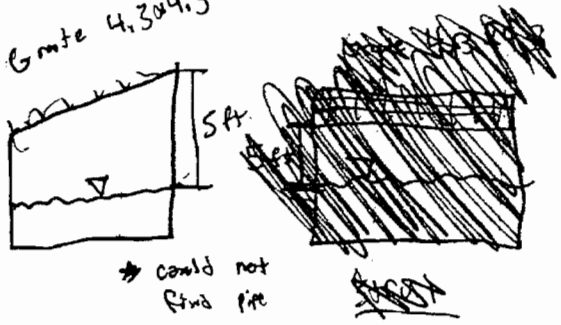
~~Stratosity~~ HERITAGE HTS
Detention Basin #2

8/23/13 SURVEY: LOWE JOHNSON
Shots 20000 - 20193; 20194-20200

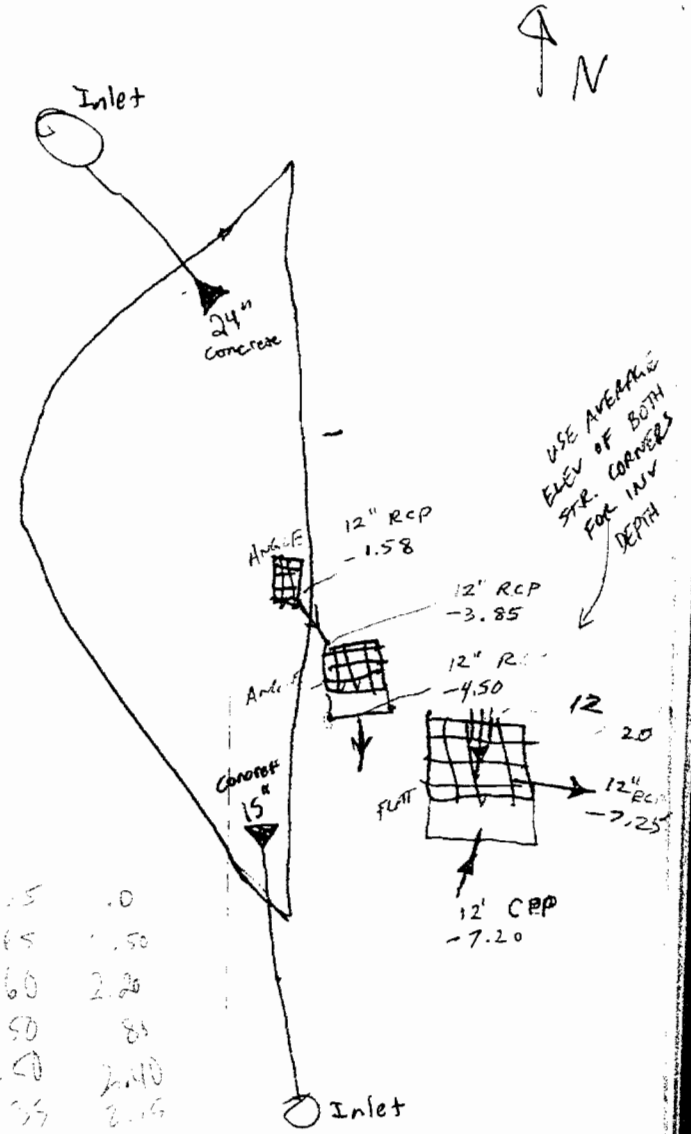
Maintenance Plan

- Overflows not working. Water does not recede or leave pond
- Water elevation above outlet locations
- Stagnant
- HEAVILY ~~SILTED~~ SEDIMENTED





20195	0.5	.0
2096	1.15	1.50
20197	1.60	2.20
198	1.50	81
20199	1.50	2.40
2020	1.55	2.15



HERITAGE HEIGHTS – 2

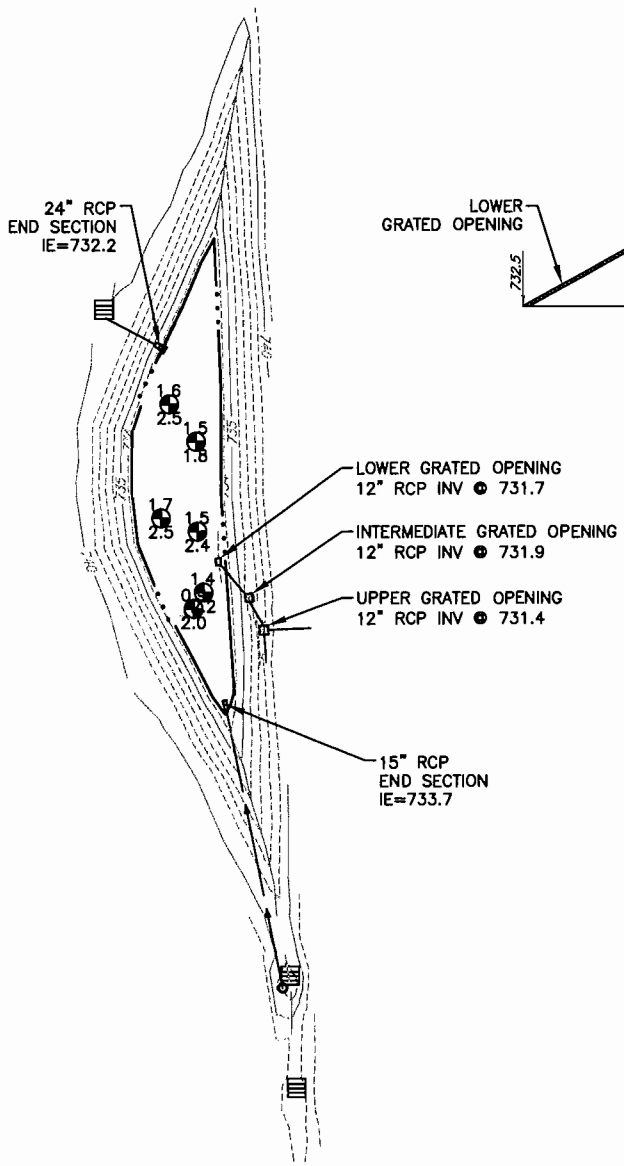
WATER ELEV.= 733.5

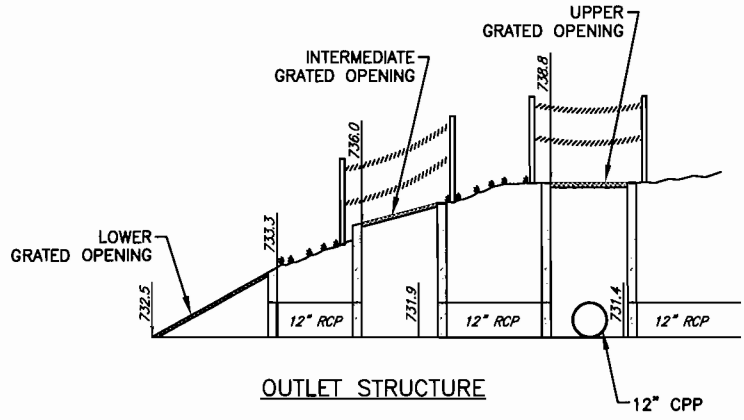
DEPTHS BELOW WATER

1.4 (TOP SEDIMENT)

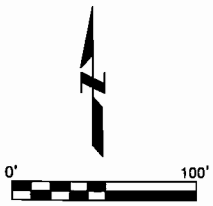
2.2 (BOTTOM)

WATER SURFACE AREA = 8,451 SF





OUTLET STRUCTURE



AUG./2013

K0300080

Clark Dietz ENGINEERS

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Menards

Clark Dietz
ENGINEERS

July 11, 2013

Measurement Results for Menards Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1996	6	3.6 – 6.7	2018

Notes

1. The designed water depth of the pond is 6 feet. The measured water depth in July of 2013 varied between 3.6 and 6.7 feet. We conclude that the pond was over-excavated at the time of construction but is now starting to fill up with sediment.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition. Two of the inlets do not have grates.

3. Sediment build-up varied between 0 and 1.3 feet.

4. There is thick vegetation growth all around the pond perimeter.

5. Vegetation is also growing in the rip-rap near the pond inlets and outlets.

RECOMMENDATIONS

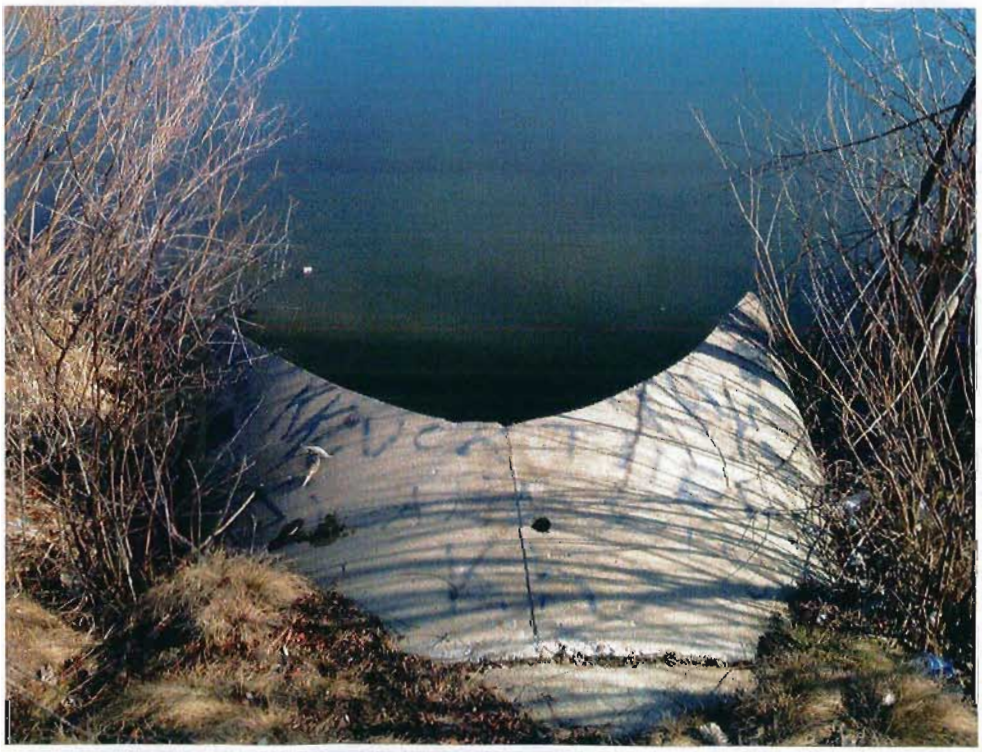
1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

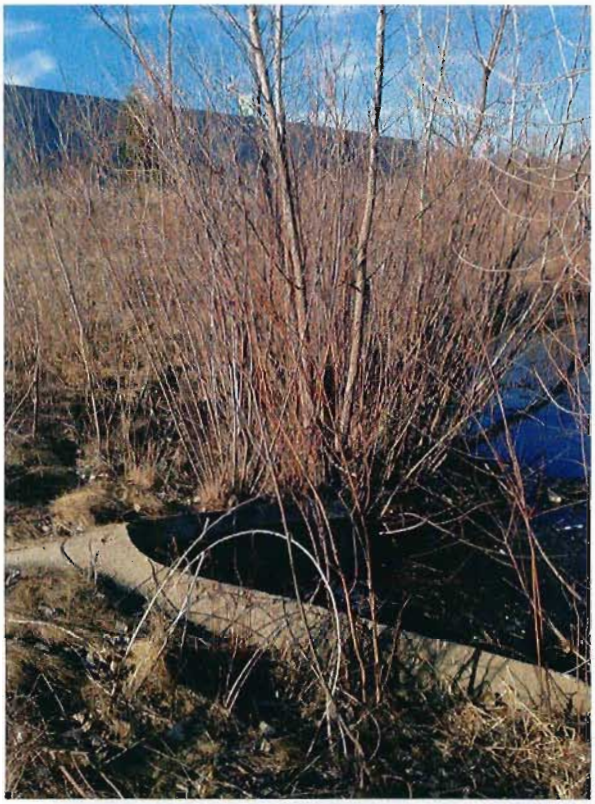
2. The trees and vegetation growing around the pond should be cleared, especially near the rip-rap, inlets, and outlet.

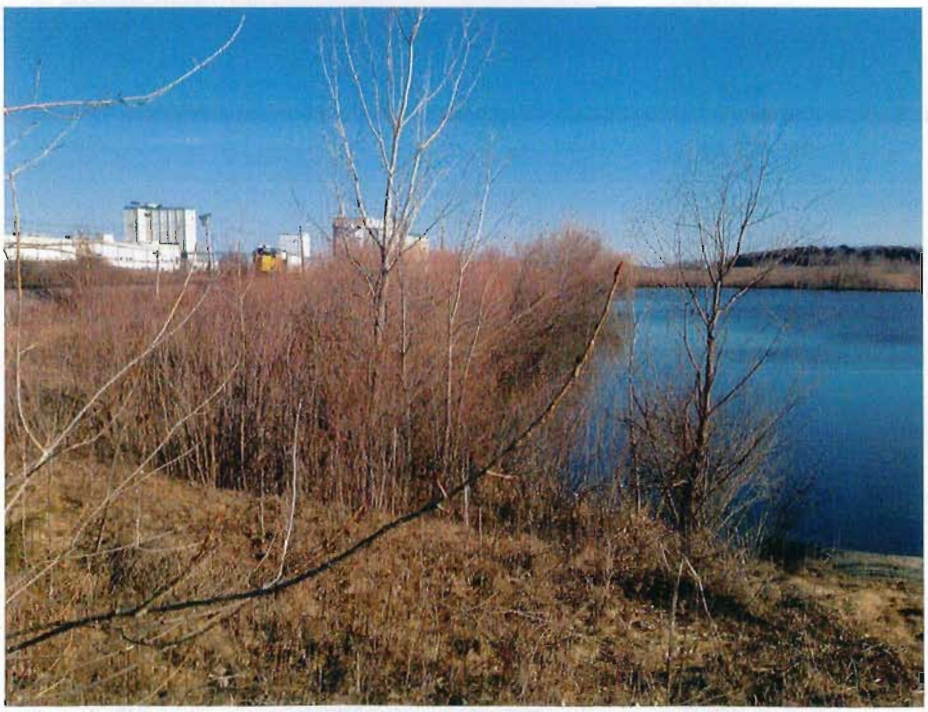
3. The outlet structure requires a good cleaning, and the two inlets at the south end should be cleared.

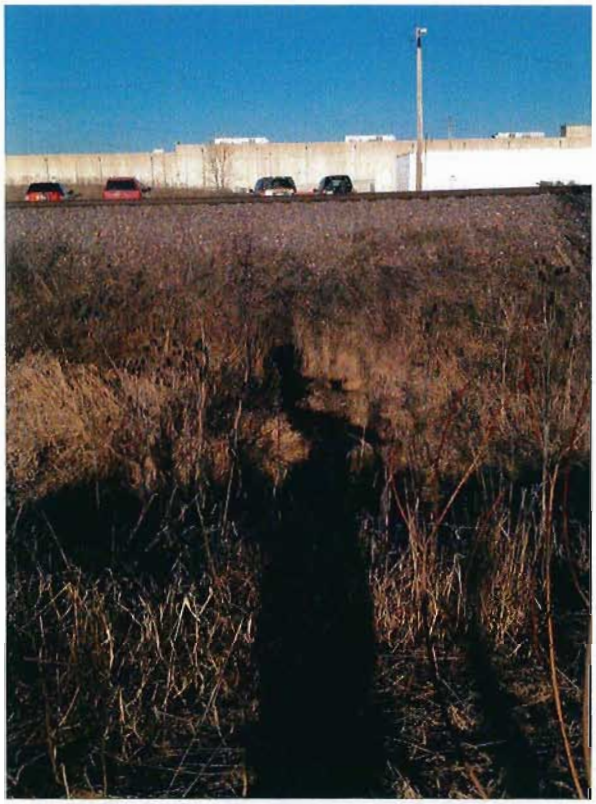
4. Perform routine mowing.

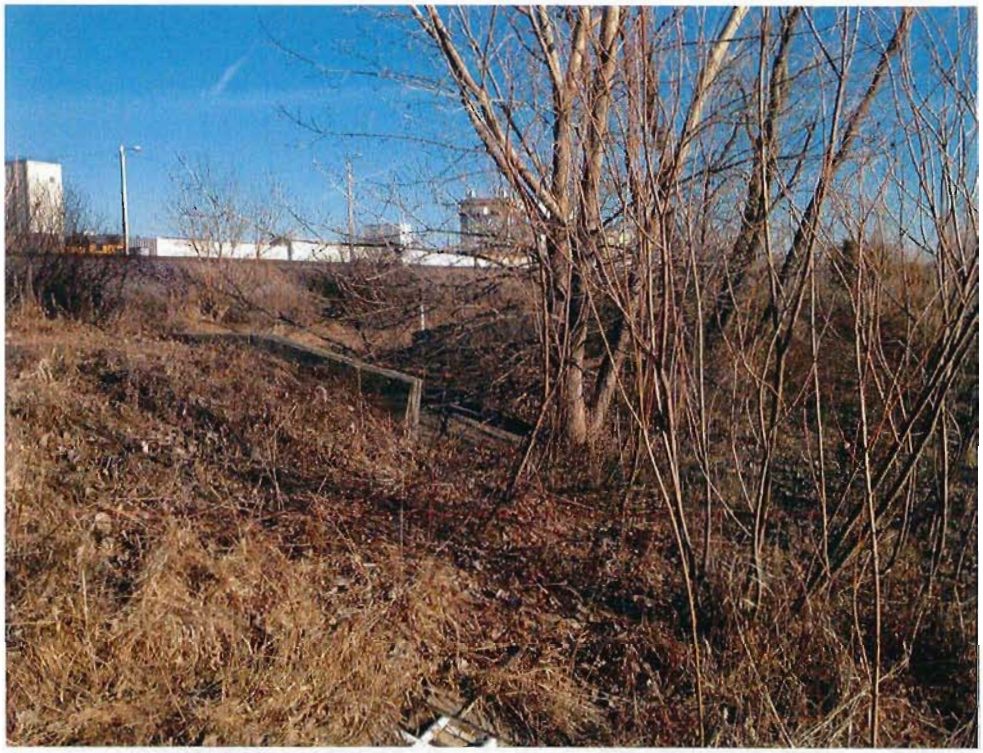
5. Perform dredging operations at the pond to restore it to its design depth.











4-4-13 SUNNY 30°

AT, BB

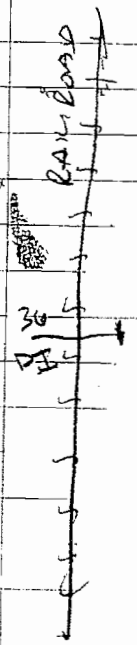
MENARDS

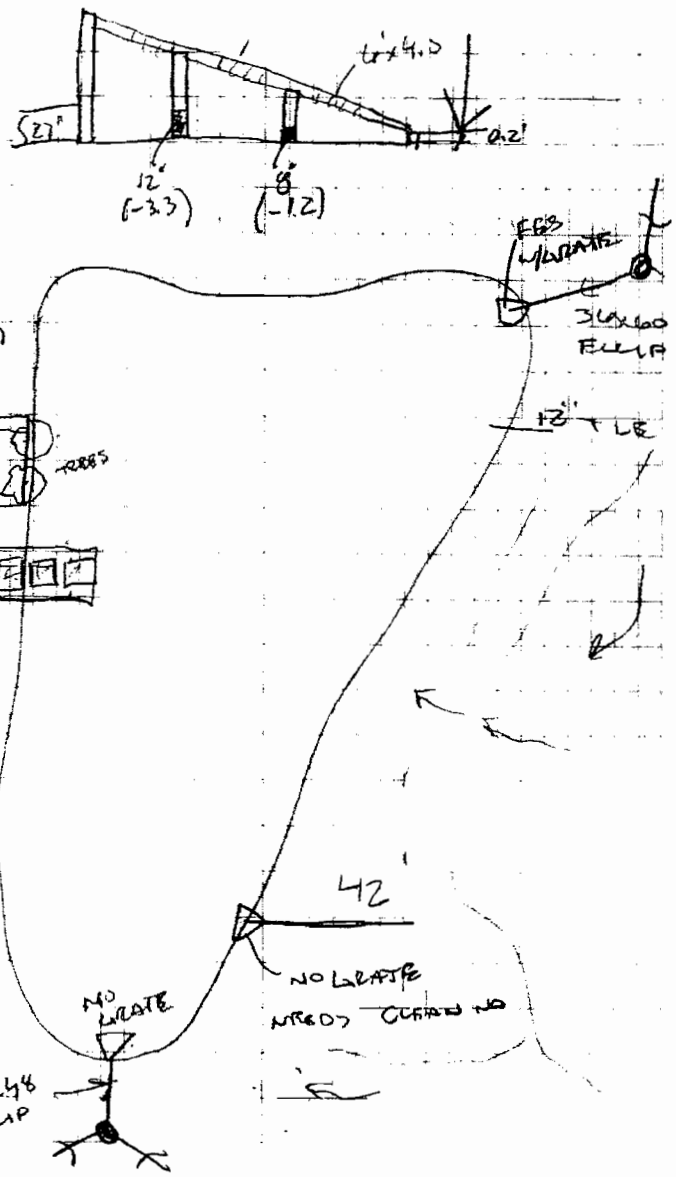
START @ 10400 - END 10566

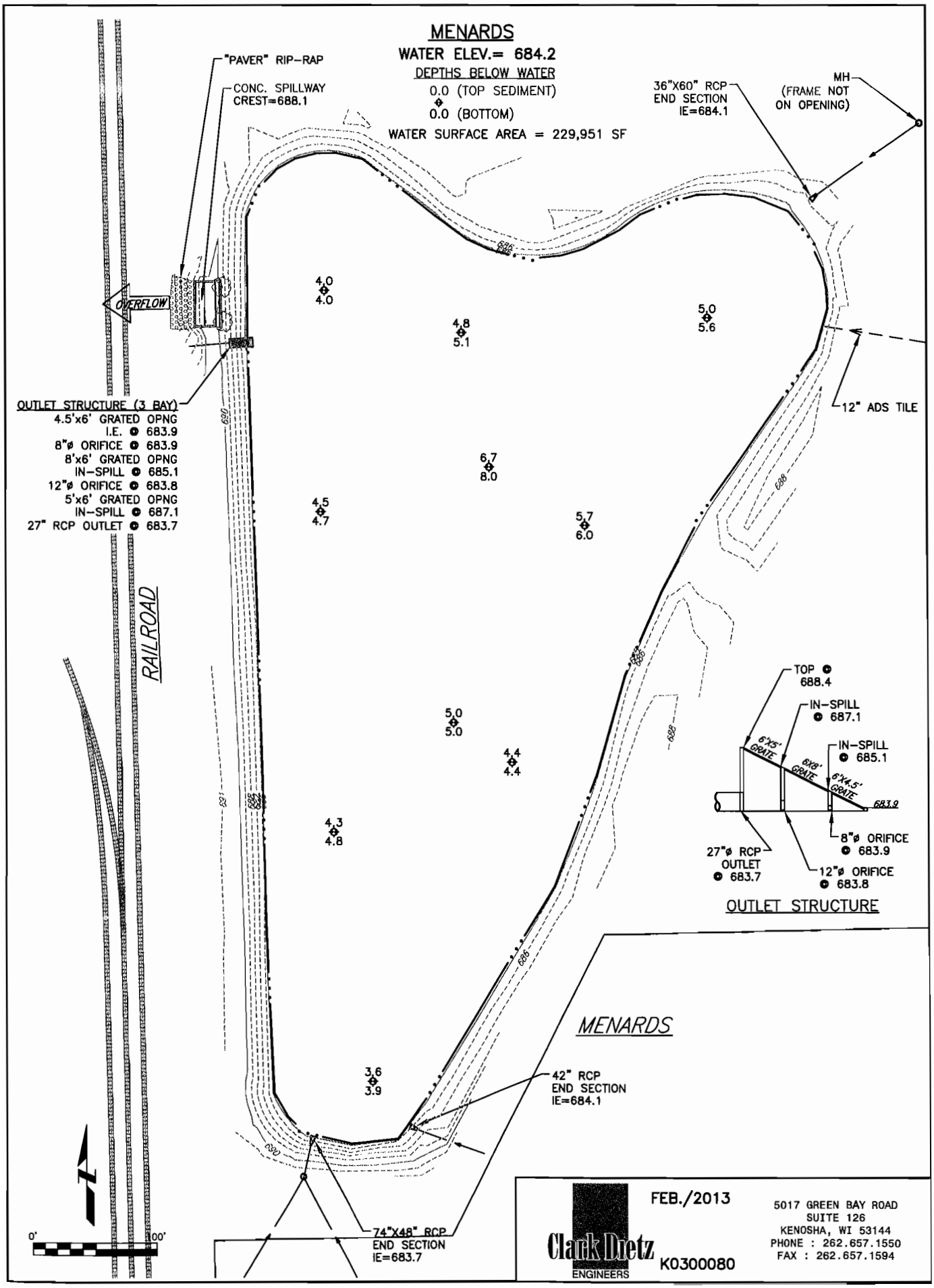
7-2-13 T/WIR

30,013 + 3.6, 3.9
4.3, 4.8
4.5, 4.7
4.0, —
4.8, 5.1
6.0, 5.6
6.7, 8.0
5.7, 6.0
5.0, 0
30,022 4.4, -

* TRACE ING WATER PERIMETER
* BOT. BAY OF OUTLET - LOOD CLEANING
* OUTLET CLEANING & BRUSHING






MENARDS
WATER ELEV.= 684.2
DEPTHS BELOW WATER
0.0 (TOP SEDIMENT)
0.0 (BOTTOM)
WATER SURFACE AREA = 229,951 SF
"PAVER" RIP-RAP
CONC. SPILLWAY
CREST=688.1
OVERFLOW
36"X60" RCP
END SECTION
IE=684.1
MH
(FRAME NOT
ON OPENING)
12" ADS TILE
OUTLET STRUCTURE (3 BAY)
4.5'x6' GRATED OPNG
I.E. 683.9
8"ø ORIFICE 683.9
8'x6' GRATED OPNG
IN-SPILL 685.1
12"ø ORIFICE 683.8
5'x6' GRATED OPNG
IN-SPILL 687.1
27" RCP OUTLET 683.7
RAILROAD
TOP 688.4
IN-SPILL 687.1
6'X5' GRATE
6'X8' GRATE
6'X4.5' GRATE
IN-SPILL 685.1
683.9
8"ø ORIFICE 683.9
27"ø RCP OUTLET 683.7
12"ø ORIFICE 683.8
OUTLET STRUCTURE
MENARDS
42" RCP
END SECTION
IE=684.1
74"X48" RCP
END SECTION
IE=683.7
0'
100'
FEB./2013
Clark Dietz
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Ponds Owned and Maintained
By Private Owner
South Port Plaza Basin A

Clark Dietz
ENGINEERS

July 11, 2013

Measurement Results for South Port Plaza Basin A Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2000	3.6 (west), 5.6 (east)	1.0 – 5.4	2018

Notes

1. The designed water depth of the pond is 3.6 feet on the west side of the pond and 5.6 feet on the east side of the pond. The measured water depth in July of 2013 varied between 1.0 and 5.4 feet. We conclude that the pond has partially filled with sediment.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition.

3. Sediment build-up varied between 0 and 1.8 feet.

4. The entire pond perimeter is mowed.

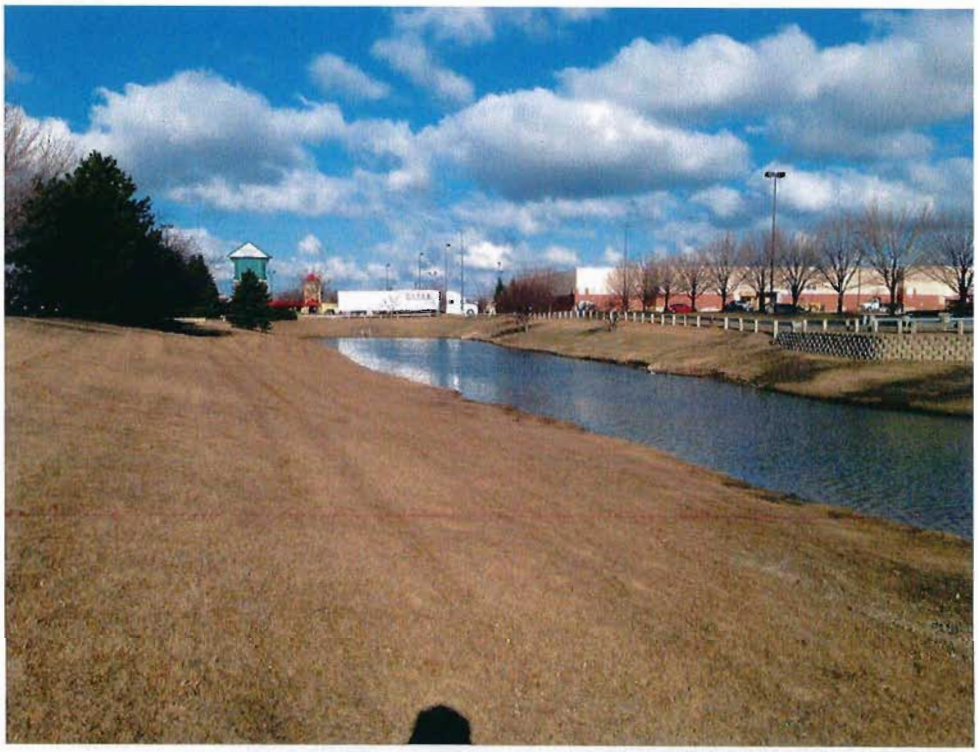
5. The water was murky and stagnant.

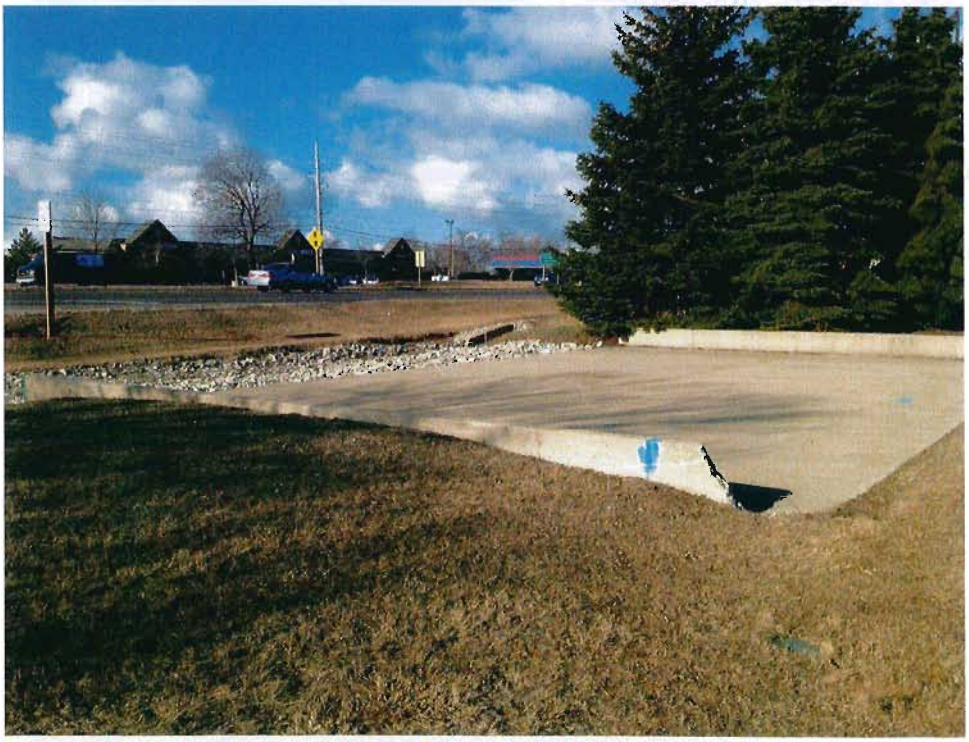
RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. When mowing, leave a grassy strip around the perimeter of the pond to deter geese.

3. Perform dredging operations at the pond to restore it to its design depth.





4-5-13 SUNNY 45

AI, BB

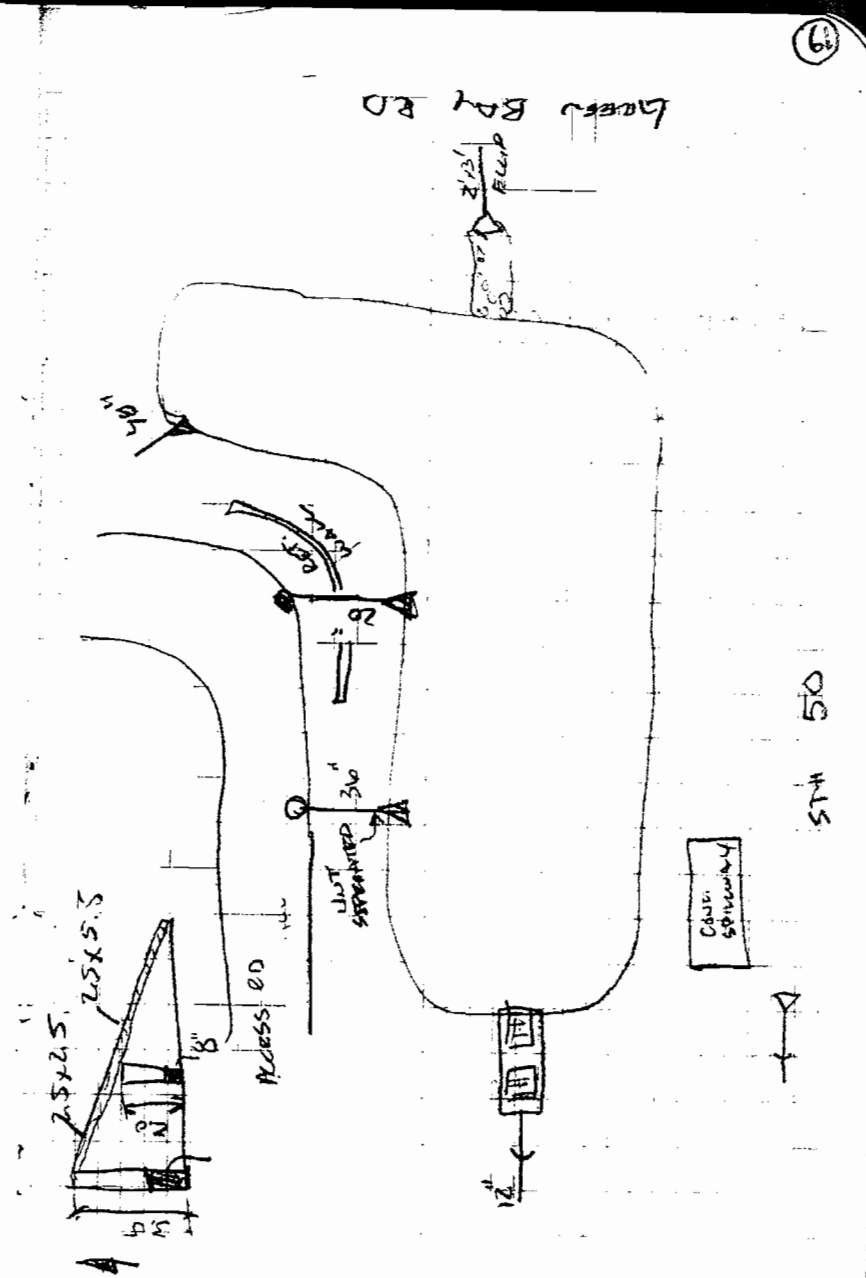
START # 11900 → 12232

SOUTHEAST PLAZA EAST

7-2-13		
30,007	3.7,	5.1
8-	3.4,	4.9
9-	4.0,	—
10-	4.3,	5.9
11	5.4,	6.8
30,012	3.7,	5.5

(MUDDY, STAGNANT)

• HOOD SHAPE



SOUTHPORT PLAZA BASIN A

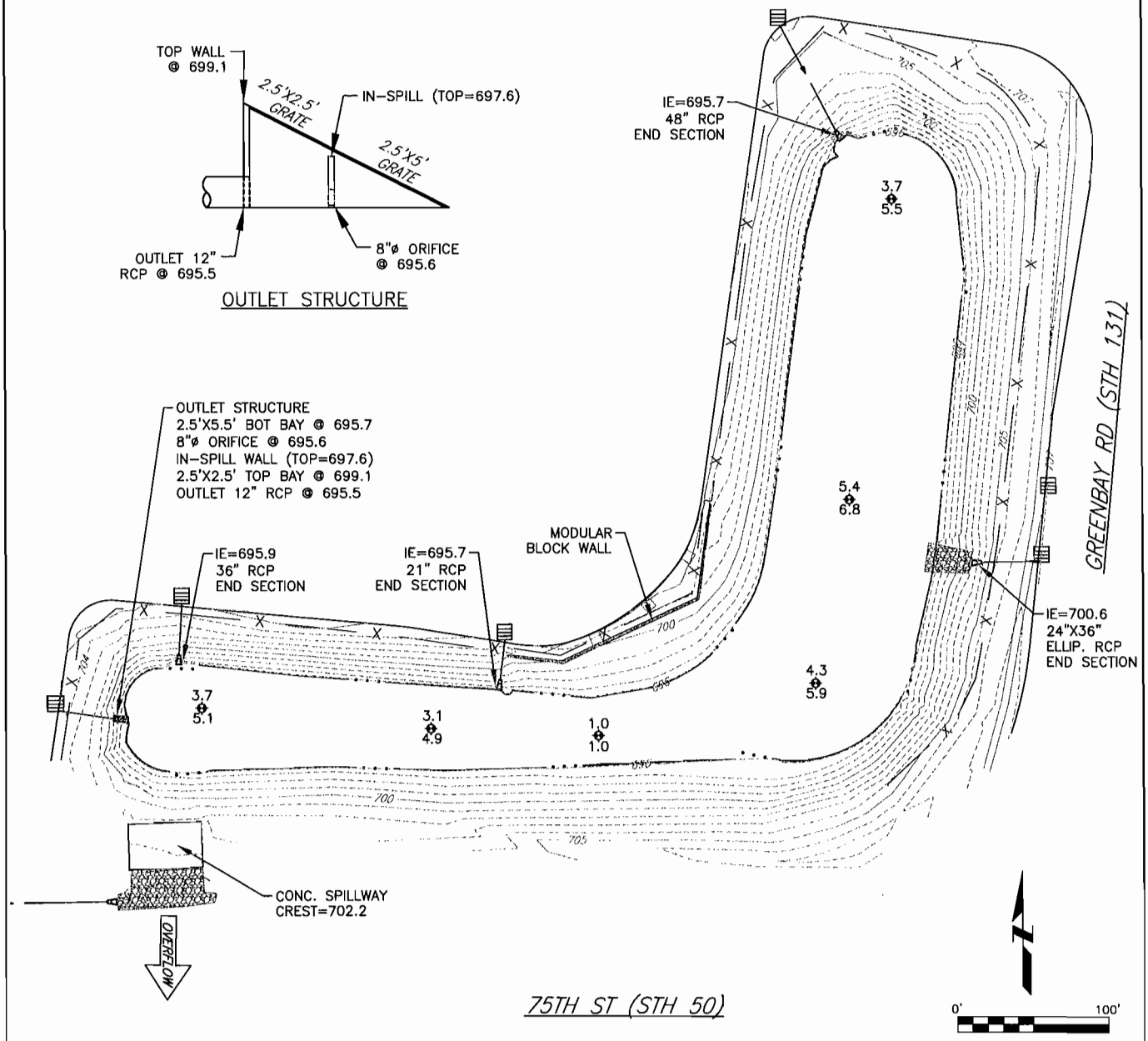
WATER ELEV.
695.7

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 47,043 SF

OUTLET STRUCTURE



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Ponds Owned and Maintained
By Private Owner
Lemay Buick

Clark Dietz
ENGINEERS

July 11, 2013

Measurement Results for LeMay Buick Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
N/A	N/A	5.9 – 6.2	2018

Notes

1. The original design plans for the pond were not available. The measured water depth in July of 2013 varied between 5.9 and 6.2 feet.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition. A new inlet has been installed on the north side of the pond.

3. The 24" inlet was clogged with trash and there was also trash on the outlet structure.

4. Sediment build-up varied between 0.8 and 1.3 feet.

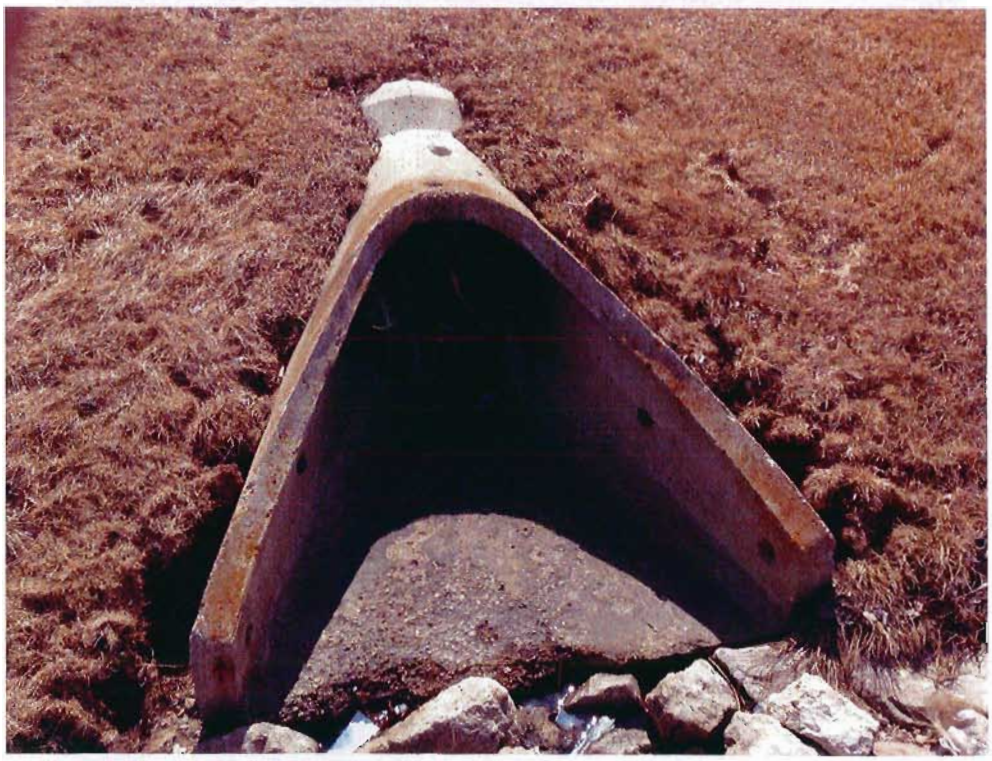
5. The pond area has been mowed.

