

APPENDIX D

BMP CONCEPTUAL DRAWINGS

BMP COST EFFECTIVENESS SUMMARY

BMP ID	Sub-Watershed	BMP Drainage System Areas	BMP Name	Total Suspended Solids (TSS)							Total Phosphorus (TP)							BMP Cost				Average Annual TSS Net Gain Over 20 Years (lbs)	TSS Average Annual Total Cost (\$/lbs)	TSS Rank	Average Annual TP Net Gain Over 20 Years (lbs)	TP Average Annual Total Cost (\$/lbs)	TP Rank
				Area (acres)	Before Drainage System (lbs)	After Drainage System (lbs)	PBMP TSS Removal %	After Outfall Controls (lbs)	Total Load Reduction (lbs)	Net Gain* (lbs)	Before Drainage System (lbs)	After Drainage System (lbs)	PBMP TP Removal %	After Outfall Controls (lbs)	Total Load Reduction (lbs)	Net Gain* (lbs)	Water Surface Area (acres) Biofilter Size (SF)	Estimated Capital Costs	Average Annual O&M Costs For 2012	Average Annual O&M Costs Over 20 Years	Capital & Average Annual O&M Costs (20 Yrs)						
EBMP-C22d2	Fox River	C22d2	Prairie Lake Condos Pond (M.A.)	65.6	10,258	8,873	96.2%	391	9,867	8,483	41.82	38.62	55.0%	18.80	23.02	19.82	14.23	\$5,000	\$0	\$0	\$5,000	169,652	\$0.03	1	396.47	\$13	1
EBMP-Q3d	Fox River	Q3d	Meadow Heights North Pond (M.A.)	36.8	8,694	6,792	90.4%	837	7,857	5,955	31.99	27.60	59.2%	13.06	18.93	14.54	0.72	\$5,000	\$0	\$0	\$5,000	119,102	\$0.04	2	290.85	\$17	2
EBMP-C19d	Fox River	C19d	Cottagewood Condos (M.A.)	19.0	4,039	3,254	84.8%	614	3,425	2,640	14.32	12.51	54.2%	6.56	7.76	5.95	0.82	\$5,000	\$0	\$0	\$5,000	52,790	\$0.09	3	119.00	\$42	6
EBMP-C3c	Fox River	C3c	New Hope Lutheran Church Pond (M.A.)	18.8	2,867	2,867	83.5%	473	2,394	2,394	10.75	10.75	58.6%	4.45	6.30	6.30	0.31	\$5,000	\$0	\$0	\$5,000	47,870	\$0.10	4	125.95	\$40	5
EBMP-C2b4	Fox River	C2b4	Golf Village Wet Pond (M.A.)	19.3	3,611	2,879	86.4%	491	3,120	2,388	14.10	12.41	57.9%	5.94	8.16	6.47	1.00	\$5,000	\$0	\$0	\$5,000	47,761	\$0.10	5	129.41	\$39	4
EBMP-D21d	Fox River	D21d	Winding Creek Estates South Pond (M.A.)	24.5	4,344	3,597	72.1%	1,213	3,131	2,384	17.51	15.79	49.2%	8.89	8.62	6.90	0.47	\$5,000	\$0	\$0	\$5,000	47,672	\$0.10	6	137.96	\$36	3
EBMP-L3a1	Fox River	L3a1	Wheeler Pond (M.A.)	8.7	2,896	2,669	82.1%	518	2,379	2,152	6.50	6.16	56.4%	2.83	3.67	3.33	0.25	\$5,000	\$0	\$0	\$5,000	43,034	\$0.12	7	66.62	\$75	8
EBMP-S2a2-2	Fox River	S2a2-2	Minimax Storage Pond (M.A.)	8.4	1,841	1,839	81.5%	341	1,500	1,498	5.69	5.68	68.3%	1.80	3.89	3.88	0.18	\$5,000	\$0	\$0	\$5,000	29,950	\$0.17	8	77.63	\$64	7
EBMP-C19c	Fox River	C19c	Bryce Pond (M.A.)	2.6	1,665	1,562	92.9%	118	1,547	1,445	3.28	3.12	64.1%	1.18	2.11	1.95	0.88	\$5,000	\$0	\$0	\$5,000	28,891	\$0.17	9	38.90	\$129	12