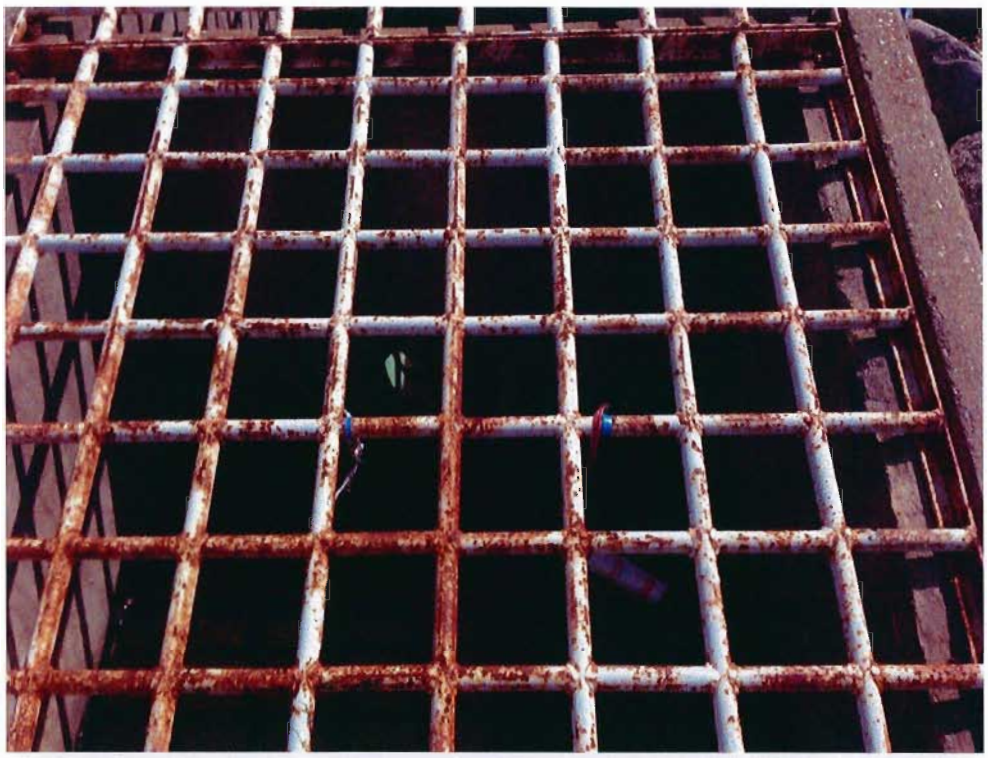
RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The trash should be cleaned from the inlet and outlet.

3. Routine clean-up should be performed around the pond.





4-2-3 SUN Y 40

LEMA (NO OWNED BY P

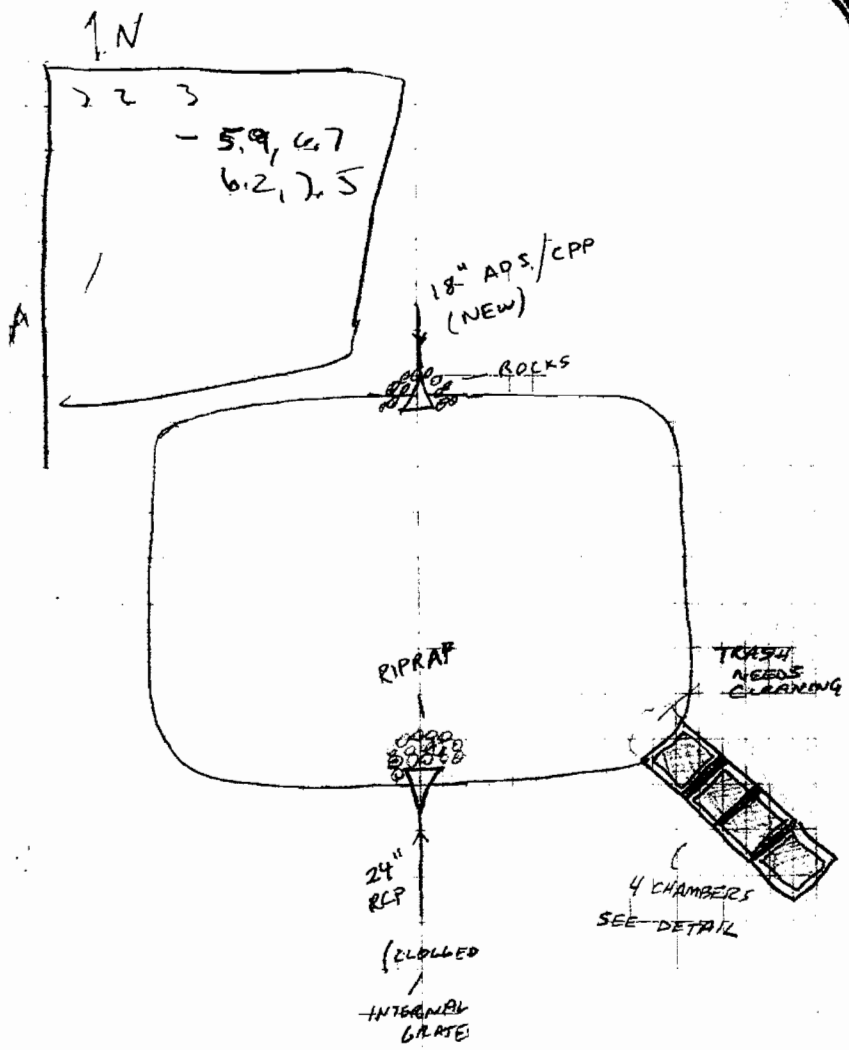
START # 1020
END # 10298

1316 ROCK

RC COG E BA UD P AD

* C O T ET T TUR

—



4'x8' 4'x 4x4 4'x8'

-5.2' 36"RC

3' OR ICE

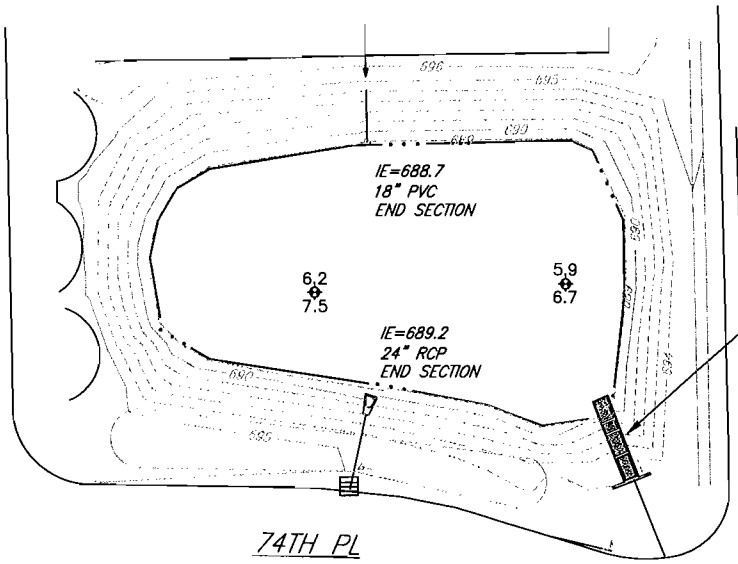
LEMAY BUICK

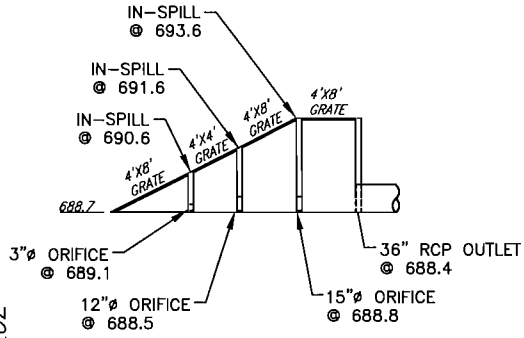
WATER ELEV.
688.7

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

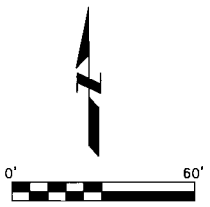
WATER SURFACE AREA = 11610 SF





OUTLET STRUCTURE

OUTLET STRUCTURE (4 BAY)
4'x8' LOWER GRATED OPENING I.E. @ 688.7
3"ø ORIFICE @ 689.1
4'x4' GRATED OPENING IN-SPILL @ 690.6
12"ø ORIFICE @ 688.5
4'x8' GRATED OPENING IN-SPILL @ 691.6
15"ø ORIFICE @ 688.8
4'x8' GRATED OPENING IN-SPILL @ 693.6
36" RCP OUTLET @ 688.4



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MEDIUM PRIORITY

MAINTENANCE REQUIREMENTS

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
PRIVATELY OWNED WITH MAINTENANCE AGREEMENT

#	POND NAME	3 acres or more?	WET/DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
15	Midwest Transportation	Yes	Wet		Yes	Yes	Replace grate on outlet structure.	$1,000	$360	$504	$3,864	Medium	1	$926,072	23.2	11.6	7.7
							Remove brush at north end and near 72" inlet.	$2,000									
47	Bradford Estates		Wet	Monitor	Yes		Bolt down loose grates on outlet structure.	$1,000	$960	$1,344	$10,304	Medium	3				
							Clean grates on structures.	$1,000									
							Monitor need for dredging within next five years.	$6,000									
1	Ansari (Barth Storage)		Wet		Yes	Yes	Replace bottom grate on outlet.	$1,000	$480	$672	$5,152	Medium	4				
							Reattach end section on 60" inlet.	$1,000									
							Remove vegetation from rip-rap.	$2,000									
6	Palmen Motors		Wet		Yes	Yes	Construct swale to nearby culvert to remedy drainage problem.	$15,000	$1,920	$2,688	$20,608	Medium	6				
							Clear trees around outlet and spillway.	$1,000									
5	Prairie Lake Estates (Heiberg)	Yes	Wet		Yes	Yes	Clean structures and remove vegetation from rip-rap.	$2,000	$360	$504	$3,864	Medium	7				
							Inspect downstream channel for clogging.	$1,000									
50	Hunters Ridge A		Wet		Yes	Yes	Clean pipe at southeast corner to remove clog.	$2,000	$840	$1,176	$9,016	Medium	11				
							Clear vegetation from structures and pond perimeter.	$5,000									
52	Hunters Ridge C		Wet		Yes	Yes	Reattach inlet pipe.	$1,000	$1,320	$1,848	$14,168	Medium	12				
							Repair two eroded channels.	$5,000									
							Clear vegetation from structures and pond perimeter.	$5,000									
51	Hunters Ridge B		Wet		Yes	Yes	Reattach end sections to inlet pipes.	$2,000	$1,440	$2,016	$15,456	Medium	13				
							Clear vegetation from structures and pond perimeter.	$5,000									
							Inspect structures to determine cause of low water level.	$5,000									
46	Woodman's Basin B		Wet		Yes	Yes	Clear vegetation from outlet structure and perimeter.	$5,000	$1,320	$1,848	$14,168	Medium	14				
							Clean outlet to remove clog; note if water level drops.	$5,000									
							Clear pond area of debris.	$1,000									
45	Woodman's Basin A		Wet	Yes		Yes	Dredge at south end and near outlet structure.	$36,000	$5,040	$7,056	$54,096	Medium	15				
							Clear vegetation from structures and perimeter.	$5,000									
							Clear pond area of debris.	$1,000									
43	Indian Trail Estates - YMCA	Yes	Wet		Yes	Yes	Clear vegetation from structures, rip-rap, and pond perimeter.	$5,000	$840	$1,176	$9,016	Medium	19				
							Repair washed-out rip-rap.	$2,000									
12	Leona's Rolling Meadows Subdivision C1		Wet	Yes		Yes	Dredge to remove sediment.	$23,000	$3,000	$4,200	$32,200	Medium	20				
							Clear vegetation around pond.	$2,000									
11	Leona's Rolling Meadows Subdivision C	Yes	Wet	Yes	Yes		Dredge to remove sediment.	$133,000	$16,080	$22,512	$172,592	Medium	21				
							Clean outlet periodically.	$1,000									
9	KM Property Owners South Port Plaza B		Wet	Monitor	Yes		Sediment is deep in some areas; monitor need for dredging over next five years.	$31,000	$4,320	$6,048	$46,368	Medium	23				
							Clean outlet and check for blockage.	$5,000									
53	Mahone	Yes	Wet	Monitor		Yes	Clear vegetation from structures, rip-rap, and north end of pond.	$2,000	$47,520	$66,528	$510,048	Medium	25				
							Determine design depth of pond and whether dredging is necessary.	$1,000									
							Monitor need for dredging within next five years.	$393,000									
2	Dairyland Greyhound Park (WEST)		Wet			Yes	Remove perimeter vegetation and locate structures.	$2,000	$240	$336	$2,576	Medium	26				
3	Dairyland Greyhound Park (NORTH)	Yes	Wet			Yes	Remove vegetation around perimeter and outlet structure.	$2,000	$240	$336	$2,576	Medium	27				

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

Ponds Owned and Maintained
By Private Owner
Midwest Transportation

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for Midwest Transportation Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1999	4	3 – 5.3	2018

Notes

1. The designed water depth of the pond is 4 feet. The measured water depth in April of 2013 varied between 3 and 5.3 feet. We conclude that the pond was over-excavated at the time of construction and is starting to fill with sediment in one small area.

2. The inlet and outlet pipes were inspected. They are in good condition except that the bottom grate of the outlet structure is missing.

3. Sediment build-up varied between 0 and 0.4 feet.

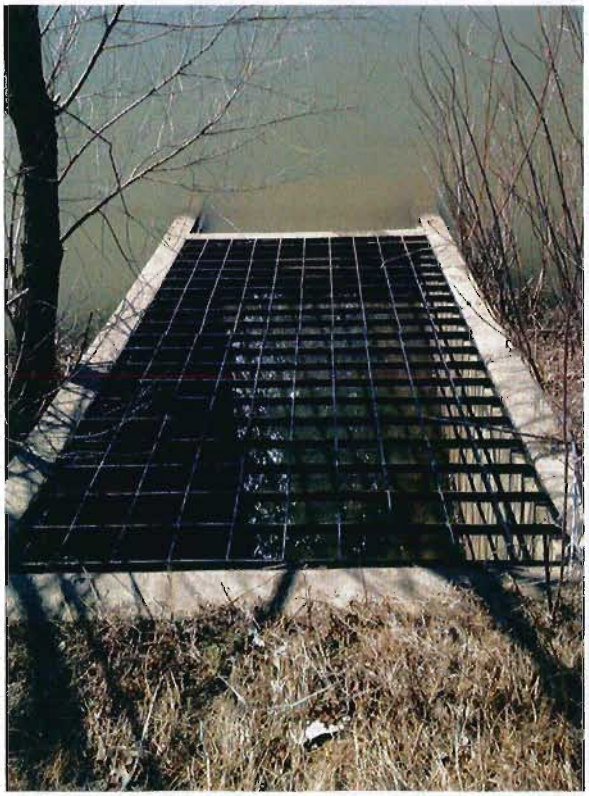
4. The area around the pond perimeter is grassy. The only heavy vegetation growth is at the north end and near the 72" pipe.

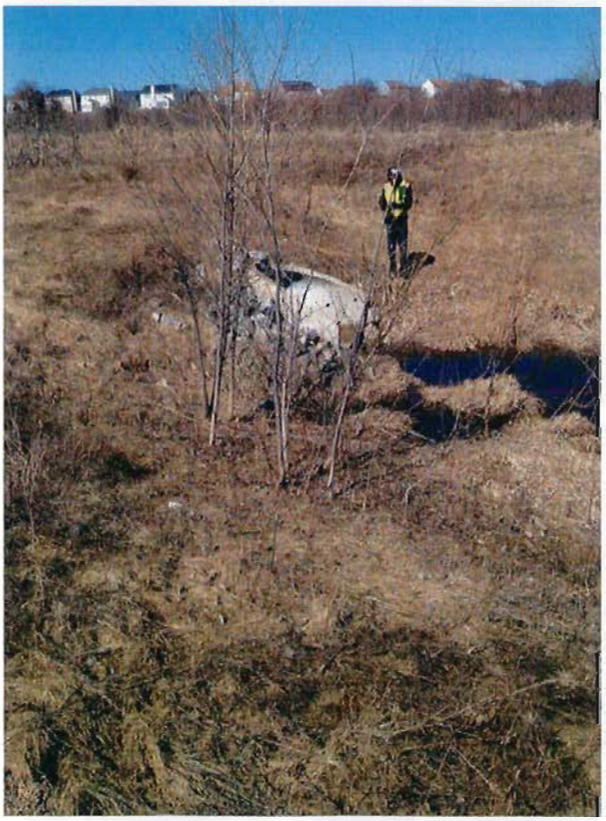
RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Clear the willow brush at the north end and surrounding the 72" pipe.

3. Replace the bottom grate on the outlet structure.





4-2-13 SUNNY 40°

AI + BB

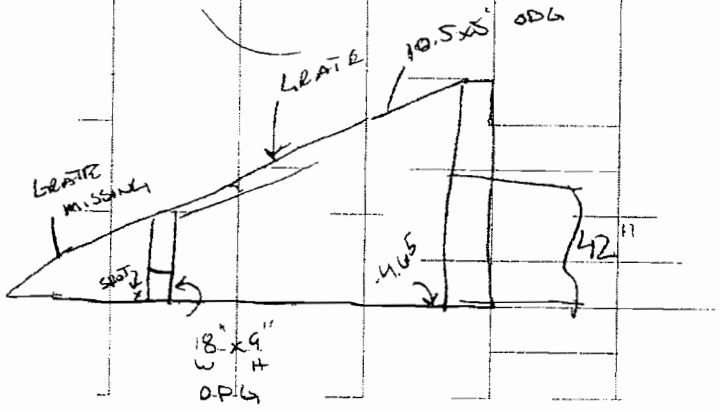
MIDWEST TRANSPORTATION

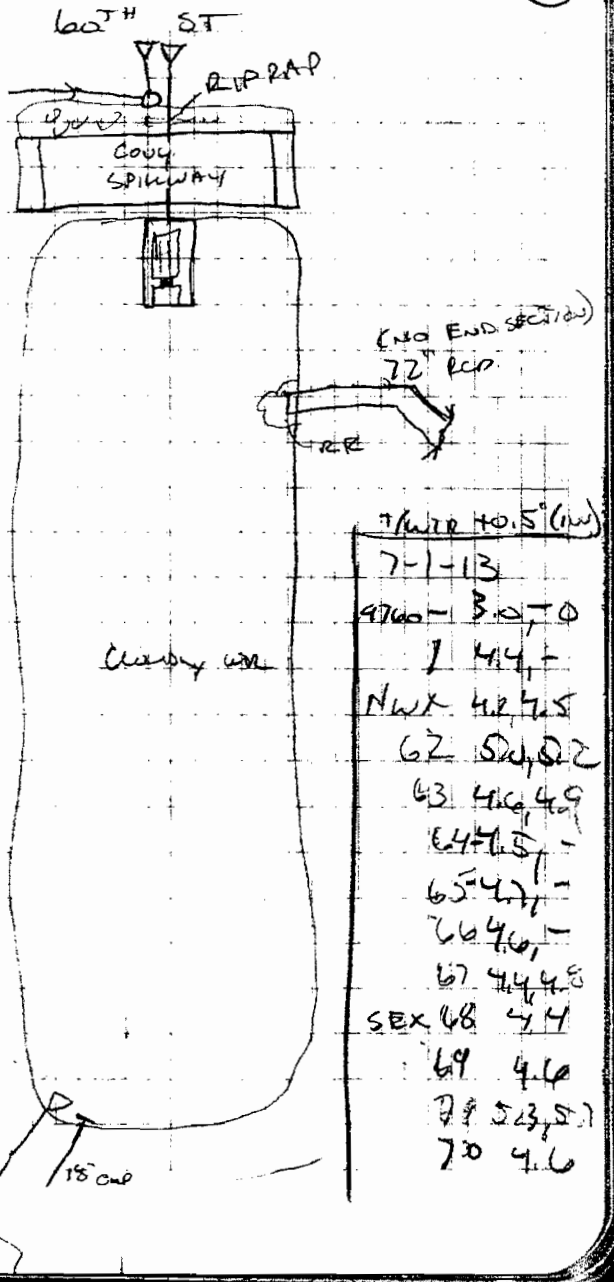
START #9600 - 9759

DEPTHS 9760 → 9770

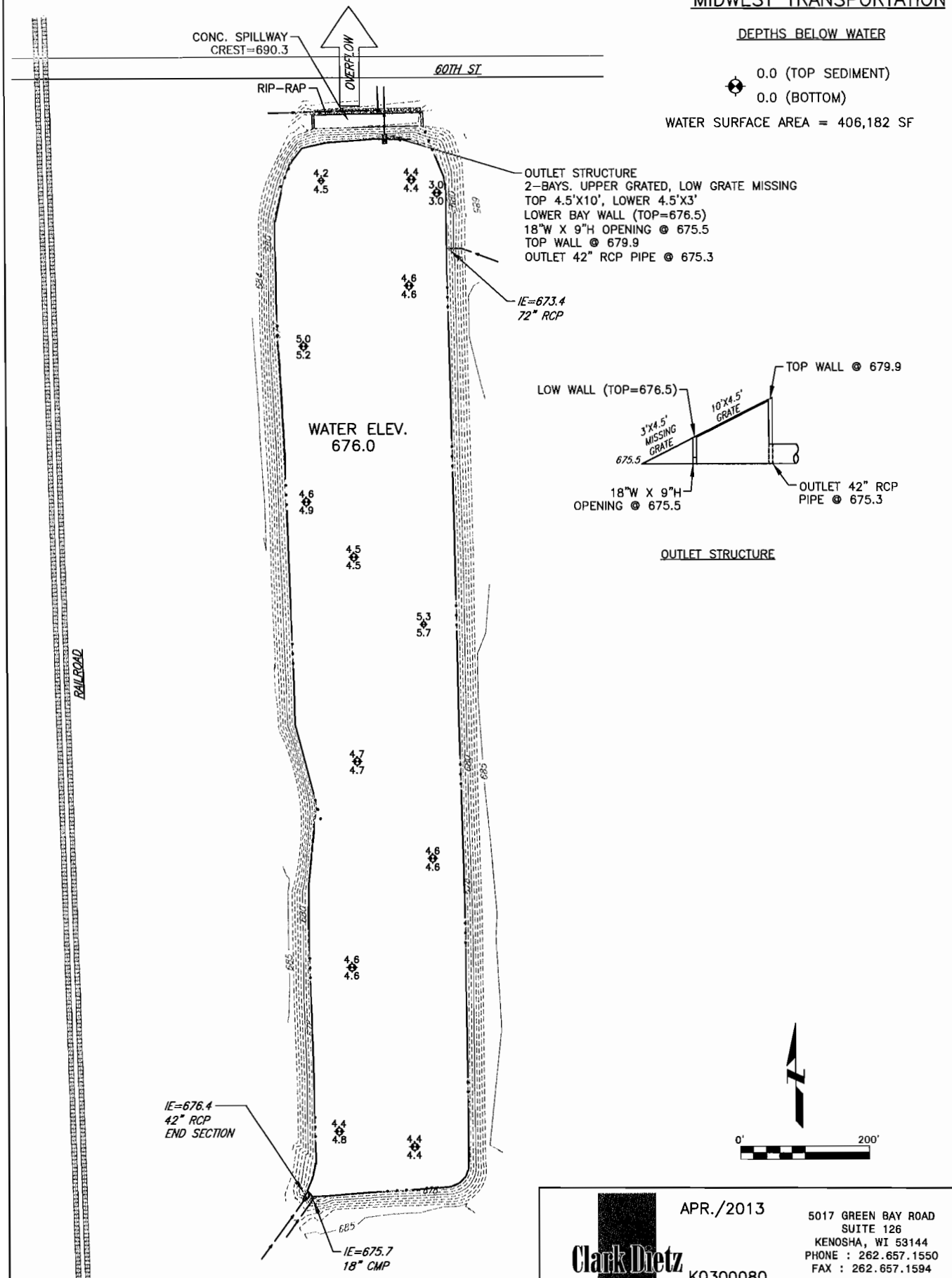
MAINTENCE - CUT SCATTERED WILLOW BRUSH MAINLY N. END & AT 72" PIPE

- NEED LOW WALL ELEV.
- NEED BW DEPTHS





MIDWEST TRANSPORTATION



Clark Dietz ENGINEERS

APR./2013

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Ponds Owned and Maintained
By Private Owner
Midwest Transportation

Clark Dietz
ENGINEERS

September 5, 2013

Measurement Results for Bradford Estates Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2003	4	3.5	2018

Notes

1. The designed water depth of the pond is 4 feet. The measured water depth in June of 2013 was approximately 3.5 feet. We conclude that the pond is starting to fill up with sediment.

2. The inlet and outlet pipes were inspected. There were loose grates on the outlet structure. There were also heavy grass clippings and plastic debris built up on the structures.

3. Sediment build-up averaged approximately 0.8 feet.

4. The whole pond perimeter had been mowed to the water's edge.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The loose grates should be bolted down.

3. The structure grates should be cleaned regularly.

4. The City should consider dredging this small pond within the next five years.

5. Do not mow a narrow strip around the pond to improve safety.

6/13/13 AT SUNNY >5°

BRADFORD ESTATES

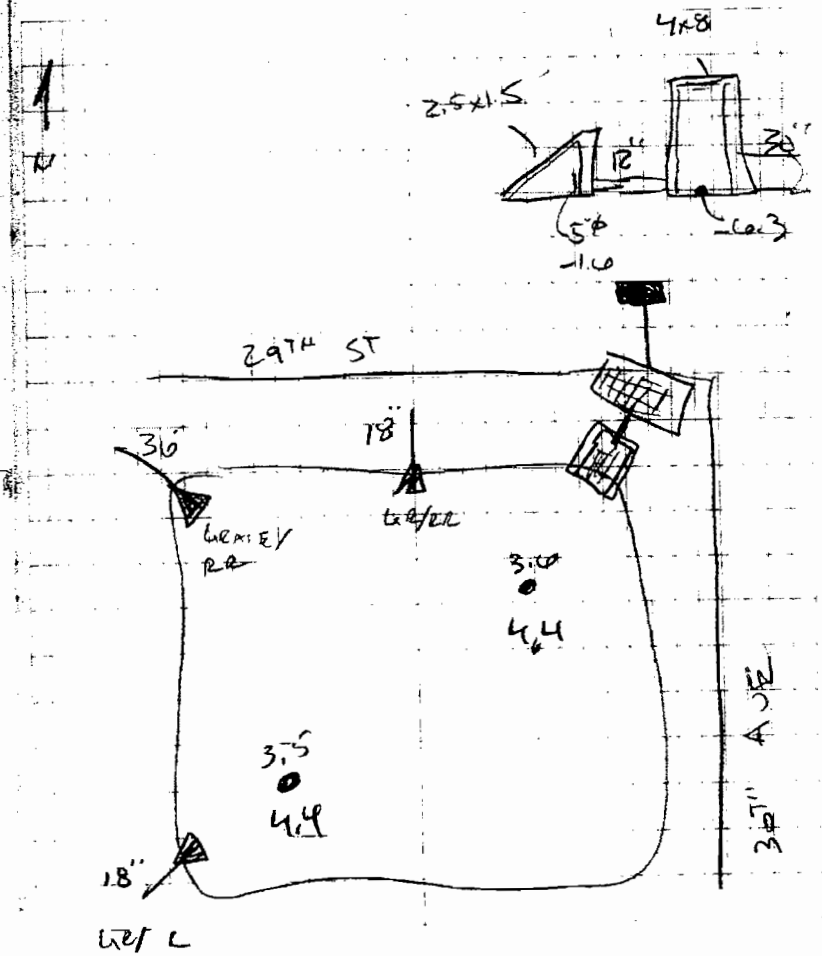
STACT II 15600 - 15682 (~~[illegible]~~)

MAINTENANCE

* BOLT DOWN S.S GRATE ON OUTFLOW
* " " METAL GRATE OUTLET (LOWER)
* GLASS CLIPPINGS & PLASTIC DEBRIS

7-2-13

DEPTHS



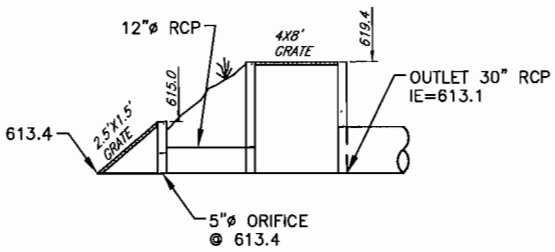
BRADFORD ESTATES

WATER ELEV.= 613.4

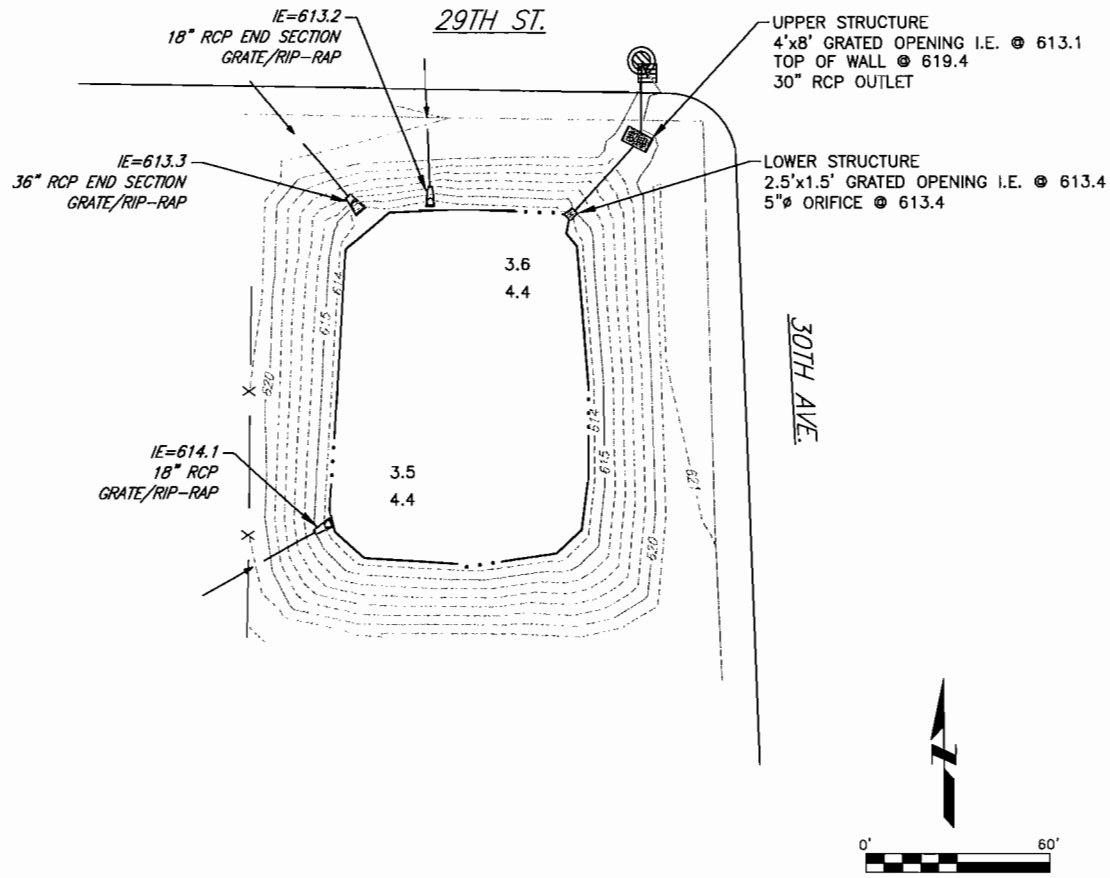
DEPTHS BELOW WATER

3.6 (TOP SEDIMENT)
4.4 (BOTTOM)

WATER SURFACE AREA = 18,904 SF



OUTLET STRUCTURE



JUNE/2013

K0300080

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Ponds Owned and Maintained
By Private Owner
Bradford Estates

Clark Dietz
ENGINEERS

September 5, 2013

Measurement Results for Bradford Estates Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2003	4	3.5	2018

Notes

1. The designed water depth of the pond is 4 feet. The measured water depth in June of 2013 was approximately 3.5 feet. We conclude that the pond is starting to fill up with sediment.

2. The inlet and outlet pipes were inspected. There were loose grates on the outlet structure. There were also heavy grass clippings and plastic debris built up on the structures.

3. Sediment build-up averaged approximately 0.8 feet.

4. The whole pond perimeter had been mowed to the water's edge.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The loose grates should be bolted down.

3. The structure grates should be cleaned regularly.

4. The City should consider dredging this small pond within the next five years.

5. Do not mow a narrow strip around the pond to improve safety.

6/13/13 AT SUNNY >5°

BRADFORD ESTATES

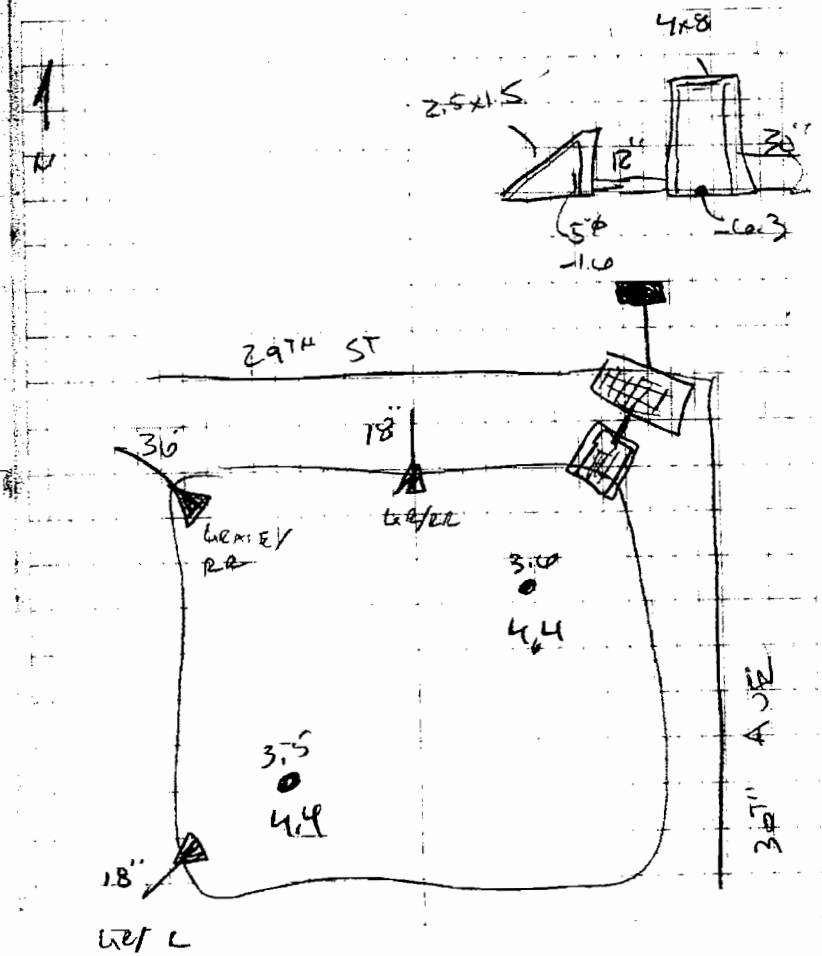
STACT II 15600 - 15682 (~~[illegible]~~)

MAINTENANCE

* BOLT DOWN S.S GRATE ON OUTFLOW
* " " METAL GRATE OUTLET (LOWER)
* GLASS CLIPPINGS & PLASTIC DEBRIS

7-2-13

DEPTHS



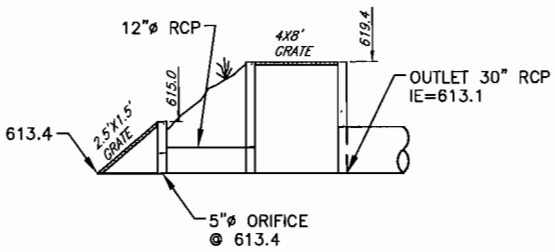
BRADFORD ESTATES

WATER ELEV.= 613.4

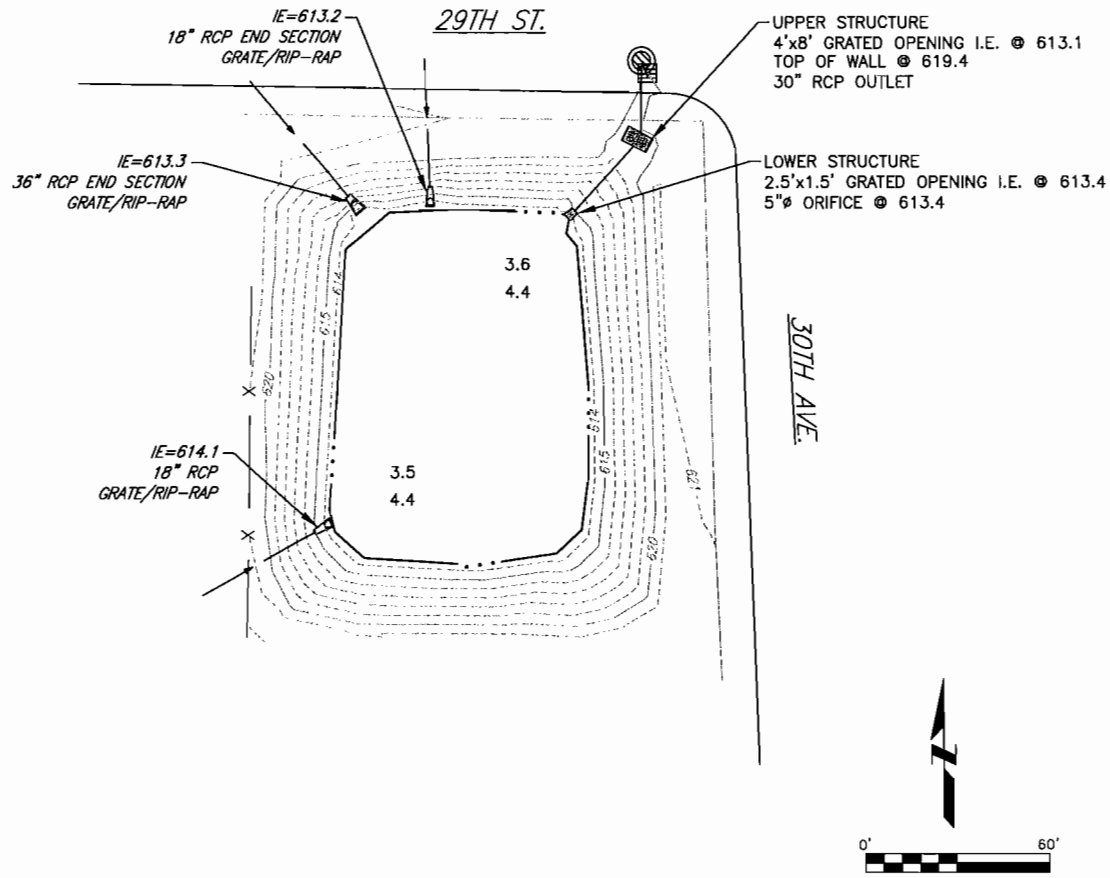
DEPTHS BELOW WATER

3.6 (TOP SEDIMENT)
4.4 (BOTTOM)

WATER SURFACE AREA = 18,904 SF



OUTLET STRUCTURE



JUNE/2013

K0300080

Clark Dietz ENGINEERS
5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Ansari (Barth Storage)

Clark Dietz
ENGINEERS

July 12, 2013

Measurement Results for Ansari (Barth Storage) Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2000	5.7	4.7 – 7.7	2018

Notes

1. The designed water depth of the pond is 5.7 feet. The measured water depth in July of 2013 varied between 4.7 and 7.7 feet. We conclude that the pond was over-excavated at the time of construction.

2. The inlet and outlet pipes were inspected and were found to be in fair structural condition. The bottom grate of the outlet structure is rusty. The end section on the 60" inlet is separated from the pipe.

3. Sediment build-up ranged between 0.2 and 0.5 feet.

4. The whole pond area is mowed. Some weeds and saplings are growing in the rip-rap areas near the structures.

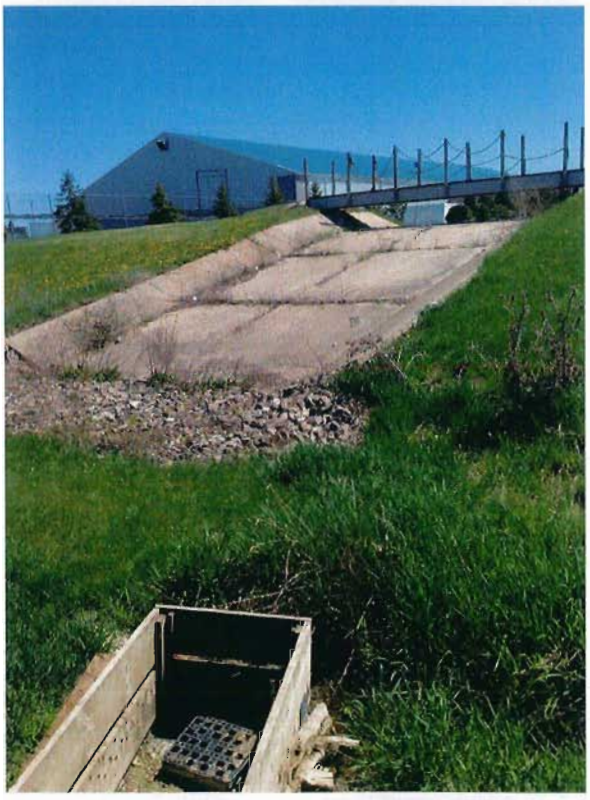
RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The bottom grate of the outlet structure should be replaced.

3. Reattach the end section of the 60" inlet to the pipe.

4. When mowing, leave a grassy strip around the pond to deter geese and improve safety.



5-14-13 AT SUNNY 75°

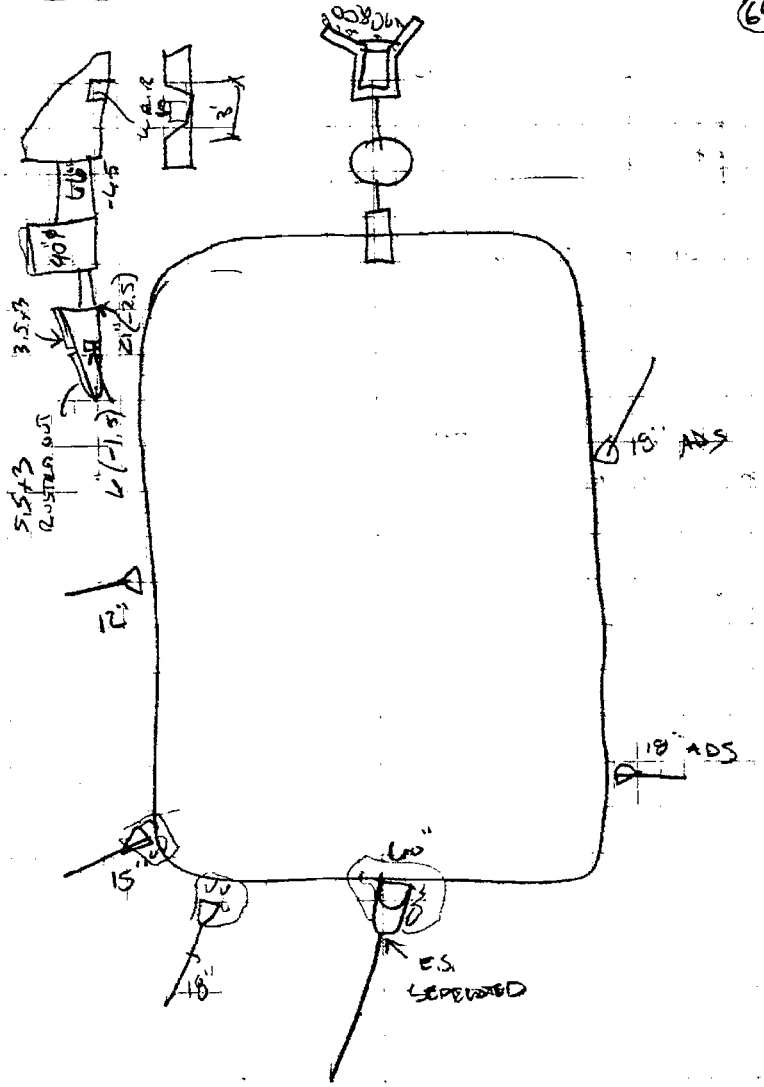
ANSSAEI

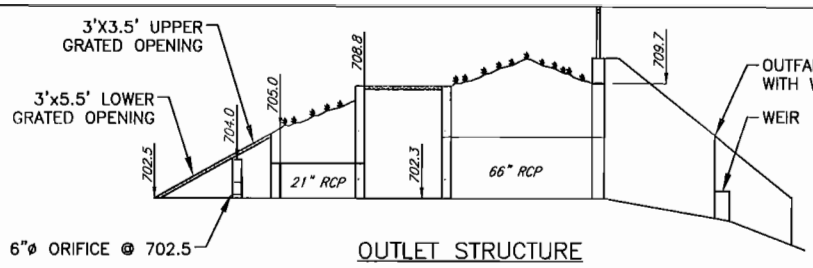
#13000 → 13193

* CORE SAMPLES & END SECTIONS
* NEW LOWER GRATE & OUTLET STRUCT.
* RE-ATTACH 60" FES

7-2-13

30035T 5.7, 6.0
4.7, 5.2
6.5, 6.7
5.7, 5.9
6.3, 6.8
7.7, 8.1





OUTLET STRUCTURE

ANSARI

WATER ELEV. = 702.8

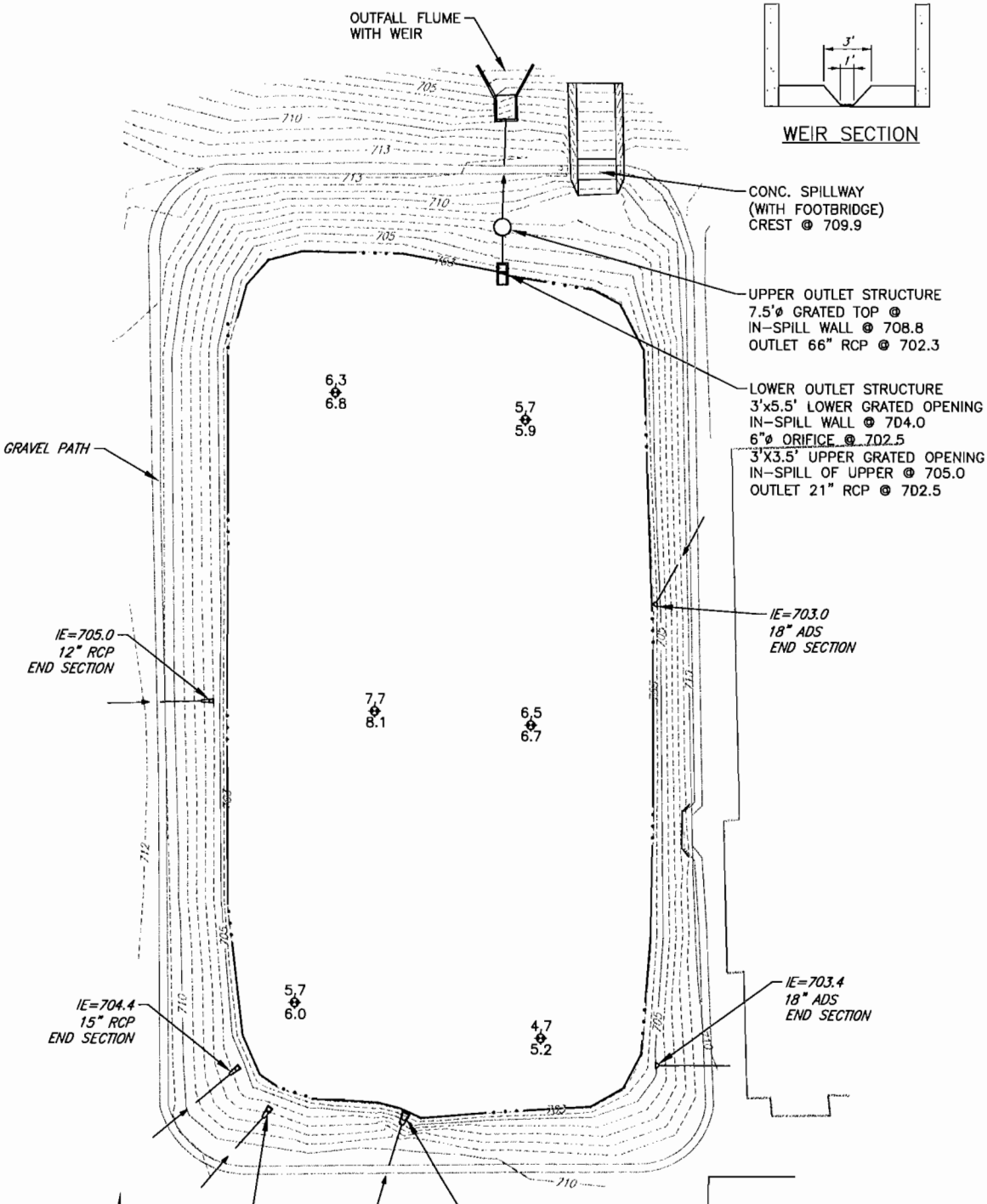
DEPTHS BELOW WATER

0.0 (TOP SEOIMENT)

0.0 (BOTTOM)

WATER SURFACE AREA = 91,668 SF

WEIR SECTION



MAY/2013

K0300080

Clark Dietz ENGINEERS
5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Palmen Motors

Clark Dietz
ENGINEERS

September 4, 2013

Measurement Results for Palmen Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2001	2.5	3.9 – 5.0	2018

Notes

1. The designed water depth of the pond is 2.5 feet. The measured water depth in June of 2013 varied between 3.9 and 5.0 feet. We conclude that the pond was over-excavated at the time of construction.

2. The outlet structure is not functioning properly. It is placed below the grade of the adjacent swamp.

3. No sediment build-up was measured in the pond.

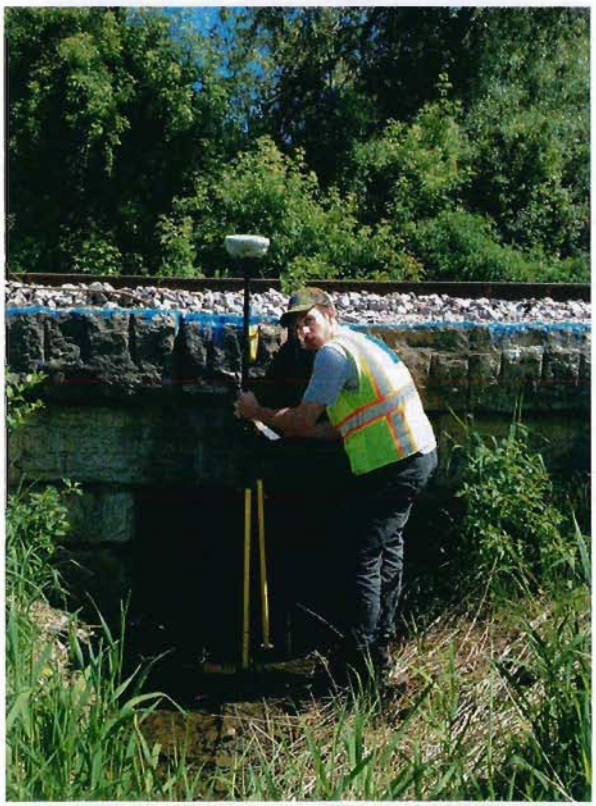
4. The whole pond perimeter area is mowed. Trees are growing at the outlet structure and the concrete spillway.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The trees around the outlet structure and spillway should be removed.

3. The drainage problem could be alleviated by dredging the swale to the railroad culvert approximately 50 feet away.



6/3/18 At, 4h. SUNNY 70°

RAINED

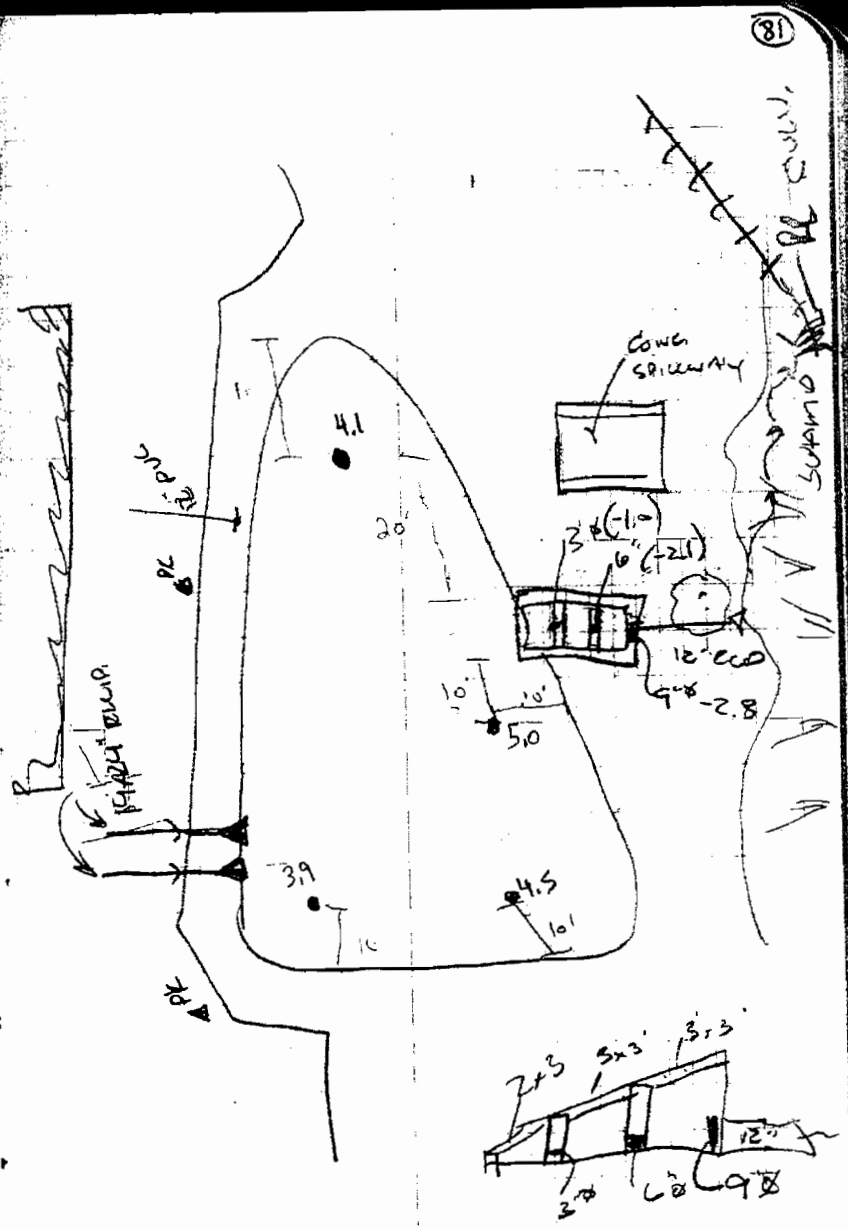
14700 →

MAINTENANCE

- TREES @ OUTLET & SPILLWAY NEED TO BE REMOVED
- COULD DREDGE SWALE TO RR CULV. ± 50'
- OUTLET NOT FUNCTIONING @ NML DUE IN OUTLET IS BELOW SWAMP GRADE

14785 N 213305.160
E 2541765.90
691.85

ITR = 4.3 NOT 4.0 ± 14790
(CHECK SHOT #'s WITH GPS



PALMEN

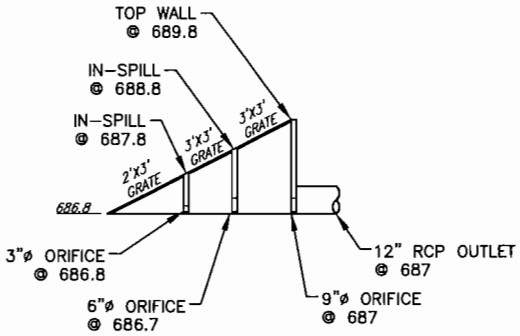
WATER ELEV.= 687.3

DEPTHS BELOW WATER

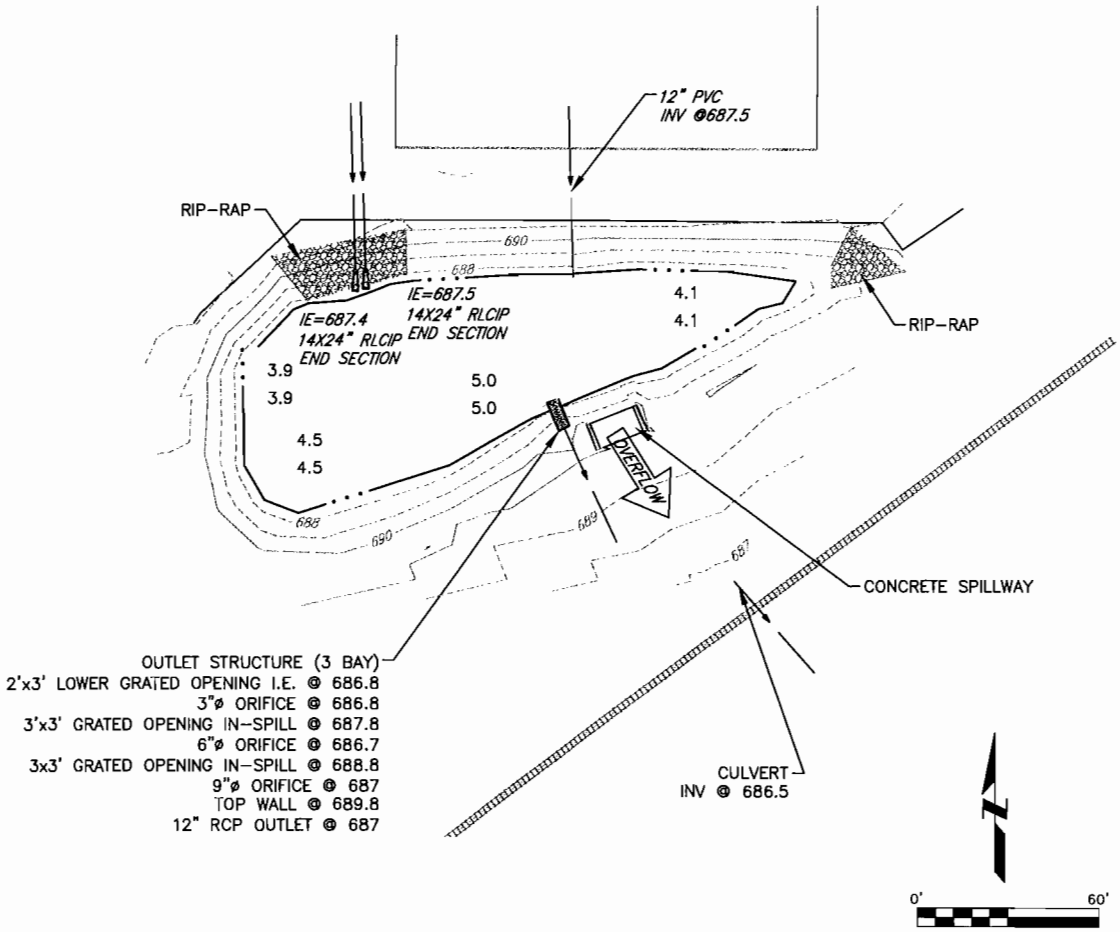
4.3 (TOP SEDIMENT)

4.3 (BOTTOM)

WATER SURFACE AREA = 32,201 SF



OUTLET STRUCTURE



OUTLET STRUCTURE (3 BAY)
2'x3' LOWER GRATED OPENING I.E. @ 686.8
3"ø ORIFICE @ 686.8
3'x3' GRATED OPENING IN-SPILL @ 687.8
6"ø ORIFICE @ 686.7
3x3' GRATED OPENING IN-SPILL @ 688.8
9"ø ORIFICE @ 687
TOP WALL @ 689.8
12" RCP OUTLET @ 687

Clark Dietz ENGINEERS

JUNE/2013

K0300080

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KENOSHA, WI 53144
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Ponds Owned and Maintained
By Private Owner
Prairie Estates (Heiberg)

Clark Dietz
ENGINEERS

July 16, 2013

Measurement Results for Prairie Lake Estates Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1983	N/A	4.7 – 16.0	2018

Notes

1. The designed water depth of the pond is unknown. The plans do not show the elevation of the outlet or the bottom of the pond. The measured water depth in July of 2013 varied widely between 4.7 and 16.0 feet.

2. The inlet and outlet structures were inspected and were found to be in fair condition.

3. Sediment build-up varied between 0 and 2.0 feet.

4. Portions of the pond perimeter are mowed to the water's edge. Cattails and brush have grown up around the edge in other areas. The rip-rap area near the outlet is heavily vegetated.

5. 0.9 feet of water was above the weir, indicating that the downstream channel might be clogged.

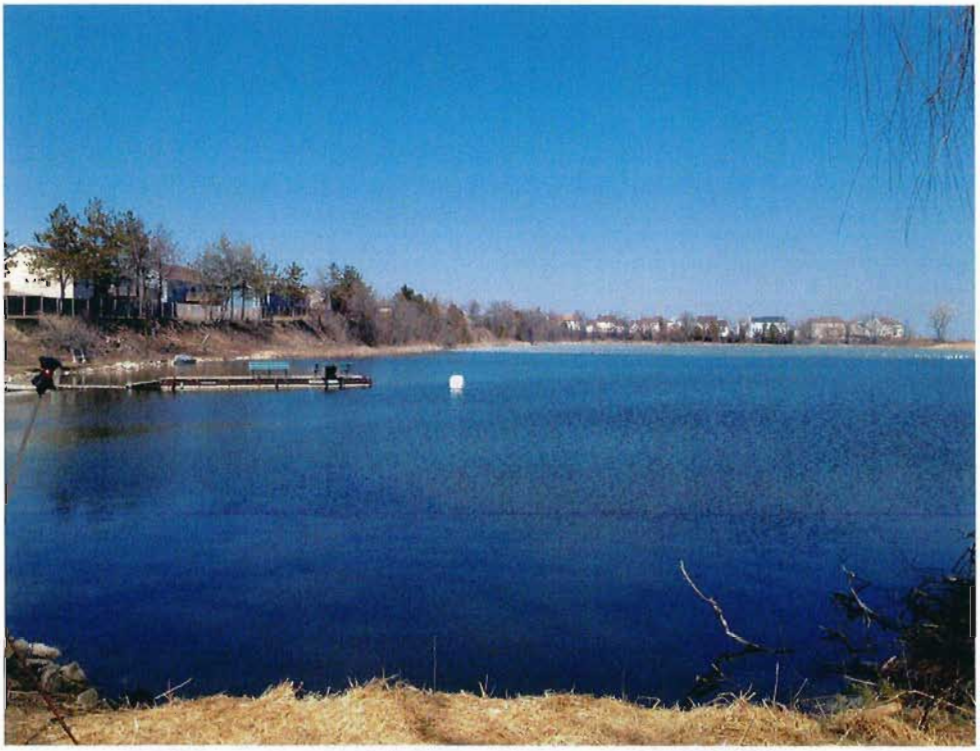
RECOMMENDATIONS

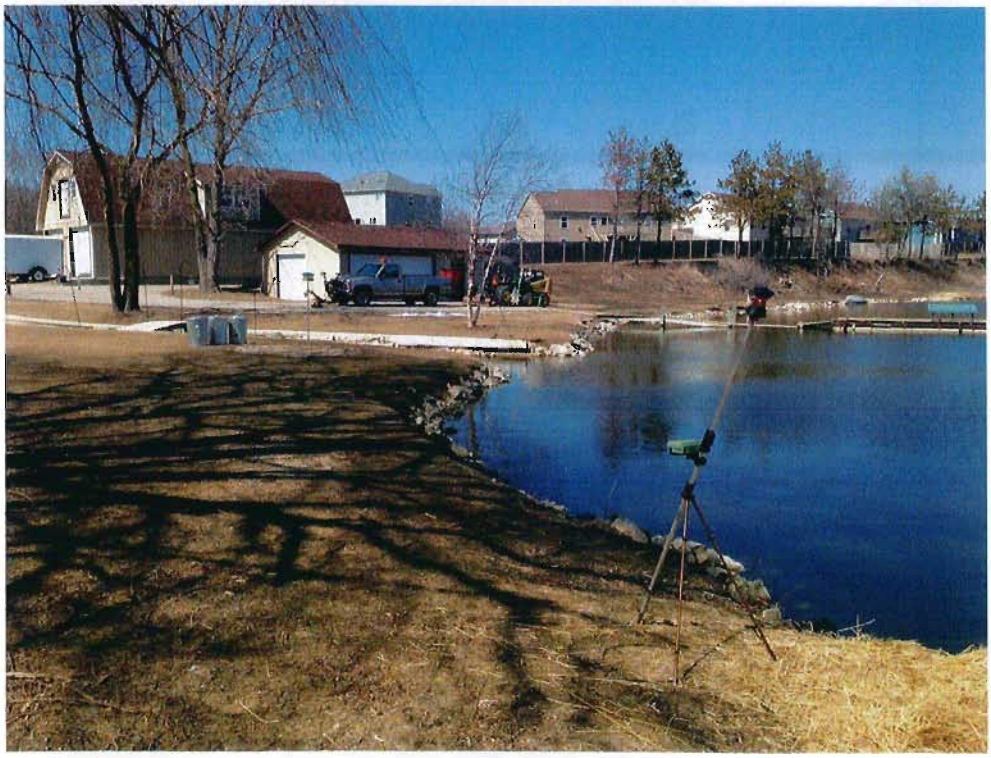
1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The vegetation within the rip-rap and around the outlet should be cleared out and the structures cleaned of debris. The downstream channel should be checked for clogging or a possible obstruction.

3. When mowing, leave a grassy strip around the pond to deter geese and improve safety.

4. Light maintenance is required at the weir.





4-4-13 SUNNY | 40° AT, BB

PRAIRIE LAKE ESTATES (HEIBERG)

START 10900 END LOG @ 11076

+ ROBOT

CP 10900 N 214652.48
E 2532049.20
E 684.11

CP 10901 N 214994.51
E 2532268.17
EL 682.27

ROBOT SHOTS TO START @ 11200

7-2-13 T/WIR

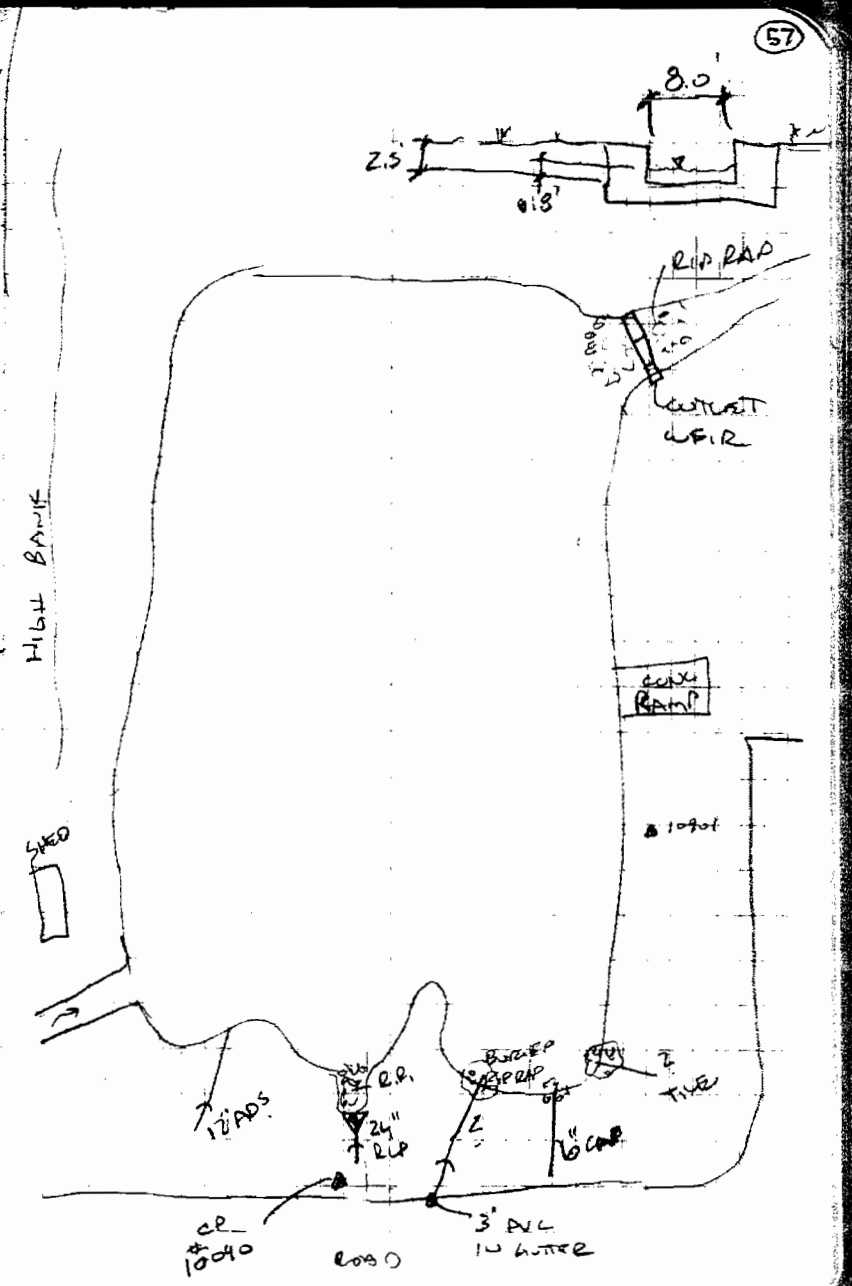
30,023 — 5.4, 6.0
8.0, 8.2
4.7, 10.6
11, 11.7
12.6, 13.6
11.9, 12.6
14.3, 15.8
16.0, 17.2
15.4, 17.8
12.0, 13.6

T/WIR TO 9 WEIR CHANNEL DAM & DOWNSTREAM

30,033 — 9.8 —
9.6 —
10.2 —
9.1, 9.3
6.7, 7.2

30,038 5.9 —

* LIGHT MAINT @ WEIR

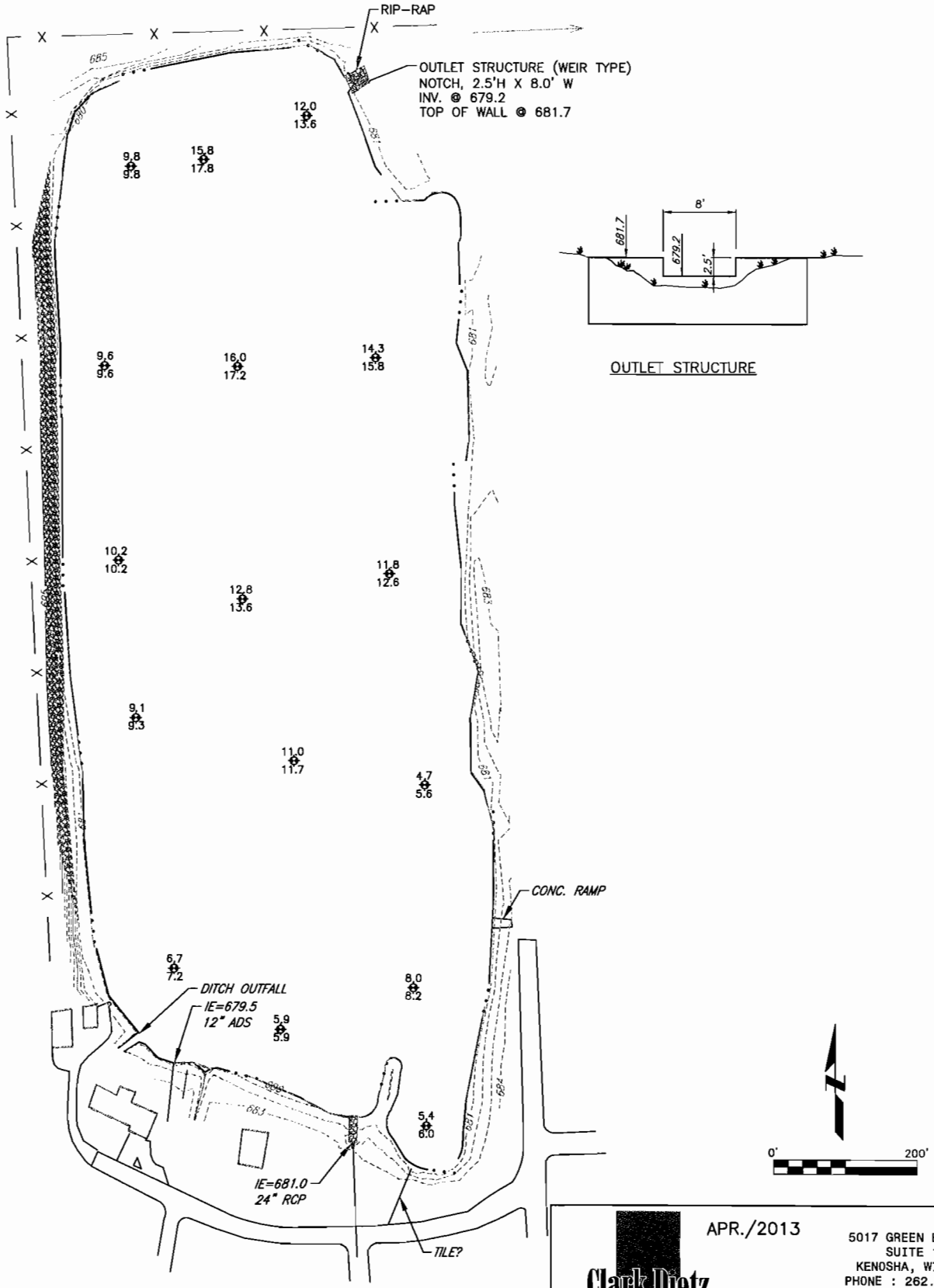


PRAIRIE LAKE ESTATES (HEIBERG)

WATER ELEV.
679.9

DEPTHS BELOW WATER
0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 339,620 SF



OUTLET STRUCTURE

0' 200'

APR./2013

K0300080

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Ponds Owned and Maintained
By Private Owner
Hunters Ridge A

Clark Dietz
ENGINEERS

January 15, 2014

Measurement Results for Hunters Ridge Pond A

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1991	12	4 – 4.7	2018

Notes

1. The designed water depth of the pond is believed to be 12 feet, similar to the other Hunters Ridge ponds. The design plans are not clear. The measured water depth in June of 2013 varied between 4 and 4.7. The pond was also inspected in December 2013.

2. The structures were inspected. The pipe at the southeast corner is clogged.

3. Sediment build-up averaged approximately 1.2 feet.

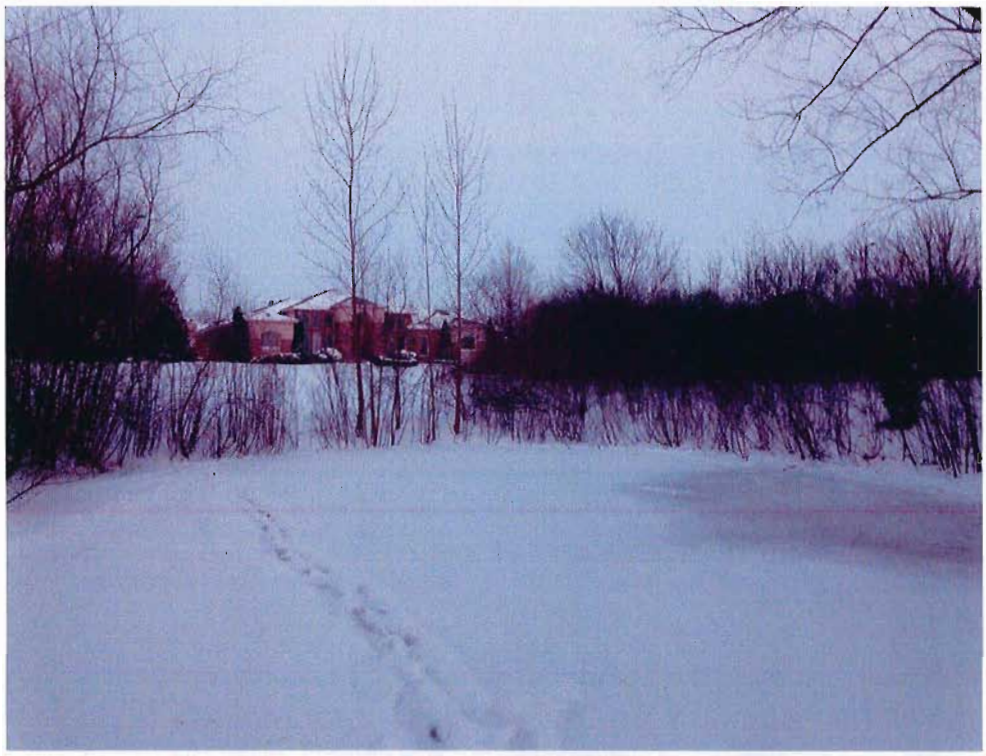
4. Thick brush surrounds the entire pond. Vegetation is also growing in and around the structures. The water was stagnant.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The pipe at the southeast corner should be inspected and the clog cleared.

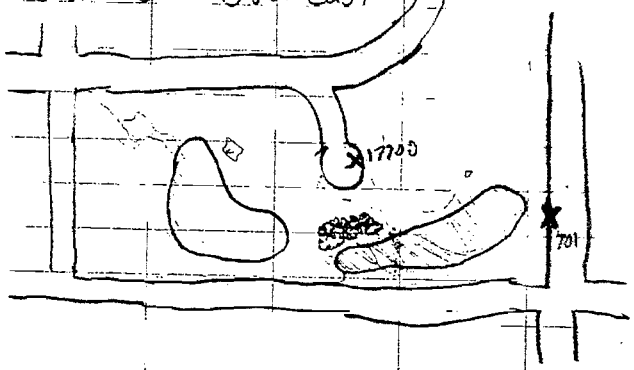
3. The vegetation around the pond should be cleared, especially from the structures.



Hunters Ridge

10-11 AM 78°

6-24-13 Over Cast



17700 N 2355206.94
E 2547772.17
EL 648.90

17701 N 2353541.51
E 2548164.13
EL 637.10

COMB 1/22K3 - 33000 PC1 N 2355415.408 E 2547551.949 ELE 643.236
PC2 33,001 2352511.590 2548064.789 641.755

6-2-13

35,000 →

30 ~~0.9~~ — 9.2, 10.2

59 11.2, —

13.4, 14.3

9.1, 10.4

10.2, 10.6

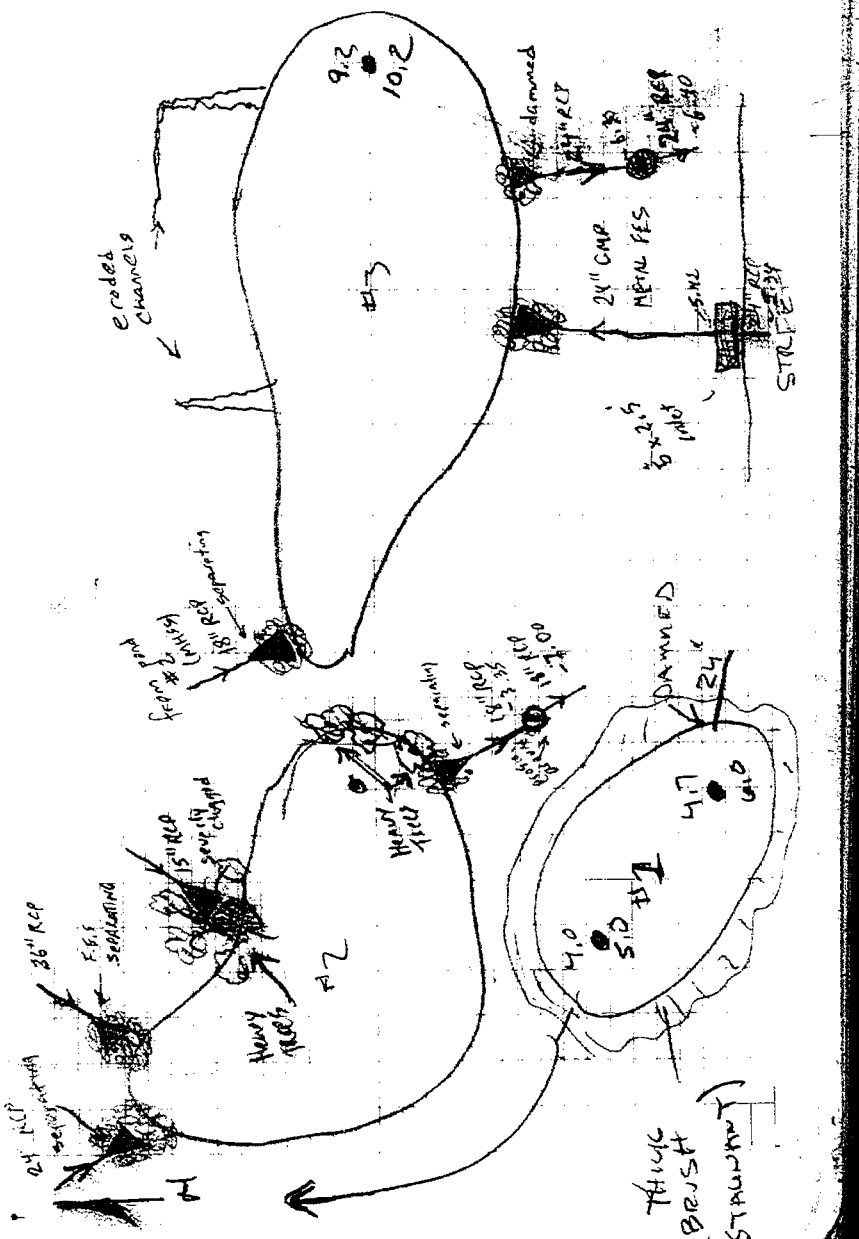
10.8, 11.4

10, 10.4

10.9, 10

★ CONTINUED ON PG. 113

97



12-9-2017
12-6-2013 BRB/JN PARTLY SUNNY, 10°

HUNTERS RIDGE

TOPO — OC # 1, HI = 5.51, BS # 2, HI = 4.5
START # 276 (35,276) END # 478 (35,478)

✓280 — ESC24
✓290 — * SHOT ON (N) EDGE, MIDDLE OF BRIDGE
✓291 — ESM24
✓325 — ⊗
✓330 — ⊗
~~331~~
✓332 — HI = 5.20, ~~CP~~ CENTER
5.20
✓349 — TB3 !
✓3407 — ⊗

403 shot ~~on~~ where top of pipe ~~begins~~ on bottom of FES (invert elev.)

~~HUB~~ 432 ESC24

444 EW3 !
443 TOE3 !
465 TB4
476 TOE4 !

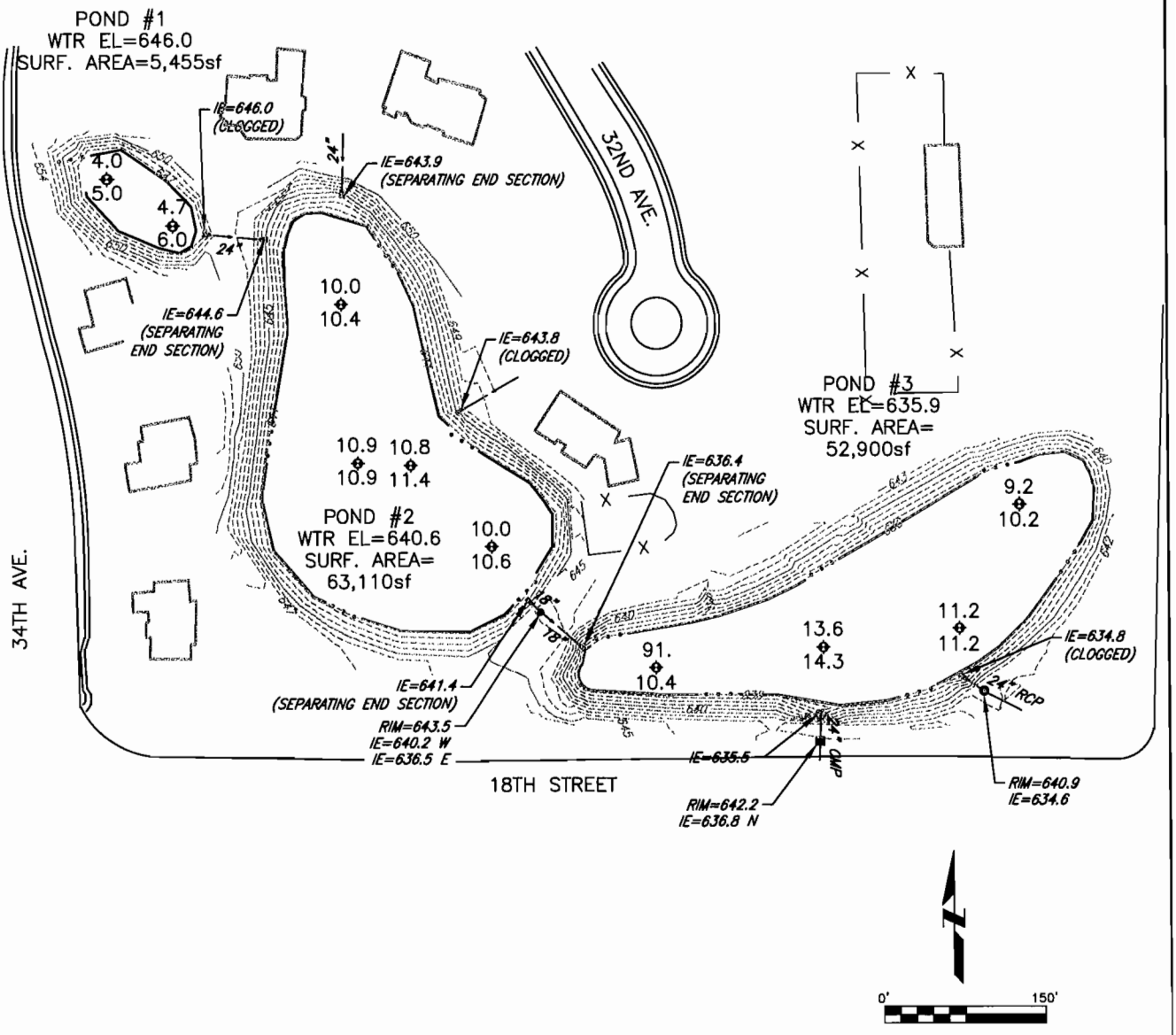
HUNTERS RIDGE

WATER ELEV.= SEE PLAN

DEPTHS BELOW WATER

3.5 (TOP SEDIMENT)
4.4 (BOTTOM)

WATER SURFACE AREA = SEE PLAN



Clark Dietz ENGINEERS

DEC./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Hunters Ridge C

Clark Dietz
ENGINEERS

January 16, 2014

Measurement Results for Hunters Ridge Pond C

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1991	12	9.1 – 13.6	2018

Notes

1. The designed water depth of the pond is 12 feet. The measured water depth in July of 2013 varied between 9.1 and 13.6 feet. The pond was also inspected in December 2013.

2. The inlet and outlet structures were inspected. The end section on the inlet at the west end of the pond is separating from the pipe. Two channels on the north side of the pond are eroded.

3. Sediment build-up averaged between 0 and 1.3 feet.

4. Willow shrubs have grown up around most of the pond. Thick vegetation is also growing in and around the inlet and outlet structures.