EBMP-D21c3	Fox River	D21c3	Winding Creek Estates Pond (M.A.)	10.3	1,885	1,532	81.2%	354	1,531	1,178	7.48	6.67	50.1%	3.74	3.74	2.93	0.45	\$5,000	\$0	\$0	\$5,000	23,568	\$0.21	10	58.62	\$85	9
EBMP-D20b2b1	Fox River	D20b2b1	Secura West Pond (M.A.)	13.9	3,393	1,767	81.9%	614	2,779	1,153	12.19	7.62	59.2%	4.98	7.22	2.64	1.90	\$5,000	\$0	\$0	\$5,000	23,053	\$0.22	11	52.90	\$95	10
EBMP-C22a1	Fox River	C22a1	Meadow Heights Pond (M.A.)	5.3	1,145	904	95.3%	54	1,090	850	4.33	3.77	55.1%	1.94	2.38	1.83	0.23	\$5,000	\$0	\$0	\$5,000	17,001	\$0.29	12	36.58	\$137	13
EBMP-C7c	Fox River	C7c	Jacobsen Creek Condo Pond 1 (M.A.)	3.9	1,054	835	91.0%	95	959	740	3.61	3.11	59.3%	1.47	2.14	1.64	0.31	\$5,000	\$0	\$0	\$5,000	14,801	\$0.34	13	32.74	\$153	16
EBMP-C7b	Fox River	C7b	Jacobsen Creek Condo Pond 2 (M.A.)	4.0	1,075	863	86.5%	145	930	718	3.80	3.32	56.2%	1.67	2.14	1.65	0.23	\$5,000	\$0	\$0	\$5,000	14,369	\$0.35	14	32.99	\$152	15
EBMP-Q2a	Fox River	Q2a	Gateway Meadows Pond (M.A.)	5.9	1,180	937	80.0%	236	944	701	4.56	4.00	60.0%	1.83	2.74	2.18	0.12	\$5,000	\$0	\$0	\$5,000	14,019	\$0.36	15	43.54	\$115	11
EBMP-S2a2-1	Fox River	S2a2-1	Penske Pond (M.A.)	3.5	785	785	85.6%	113	671	671	2.40	2.40	73.7%	0.63	1.77	1.77	0.17	\$5,000	\$0	\$0	\$5,000	13,429	\$0.37	16	35.43	\$141	14
EBMP-D19a-1	Fox River	D19a-1	Red D Mix Pond (M.A.)	2.7	1,137	720	93.7%	71	1,065	649	1.70	1.12	82.2%	0.30	1.39	0.81	0.26	\$5,000	\$0	\$0	\$5,000	12,979	\$0.39	17	16.27	\$307	18
EBMP-C2b1-3	Fox River	C2b1-3	Century Oaks Residential Care Pond (M.A.)	3.7	479	479	87.9%	58	421	421	1.97	1.97	56.1%	0.87	1.10	1.10	0.21	\$5,000	\$0	\$0	\$5,000	8,418	\$0.59	18	22.08	\$226	17
EBMP-I3a2	Fox River	I3a2	Miron Office Expansion Biofilters (M.A.)	2.3	689	689	56.5%	300	390	390	1.70	1.70	30.0%	1.19	0.51	0.51	1,000	\$5,000	\$0	\$0	\$5,000	7,795	\$0.64	19	10.19	\$491	19
EBMP-C2b1-2	Fox River	C2b1-2	RestorU Biofilters (M.A.)	1.8	543	543	71.5%	155	388	388	1.34	1.34	35.0%	0.87	0.47	0.47	2,000	\$5,000	\$0	\$0	\$5,000	7,760	\$0.64	20	9.36	\$534	20
PBMP-I2a2	Fox River	I2a2, I4a1, I4a3	DOT Pond 6 (East of Jacobson Road)	28.8	14,347	9,102	79.4%	2,951	11,396	6,150	25.11	17.12	60.1%	10.03	15.08	7.08	1.08	\$5,000	\$6,265	\$125,306	\$130,306	123,007	\$1.06	21	141.66	\$920	25
PBMP-S1d1	Fox River	EBMPs: S2a2-1, S2a2-2, PBMPs: S1d1, S2c3	Holly Pond	237.6	63,333	51,910	65.4%	21,913	41,420	29,997	184	159	47.5%	96.77	87.52	62.47	1.17	\$582,000	\$6,612	\$132,238	\$714,238	599,931	\$1.19	22	1,249.32	\$572	22
EBMP-I3a3b	Fox River	I3a3b	Miron East Parking Lot Biofilter (M.A.)	3.5	204	204	80.0%	41	163	163	1.29	1.29	35.0%	0.84	0.45	0.45	1,000	\$5,000	\$0	\$0	\$5,000	3,265	\$1.53	23	9.03	\$554	21
PBMP-C2b2a	Fox River	EBMPs: C2b1-1, C2b1-2, C2b1-3, PBMP-C2b2a	DOT Pond 1 - American Drive (M.A.)	19.1	5,446	4,330	78.3%	1,184	4,262	3,146	17.49	15.08	62.5%	6.56	10.93	8.52	0.69	\$5,000	\$4,833	\$96,650	\$101,650	62,917	\$1.62	24	170.42	\$596	23
PBMP-S1d1 (ES)	Fox River	EBMPs: S2a2-1, S2a2-2, PBMPs: S1d1, S2c3	Holly Pond w/Enhanced Settlement	237.6	63,333	51,910	90.0%	6,333	57,000	45,576	184	159	85.0%	27.64	156.64	131.59	1.17	\$791,707	\$47,896	\$957,924	\$1,749,631	911,530	\$1.92	25	2,631.83	\$665	24
PBMP-I1c1	Fox River	I1c1	DOT Pond 7 - North of Ehlers Road (M.A.)	3.4	2,233	2,233	86.6%	298	1,934	1,934	4.57	4.57	69.7%	1.38	3.19	3.19	0.36	\$5,000	\$3,635	\$72,705	\$77,705	36,886	\$2.0	26	63.71	\$1,220	27
PBMP-B17a-R	Fox River	B17a, G2a1	SCA Lake Pond	51.3	21,748	17,273	81.81%	3,956	17,792	13,317	39	31	58.97%	15.97	22.95	15.21	0.98	\$490,000	\$5,885	\$117,693	\$607,693	266,349	\$2.3	27	304.18	\$1,998	38
PBMP-B17a	Fox River	B17a	SCA Lake South Pond	26.3	11,532	9,668	82.64%	2,002	9,530	7,666	19	16	59.22%	7.78	11.30	8.66	0.51	\$285,000	\$4,179	\$83,589	\$368,589	153,313	\$2.4	28	173.12	\$2,129	41
PBMP-M1a5-2	Fox River	M1a5b, M1b1a, M1b1b, M1b3a, M1b3b, E9a2, E10a3	Midway Pond (DOT Pond 4), Future Expansion	91.0	25,839	14,551	82.00%	4,651	21,188	9,900	74	37	60.50%	29.17	44.67	7.95	4.61	\$100,000	\$19,868	\$397,354	\$497,354	197,998	\$2.5	29	153.03	\$3,250	50
PBMP-D16a2	Fox River	D16a2, D17a	Auto Pond	78.7	31,563	23,535	81.68%	5,782	25,781	17,752	56	42	60.71%	21.96	33.93	19.93	1.92	\$720,000	\$3,345	\$190,005	\$910,005	355,044	\$2.6	30	398.68	\$2,283	42
PBMP-C2a1	Fox River	C2a1	Fox Inn Pond	24.4	11,132	7,558	78.55%	2,388	8,744	5,170	22	16	62.82%	8.20	13.86	7.69	0.28	\$230,000	\$3,345	\$66,900	\$296,900	103,409	\$2.9	31	153.76	\$1,931	37
PBMP-M1a5	Fox River	M1a5b, M1b1a, M1b1b, M1b3a, M1b3b	Midway Pond (DOT Pond 4)	43.8	14,379	11,376	82.00%	2,588	11,791	8,788	34	27	60.50%	13.58	20.80	13.72	6.56	\$5,000	\$27,387	\$547,740	\$552,740	175,751	\$3.1	32	274.44	\$2,014	39
PBMP-B13a1b	Fox River	B13a1b	Bengal Pond	12.8	7,563	6,383	83.02%	1,284	6,279	5,099	15	13	58.01%	6.12	8.46	6.70	0.71	\$265,000	\$4,905	\$98,102	\$363,102	101,979	\$3.6	33	134.06	\$2,708	46
PBMP-I3a3-1	Fox River	EBMP-I3a2, I3a3b PBMP-I3a3	SCA Office Pond Modification	22																							

POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-B13a1b

McM PROJECT NO: M0003-910495

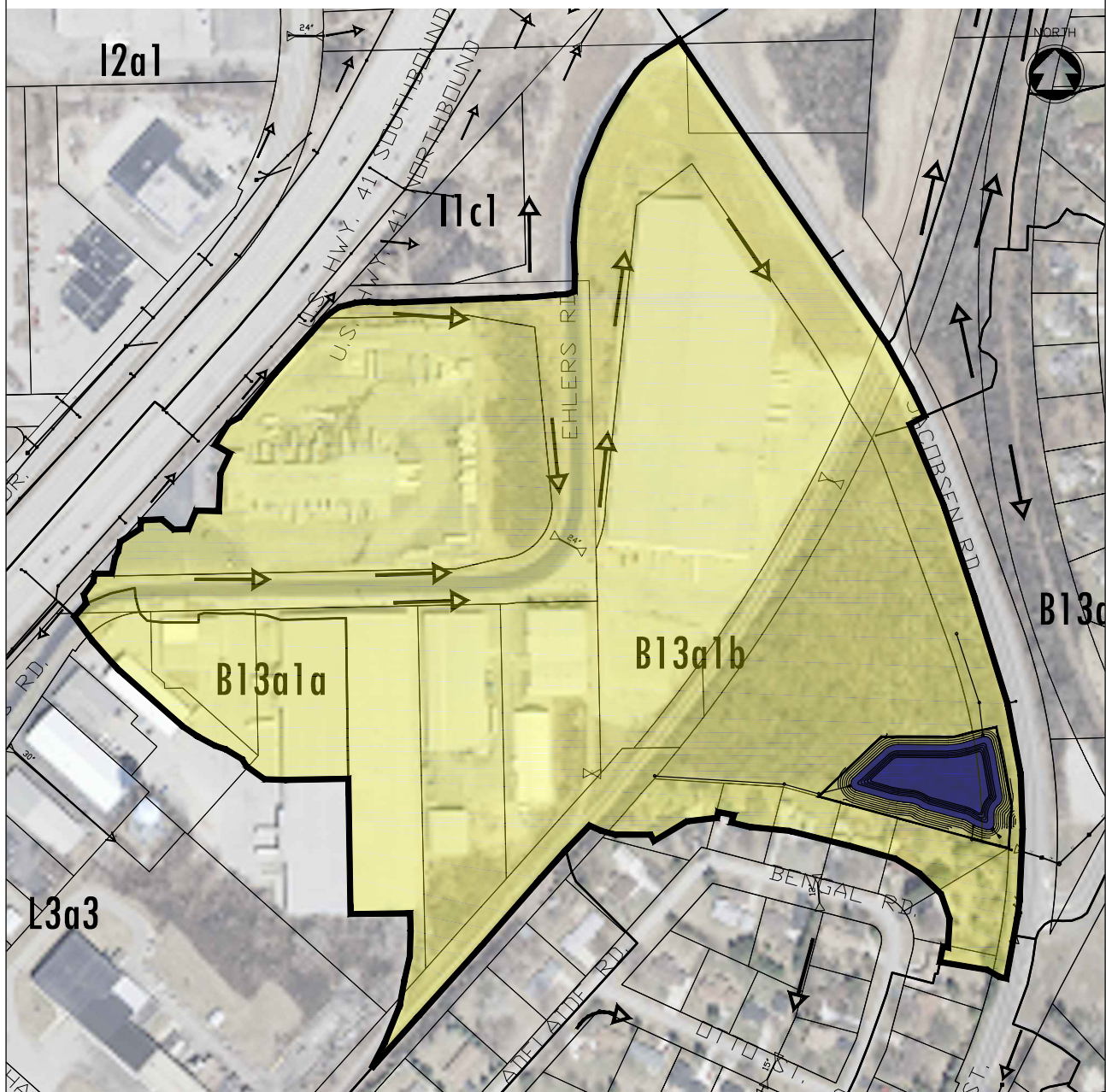
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: BENGAL POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: B13a1b	Total Drainage Area: 38.5 acres
Imperviousness (Future): 61.6 %	Runoff Curve Number (Future): 88	Water Quality Volume (Future): 2.91 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft):	>5 ft	Remediation:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wetland:	<input checked="" type="checkbox"/> Potential <input type="checkbox"/> Yes <input type="checkbox"/> No
Bedrock Depth (in):	>60 in	Historical:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Public Well < 400 ft:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
USDA Soil Texture:	OMRO CLAY LOAM	100-Year Floodplain:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Private Well < 100 ft:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall to a ditch located SW of the pond, which discharges under N. Lake Street

Infrastructure modifications or flow diversions required for retrofit:

Dvert the swales northeast and west of the pond into the pond.