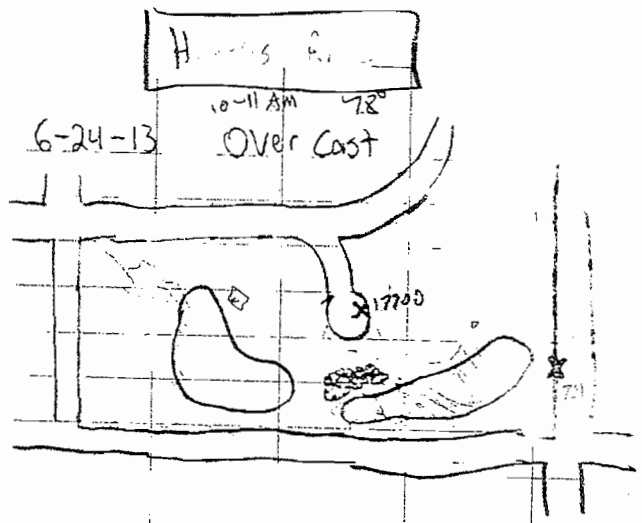
RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The inlet structure should be repaired and reattached to the adjacent pipe.

3. The eroded channels should be repaired.

4. The cattails and willows should be cleared, especially from the structures.



6-24-13 Over Cast 10-11 AM 78°

17700 N 235526.94
E 2547772.17
EL 648.90

17701 N 2353 54.51
E 2548164.13
EL 637.10

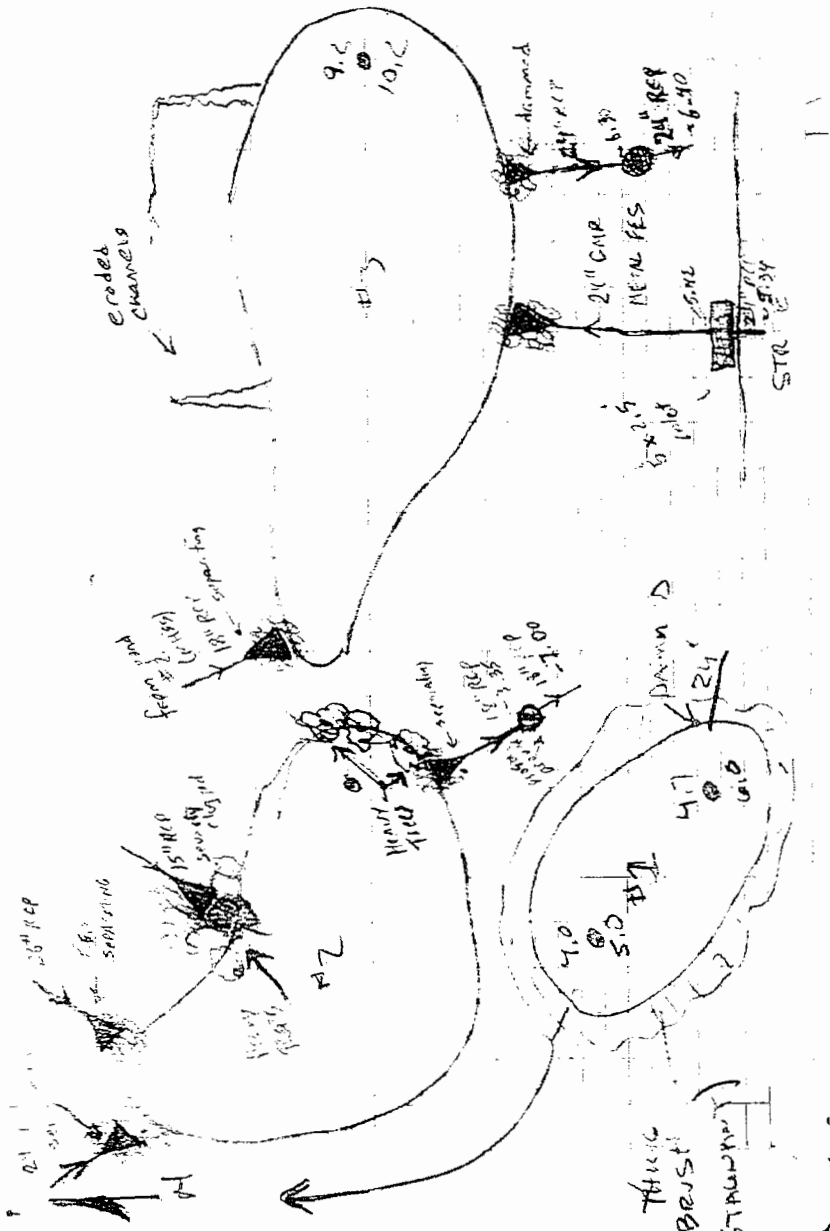
CONTROLS - PC1 33 000 N 235415.408 E 254 7751 ELE 642.236
PC2 33,001 235 251.550 2548064.589 641.755

35,000 →

7-2-13

30 ~~10.2~~ — 9.2, 10.2
59 11.2, —
13.4, 14.3
9, 10.4
10.2, 10.6
10.8, 11.4
12, 10.4
10.9, 10

★ CONTINUED ON Pg. #3



12-9-2017
12-6-2013 BRB/JAN PARTLY SUNNY, 15°

HUNTERS RIDGE

TOPO – OC #1, HI = 5.51, BS #2, HR 5.5

START # 276 (35,276) END # 478 (35,478)

✓280 – ESC24

✓290 – * SHOT ON (N) EDGE, MIDDLE OF GR =

✓291 – ESM24

✓325 – ⊗

✓330 – ⊙

~~332~~

✓332 – HR = 5.20, [illegible]
5.20

✓349 – TB3 !

✓01079 – ⊗

403 shot @ what top of pipe [illegible] on bottom of FES (invert elev.)

~~428~~ 432 ESC24

444 EW3 !

443 TOE3 !

465 TB4

476 TOE4 !

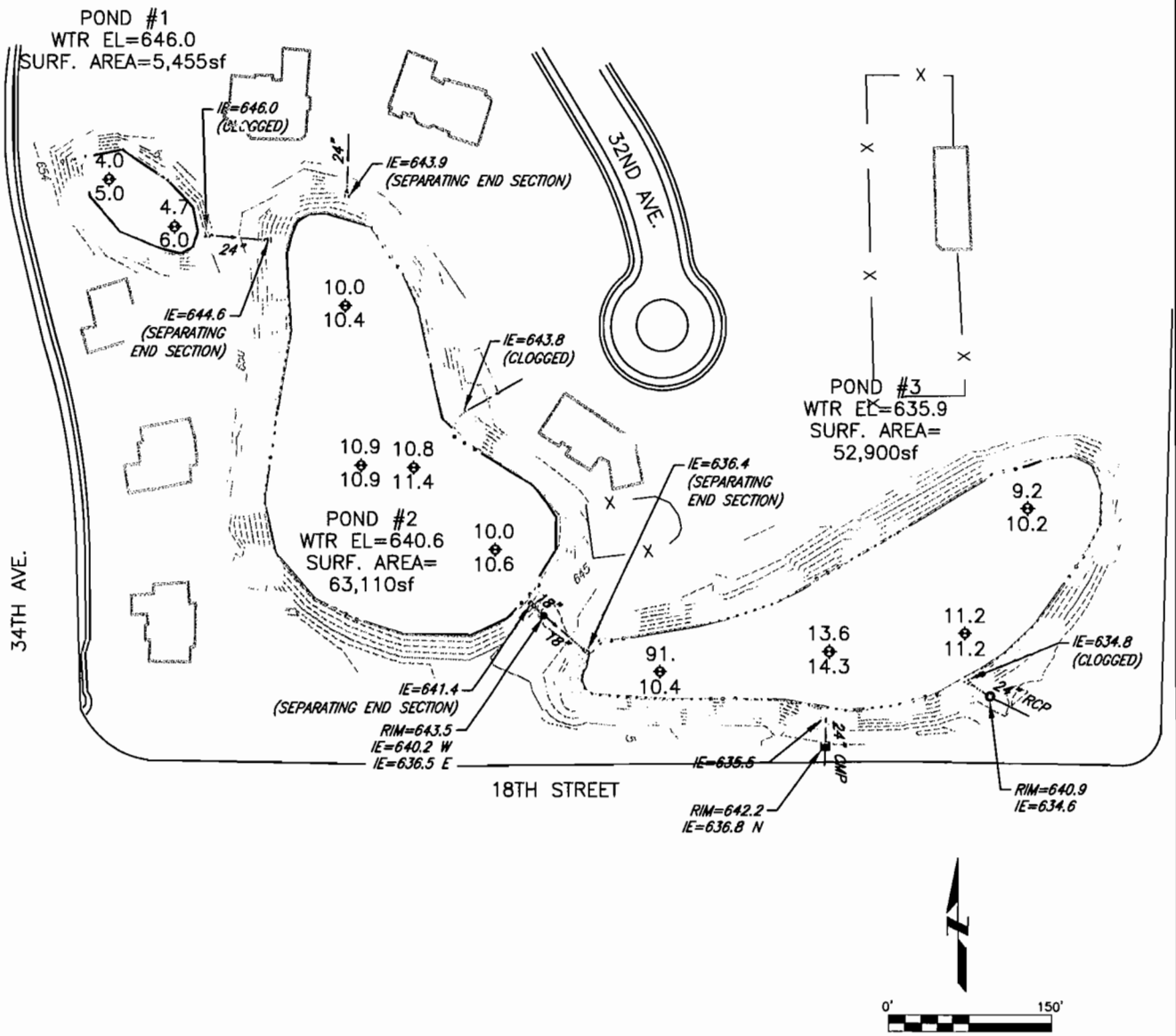
HUNTERS RIDGE

WATER ELEV.= SEE PLAN

DEPTHS BELOW WATER

3.5 (TOP SEDIMENT)
◆
4.4 (BOTTOM)

WATER SURFACE AREA = SEE PLAN



DEC./2013

K0300080

Clark Dietz
ENGINEERS

5017 GREEN BAY ROAD
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KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Hunter Ridge B

Clark Dietz
ENGINEERS

January 16, 2014

Measurement Results for Hunters Ridge Pond B

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1991	12	10.4	2018

Notes

1. The designed water depth of the pond is 12 feet. The measured water depth in July of 2013 was approximately 10.4 feet.

2. The inlet and outlet structures were inspected. The end sections on the two inlets on the north end of the pond and the one on the outlet at the south end of the pond are all separating from the pipes.

3. Sediment build-up averaged approximately 0.5 feet.

4. Willow shrubs and trees are growing around most of the pond. Vegetation is also growing in and around the inlet and outlet structures, especially the inlet on the east side of the pond.

5. The measured water elevation is lower than the design elevation.

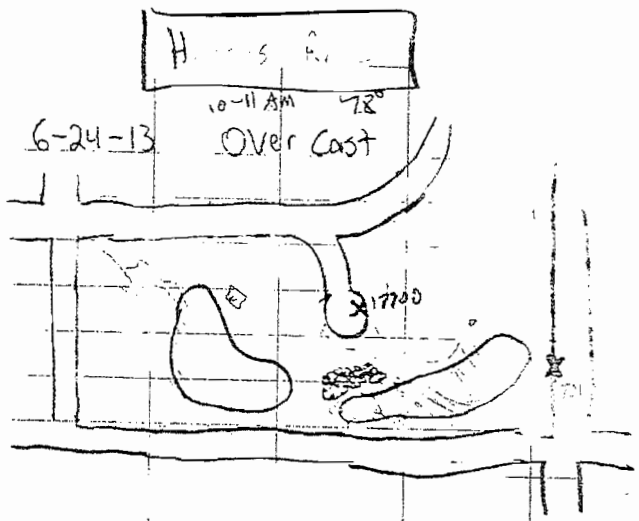
RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. All the separating end sections should be repaired and reattached to the adjacent pipes.

3. The willows and trees should be cleared, especially from the structures.

4. The function of the inlets and outlet should be checked to determine the cause of the low water level.



10-11 AM 78°

6-24-13 Over Cast

17700	N 2355206.94	17701	N 2353541.51
	E 2547772.17		E 2548164.13
	EL 648.90		EL 637.18

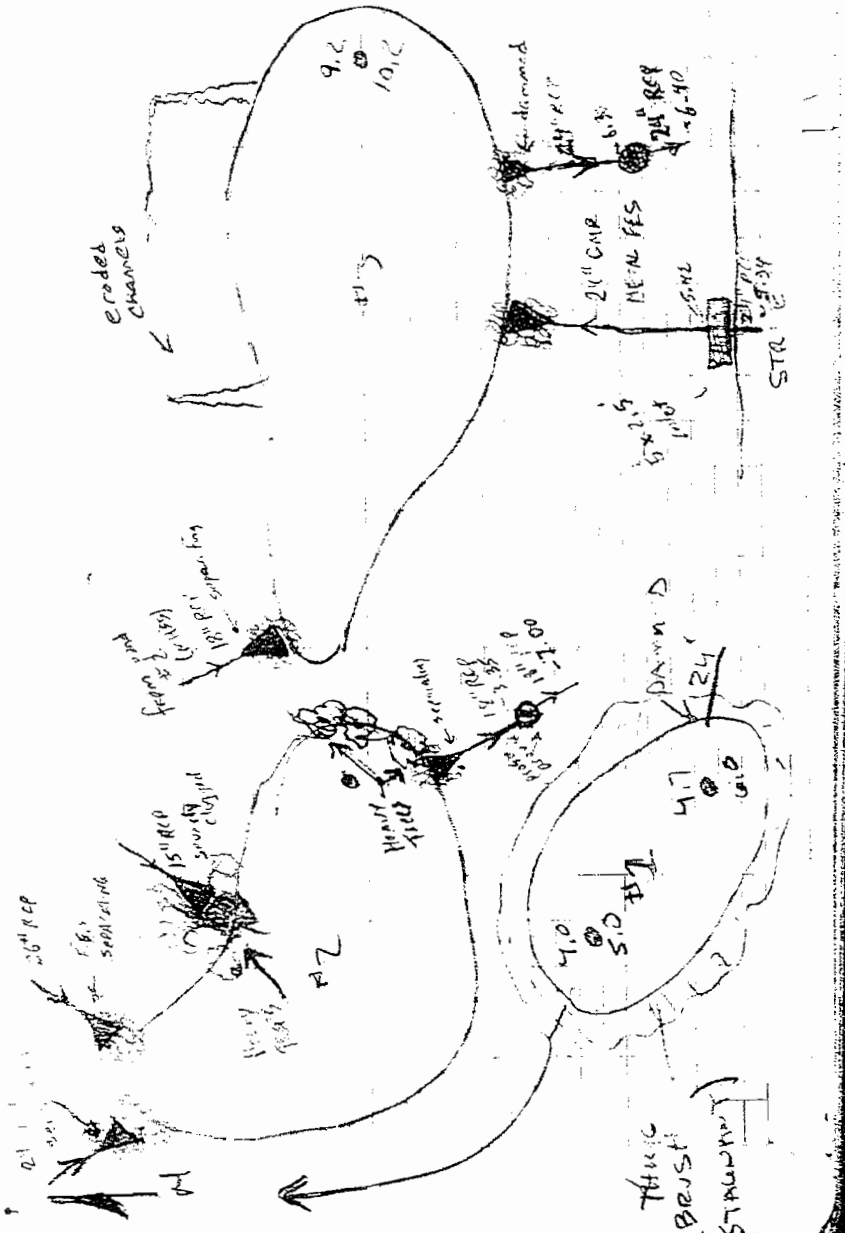
CONTROL PTS - 33000 PT 1 N 235415.408 E 2547551.915 ELE 643.236
PT 2 33,001 235251.550 2548064.859 641.755

6-2-13

35,000 →

59 — 9.2, 10.2
11.2, —
13.4, 14.3
9.1, 10.4
10.2, 10.6
10.8, 11.4
10, 10.4
10.9, 10

★ CONTINUED ON PG. 113



12-9-2017
12-6-2013 BRB/JN PARTLY SUNNY, 1°

HUNTERS RIDGE

TOPO – OC #1, HI = 5.51', BS #2, HR 5.5

START # 276 (35,276) END # 478 (35,478)

✓280 – ESC24

✓290 – * SHOT ON (N) EDGE, MIDDLE OF GR =

✓291 – ESM24

✓325 – ⊗

✓330 – ⊗

~~332~~

✓332 – HR = 5.20, 5.20

✓349 – TB3 !

✓01619 – ⊗

403 shot at where top of pipe [illegible] on bottom of FES (invert elev.)

~~HUB~~ 432 ESC24

444 EW3 !

443 TOE3 !

465 TB4

476 TOE4 !

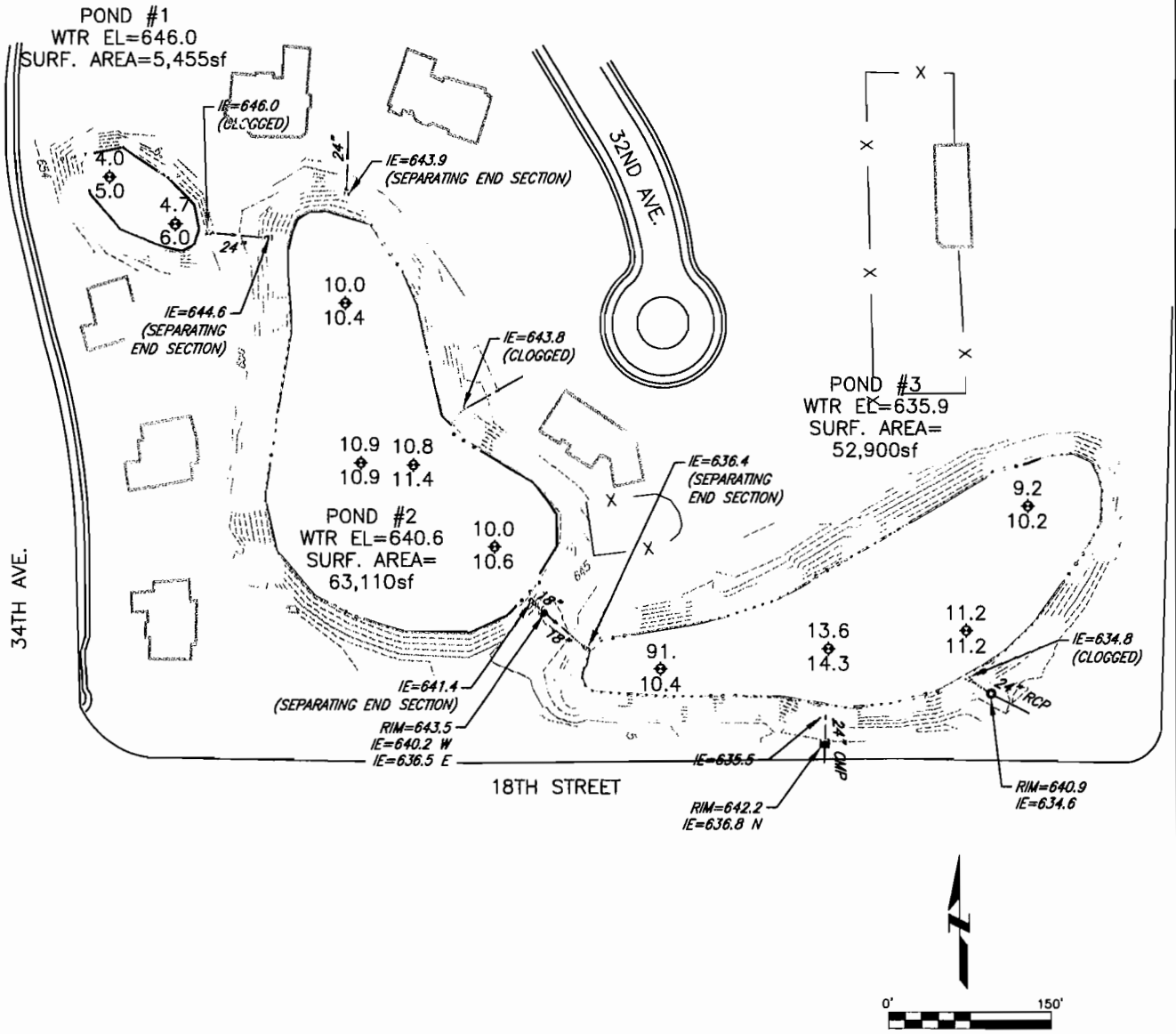
HUNTERS RIDGE

WATER ELEV.= SEE PLAN

DEPTHS BELOW WATER

3.5 (TOP SEDIMENT)
4.4 (BOTTOM)

WATER SURFACE AREA = SEE PLAN



DEC./2013

Clark Dietz
ENGINEERS

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

K0300080

Ponds Owned and Maintained
By Private Owner
Woodman's Basin B

Clark Dietz
ENGINEERS

July 11, 2013

Measurement Results for Woodmans Basin B Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1995	4	4.8 – 5.4	2018

Notes

1. The designed water depth of the pond is 4 feet; the design plans are not clear. The measured water depth in June of 2013 varied between 4.8 and 5.4 feet.
2. The inlet and outlet pipes were inspected and were found to be in good structural condition.
3. Sediment build-up varied between 0.4 and 1.1 feet.
4. Vegetation has grown up around the outlets and certain other areas of the pond.
5. The water level was high, indicating that the outlet might be plugged.
6. The water was cloudy, likely due to the nearby construction.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.
2. The vegetation should be cleared, especially around the outlets.
3. The outlet structure should be cleaned to remove a possible blockage.
4. Perform routine mowing, maintenance, and clean-up at the pond.

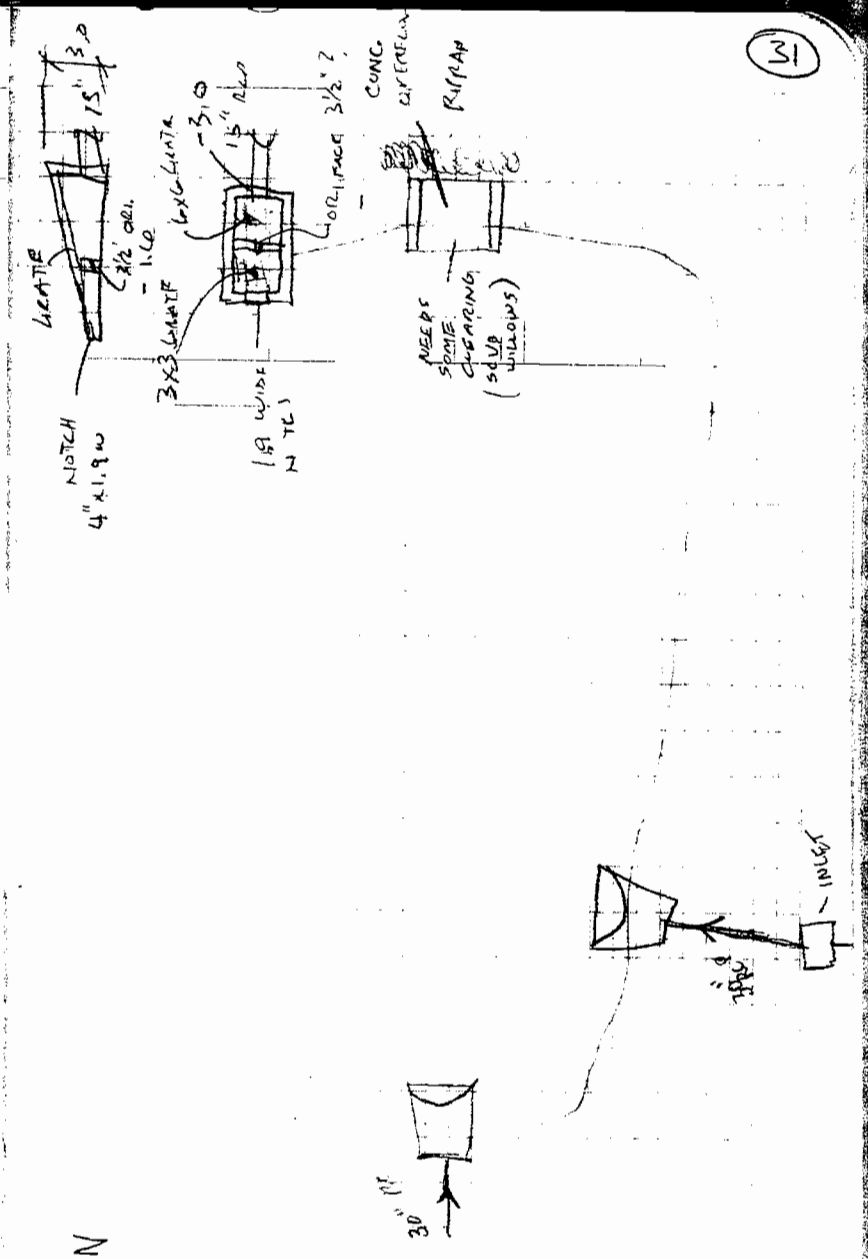
3-28-3

SUNNY 4

WOODMAN'S DASIN "B"

START @ # 7600

* LIGHT MAINTENANCE
* CLEAN OUT OUTLET
* TRIM WINDOW SCRUB



1-27-1

7181	5.4, 6.5	* WE LIGHT (ark - PLUGGED?)
82	5.0, 5.6	
83	5.3, 5.7	* CHANGE WE TO NEW CONCRETE MINOR B1/
7184	.8, 5.7	

WE BL = 6816.3

WOODMANS – BASIN B

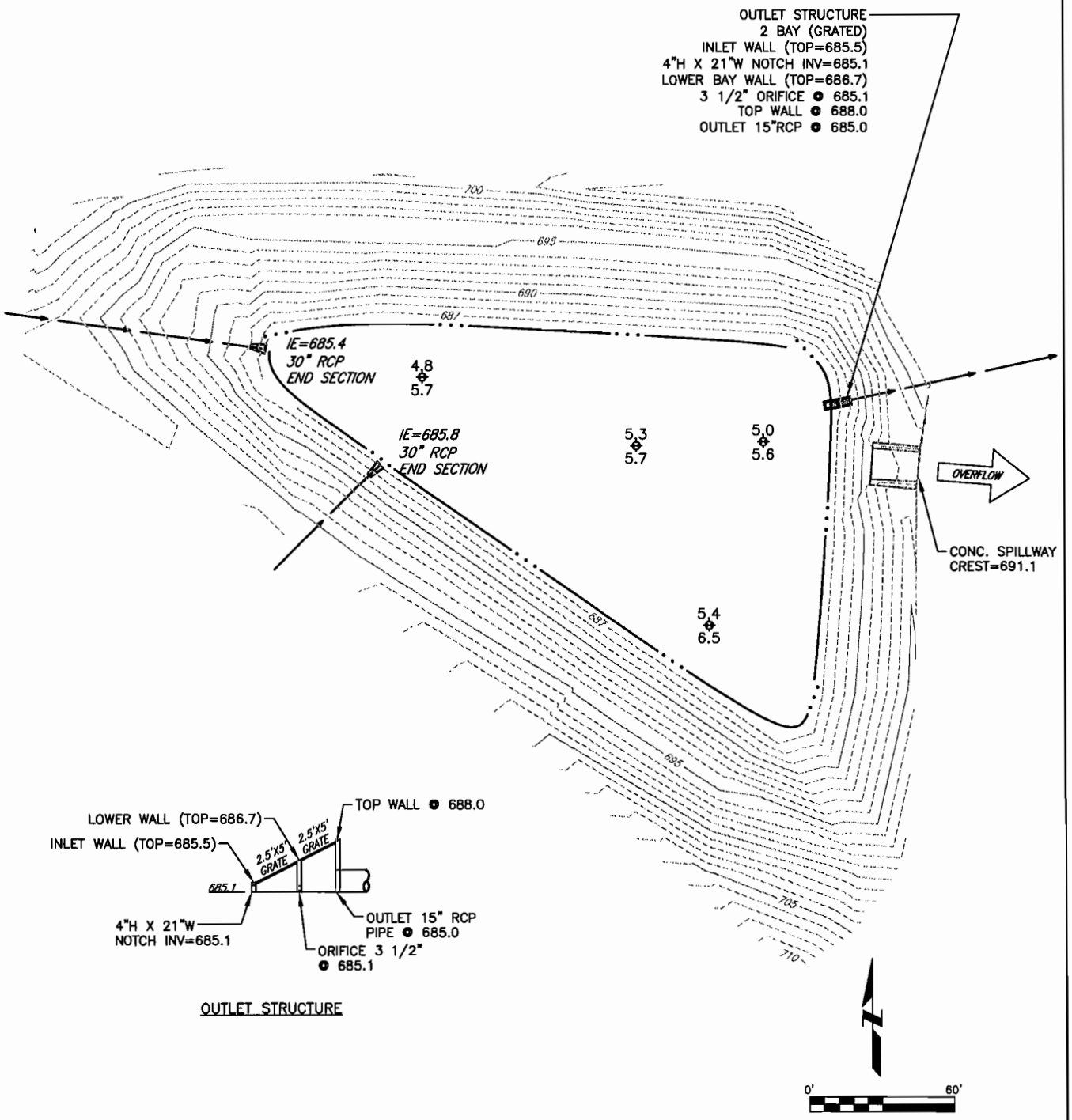
WATER ELEV.=686.3

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)

0.0 (BOTTOM)

WATER SURFACE AREA = 22,820 SF



OUTLET STRUCTURE

APR./2013

Clark Dietz ENGINEERS

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
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FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Woodmans Basin A

Clark Dietz
ENGINEERS

July 11, 2013

Measurement Results for Woodmans Basin A Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1995	4	4.8 – 5.9	2018

Notes

1. The designed water depth of the pond is approximately 4 feet; the design plans are not clear. The measured water depth in Spring of 2013 varied between 4.8 and 5.9 feet.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition.

3. Sediment build-up varied between 0 and 0.8 feet.

4. The outlet was plugged with dirt and vegetation.

5. There is moderate willow and cattails growth around the majority of the pond, including the inlet and outlet structures.

6. The pond contains muskrats and showed signs of past beaver activity.

7. Trash is scattered all around the pond area.

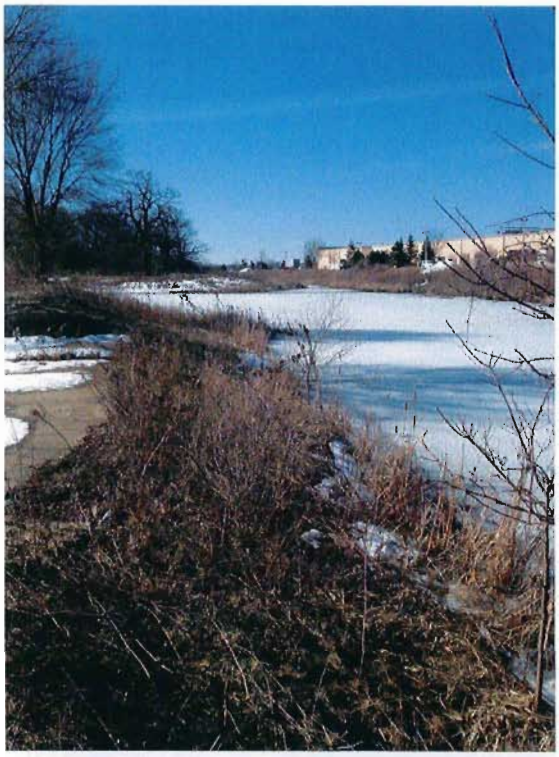
RECOMMENDATIONS

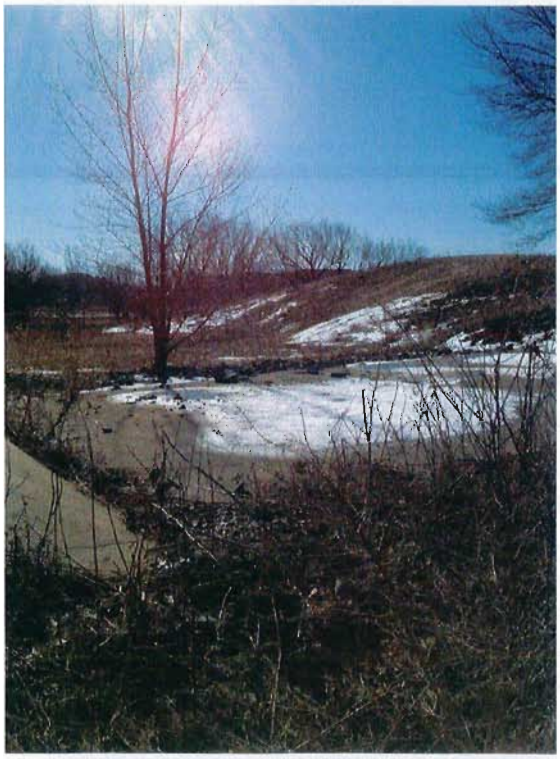
1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

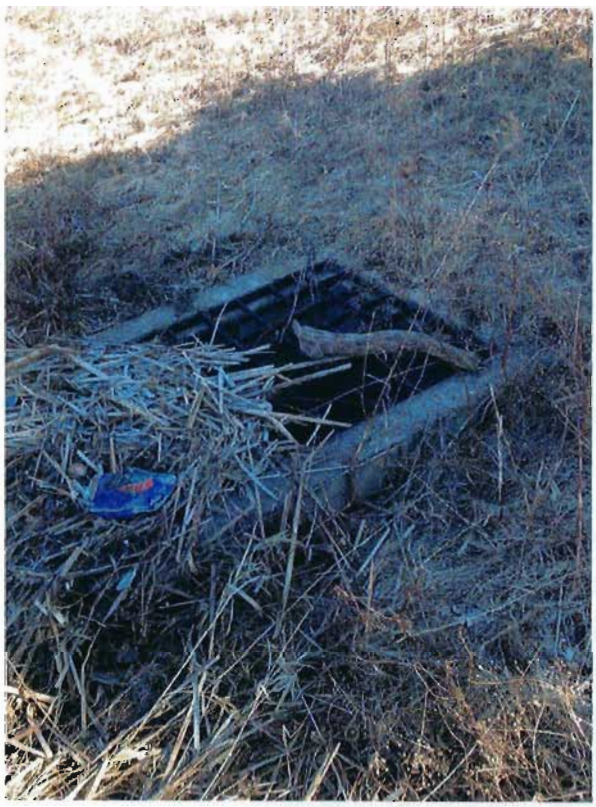
2. The pond should be dredged at the south end and near the outlet structures.

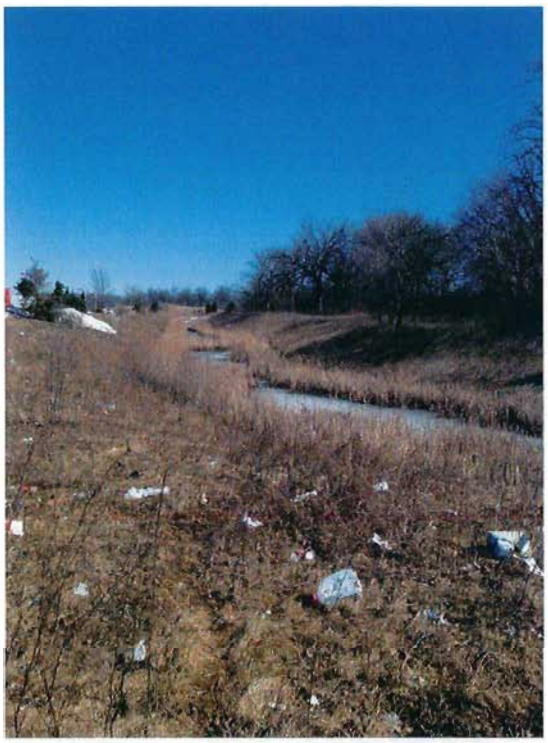
3. The vegetation should be cleared, especially around the structures.

4. Routine mowing and clean-up should be performed.









-28-1 SUNNY 35°

AT, B.B

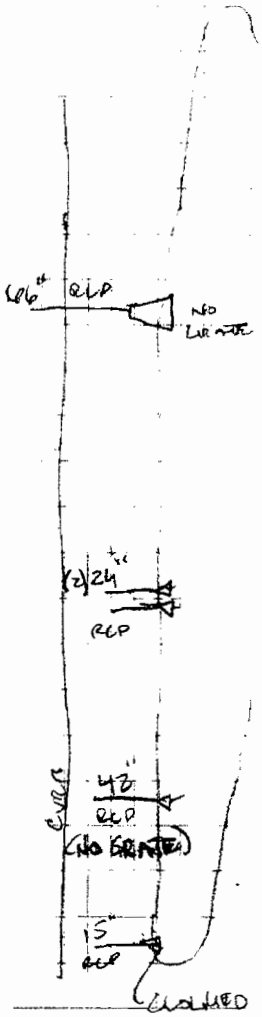
WOODMANS BASIN A

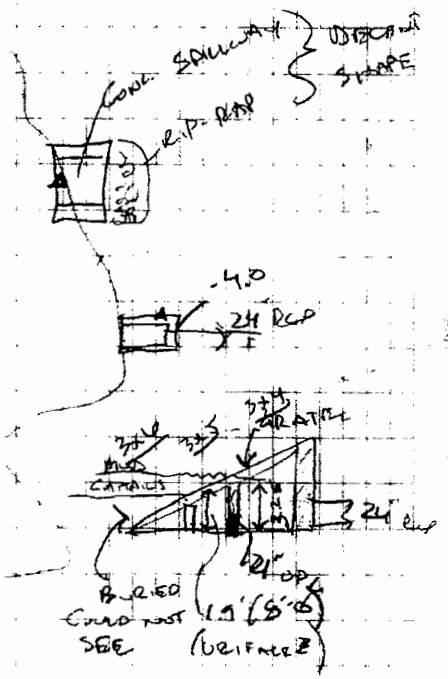
START @ ± 6900

		#	DEPTHS
DC #706²	N 215234.36	7175	-5.6, 6.0
	E 2521851.45	-76	5.9, 6.7
	EL 690.41	-77	5.6, -
		-78	4.8, 5.3
DC #708¹	N 215013.57	-79	5.7, 6.0
	E 2521867.83	7180	5.5, 6.0
	EL 688.25	7/WTR	+2.0 66" RCP

BASE (5.25)

* WTR EL WAS ± 2' ABOVE NML DUE TO OUTLET PLUGGING W/CATTAILS, MUCK
* DREDGING IN So. "CHANNEL"
* NEED DREDGING @ OUTLET STRUCT.
* NEED DEPTHS
* NEED ORIFACE SIZE INV.
* ~~NEED BAT BOXES~~
* NEED MOWING MAINTENANCE
* BRUSH PILES





- MODERATE CATTAILS & WILLOW BRUSH
- MUSKRATS
- OLD SIGNS OF BEAVER

WOODMANS BASIN A

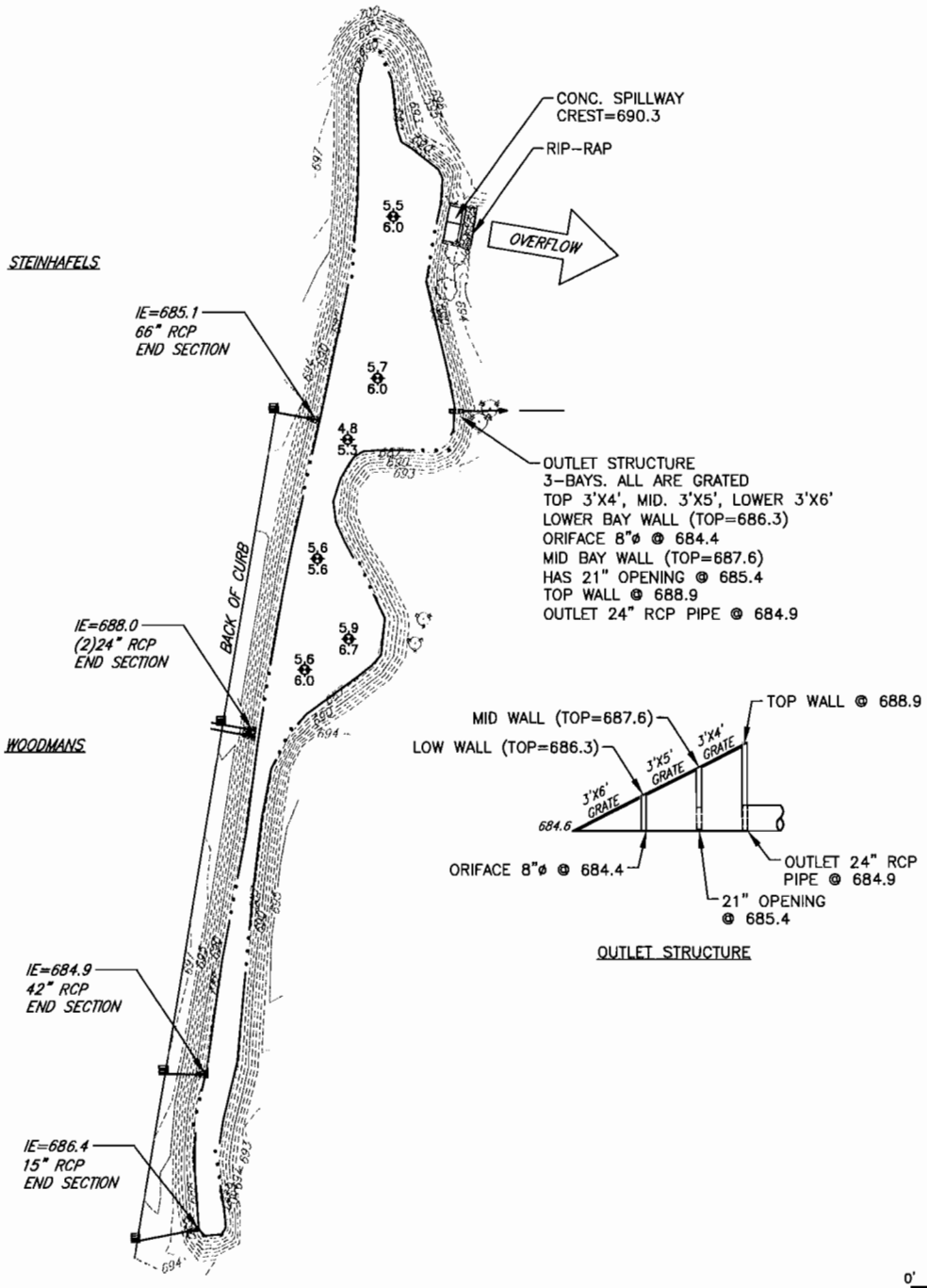
WATER ELEV.
687.1

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

1.0
2.5

WATER SURFACE AREA = 84,521 SF



OUTLET STRUCTURE

APR./2013

K0300080

Clark Dietz ENGINEERS

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Indian Trail Estates-YMCA

Clark Dietz
ENGINEERS

July 11, 2013

Measurement Results for Indian Trail Estates/YMCA Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2001	4′ – 8′	4.2 – 6.7	2018

Notes

1. The designed water depth of the pond is 4 feet at the east end and 8 feet at the west end. The measured water depth in July of 2013 varied between 4.2 and 6.7 feet. We conclude that sediment is starting to build up in this pond.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition. Some rip-rap areas have been washed out.

3. Sediment build-up varied between 0.6 and 1.2 feet.

4. There is thick vegetation growing around the perimeter of the pond, including in the rip-rap areas near the inlet and outlet structures.