Site access for future BMP maintenance:

Access is from N. Lake Street.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Utility oonflicts, potential wetlands, groundwater depth and private property.

Approx. Size of BMP Retrofit:

0.71 acre permanent pool

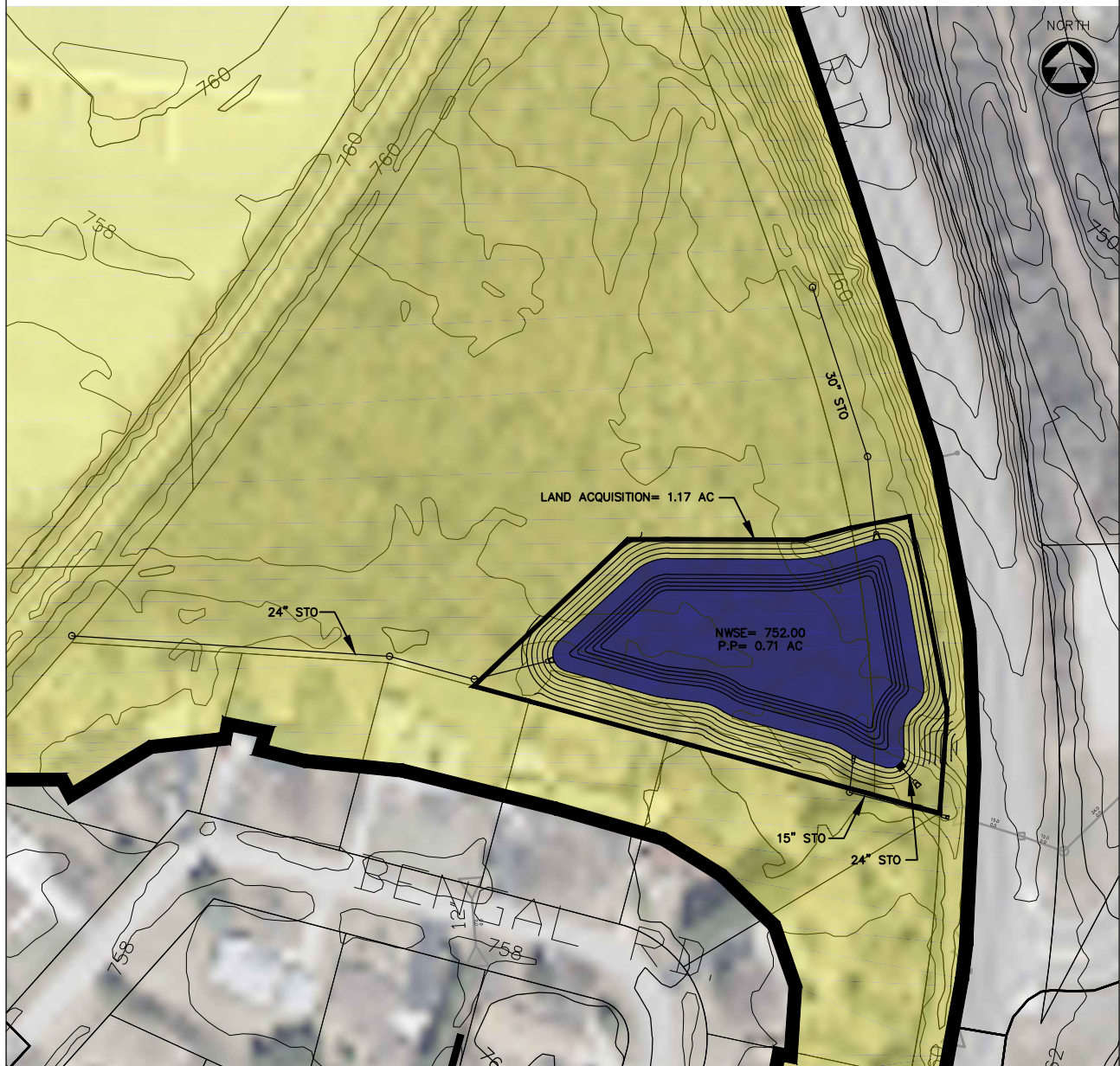
Approx. Land Required (ac):

1.17 acres

Estimated Cost:

\$265,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-B16a

McM PROJECT NO: F0057-9-17-00221

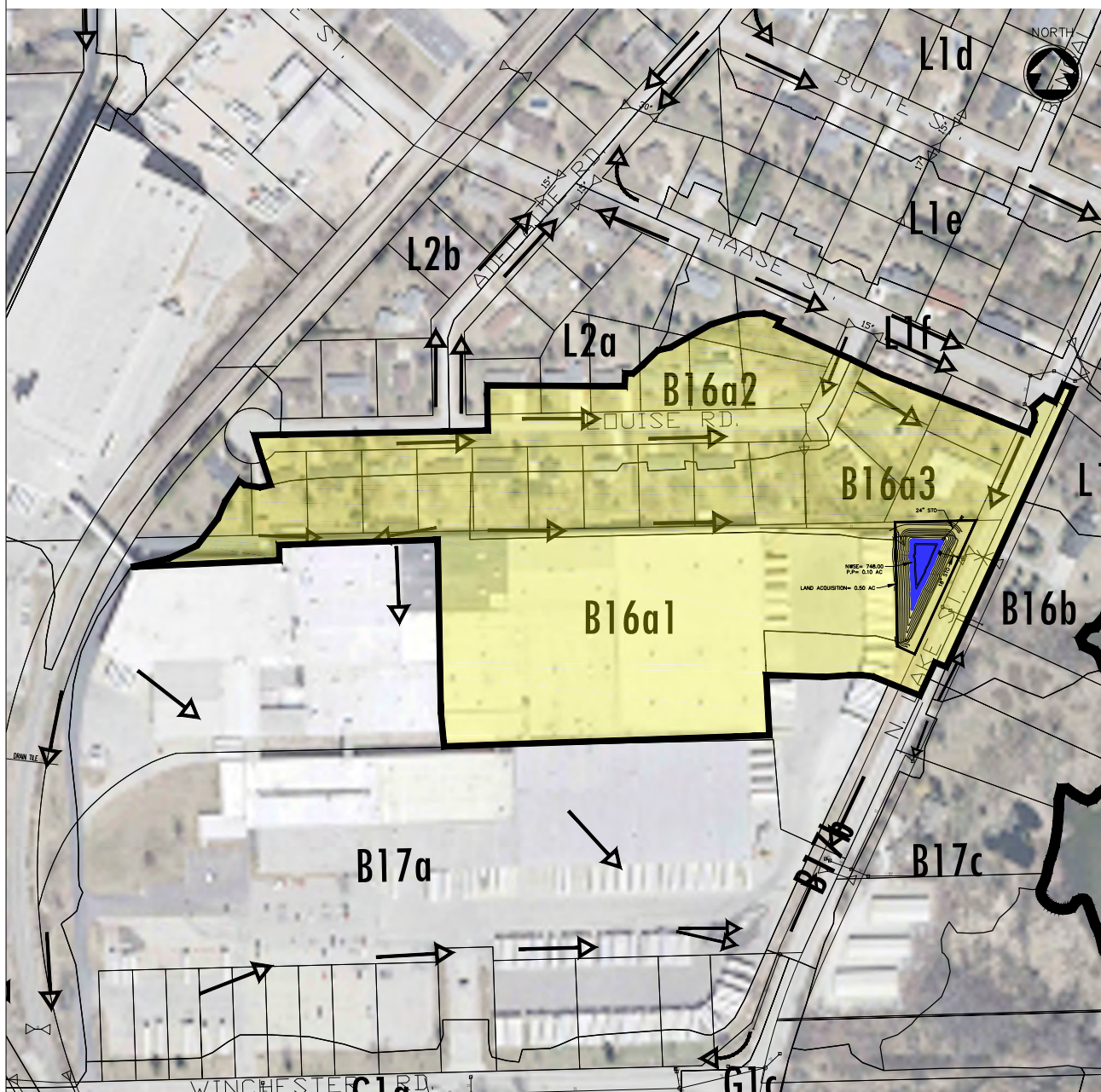
SITE INFORMATION:

Municipality: VILLAGE OF FOX CROSSING	Date: MAY, 2018
Proposed BMP Name: SCA LAKE NORTH POND MODIFICATION	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: B16a	Total Drainage Area: 16.3 acres
Imperviousness (Future): 57.4 %	Runoff Curve Number (Future): 88	Water Quality Volume (Future): 1.15 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): > 5 FT

Bedrock Depth (in): > 60 IN

USDA Soil Texture: OMRO CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer to Lake Street.