5. Pond scum covered the entire pond during the July inspection.

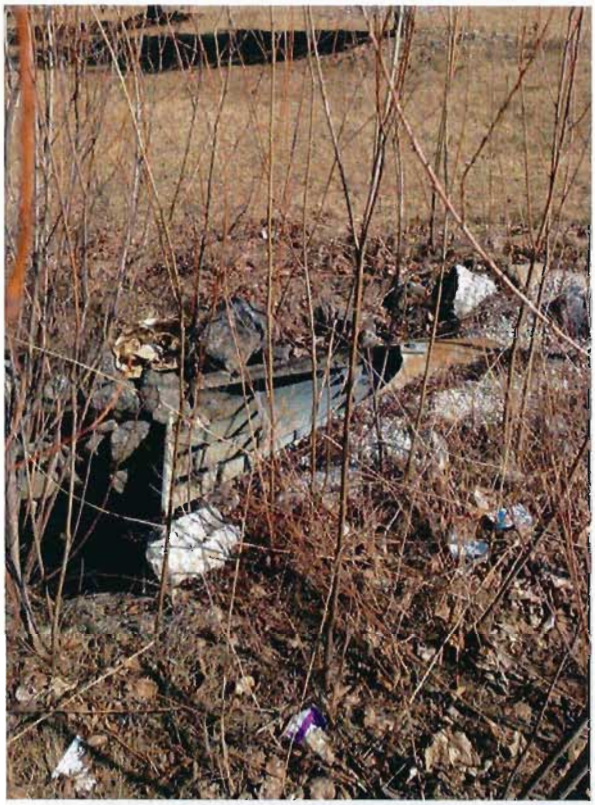
RECOMMENDATIONS

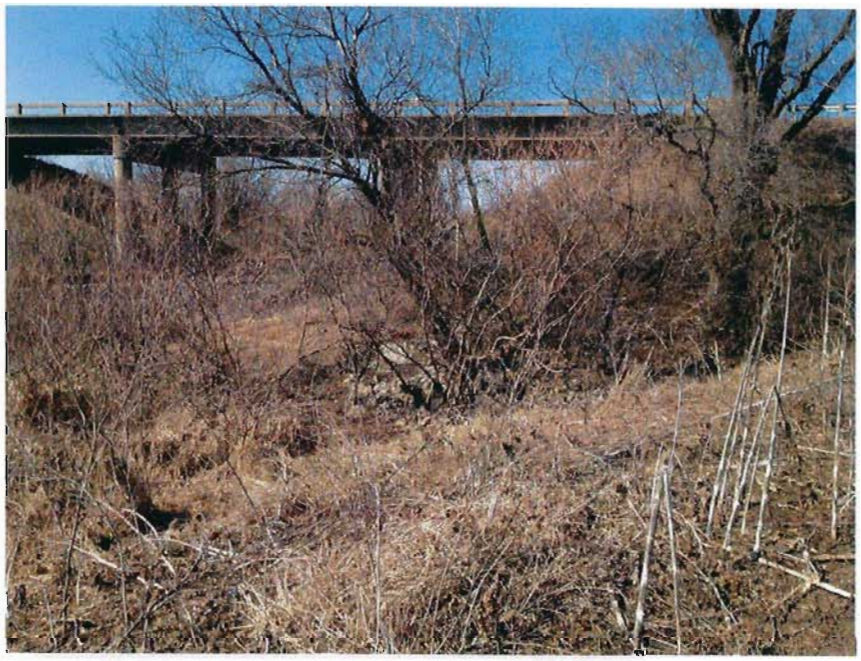
1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The vegetation within and surrounding the inlet and outlet structures should be cleared.

3. When mowing, leave a grassy strip around the perimeter of the pond to deter geese and improve safety.

4. The washed-out rip-rap areas should be repaired.





4-4-13 SUNNY 50°

AT, BB

YMCA

START C 11400 END 11626 %

ROBOT ADD +/- 200

PK# 11400 N 221340.12

E 253087.33

EL 686.15

11400 N 221320.91

E 253243.43

EL 686.50

LOG OBL, 109- INV

HR LAD ± 115 EWL TO 1140 SHOULD BE 7.0

CHECK Y E/W ELEV'S.

7-1-13 (T/WTR)

11,630 - 4.2, 5.1

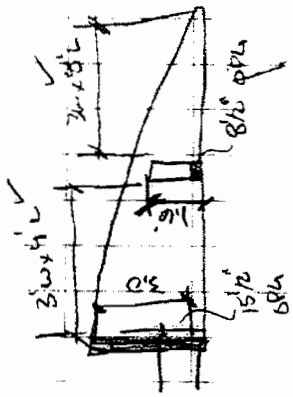
1 - 4.2, 5.0

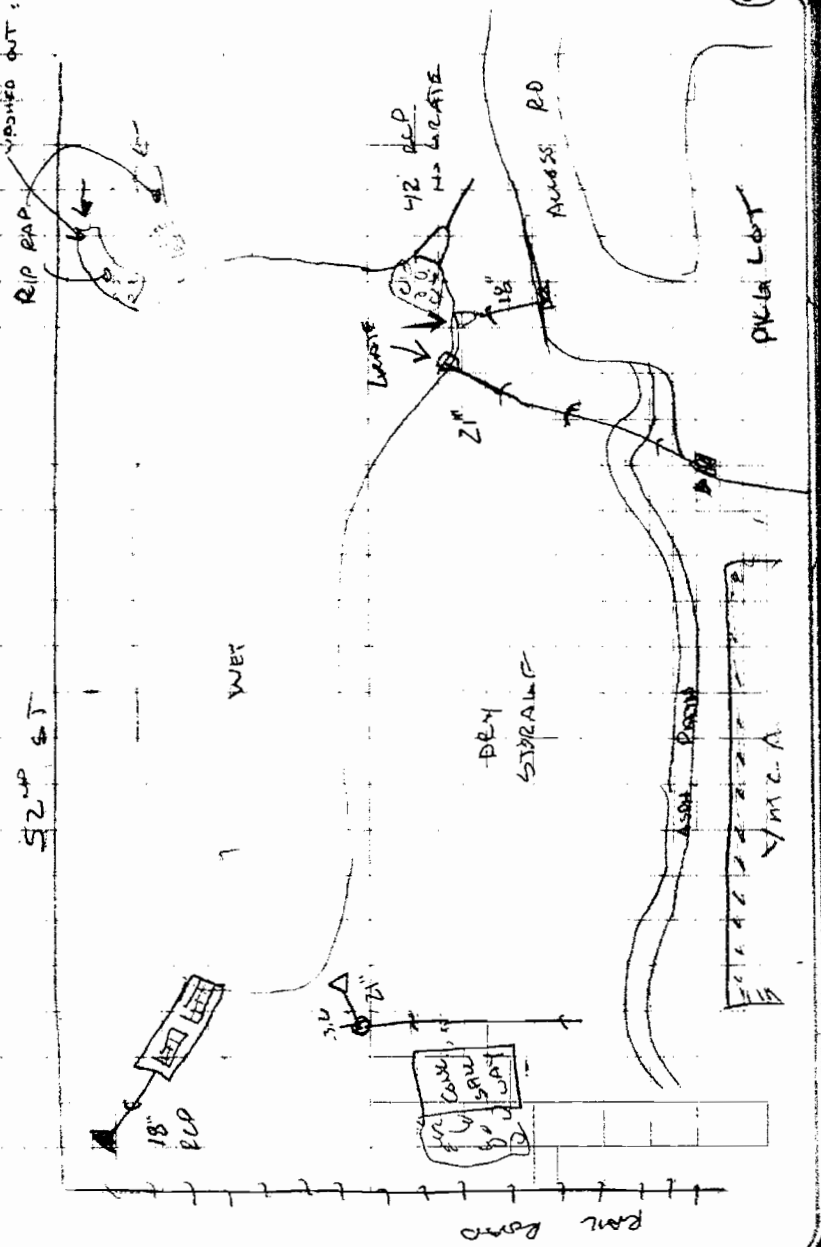
2 - 5.6, 6.2

11633 - 6.7, 7.9

CLEAR WTR (POND SCUM ENTITLE)

- NEEDS BRUSHING ALMOST ENTIRE PERIMETER
- CLEARING AROUND OUTLET
- NON-MOWED EDGES





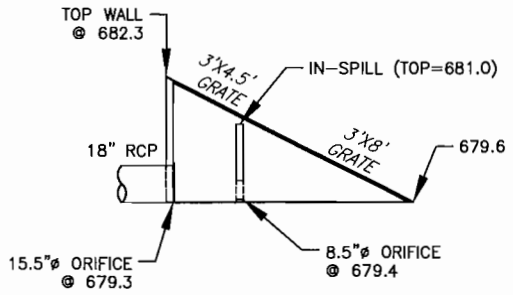
INDIAN TRAILS – YMCA

WATER ELEV.
679.6

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

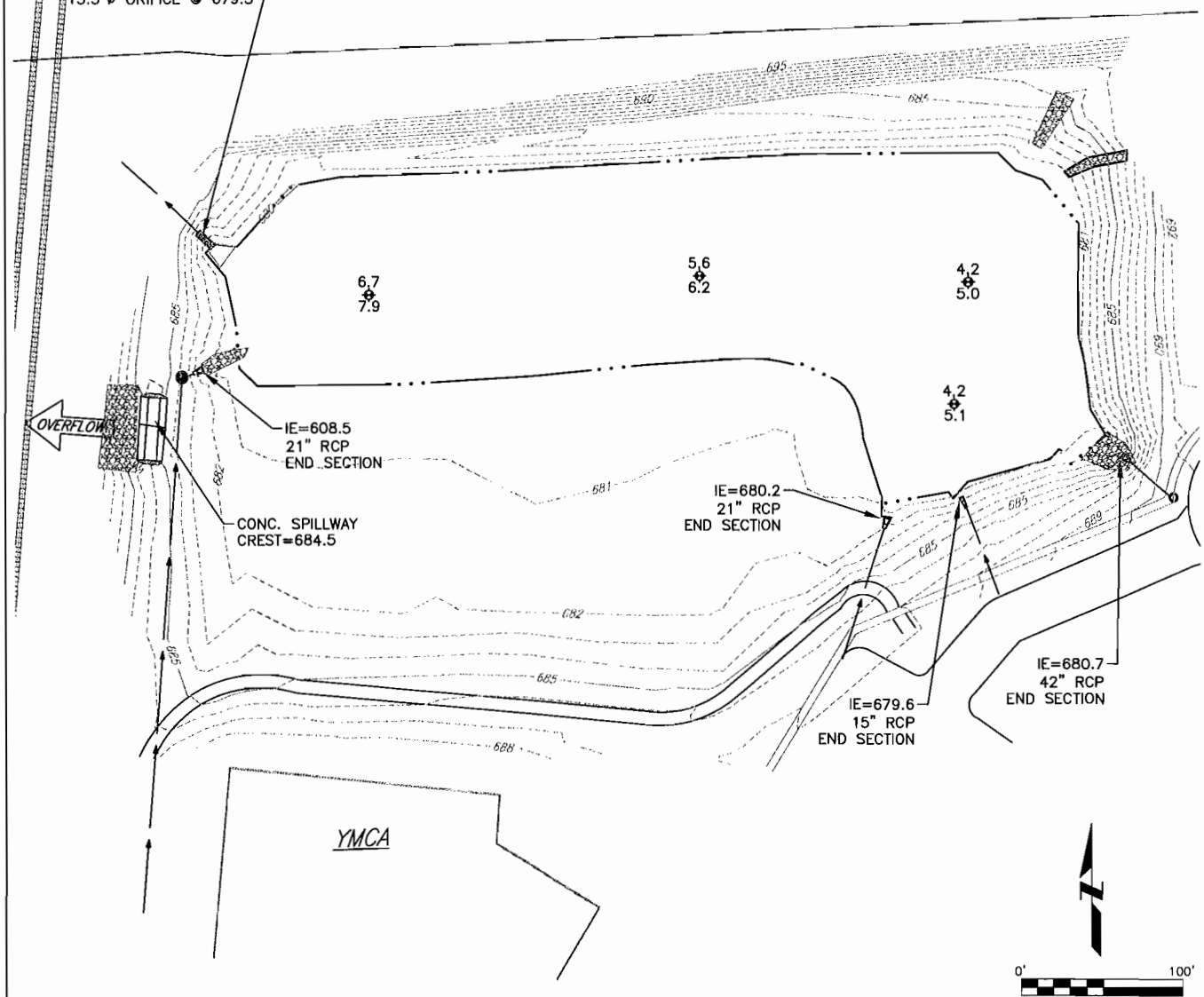
WATER SURFACE AREA = 34,334 SF



OUTLET STRUCTURE

OUTLET STRUCTURE
2.5'X5.5' INV. @ 679.6
8.5"ø ORIFICE @ 679.4
IN-SPILL WALL (TOP=681.0)
TOP WALL @ 682.3
OUTLET PIPE = 18" RCP
15.5"ø ORIFICE @ 679.3

52ND ST



Clark Dietz ENGINEERS

FEB./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Leona' s Rolling Meadows
Subdivision C1

Clark Dietz
ENGINEERS

September 18, 2013

Measurement Results for Leona's Rolling Meadows Subdivision C1 Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2003	6	4.5 – 6.0	2018

Notes

1. The designed water depth of the pond is 6 feet. The measured water depth in July of 2013 varied between 4.5 and 6.0 feet. We conclude that the pond was over-excavated at the time of construction but is now filling with sediment.

2. The inlet bells have some small chips. The outlet structure is in good condition.

3. Sediment build-up averages about 0.7 feet.

4. The whole pond perimeter is mowed. The rip-rap areas have a small amount of vegetation growing in them but are in good condition.

5. There is a growth of cattails in one end of the pond.

RECOMMENDATIONS

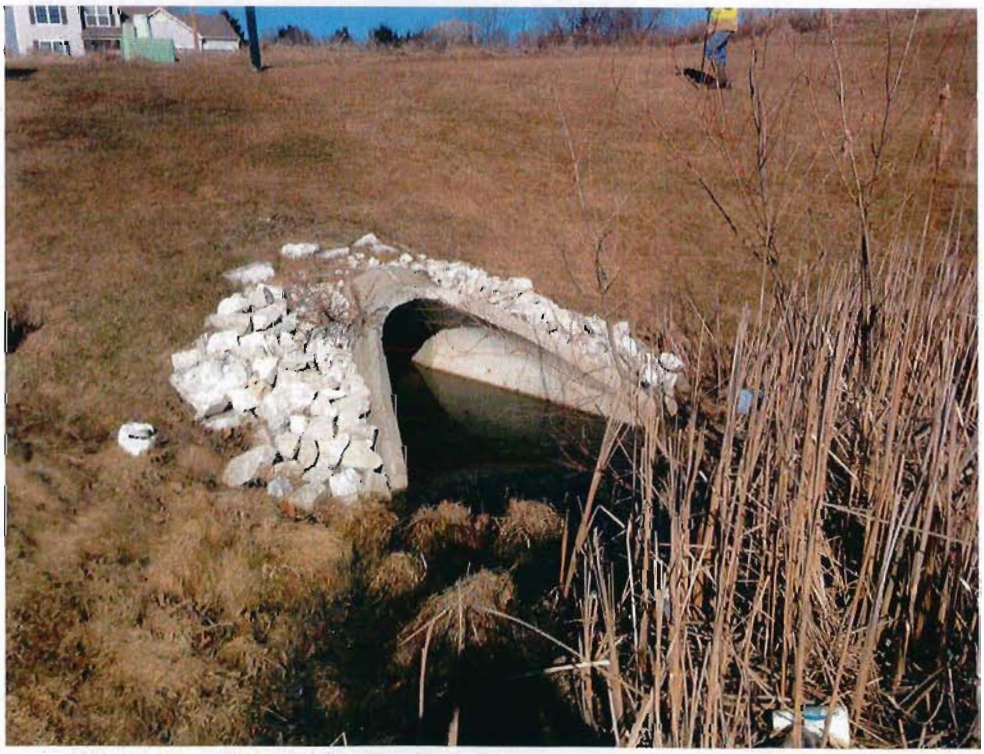
1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

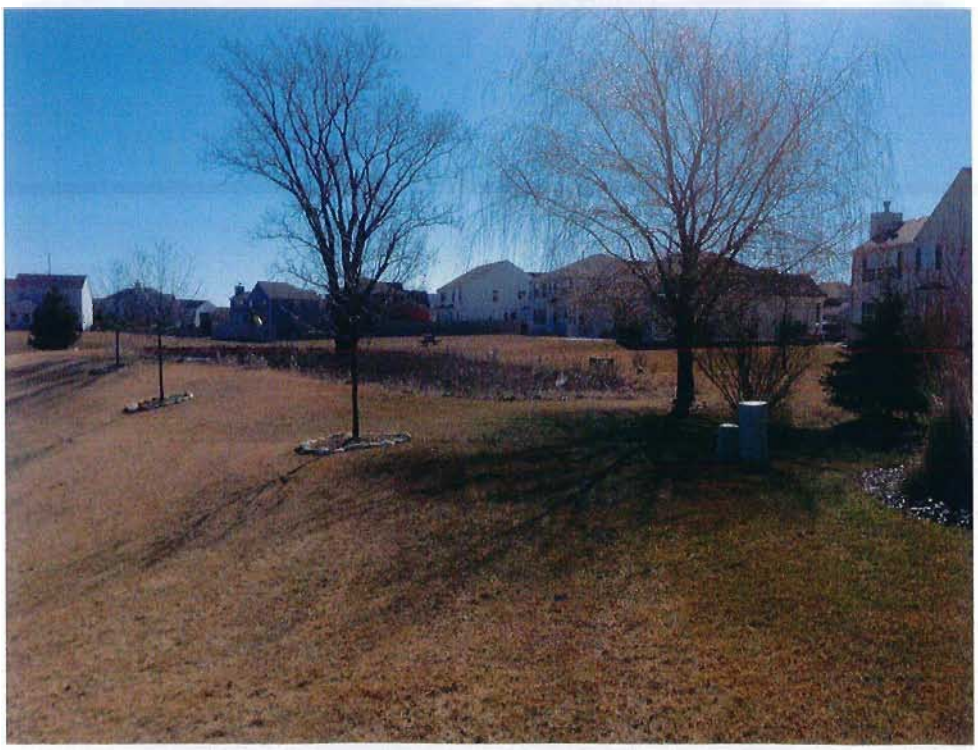
2. Rip-rap should be kept free of vegetation.

3. The cattails should be cleared if they continue to extend into the pond.

4. A narrow strip around the pond should be left un-mowed to deter geese.

5. The pond should be dredged and restored to its design depth.





4-2-13 SUNNY 35°
AT, BB

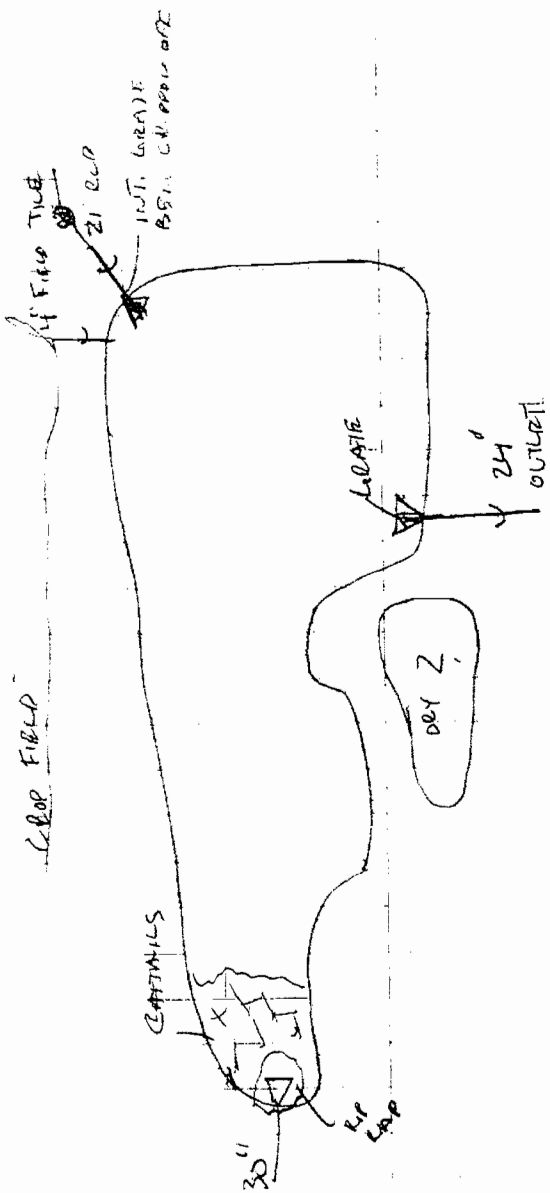
LEONARDS MEADOWS BASIN #C1

9290 END 9319

* DEPTHS

MAINTENANCE
- SMALL AREA CATTAILS
- BRUSH CHIPPED ON N. 21' F.E.S.

7-1-13
9320 - 5.8, 6.4
6.2, 6.7
4.7, 5.4
9323 5.8, 6.5
4.5, 4.7 } WARM RC



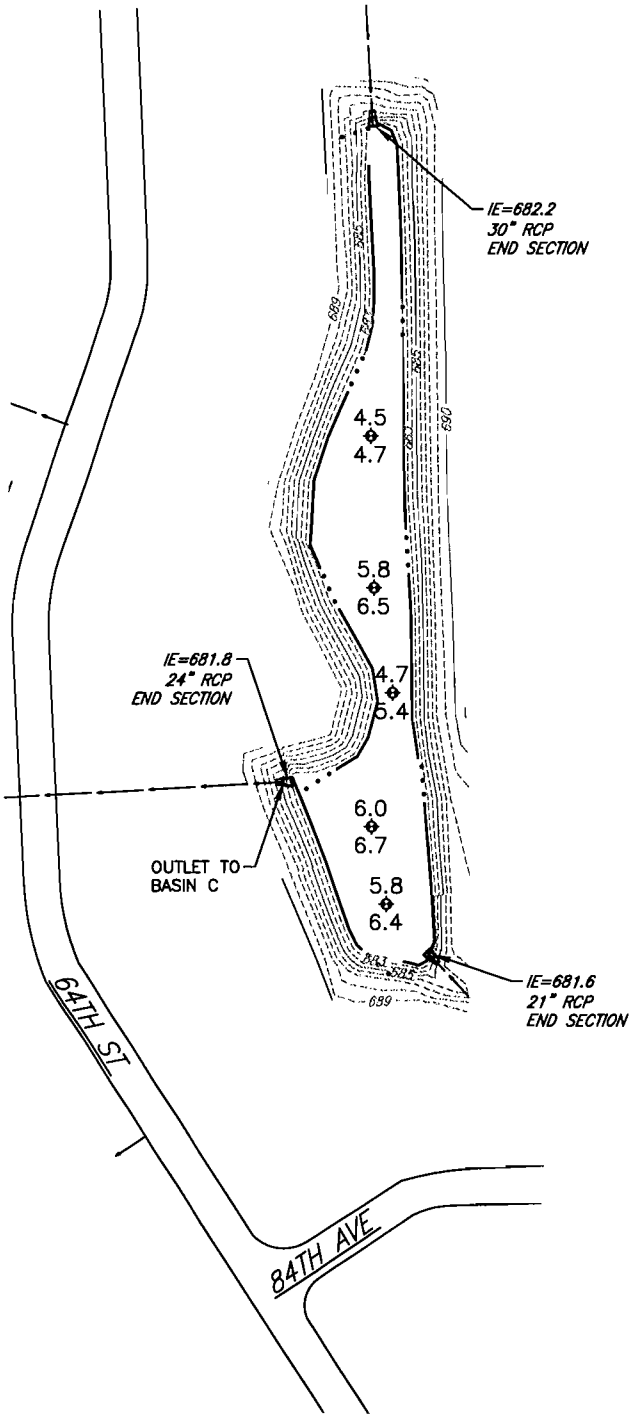
LEONAS ROLLING MEADOWS – BASIN C1

WATER ELEV.= 682.0

DEPTHS BELOW WATER

5.4 (TOP SEDIMENT)
6.0 (BOTTOM)

WATER SURFACE AREA = 35,933 SF



FEB./2013

Clark Dietz ENGINEERS

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Leonas Rolling Meadows
Subdivision C

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for Leona's Rolling Meadows Subdivision C Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2003	7	4.1 – 7.8	2018

Notes

1. The designed water depth of the pond is 7 feet. The measured water depth in April of 2013 varied between 4.1 and 7.8 feet. The pond was likely over-excavated at the time of construction but is now starting to fill up with sediment.

2. Pond scum was blocking the outlet grate.

3. Sediment build-up varied between 0.1 and 0.9 feet.

4. The entire pond perimeter area has been mowed to the water's edge.

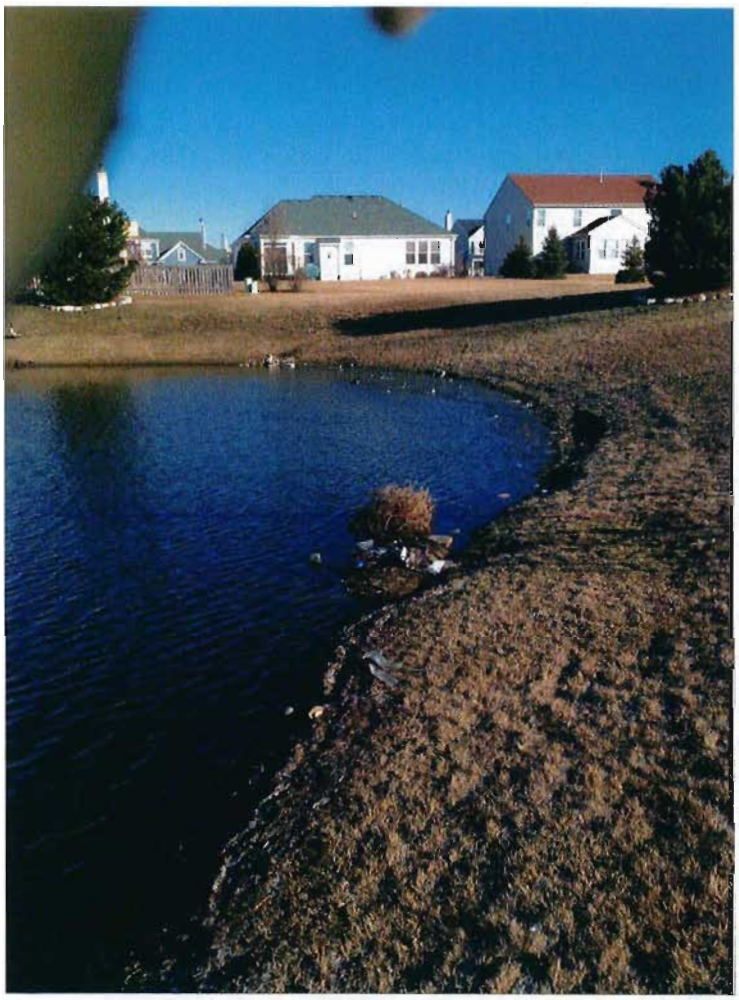
RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The outlet grate should be cleaned periodically.

3. A strip of grass should be left around the edge of the pond to improve safety and help to prevent geese.

4. Perform dredging at the pond and excavate to the design depth.

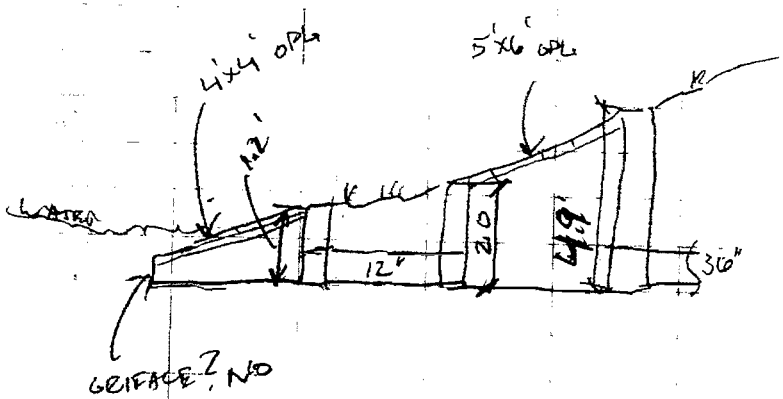


4-2-13 SUMMY 35°
AT, BB

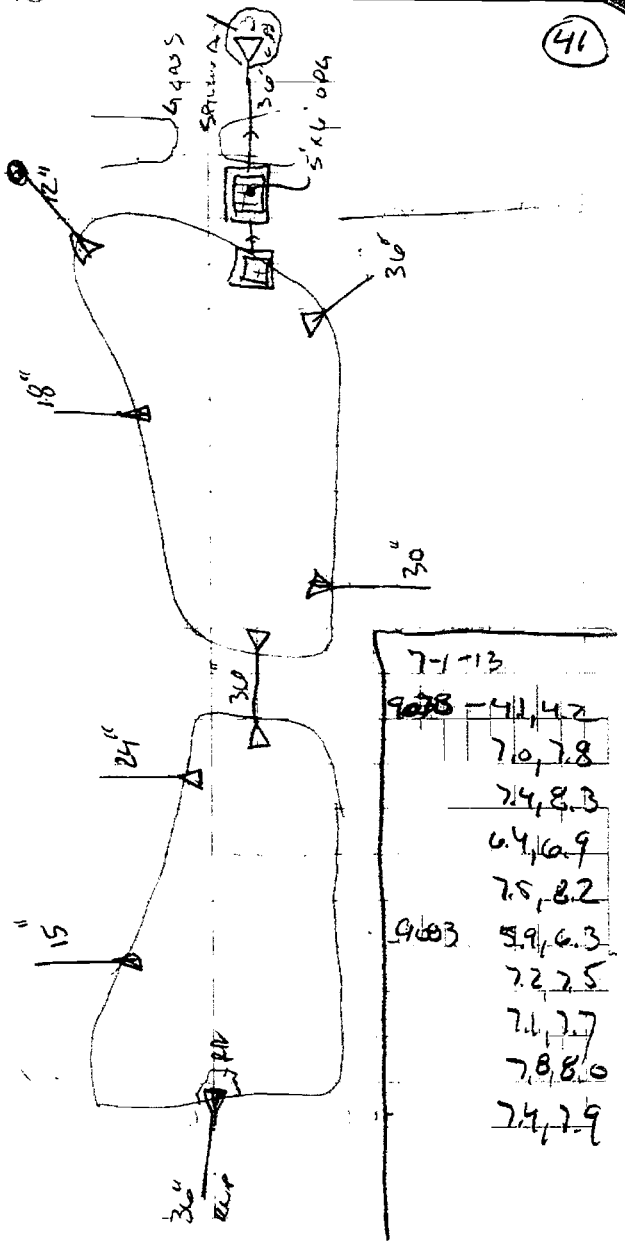
LEDUA'S BOULDER MEADOWS
BASIN "C"

START # 0800

* LIGHT GRATE CLEANING PERIODICALLY
* POND SCUM BLOCKING GRATE
- E/W DEPTHS
- ORIFACE?



* RIVER OTTER SIGNS 07-1-13
TRACKS IN MARSH ON ICE



7-1-13

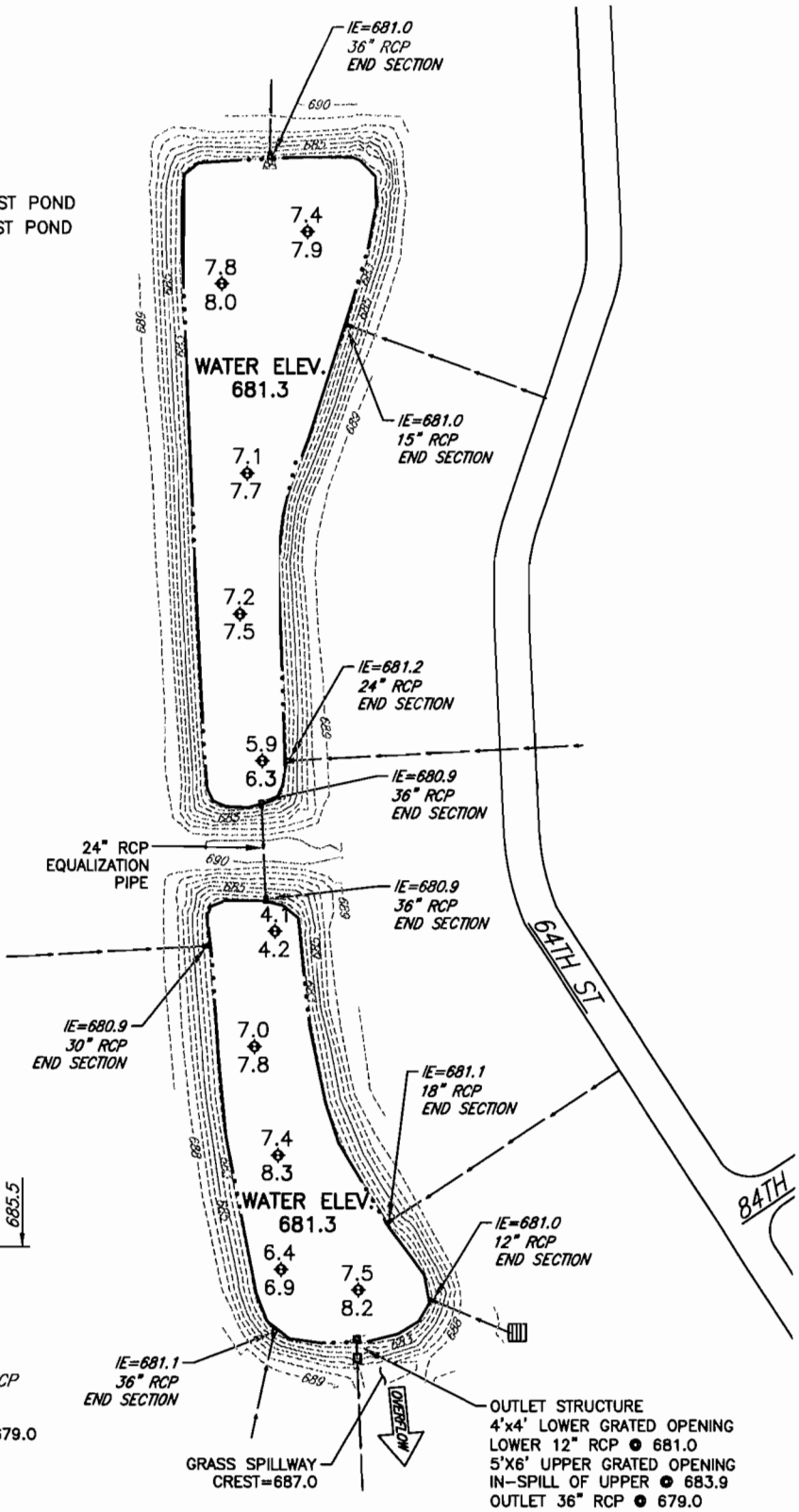
9038	11,42
	7.0, 7.8
	7.4, 8.3
	6.4, 6.9
	7.5, 8.2
9003	5.9, 6.3
	7.2, 7.5
	7.1, 7.7
	7.8, 8.0
	7.4, 7.9

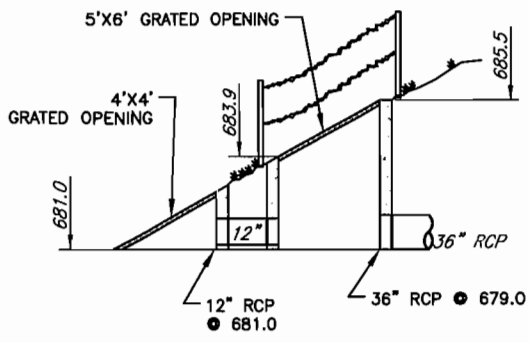
LEONAS ROLLING MEADOWS – BASIN C

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 58,400 SF – WEST POND
WATER SURFACE AREA = 38,773 SF – EAST POND





OUTLET STRUCTURE

0' 150'

FEB./2013

Clark Dietz ENGINEERS
K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
KM Property Owners
South Port Plaza B

Clark Dietz
ENGINEERS

July 16, 2013

Measurement Results for South Port Plaza Basin B – West Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1993	N/A	1.5 – 3.9	2018

Notes

1. The designed water depth of the pond is unknown; the plans show that the outlet elevation is the same as the pond bottom. The pond holds water, so this is not accurate. The measured water depth in July of 2013 varied between 1.5 and 3.9 feet.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition. The lower outlet chamber was full of mud, indicating that the lower orifice might be blocked.

3. Sediment build-up ranged between 0.5 and 2.4 feet.

4. The entire pond perimeter is mowed.

RECOMMENDATIONS

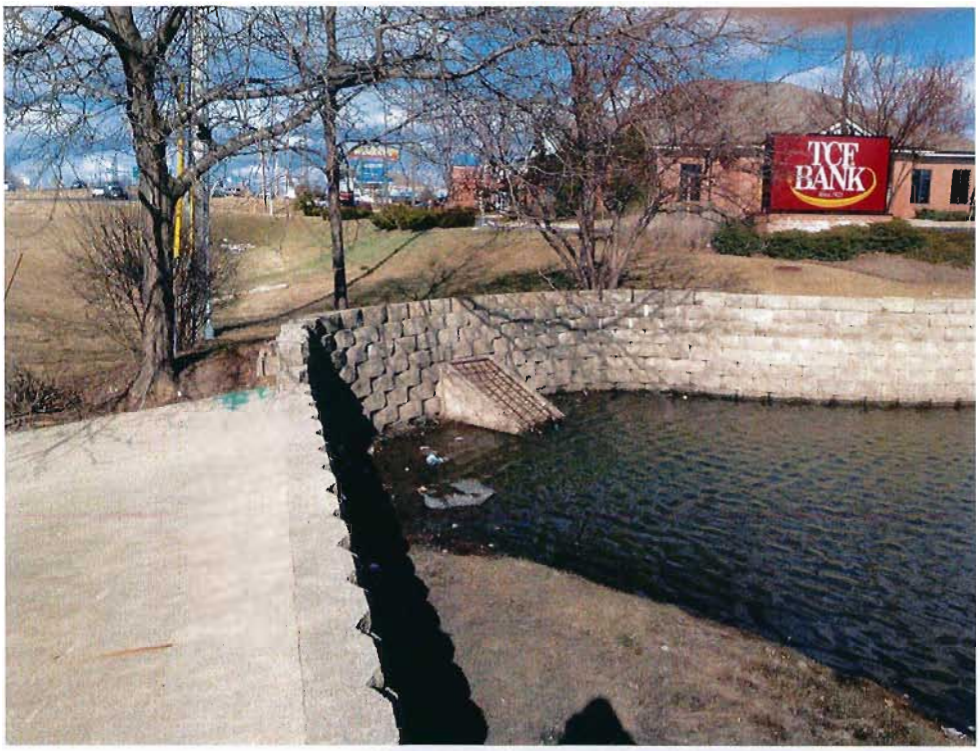
1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

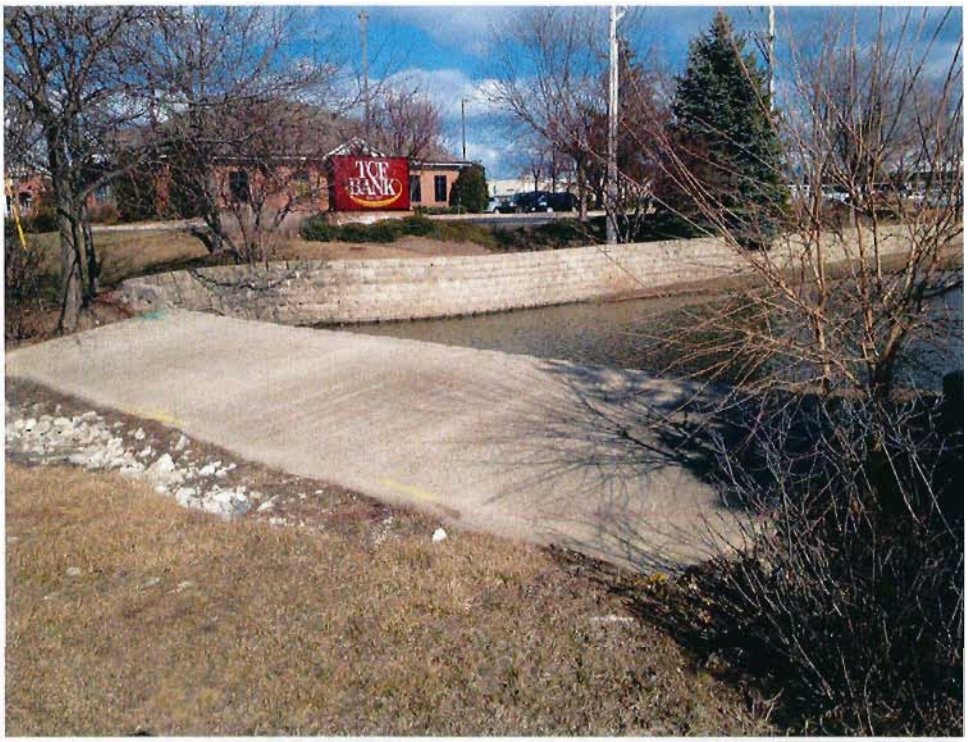
2. Further investigations are needed to determine the design depth.

3. Sediment is deep in some areas and dredging may be necessary.

4. The outlet structure should be cleaned and inspected for obstructions.

5. When mowing, leave a grassy strip around the edge of the pond to deter geese.


TCF
BANK


TCF
BANK

4-5-13 SUNNY 45°

AT, BB

SOUTHEAST PLAZA - WEST

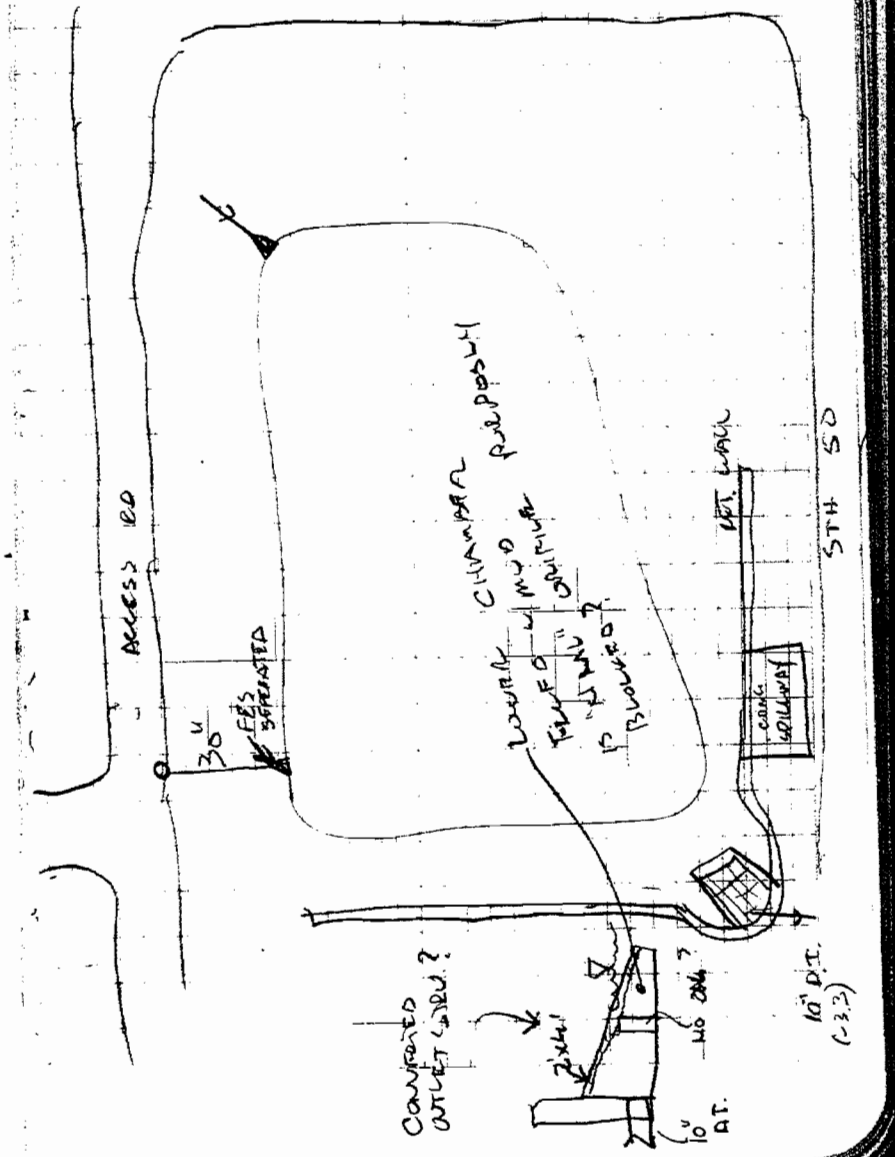
#12320 N 214049.18
E 2536600.62
EL 694.80

12321 N 214129.37
E 2536083.35
EL 694.39

OC #100 DS #101
HI 5.34 HE 4.5

3-2-13	T/W TL
30,002	17,2.4
3	15,2.0
4	3,4,5.1
5	3,9,6.3
39006	25,3.1

CURVE WTR



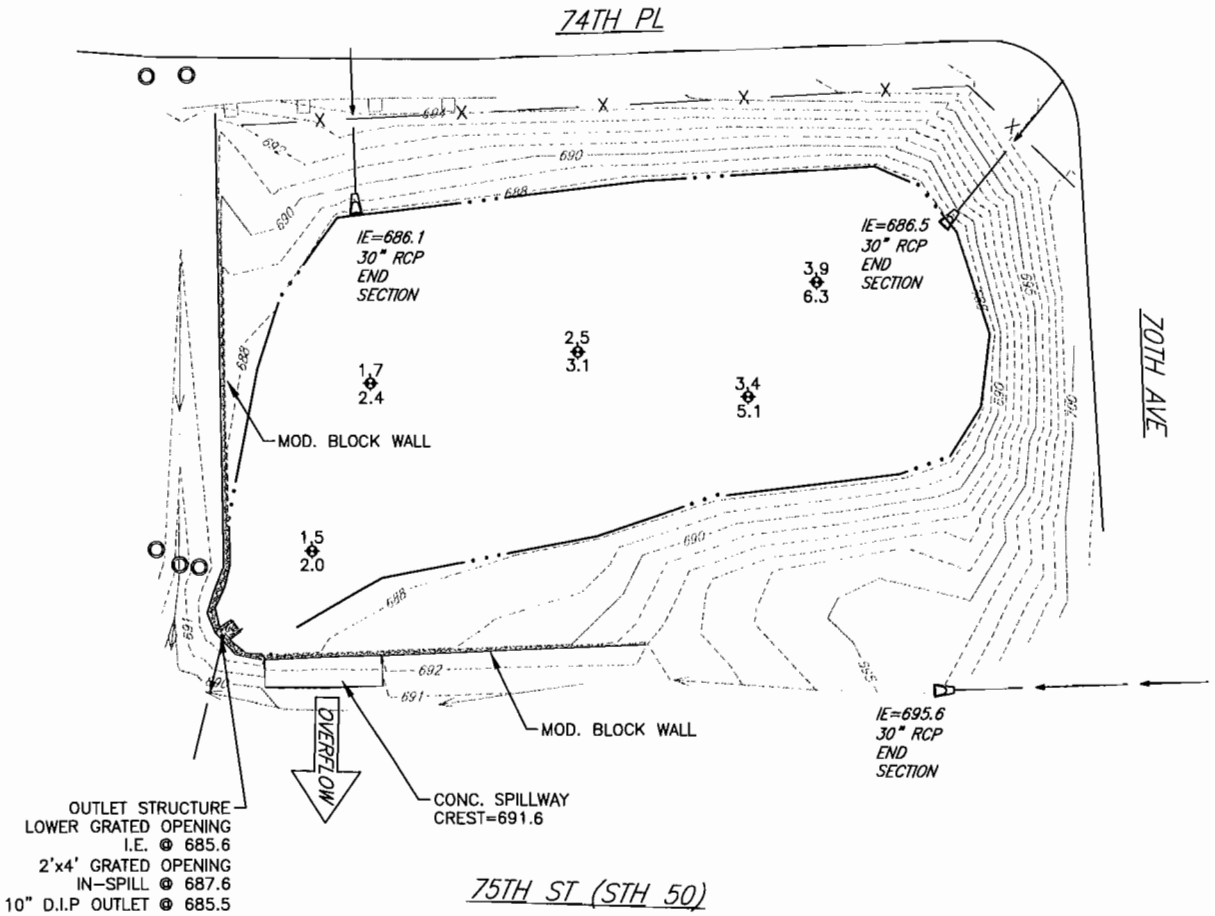
SOUTHPORT PLAZA BASIN B

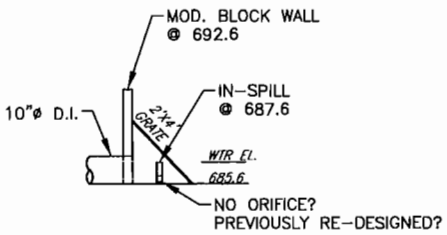
WATER ELEV.
687.6

DEPTHS BELOW WATER

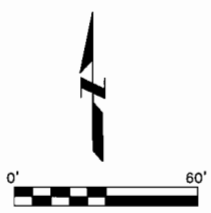
0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 11,682 SF





OUTLET STRUCTURE



Clark Dietz
ENGINEERS

MAY/2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Mahone

Clark Dietz
ENGINEERS

July 11, 2013

Measurement Results for Mahone Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2012 – Rehab	N/A	3.0 – 5.2	2018

Notes

1. The designed water depth of the pond is unknown; the pond rehabilitation plans do not show a bottom elevation. The measured water depth in July of 2013 varied between 3.0 and 5.2 feet.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition.

3. Sediment build-up ranged between 0 and 1.1 feet.

4. Weed growth is thick at the north end of the pond. Some rip-rap areas have vegetation growing in them. Vegetation has grown up around the majority of the pond perimeter, including near the inlets and outlets.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Tree and shrub clearing is necessary at the inlets and outlets.

3. Weeds at the north end of the pond should be cleared.

4. The pond area should be mowed and cleared regularly.

5. Further investigation is necessary to determine the design depth of the pond, and whether dredging may be needed.

4-2-2013 SUNNY, 40°

AT, BB

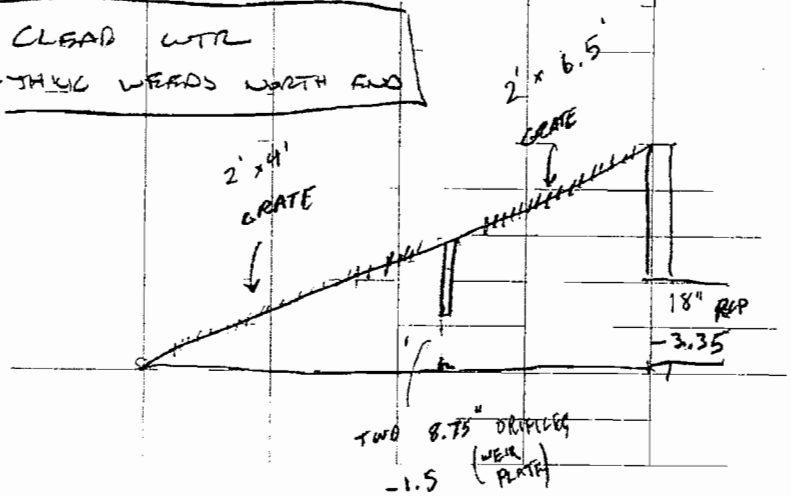
NAHONE - INDIAN TRAIL ACADEMY

START # 9900

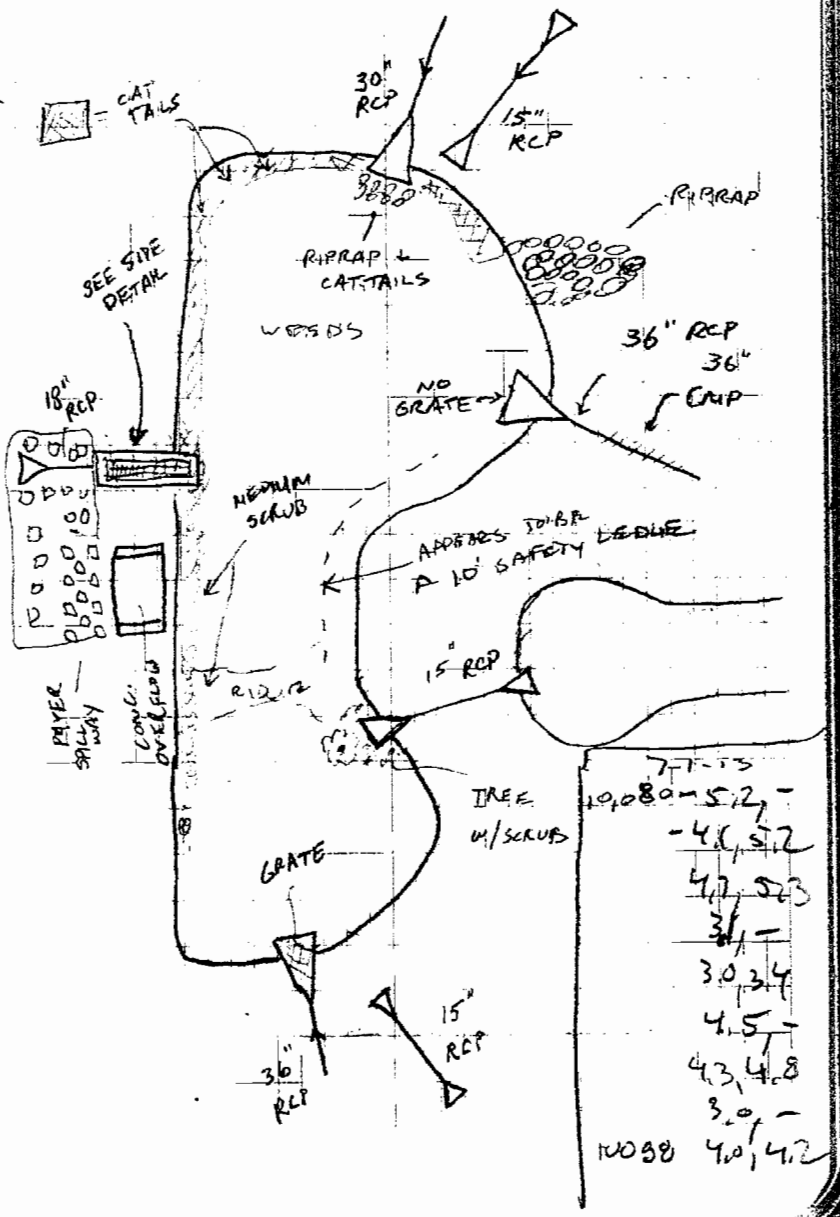
END # 10079

* NOW-MOWED EDGES
* NEEDS SOME TREE CLEARING @ EAST 15" F.E.S
* NEEDS LIGHT SCRUB CLEARING @ INTAKE AND CONC. OVERFLOW
* ~~NEED BOTTOM DEPTHS~~

* CLEAR WTR
- TALL WEEDS NORTH END



1N



7-7-13
10,080 - 5.2, -
- 4.6, 5.2
4.7, 5.3
3.1 -
3.0, 3.4
4.5 -
4.3, 4.8
3.0 -
INV 98 4.0, 4.2

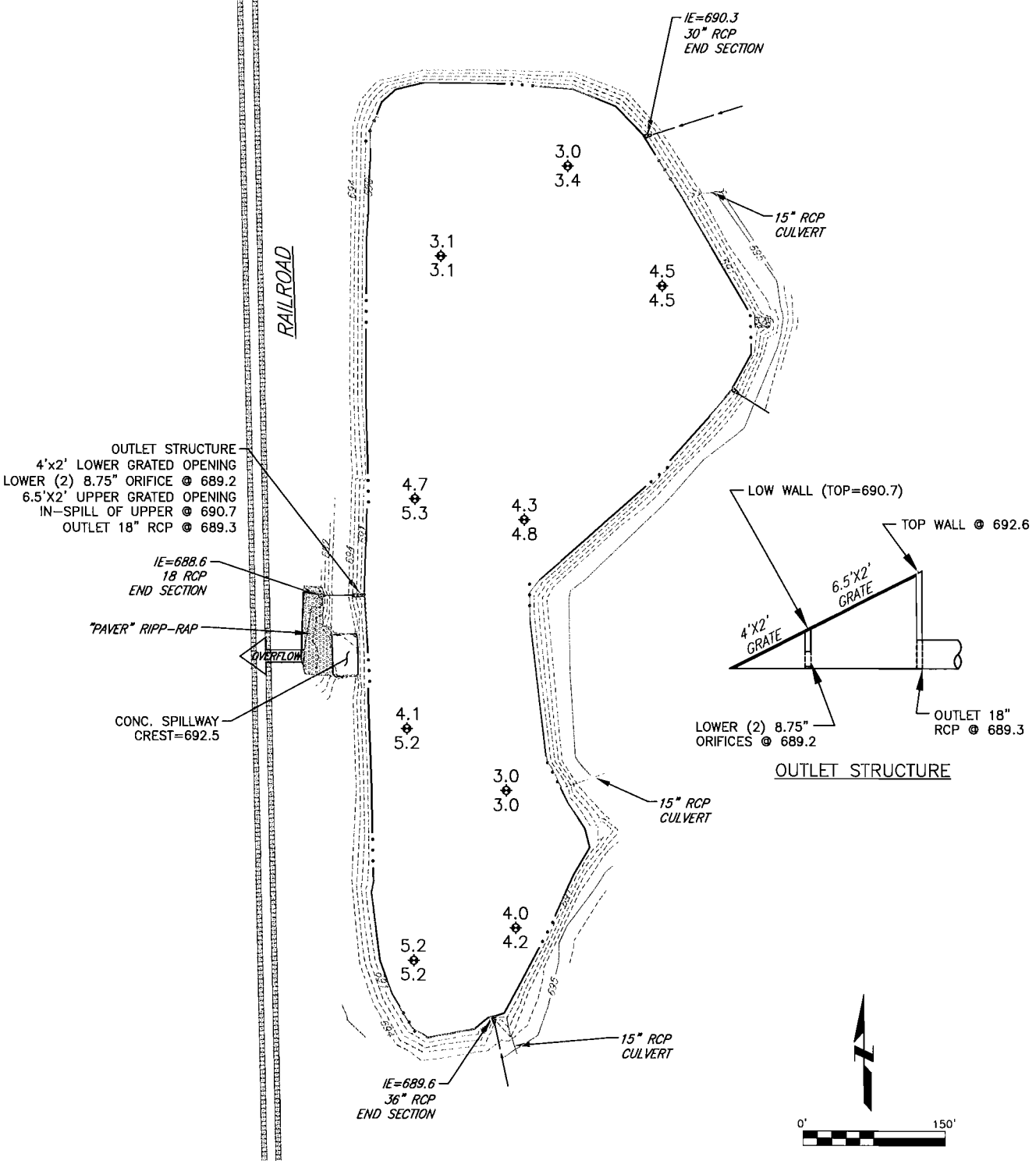
MAHONE

WATER ELEV.
690.0

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 252,654 SF



FEB./2013

Clark Dietz
ENGINEERS

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Dairyland Greyhound Park
West

Clark Dietz
ENGINEERS

January 16, 2014

Measurement Results for Dairyland West Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
N/A	N/A	3.3	2018

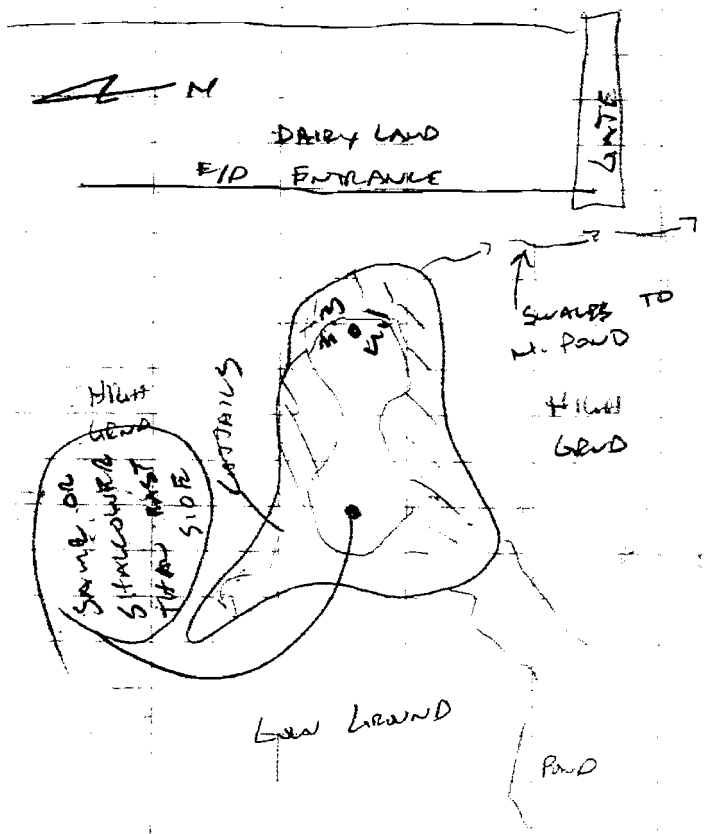
Notes

1. The original pond design plans were not available. The measured water depth in February of 2013 was 3.3 feet.
2. No inlet and outlet pipes were located during the pond inspection.
3. Sediment build-up was 0.8 feet.
4. The whole pond perimeter area is heavily vegetated with cattails and other plants.
5. There is no defined top edge of the pond.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.
2. Clearing of the cattails and vegetation is necessary to locate the inlet and outlet structures.

DAIRYLAND POND (W)



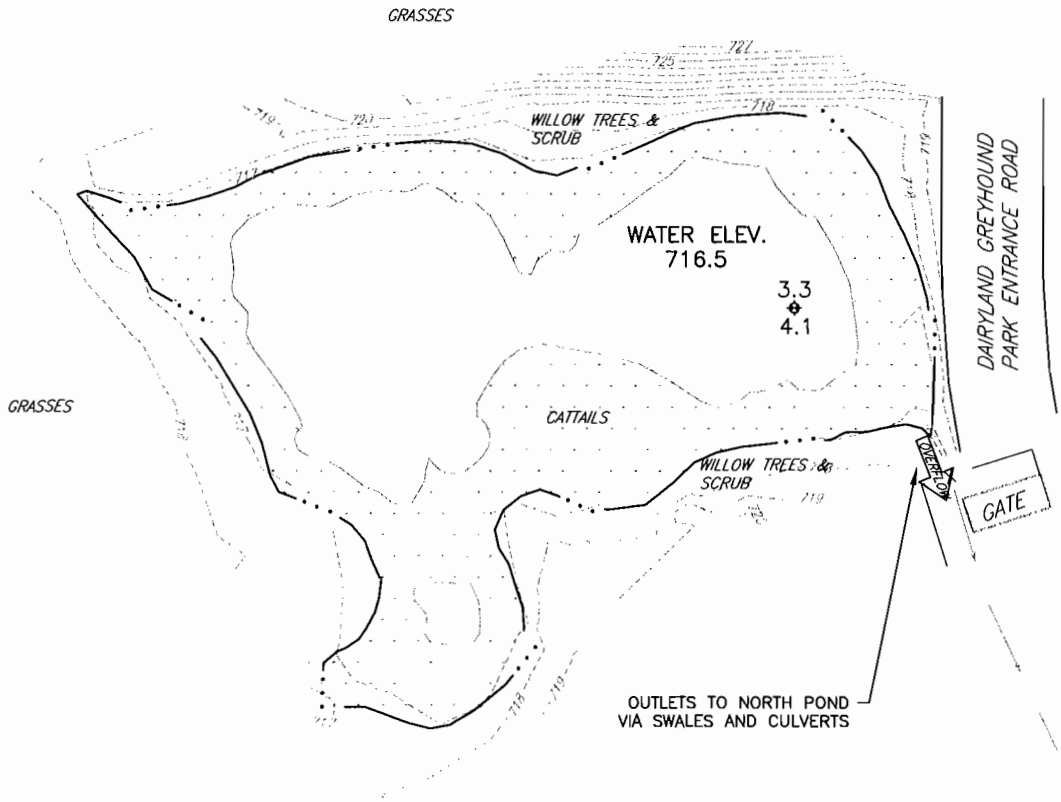
* NO VISIBLE PIPES
& NATURAL LOW AREA?
1316 - 1324 ± FLDI = 4.5
* NO DEFINED "EDGE" OR "TOP"
* CATTAIL PERIMETER
HI QUALITY WETLANDS

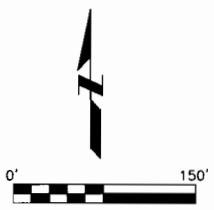
DAIRYLAND WEST

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 182,000 SF





Clark Dietz ENGINEERS

FEB./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Dairyland Greyhound Park
North

Clark Dietz
ENGINEERS

January 16, 2014

Measurement Results for Dairyland West Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
N/A	N/A	3.3	2018

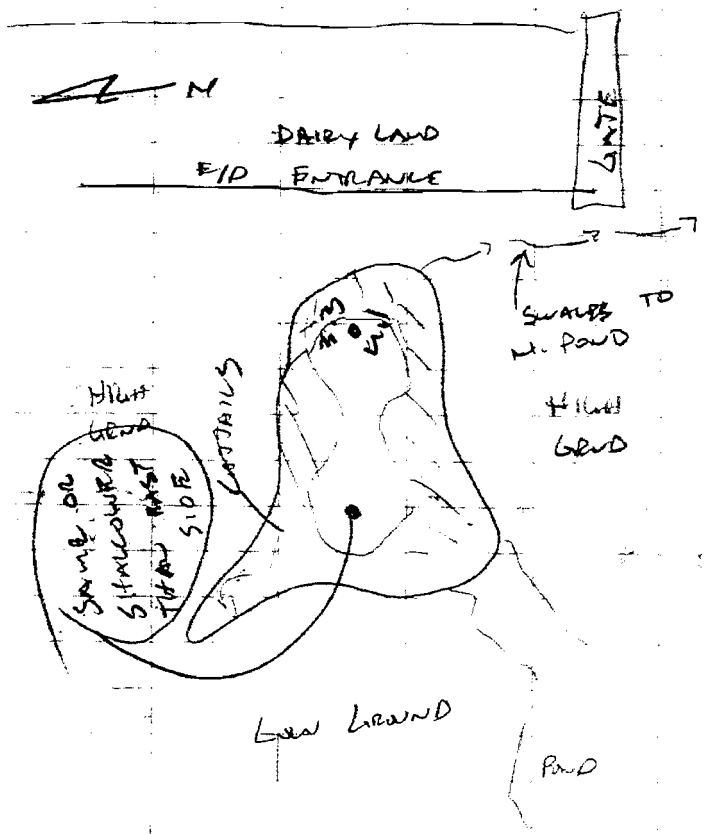
Notes

1. The original pond design plans were not available. The measured water depth in February of 2013 was 3.3 feet.
2. No inlet and outlet pipes were located during the pond inspection.
3. Sediment build-up was 0.8 feet.
4. The whole pond perimeter area is heavily vegetated with cattails and other plants.
5. There is no defined top edge of the pond.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.
2. Clearing of the cattails and vegetation is necessary to locate the inlet and outlet structures.

DAIRYLAND POND (W)



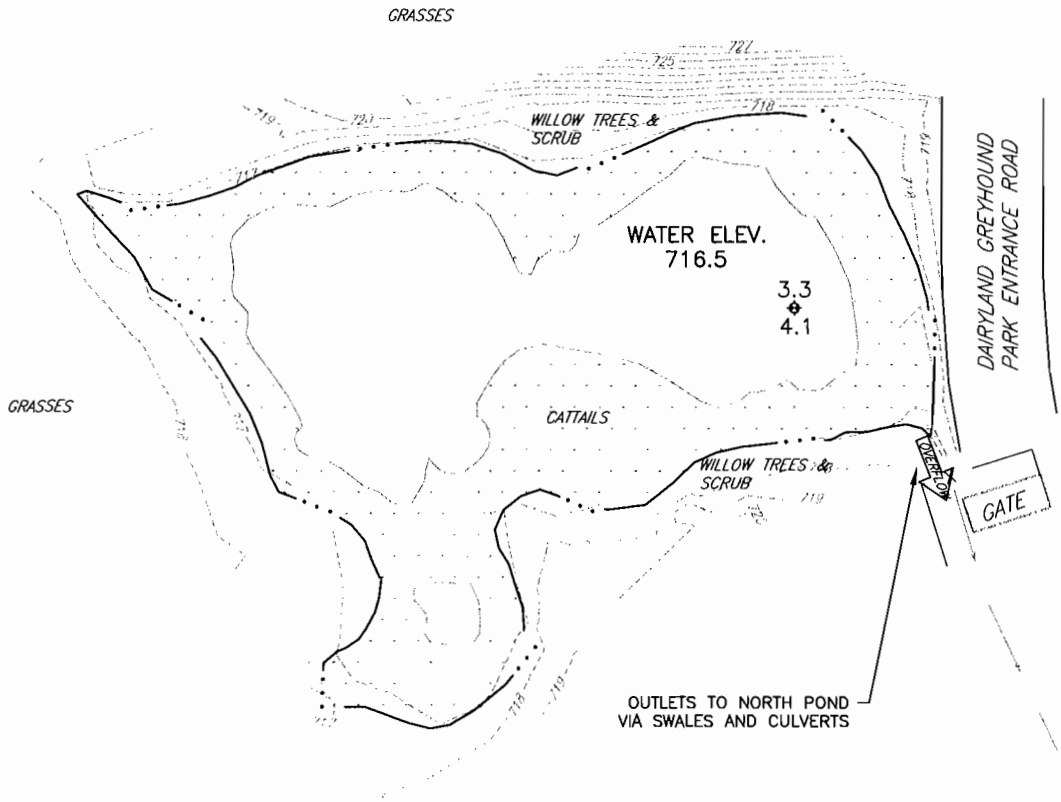
* NO VISIBLE PIPES
& NATURAL LOW AREA?
1316 - 1324 ± FLDI = 4.5
* NO DEFINED "EDGE" OR "TOP"
* CATTAIL PERIMETER
HI QUALITY WETLANDS

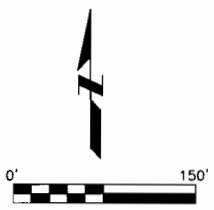
DAIRYLAND WEST

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 182,000 SF





Clark Dietz ENGINEERS

FEB./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

LOW PRIORITY

MAINTENANCE REQUIREMENTS

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
PRIVATELY OWNED WITH MAINTENANCE AGREEMENT

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
16	Peterson's Golden Meadow A		Wet		Yes		Stabilize erosion near outlet structure and clean lower outlet.	$5,000	$600	$840	$6,440	Low	1	$43,792	4.4	2.2	1.5
48	Regal Apartments		Wet		Yes	Yes	Repair end section on 18" pipe.	$1,000	$480	$672	$5,152	Low	2				
							Remove vegetation at structures and spillway.	$2,000									
							Mow area around pond.	$1,000									
7	Kenosha Trade Commerce		Wet		Yes		Reattach end section on 27" inlet.	$1,000	$120	$168	$1,288	Low	4				
54	Heritage Heights 1A		Wet			Yes	Clear vegetation from structures.	$2,000	$840	$1,176	$9,016	Low	6				
							Remove cattails from pond interior.	$5,000									
55	Heritage Heights 1B		Wet			Yes	Clear vegetation from structures.	$2,000	$840	$1,176	$9,016	Low	7				
							Remove cattails from pond interior.	$5,000									
19	North Point Subd. Prayer House of God		Wet			Yes	Remove vegetation from rip-rap and structures.	$2,000	$240	$336	$2,576	Low	9				
17	Peterson's Golden Meadow B1		Wet				Clear debris from grates.	$1,000	$120	$168	$1,288	Low	10				
28	Shagbark	Yes	Wet			Yes	Clear vegetation from inlet structure.	$1,000	$120	$168	$1,288	Low	13				
8	Kenosha Bible Church		Wet			Yes	Remove vegetation around perimeter and outlet structure.	$2,000	$240	$336	$2,576	Low	15				
13	Leona's Rolling Meadows Subdivision F		Wet			Yes	Remove vegetation from rip-rap.	$2,000	$240	$336	$2,576	Low	16				
4	Dairyland Greyhound Park (SOUTH)		Wet			Yes	Remove perimeter vegetation.	$2,000	$240	$336	$2,576	Low	17				

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

Ponds Owned and Maintained
By Private Owner
Peterson' s Golden Meadow
A

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for Petersons Golden Meadow A Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2003	5	5.4	2018

Notes

1. The designed water depth of the pond is 5 feet. The measured water depth in March of 2013 was 5.4 feet. We conclude that the pond was over-excavated at the time of construction.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition. The grate on the 24" pipe was clogged with leaves.

3. Sediment build-up varied between 0 and 0.5 feet.

4. The whole pond perimeter area is mowed.

5. There is some erosion near the outlet structure.

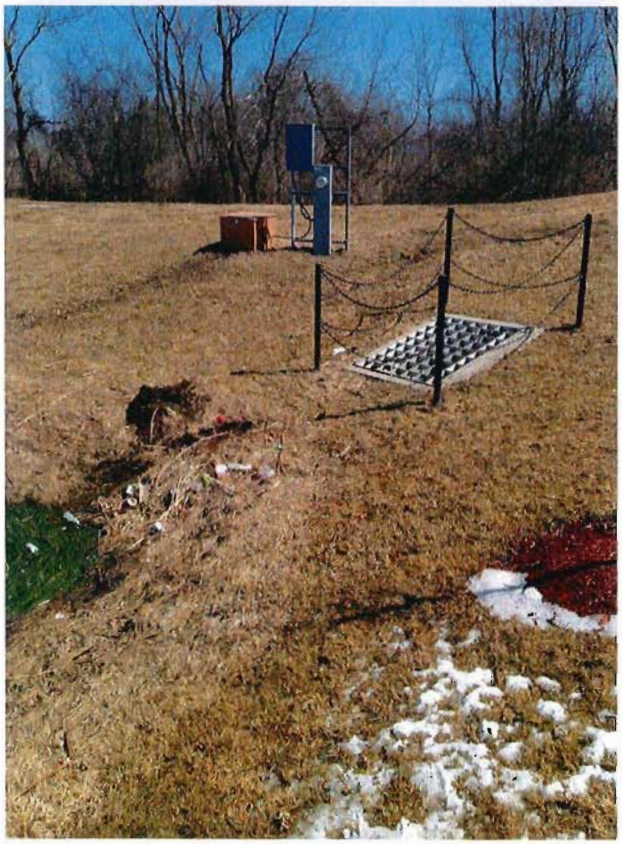
RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Clean out the lower outlet and the surrounding area.

3. When mowing, leave a strip of grass around the pond to improve safety and help to prevent geese.

4. Repair and stabilize the erosion near the outlet structure.



3-29-13 SUNNY 45°

AT BR

PEDERSON BASIN A

#8500 →

8708 BW

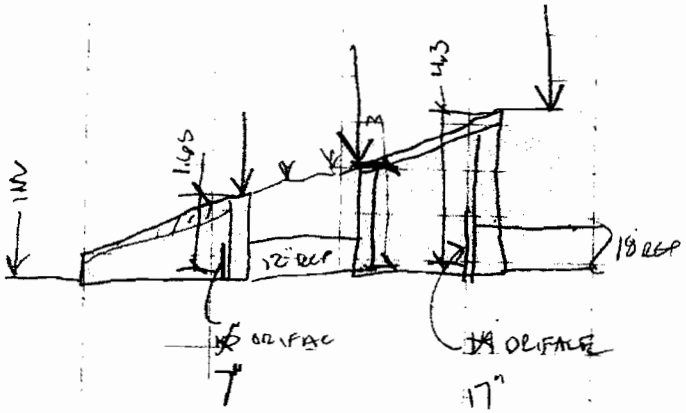
* ~~NEED~~ E/W ✓ & DEPTHS ✓

* POND IN GOOD SHAPE

* LIGHT MAINTENANCE
- CLEAN OUT LOWER OUTLET & SURROUNDING AREA
- 24" GRATE CLOGGED W/LEAVES

7-4-13 T/WTR

8708 - S~~1~~6
S4 -
S3, S6
S2, S4
S6 -
S6 -
S3, S5



52nd ST

39

CLOGGED

R.P

PETERSONS GOLDEN MEADOWS BASIN A

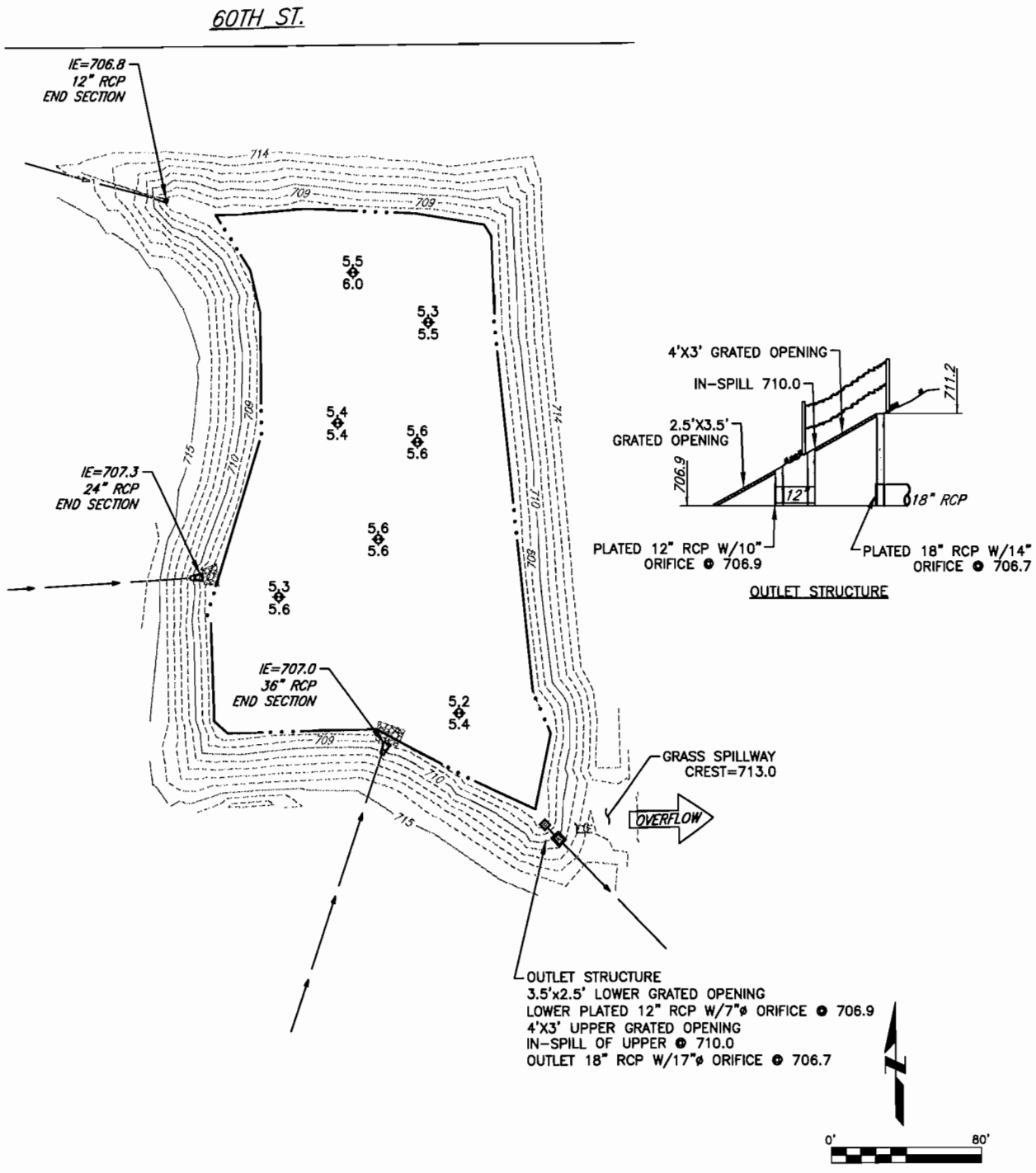
WATER ELEV.= 707.1

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)

0.0 (BOTTOM)

WATER SURFACE AREA = 41,619 SF



FEB./2013

Clark Dietz ENGINEERS

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Regal Apartments

Clark Dietz
ENGINEERS

September 5, 2013

Measurement Results for Regal Apartments Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2002	3	4.7 – 5.2	2018

Notes

1. The designed water depth of the pond is approximately 3 feet; the design plans are not clear. The measured water depth in June of 2013 varied between 4.7 and 5.2 feet. The pond was possibly over-excavated at the time of construction.

2. The inlet and outlet structures were inspected. The end section of the 18" pipe is separated.

3. Sediment build-up varied between 0.2 and 0.5 feet.

4. The pond perimeter and spillway had not been mowed. Buckthorn is growing at the southeast corner. Vegetation is growing in the inlet and outlet structures

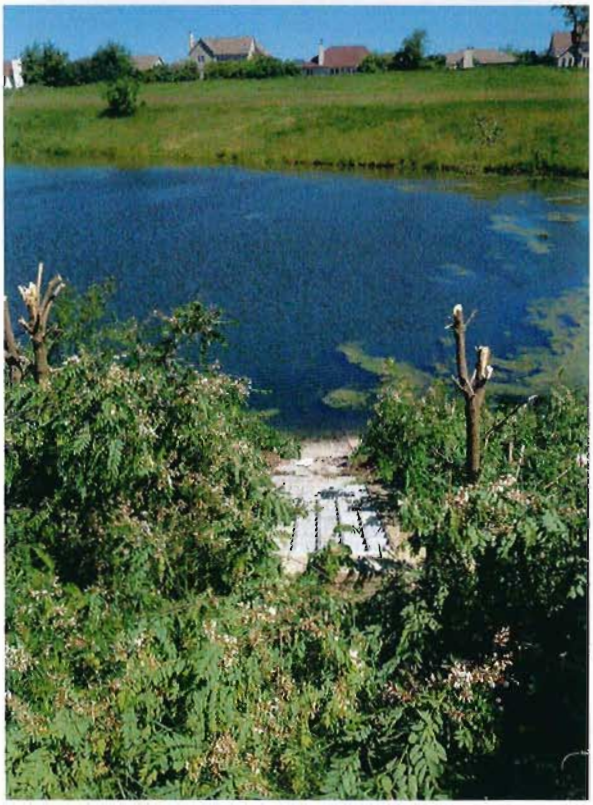
RECOMMENDATIONS

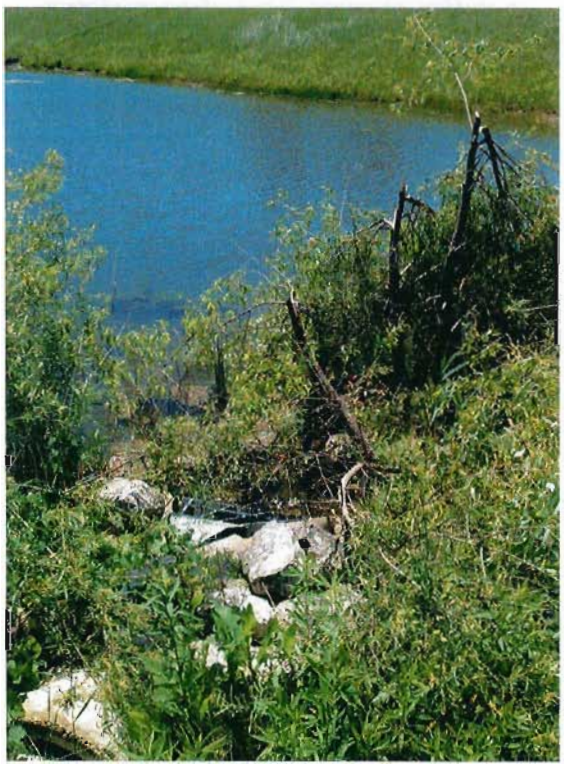
1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The buckthorn and vegetation at the inlet and outlet structures should be removed.

3. The pond perimeter should be mowed to within a foot of the water.

4. The spillway should also be mowed.





6/13/13 AT SUNNY → 5°

RELOAL APT'S

SINET 15100 → 15126 RESTART 15300 →
(RENUMBERS 145100 → 145147)

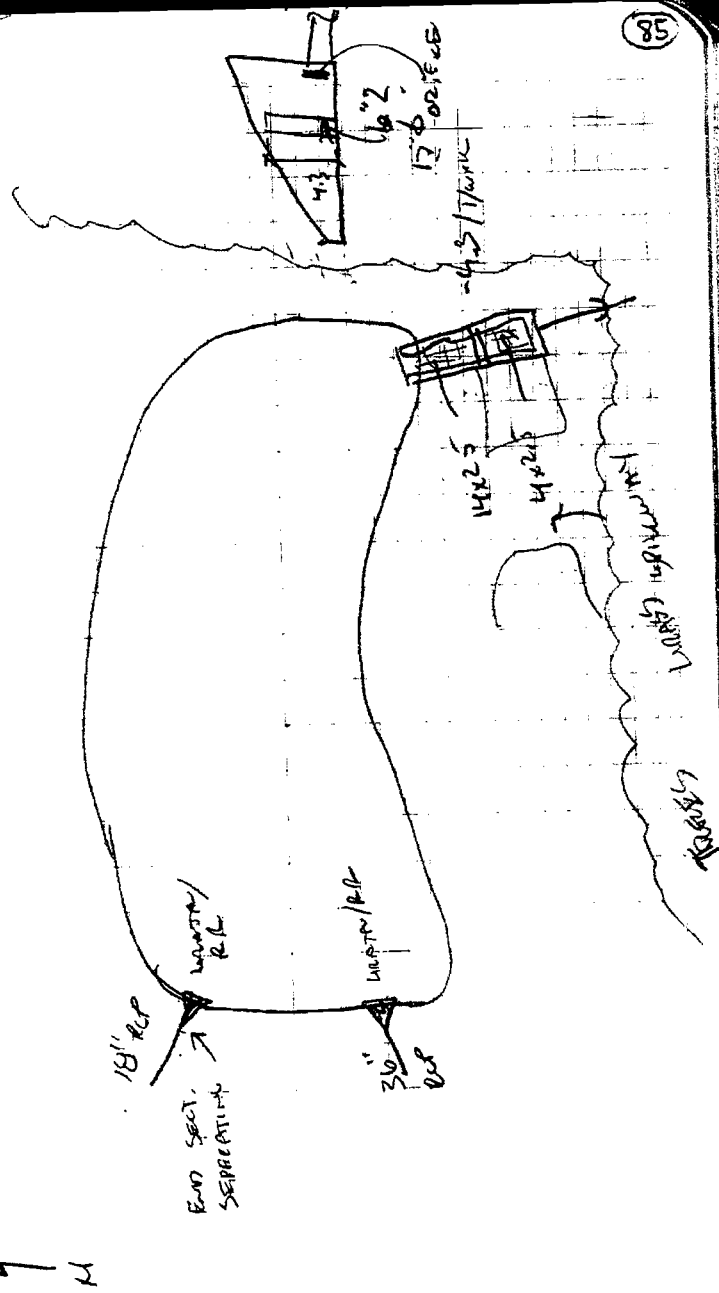
MAINTENENCE

* MOW & CLEAR OUT BUCKTHORNS S.E CORNER
* MOW - SPILLWAY
* END SECTION OF 18" SEPERATED
*

7-2-13

30051 - 5.0 5.2
4.9 |
5.2 |
4.7 | 5.2

4, 5.2



REGAL APTS

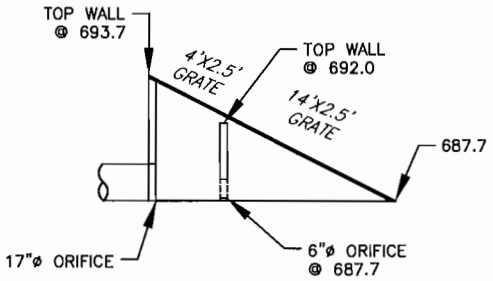
WATER ELEV.=688.2

DEPTHS BELOW WATER

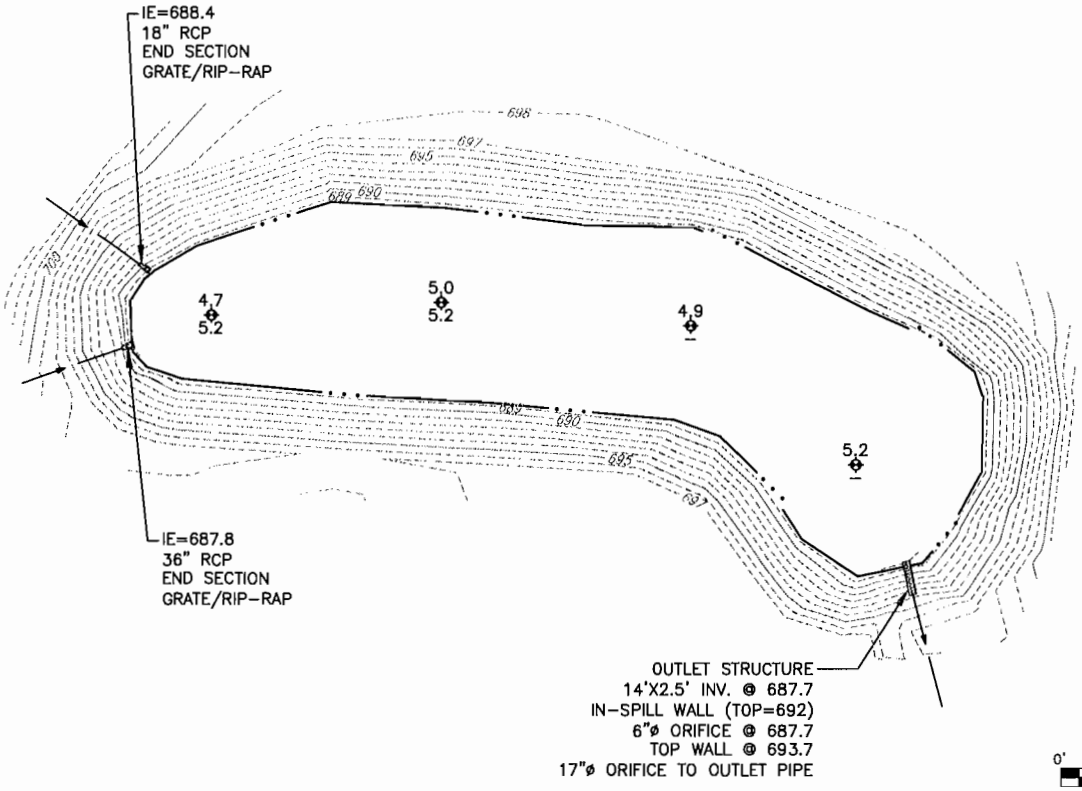
5.0 (TOP SEDIMENT)

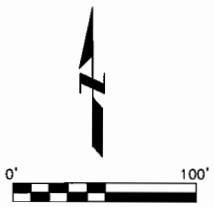
5.2 (BOTTOM)

WATER SURFACE AREA = 1,271,593 SF



OUTLET STRUCTURE





Clark Dietz ENGINEERS

JUNE/2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Kenosha Trade Commerce

Clark Dietz
ENGINEERS

October 3, 2013

Measurement Results for Kenosha Trade Commerce Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2002	5.5	5.4	2018

Notes

1. The designed water depth of the pond is 5.5 feet. The measured water depth in July of 2013 was approximately 5.4 feet. We conclude that the pond was over-excavated at the time of construction.

2. The inlet and outlet pipes were inspected and were found to be in good condition. The end section on the 27" inlet pipe on the south side of the pond was separated from the pipe.

3. Sediment build-up varied between 0.1 and 0.6 feet.

4. The whole pond perimeter is mowed. The entire pond area is in good condition.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Consider not mowing a one-foot strip around the pond in order to deter geese.

4-4-13 SUNNY 40°

AT BB

KENOSAA TRADE + COMMERCE

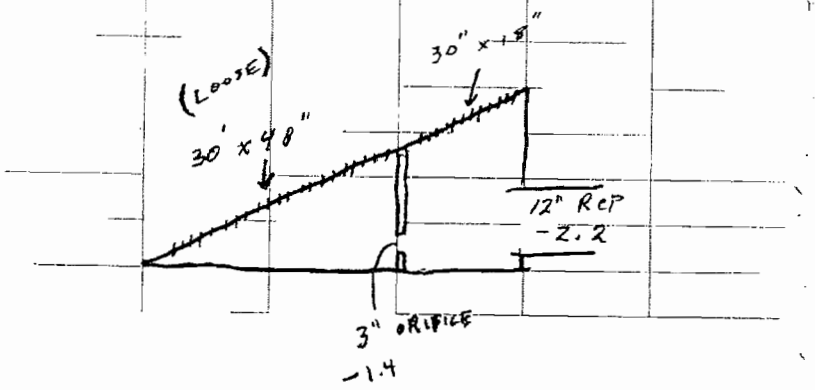
START # 10700 END # 10795

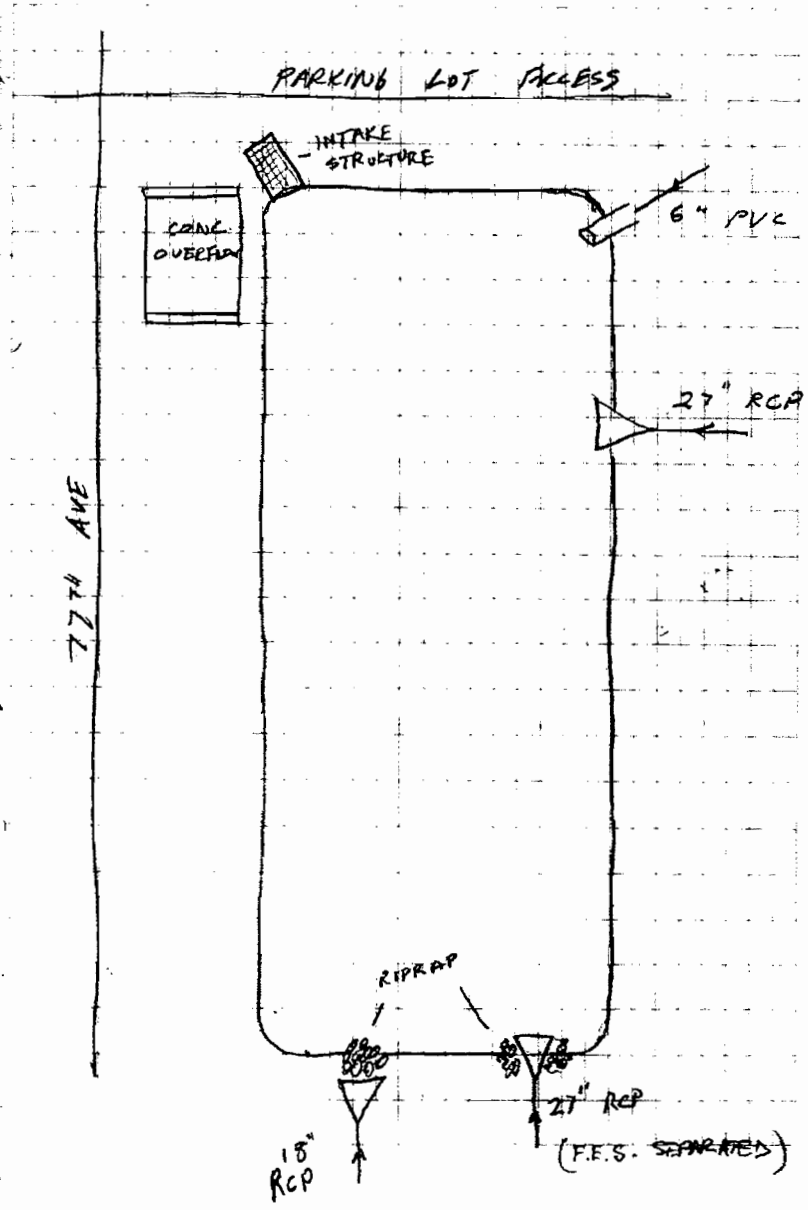
MAINT.

- HEALTHY POND
- SPREADER 27 (SOUTH SIDE)

10795	5.4, 6.0	7-2-13
96	5.6, 6.0	
97	5.3, 5.5	
10798	5.4, 5.5	

INTAKE STRUCTURE





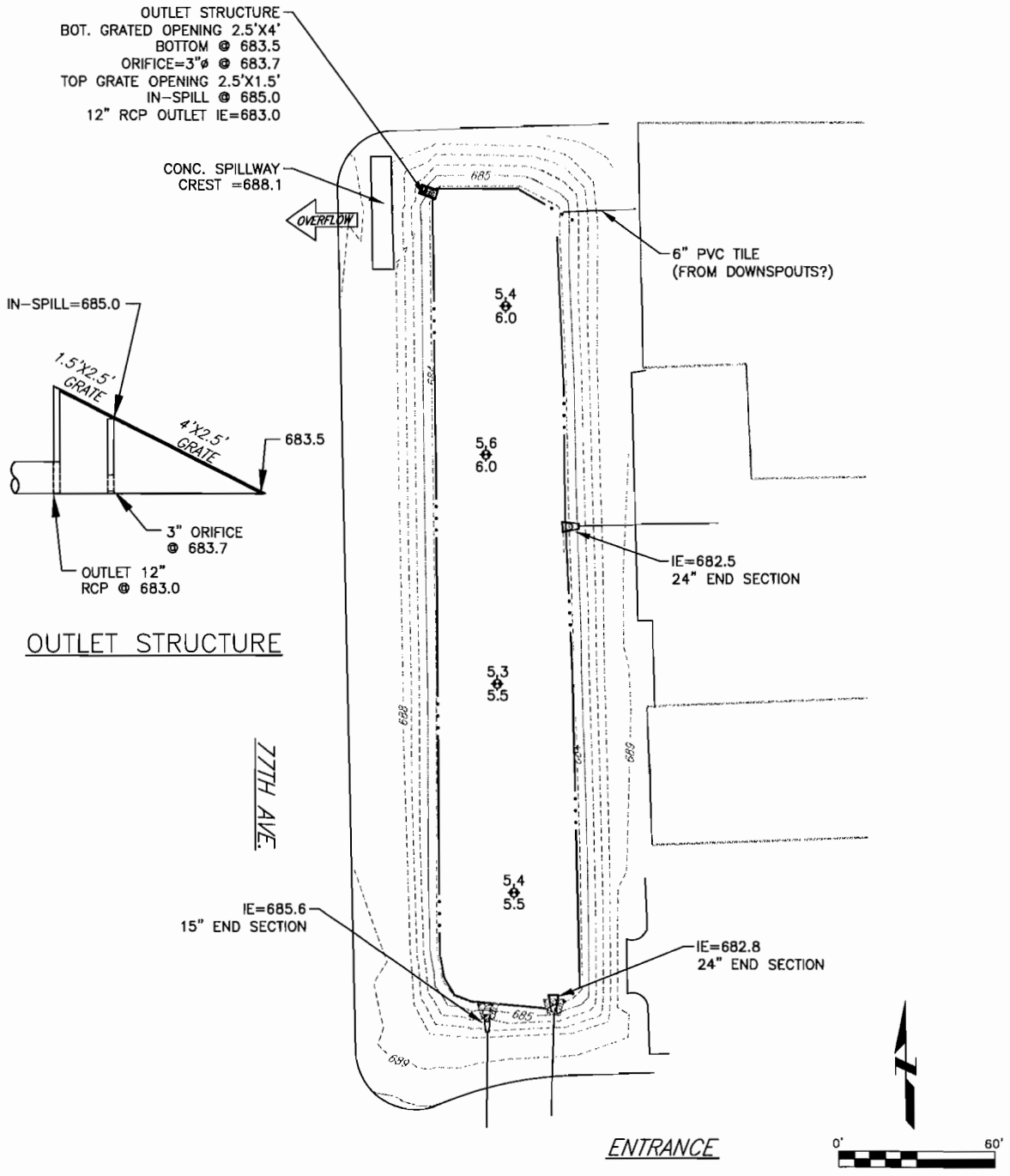
KENOSHA TRADE COMMERCE

WATER ELEV.
683.7

DEPTHS BELOW WATER

5.4 (TOP SEDIMENT)
5.8 (BOTTOM)

WATER SURFACE AREA = 15,585 SF



Clark Dietz ENGINEERS

FEB./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Heritage Heights 1A

Clark Dietz
ENGINEERS

October 30, 2013

Measurement Results for Heritage Heights 1A Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2005	4	3.0 – 3.7	2018

Notes

1. The designed water depth of the pond is 4 feet. The measured water depth in October of 2013 varied between 3.0 and 3.7 feet.
2. The inlet and outlet structures were inspected and are in good condition.
3. Sediment build-up varied between 0.5 and 1.3 feet.
4. The pond perimeter had been mowed.
5. Vegetation is growing within the inlet and outlet structures.
6. There is thick cattail growth all around the pond.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.
   ? – Sediment has already built up within the pond and dredging should be considered.
2. The cattails around the interior perimeter of the pond should be removed.
3. The pond perimeter should be mowed to within a foot of the water.
4. The inlet and outlet structures should be kept clear of vegetation.

STRAIGHT CRK CR [illegible] W # 1A

START: 21300

HERITAGE HTS # 1A

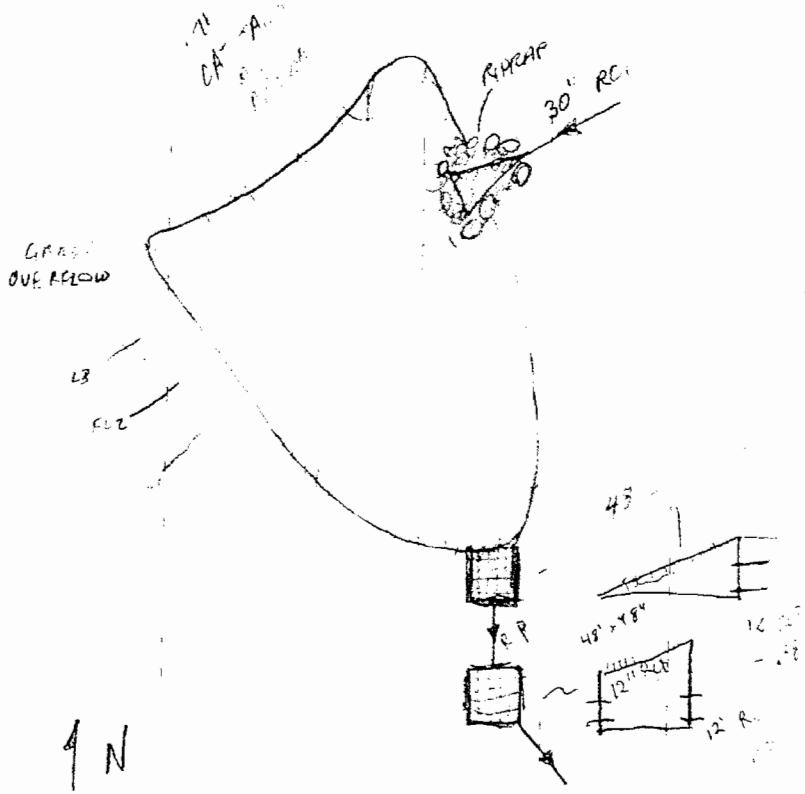
END 21431

BOTTOM SHOTS: 21432 – 21443

SHOTS 21415 – 21420 – GRASS OVER [illegible] FLOWLINES

MA [illegible]

- TRIM CAT-TAILS @ [illegible] STR. AND 30' F.E.S



SHOT	TOP SILT	BOT SILT
21433	3.2	4.4
21434	3.5	4.55
21435	3.2	4.75
21436	3.6	4.80
21437	3.7	4.30
21438	3.60	4.35
21439	3.6	4.35
21440	3.00	4.05
21441	3.15	3.65
21442	3.7	4.05
21443	3.7	4.50

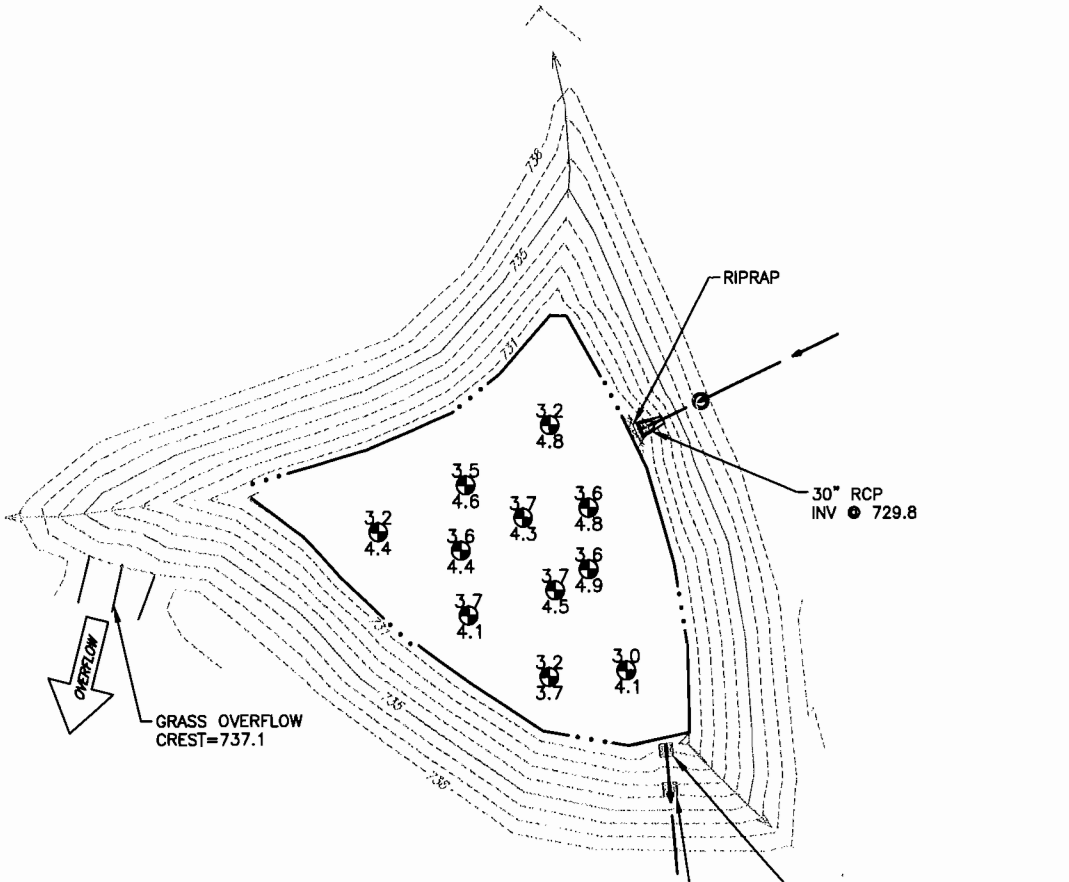
HERITAGE HEIGHTS – 1A

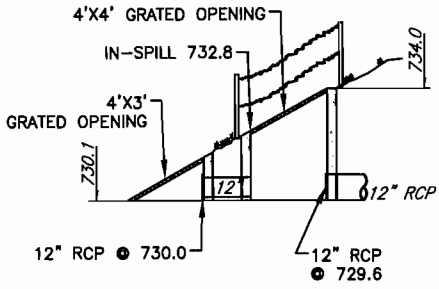
WATER ELEV.= 730.1

DEPTHS BELOW WATER

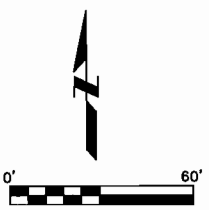
3.5 (TOP SEDIMENT)
4.4 (BOTTOM)

WATER SURFACE AREA = 11,000 SF





OUTLET STRUCTURE



OCT./2013

Clark Dietz ENGINEERS

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Heritage Heights 1B

Clark Dietz
ENGINEERS

October 30, 2013

Measurement Results for Heritage Heights 1B Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2005	4	2.0 – 3.8	2018

Notes

1. The designed water depth of the pond is 4 feet. The measured water depth in October of 2013 varied between 2.0 at the north end of the pond and 3.8 feet at the south end. The pond has apparently begun to fill up with sediment.

2. The inlet and outlet structures were inspected and are in good condition. There is thick vegetation growth at the structures and within the surrounding riprap.

3. Sediment build-up varied between 0.1 and 2.4 feet.

4. The pond perimeter had been mowed. There is thick cattail growth throughout the pond.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal. Dredging should be considered within the next five years due to the sediment buildup that has already occurred in the pond.

2. The vegetation at the inlet and outlet structures should be removed and kept clear of future growth.

3. The pond perimeter should be mowed to within a foot of the water.

4. The cattails throughout the pond should be cleared.

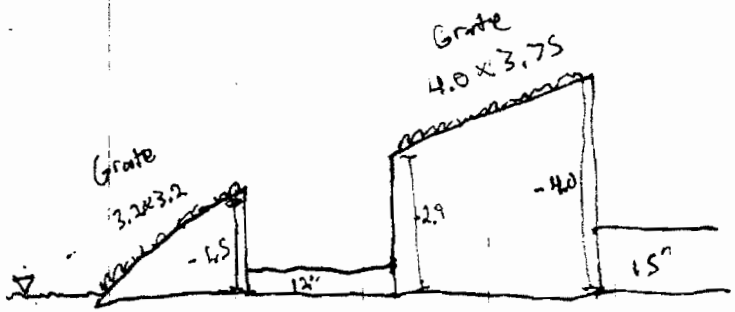
strawberry

HYDROLOGIC UNIT #18

Shots ~~21000~~ 21000 –

POND BOTTOM; 21231 – 21241 21230

SHOT	TOP SILT	BOT SILT			
21232	2.0	4.35	21237	2.60	2.80
21233	2.05	3.65	21238	3.80	4.30
21234	2.05	2.65	21239	3.05	4.10
21235	2.35	3.90	21240	3.05	3.20
21236	2.30	3.35	21241	2.65	3.90
			21242	3.35	4.25



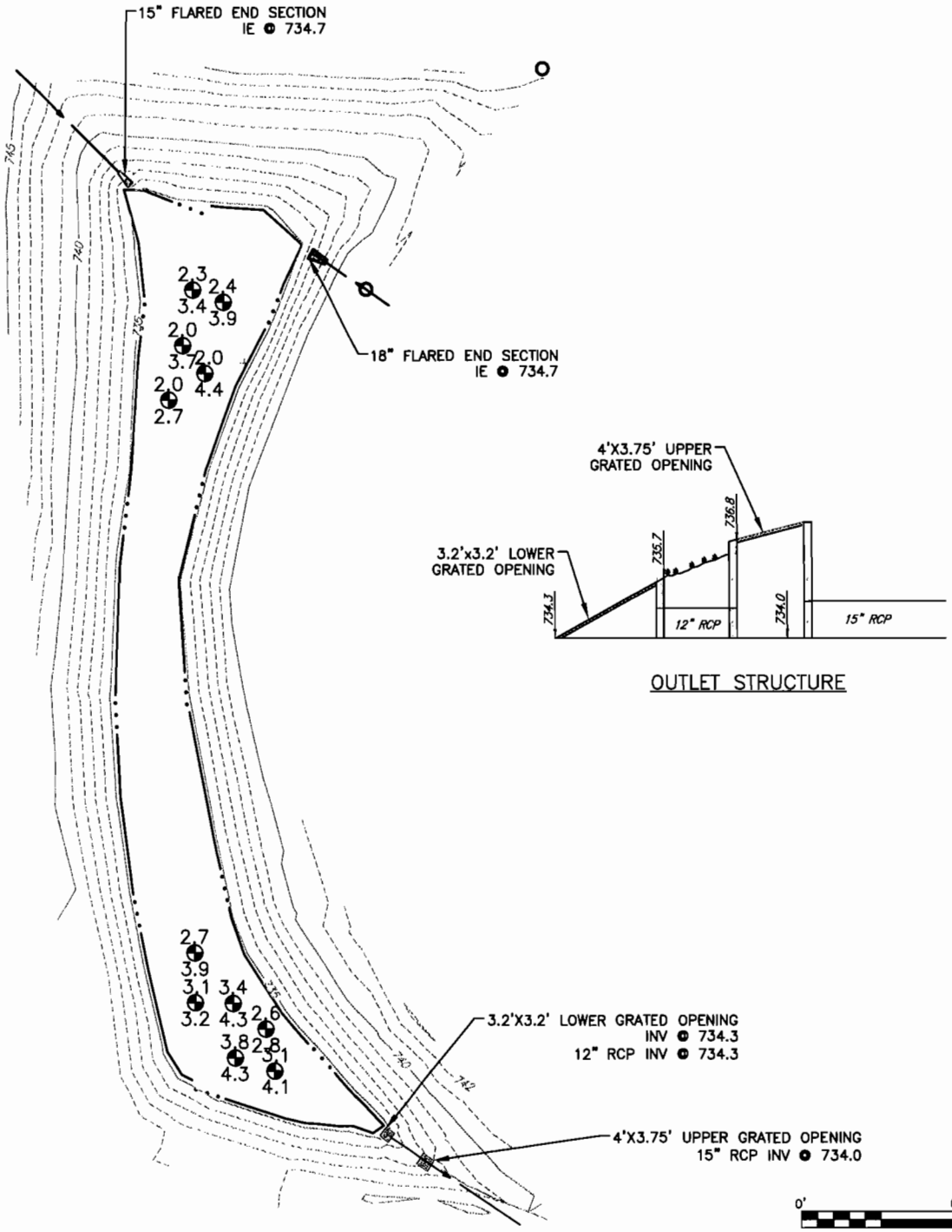
HERITAGE HEIGHTS – 1B

WATER ELEV.= 734.6

DEPTHS BELOW WATER

2.7 (TOP SEDIMENT)
3.7 (BOTTOM)

WATER SURFACE AREA = 13,012 SQ FT



OUTLET STRUCTURE

Clark Dietz ENGINEERS

OCT./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Heritage Heights 1B

Ponds Owned and Maintained
By Private Owner
North Point Subdivision
Prayer House of God

Clark Dietz
ENGINEERS

September 5, 2013

Measurement Results for North Pointe Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2001	6	6.1 – 7.2	2018

Notes

1. The designed water depth of the pond is 6 feet. The measured water depth in July of 2013 varied between 6.1 and 7.2 feet. We conclude that the pond was over-excavated at the time of construction.

2. The inlet and outlet pipes were inspected and were found to be in good condition. Brush is growing in some of the structures.

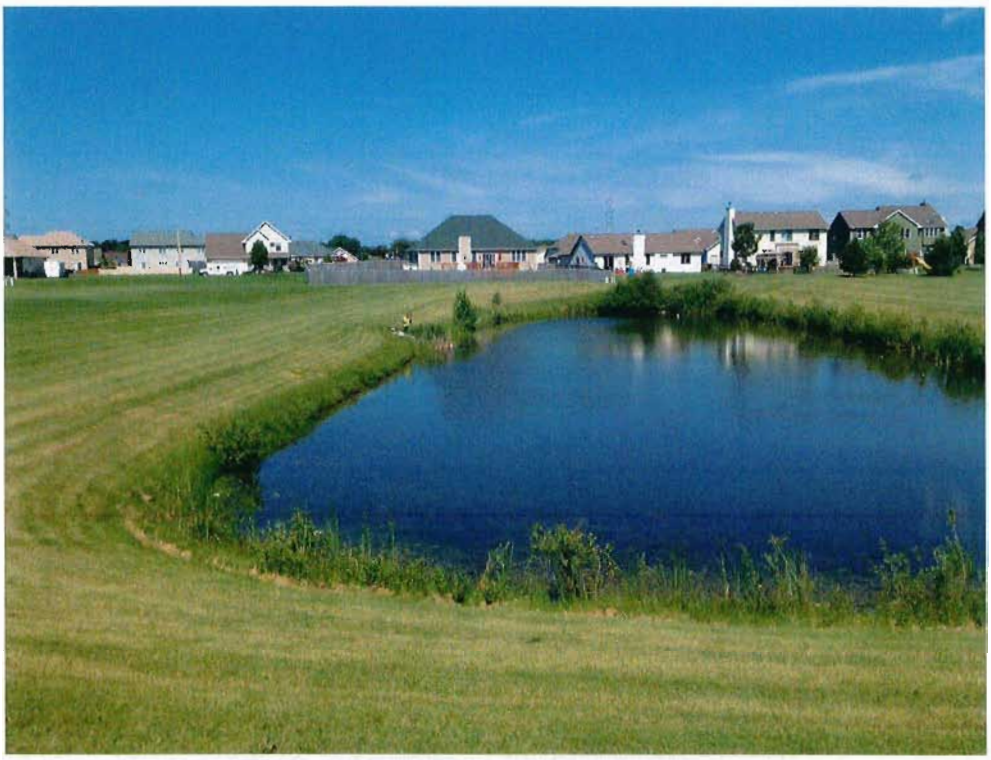
3. Sediment build-up varied between 0.5 and 0.9 feet.

4. The whole pond perimeter was mowed. Some rip-rap areas had vegetation growing in them.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Brush and saplings should be removed from the inlet and outlet structures and the other areas where growth is heaviest.



6/18/13 SUNNY 65° AT, 4Q

NORTH POINTE

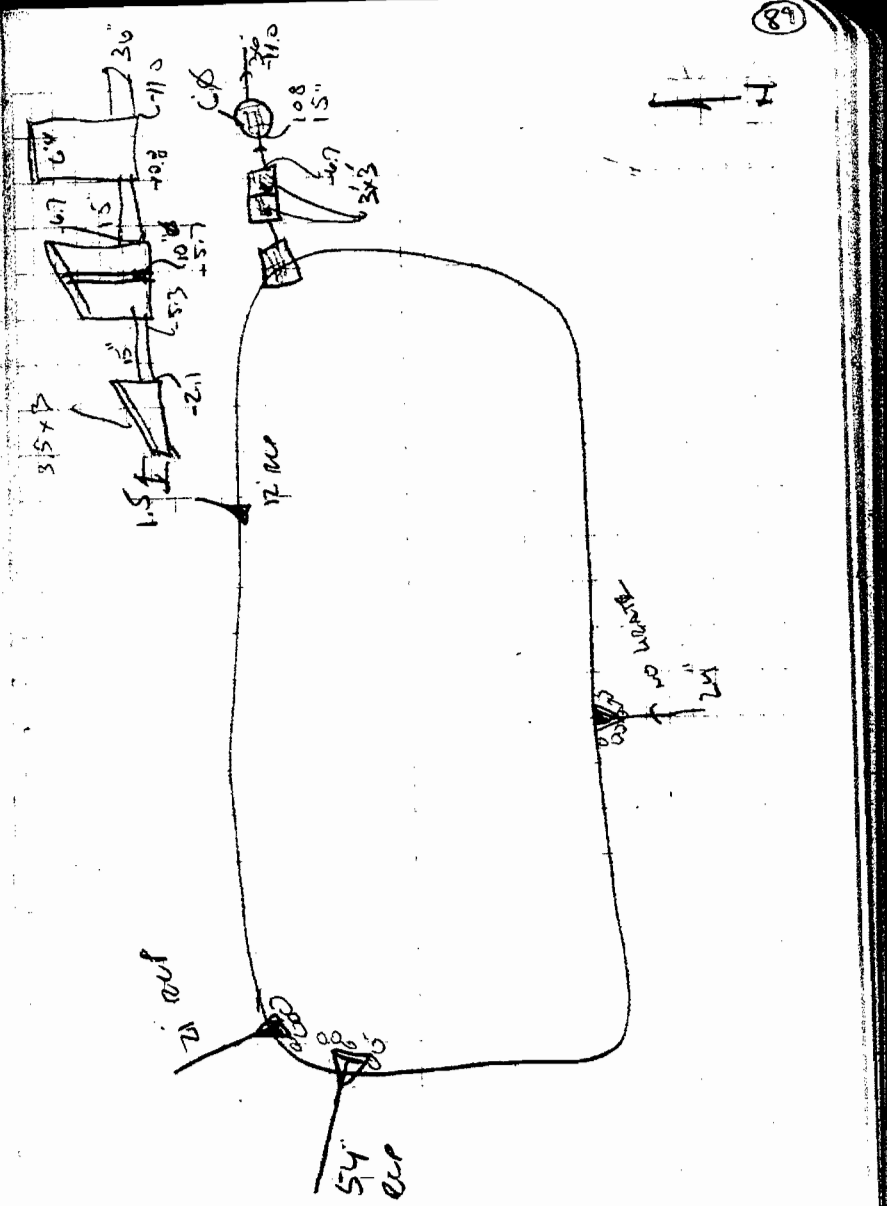
*K0000 - 16110

M.AINT.

TREE/SAPLING CLEARING (LIGHT)

7-2-13

30,066 - 6.1, 6.7
7.2, 8.1
6.8, 7.3



NORTH POINTE

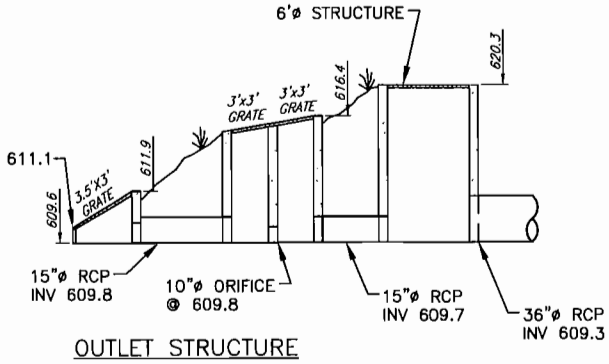
WATER ELEV.=610.1

DEPTHS BELOW WATER

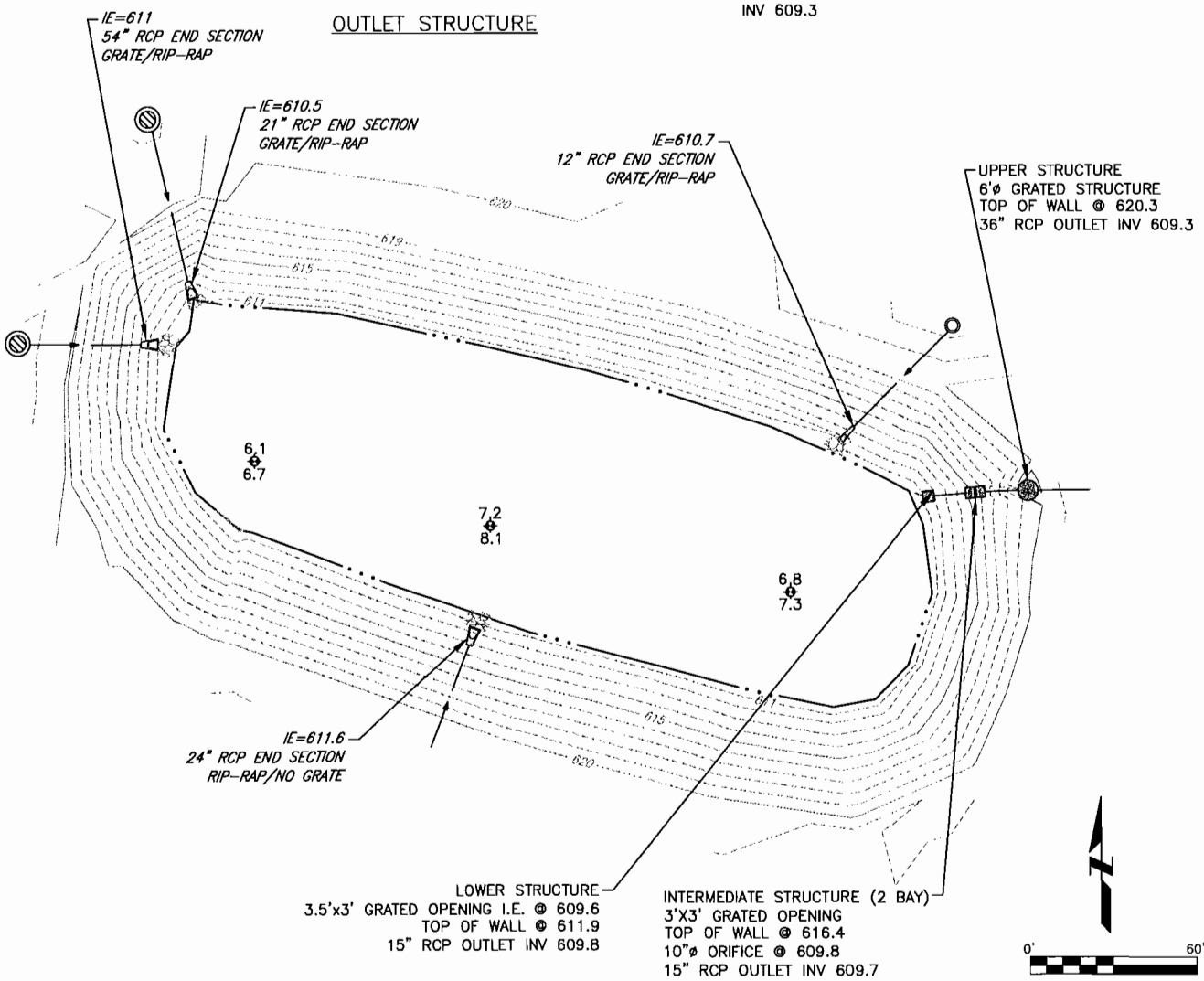
6.7 (TOP SEDIMENT)

7.4 (BOTTOM)

WATER SURFACE AREA = 237,590 SF



OUTLET STRUCTURE



JUNE/2013

K0300080

Clark Dietz ENGINEERS

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Peterson's Golden Meadow
B1

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for Petersons Golden Meadow B1 Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2003	5	4.6 – 5.3	2018

Notes

1. The designed water depth of the pond is 5 feet. The measured water depth in February of 2013 varied between 4.6 and 5.3 feet. We conclude that the pond was over-excavated at the time of construction and is be starting to fill with sediment in certain areas.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition.

3. Sediment build-up varies between 0.5 to 0.8 feet.

4. The whole pond perimeter area is mowed.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. When mowing, leave a strip of grass around the pond perimeter to improve safety and help to deter geese.

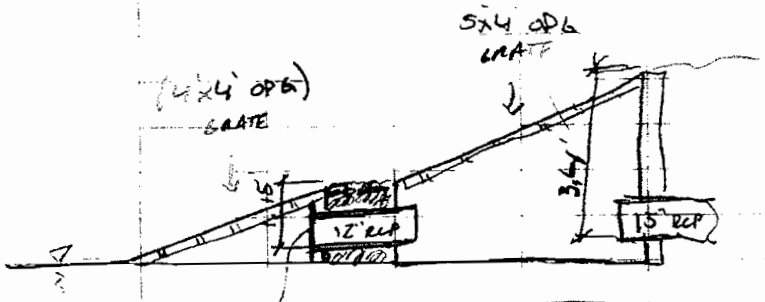
3. Keep grates free of debris.

2/26/13 AT, BS Cloudy 31° Windy

DEPRESSED GOLDEN MEADOW BASIN 1

~6300

SQUARE INTAKE STRUCTURE DETAIL



- NO MAINT. REQ'D?
- NO OVERFLOW?

NEED: ~~- EDGE WTR~~ ~~- DEPTHS~~

7-1-13

8684 – 5.3, 6.1

87 4.8, 5.6

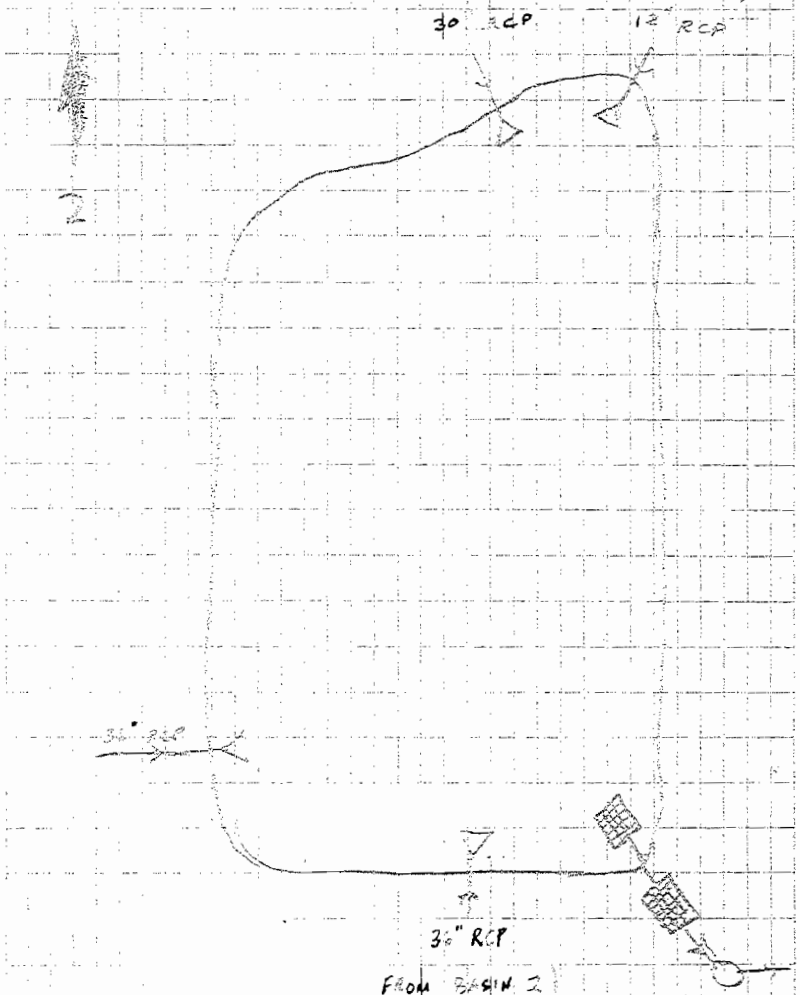
86 4.4, 5.3

87 5.0 5.5

89 4.9, 5.4

8689 4.8 5.3

E of N 87



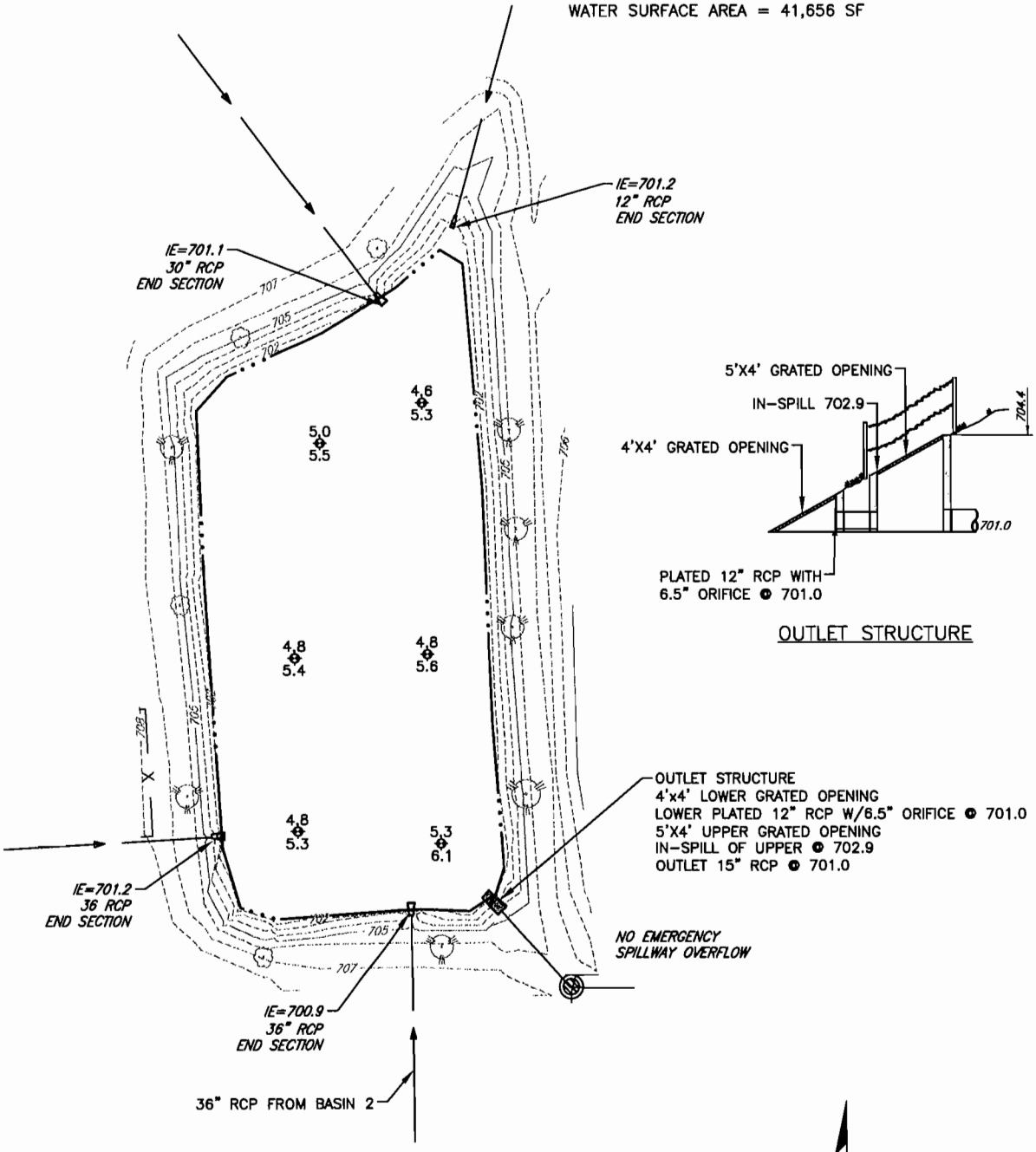
PETERSONS GOLDEN MEADOWS BASIN B1

WATER ELEV.= 701.2

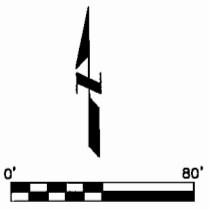
DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 41,656 SF



OUTLET STRUCTURE



Clark Dietz ENGINEERS

FEB./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Shagbark

Clark Dietz
ENGINEERS

January 16, 2014

Measurement Results for Shagbark Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2005	4	3.8 – 4.3	2018

Notes

1. The designed water depth of the pond is 4 feet. The measured water depth in July of 2013 varied between 3.8 and 4.3 feet.
2. The inlet and outlet structures were in good condition.
3. No sediment build-up was found in the pond.
4. The pond area had been mowed.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.
2. Keep the inlet structure clear of vegetation.

6-26-

8 1905 12 - 19098

~~A B FL~~ Taken 8/22

7:3-13	T/W ℄
39275 -	4.1 -
	4.0 -
	4.3 -
	4.1 -
	3.8 -
39280	4.2 -
	4.0 -

★ TOE/EW

~~★~~ WTR SHOT

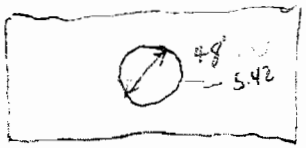
★ STRUCTURE S℄ CHS

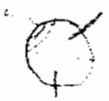
(★) Concrete spillway has flat bottom (conc1/conc2)

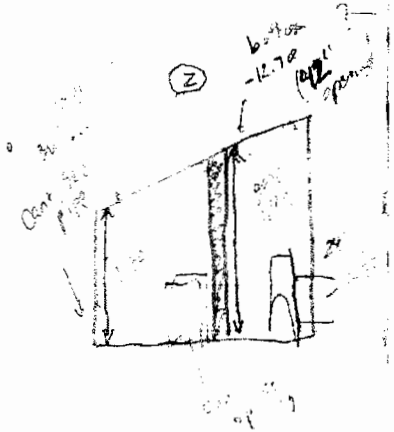
(★) all EW1 are also TOE's except NE corner

North (1)

TOP / PLAN VIEW

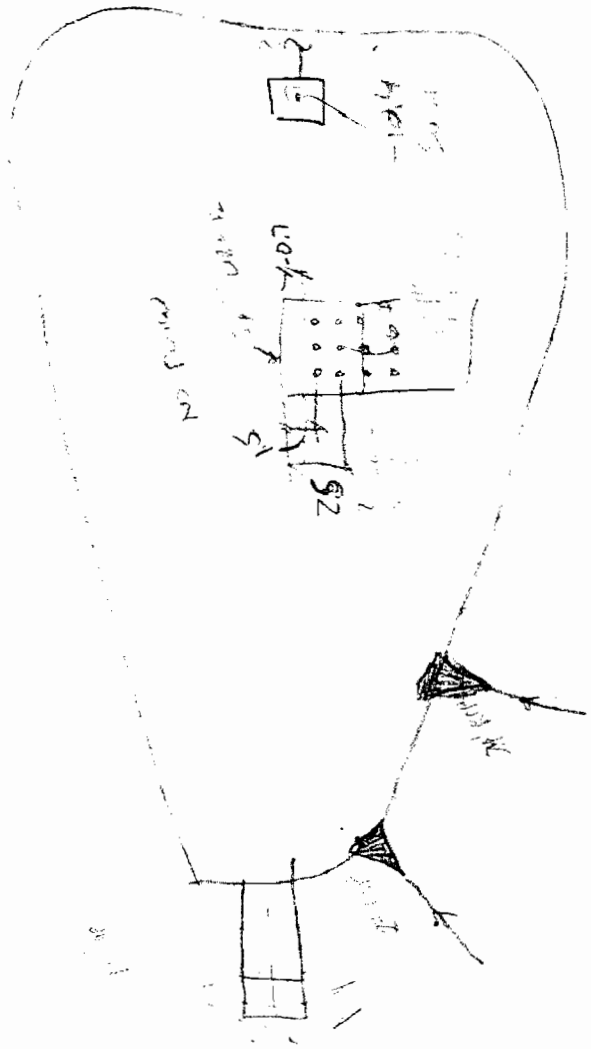






3 GRATES @ 5'x5' ea — (1)

2 GRATES @ 5'x5' ea — (2)



SHAGBARK

WATER ELEV.= 632.7

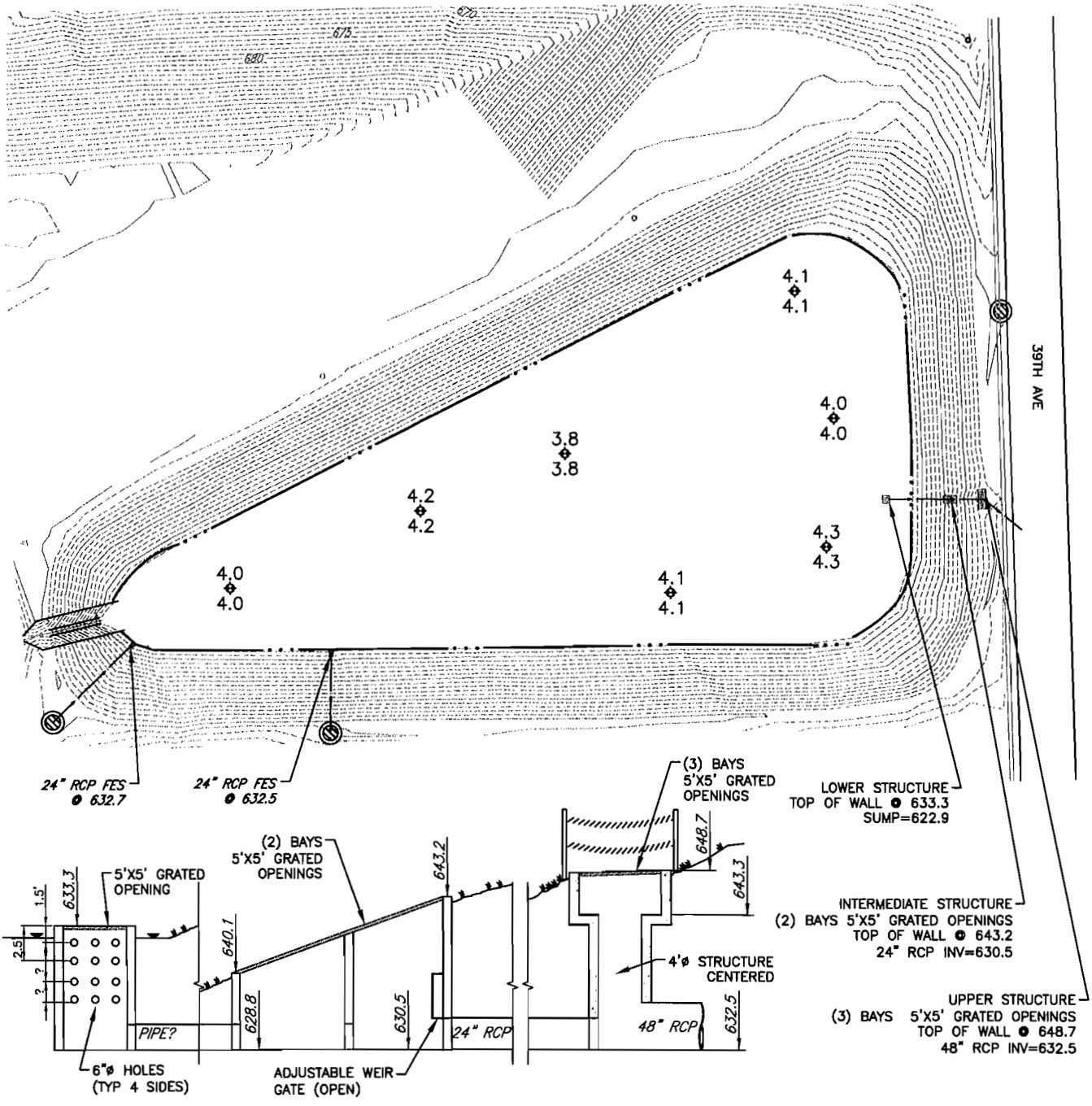
DEPTHS BELOW WATER

4.1 (TOP SEDIMENT)

◆

– (BOTTOM)

WATER SURFACE AREA = 211,815 SF



LOWER STRUCTURE

OUTLET STRUCTURE

0' 150'

JUNE/2013

K0300080

Clark Dietz ENGINEERS

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Kenosha Bible Church

Clark Dietz
ENGINEERS

July 16, 2013

Measurement Results for Kenosha Bible Church Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
1997	3.5	2.7 – 4.0	2018

Notes

1. The designed water depth of the pond is 3.5 feet. The measured water depth in May of 2013 varied between 2.7 and 4.0 feet. The pond was likely over-excavated at the time of construction but is now starting to fill with sediment.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition.

3. Sediment build-up ranged between 0 and 0.4 feet.

4. The whole pond perimeter is mowed. There is thick cattail growth on the east and west sides of the pond, including around the outlet.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Clear cattails from the pond, especially around the outlet structure.

3. When mowing, leave a grassy strip around the pond to deter geese and improve safety.

5-23-13 AT, 46 RAIN CLOUDY 50°

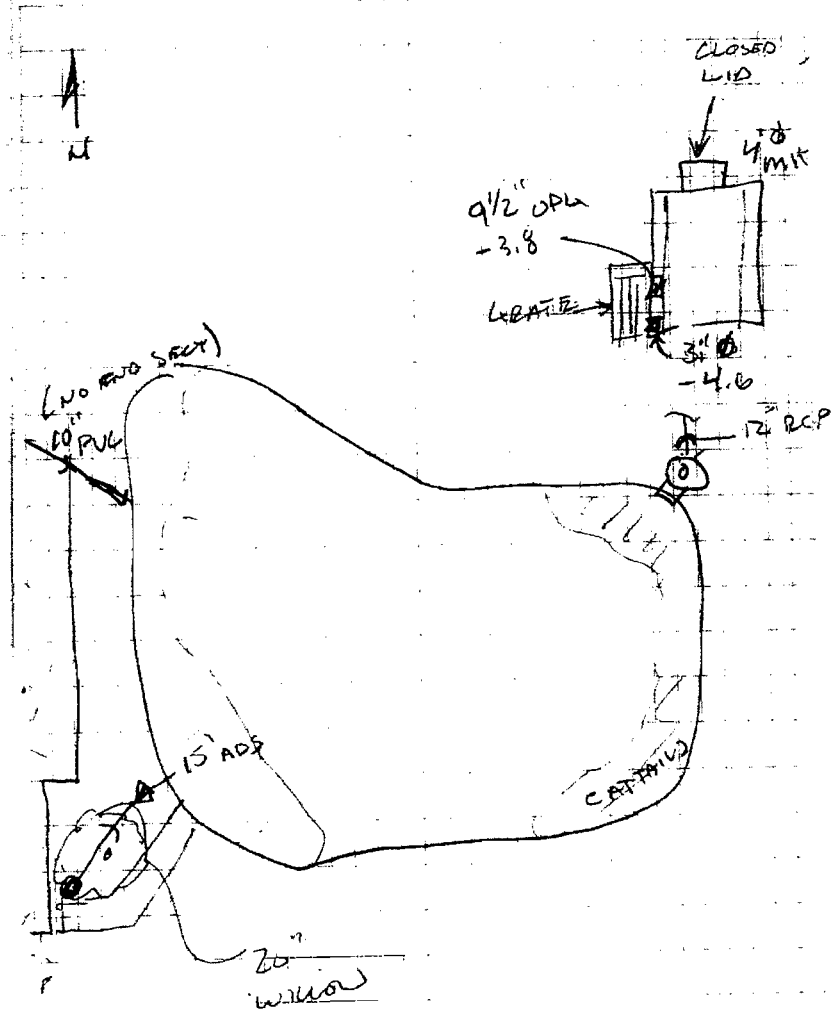
KENOSHA BIBLE CHURCH

START
13300 → 13423

MAINTENANCE

* KEEP WATER CLEAN (CATTAILS INVASIVE)
* POSSIBLE CATTAIL REMOVAL
* WOOD SHAPE

13425	2.7, 2.9
	3.9, 3.9
	4.0, 4.0
	3.1, 3.



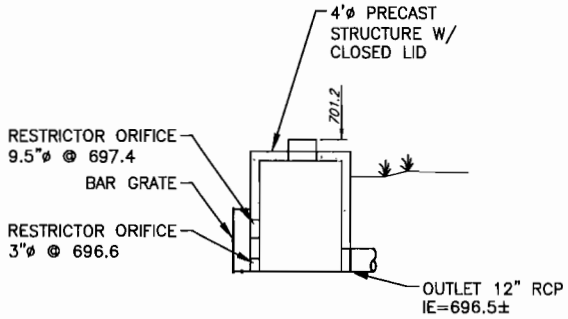
KENOSHA BIBLE CHURCH

WATER ELEV.= 696.7

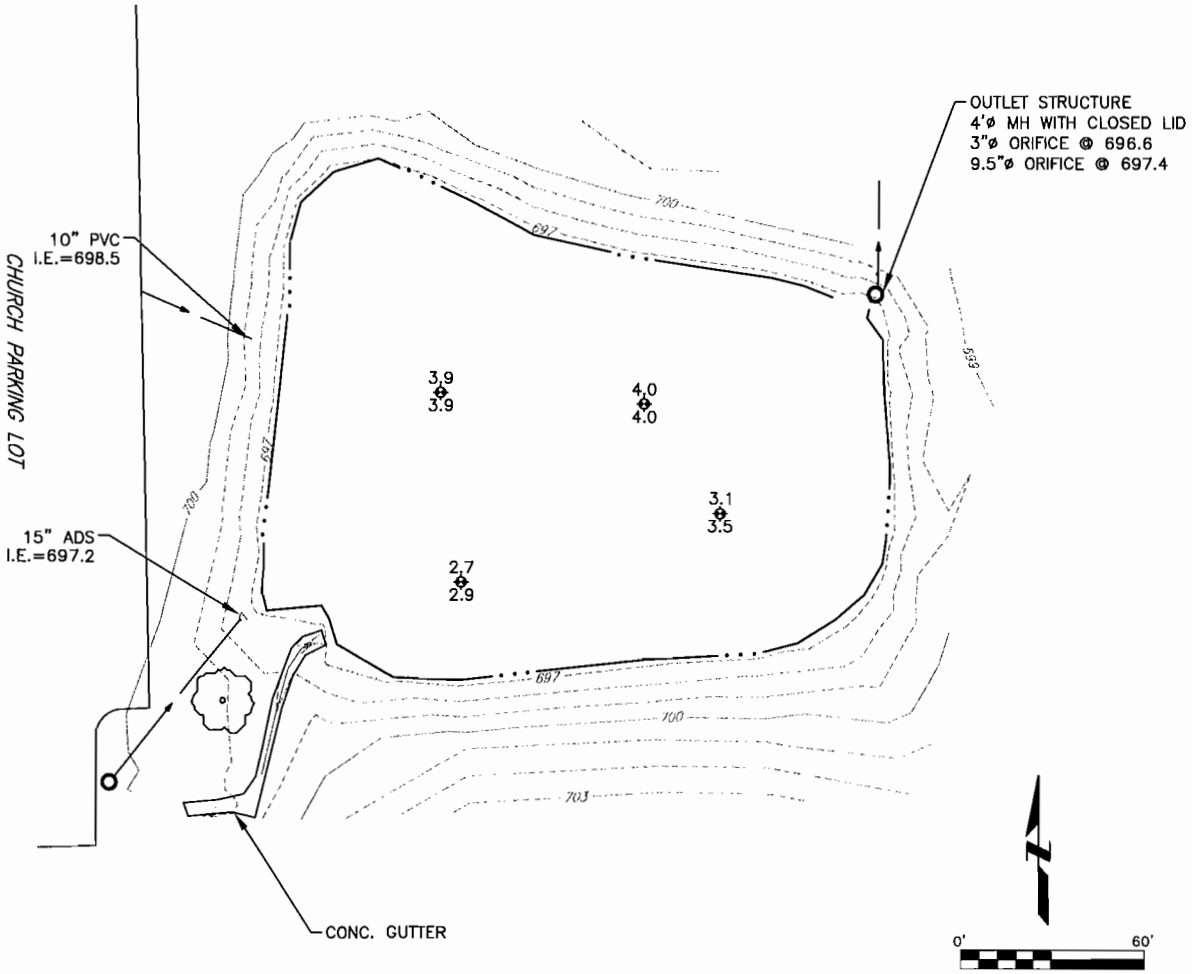
DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 27,123 SF



OUTLET STRUCTURE



Clark Dietz ENGINEERS

MAY./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Leona' s Rolling Meadows
Subdivision F

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for Leona's Rolling Meadows Subdivision F Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2003	6	5.7 – 7.0	2018

Notes

1. The designed water depth of the pond is 6 feet. The measured water depth in April of 2013 varied between 5.7 and 7.0 feet. We conclude that the pond was over-excavated at the time of construction.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition.

3. The outfall RCP is higher than the orifice.

4. Sediment build-up averaged 0.25 feet.

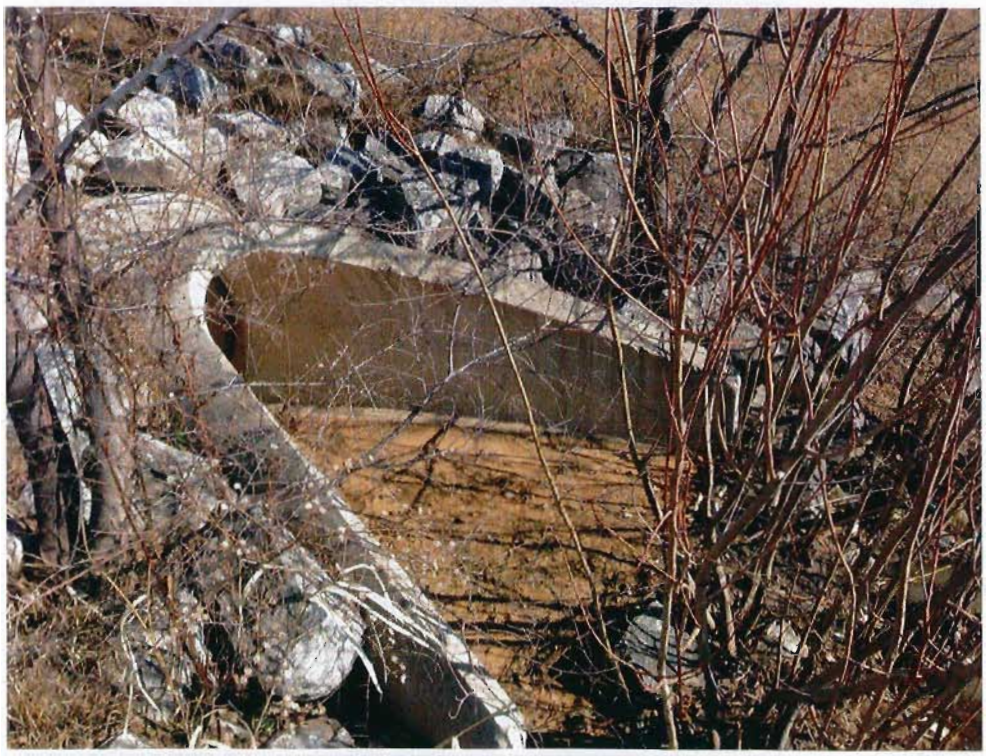
5. The whole pond perimeter is mowed. Rip-rap areas have vegetation growing in them.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. The brush growing in the rip-rap around the structures should be cleared.

3. A strip of grass should be left around the edge of the pond to improve safety and help to prevent geese.



4-2-13 SUNNY 35°

AJ, BB

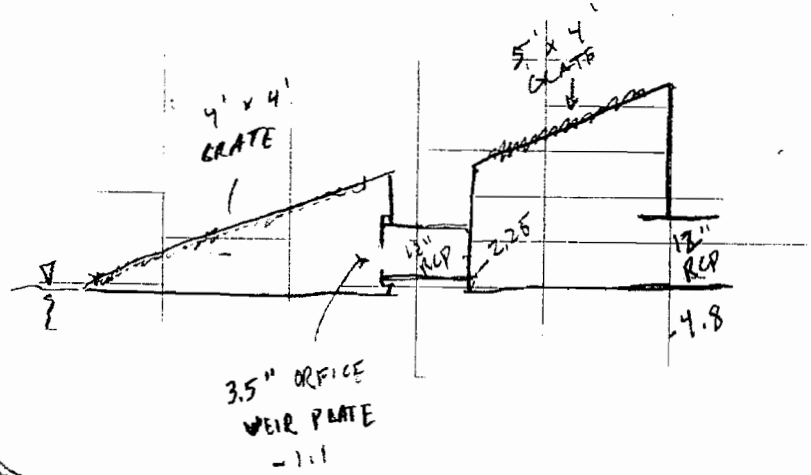
LEONA'S MEADOWS BASIN F

7-1-13

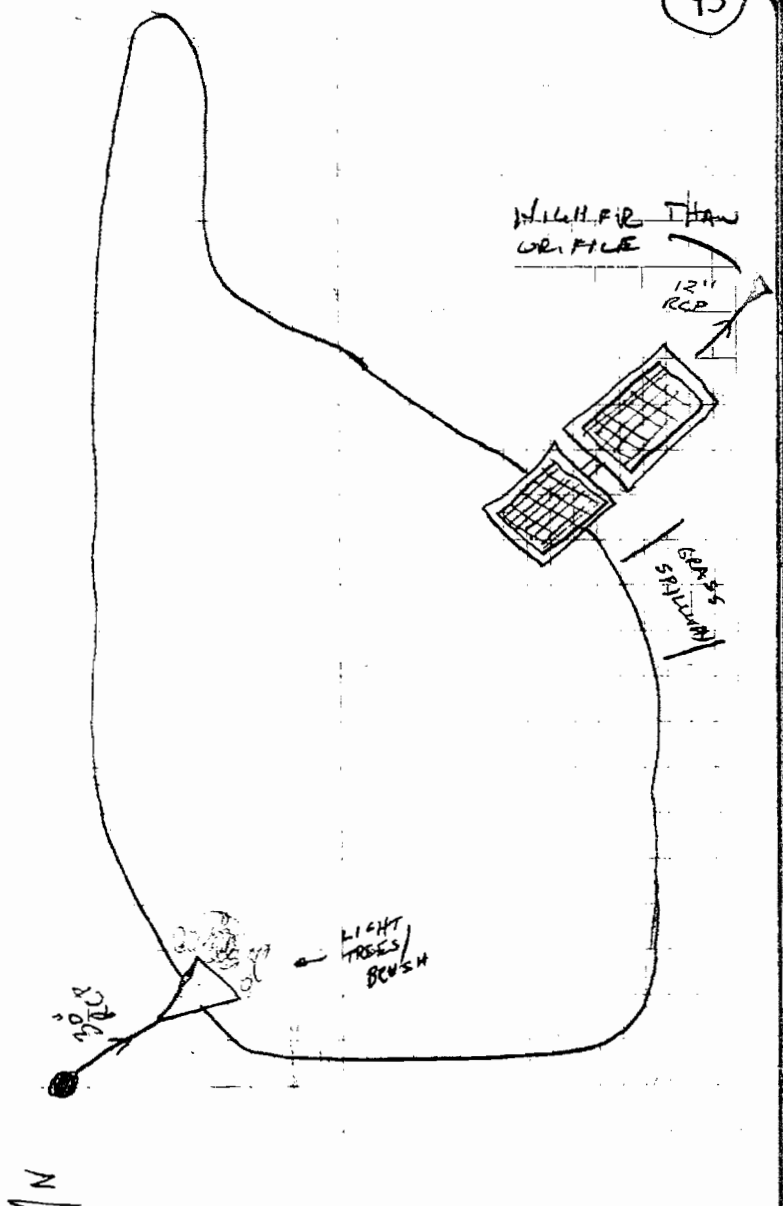
START # 9400 — 9510 — 7+02, 7+20 — 6.0, 6.2 — WIR

END # 9509 — 5+17, 6.0 — BL

* NEED LIGHT CLEARING @ 18" FES
* NEED POND BOTTOM DEPTHS
- NOTE: OUTFALL RCP MUST BE 0.15-0.20± HIGHER THAN ORIFICE



45



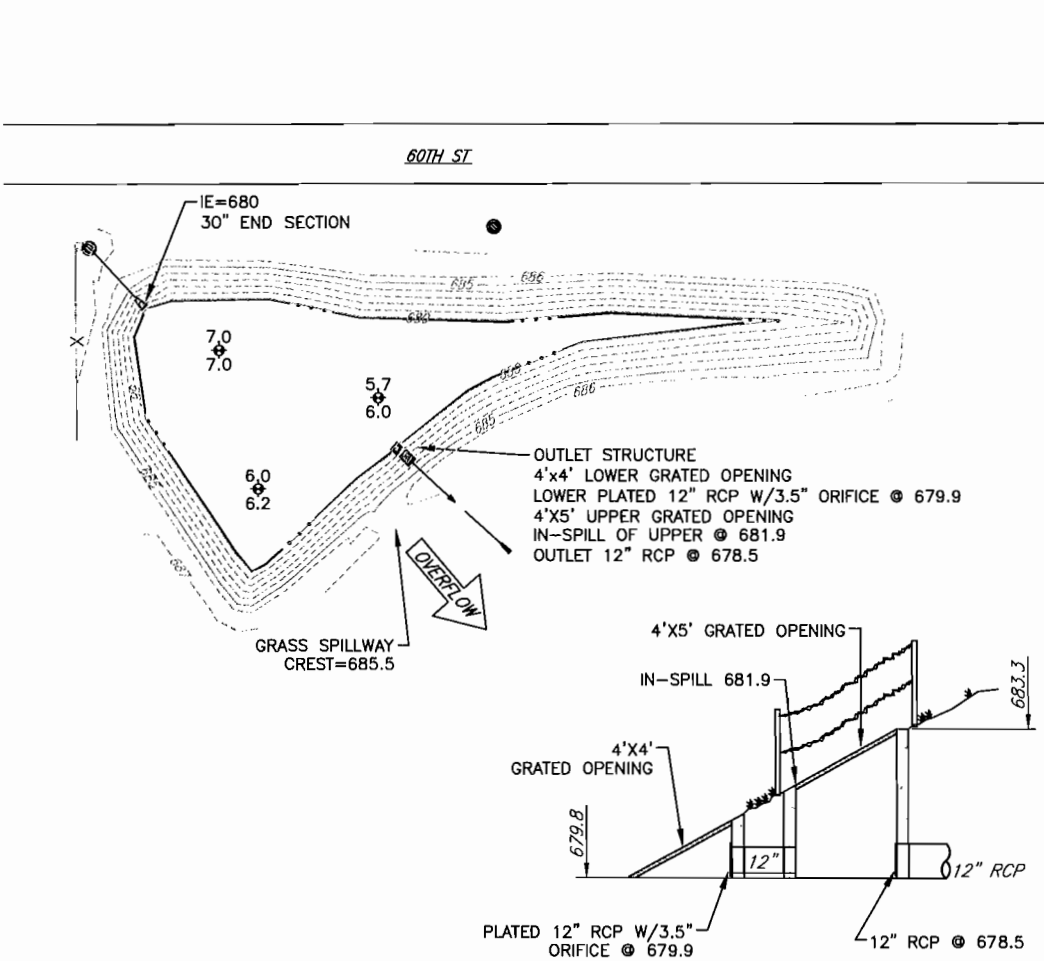
LEONAS ROLLING MEADOWS – BASIN F

WATER ELEV.
679.9

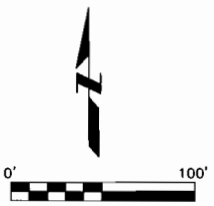
DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)
0.0 (BOTTOM)

WATER SURFACE AREA = 9,182 SF



OUTLET STRUCTURE



Clark Dietz ENGINEERS

FEB./2013

K0300080

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

Ponds Owned and Maintained
By Private Owner
Leona' s Rolling Meadows
Subdivision F

Ponds Owned and Maintained
By Private Owner
Dairyland Greyhound Park
South

Clark Dietz
ENGINEERS

January 16, 2014

Measurement Results for Dairyland South Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
N/A	N/A	3.4 – 4.2	2018

Notes

1. The original pond design plans were not available. The measured water depth in February of 2013 varied between 3.4 and 4.2 feet.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition. The pipe joints are also in good condition.

3. Sediment build-up varied between 0 and 0.8 feet.

4. Vegetation has grown up around the entire pond perimeter; some areas are thick with willow brush.

5. There was a layer of duckweed on the pond in June 2013.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. Some willow brush and other vegetation should be cleared around the pond perimeter.

(9)
N
DAIRYLAND SAND
15" SUPPLY
PARKING LOT CURB
GRANITE
PIPE WORKS
STEAM
SAND
(FROM N. POND)
PLANT USED
CST AGGREGATE
AGGREGATE
STEAM WELLING
BELOW
1709 - 3,4, -
10 - 34,40
11 - 34,43
12 - 27, 4,6
13 - 37, 4,4
BM 44.46
PIPE WORKS
STEAM OK
45
FLUME 2 +1.5 FROM
100. DAM

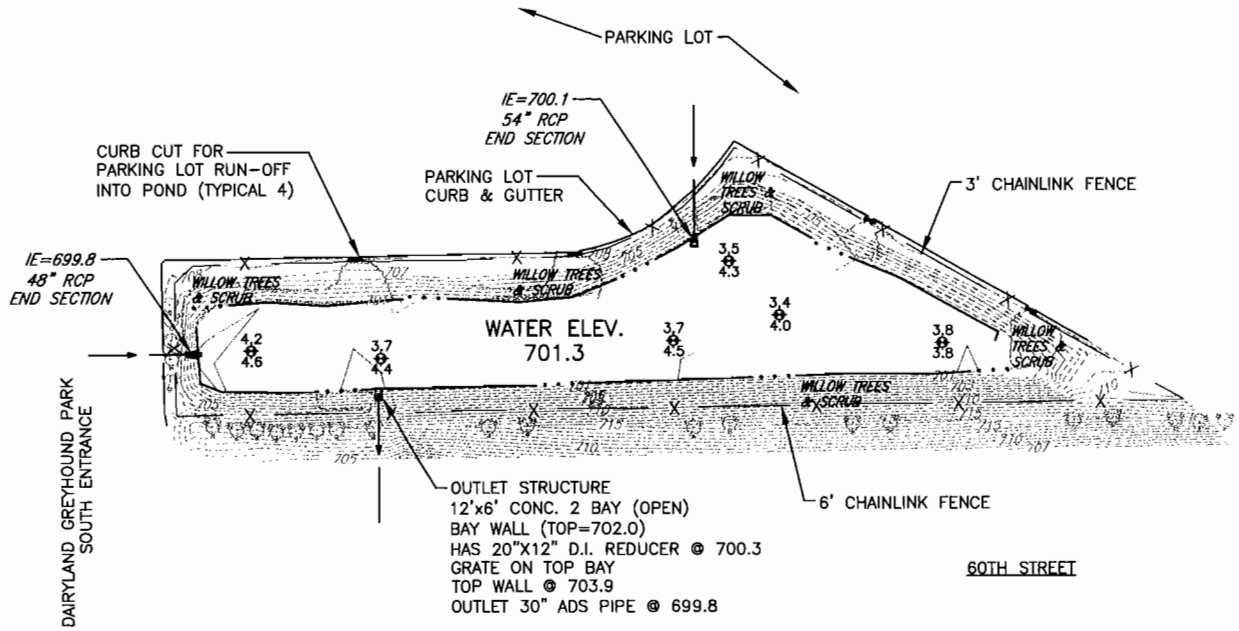
DAIRYLAND SOUTH

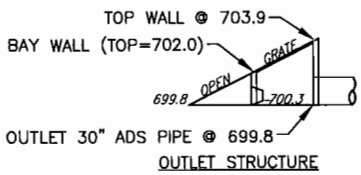
DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)

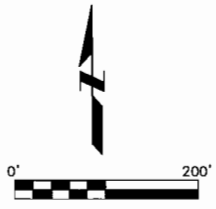
0.0 (BOTTOM)

WATER SURFACE AREA = 96,000 SF





OUTLET STRUCTURE



FEB./2013

K0300080

Clark Dietz ENGINEERS

5017 GREEN BAY ROAD
SUITE 126
KENOSHA, WI 53144
PHONE : 262.657.1550
FAX : 262.657.1594

NO MAINTENANCE REQUIREMENTS

2014 KENOSHA POND MAINTENANCE REQUIREMENTS
PRIVATELY OWNED WITH MAINTENANCE AGREEMENT

#	POND NAME	3 acres or more?	WET/ DRY	DREDGING?	INLET/OUTLET IMPROVEMENTS?	VEGETATION REMOVAL?	REHABILITATION NEEDED	ESTIMATED COST	ENGINEERING & ADMINISTRATION	CONTINGENCIES	TOTAL COST FOR EACH POND	WORK PRIORITY	PRIORITY RANKING	TOTAL COST OF PROJECTS BY PRIORITY	YEARS TO COMPLETION WITH $100,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $200,000 ANNUAL BUDGET [1]	YEARS TO COMPLETION WITH $300,000 ANNUAL BUDGET [1]
18	Peterson's Golden Meadow B2		Wet				None.				N/A						

NOTES:

1. Assumes 50% of budget to high-priority projects, 40% to medium-priority projects, and 10% to low-priority projects.

Ponds Owned and Maintained
By Private Owner
Peterson's Golden Meadow
B2

Clark Dietz
ENGINEERS

July 10, 2013

Measurement Results for Petersons Golden Meadow B2 Pond

Year Constructed	Design Water Depth	Measured Water Depth	Next Recommended Water Depth Measurement
2003	5	5.0 – 5.9	2018

Notes

1. The designed water depth of the pond is 5 feet. The measured water depth in February of 2013 varied between 5.0 and 5.9 feet. We conclude that the pond was over-excavated at the time of construction.

2. The inlet and outlet pipes were inspected and were found to be in good structural condition.

3. Sediment build-up varies between 0 and 0.4 feet.

4. The whole pond perimeter is mowed.

5. The pond is in like-new condition.

RECOMMENDATIONS

1. The water depth should be measured in 2018 to compare to the 2013 measurements. This will provide a comparable depth to determine the rate of sediment accumulation as well as an anticipated date for sediment removal.

2. When mowing, leave a strip of grass around the pond perimeter to improve safety and deter geese.

2/26/13 AT, BB 31° CLOUDY, WINDY

PETERSONS GOLDEN MEADOW BASIN 2

6,200 – 6112 / 6113 FW1 →

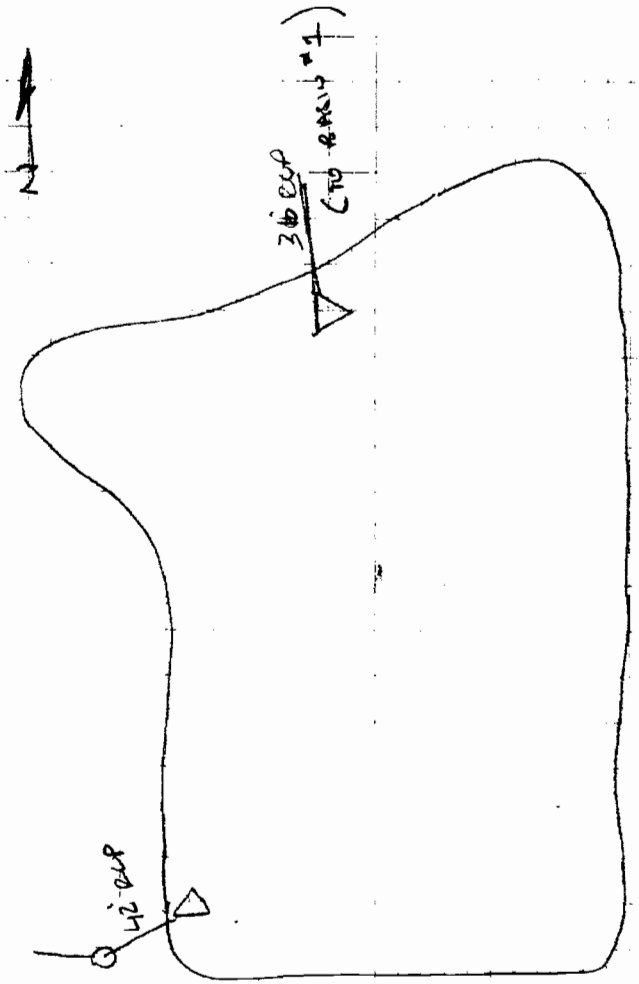
~~DELETE 5710~~

NEED – EDGE WATER
– DEPTHS

– OUTLET ? (EQUALIZATION PIPE T'B)
– OVER FLOW ? NO

7-1-13

6134 – 5.4, –
5.2, 5.4
5.4, 5.4
5.0, 5.4
5.3, 5.5
5.4, 5.7
5.3, –
5.7, –
6142 5.9, –



NEW CONDITION
– NO MAINTENANCE NEEDED

PETERSONS GOLDEN MEADOWS BASIN B2

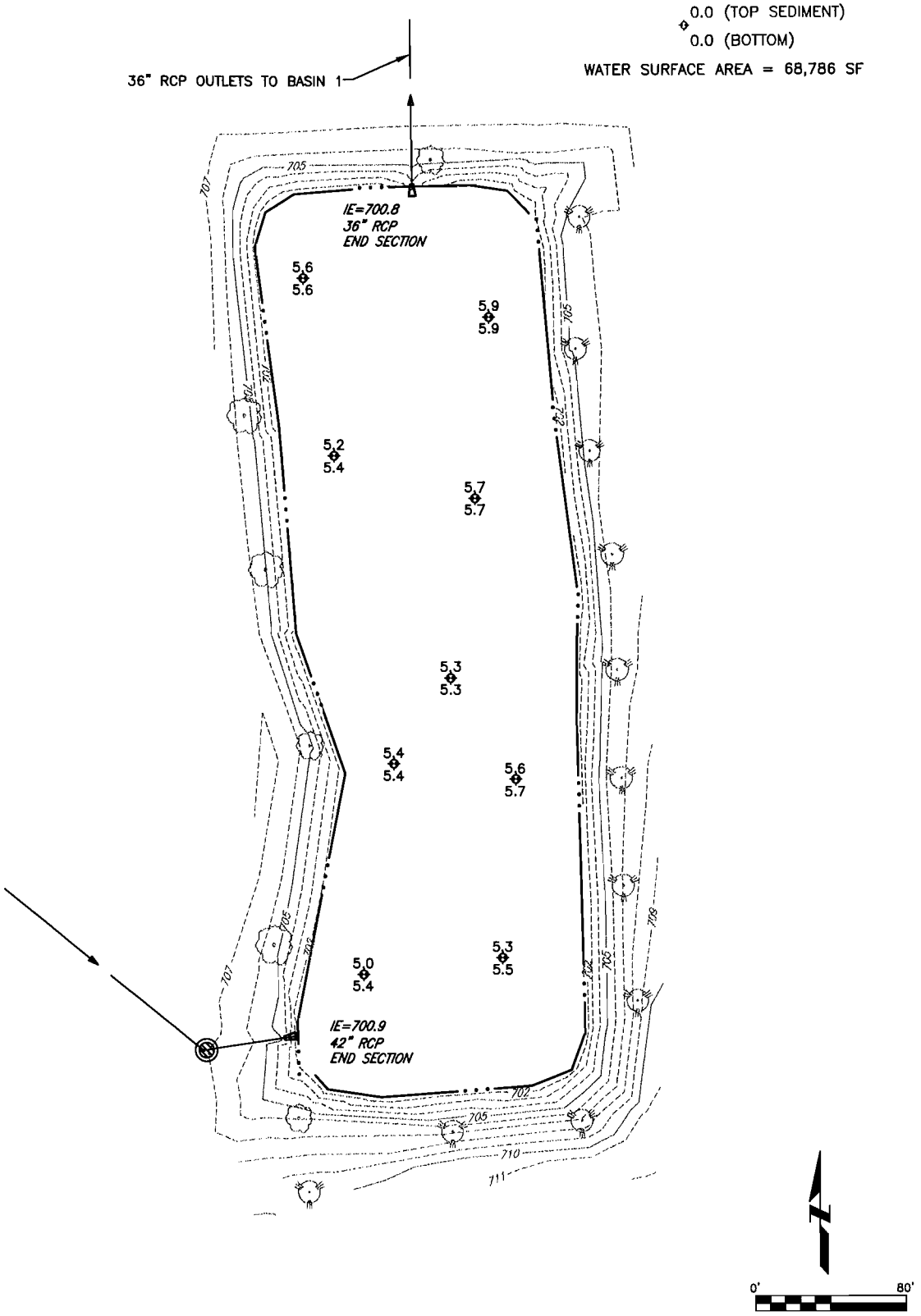
WATER ELEV.= 701.3

DEPTHS BELOW WATER

0.0 (TOP SEDIMENT)

0.0 (BOTTOM)

WATER SURFACE AREA = 68,786 SF



FEB./2013

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