Infrastructure modifications or flow diversions required for retrofit:

Conversion of an Existing Pond.

Site access for future BMP maintenance:

Access from Lake Street.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Rock excavation, groundwater and private property.

Approx. Size of BMP Retrofit:

0.10 acre permanent pool

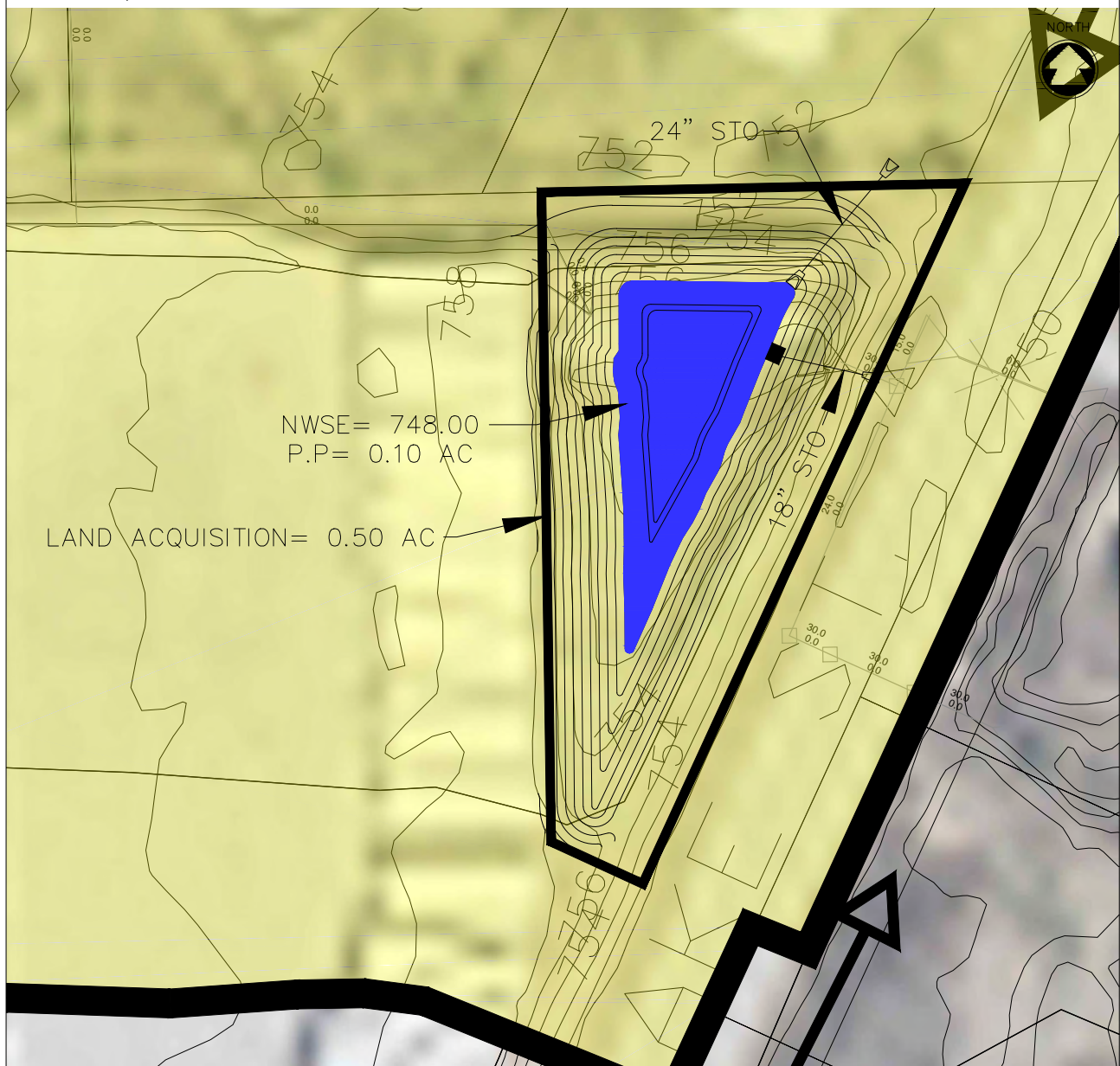
Approx. Land Required (ac):

0.50 acres

Estimated Cost:

\$192,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-B17a

McM PROJECT NO: M0003-910495

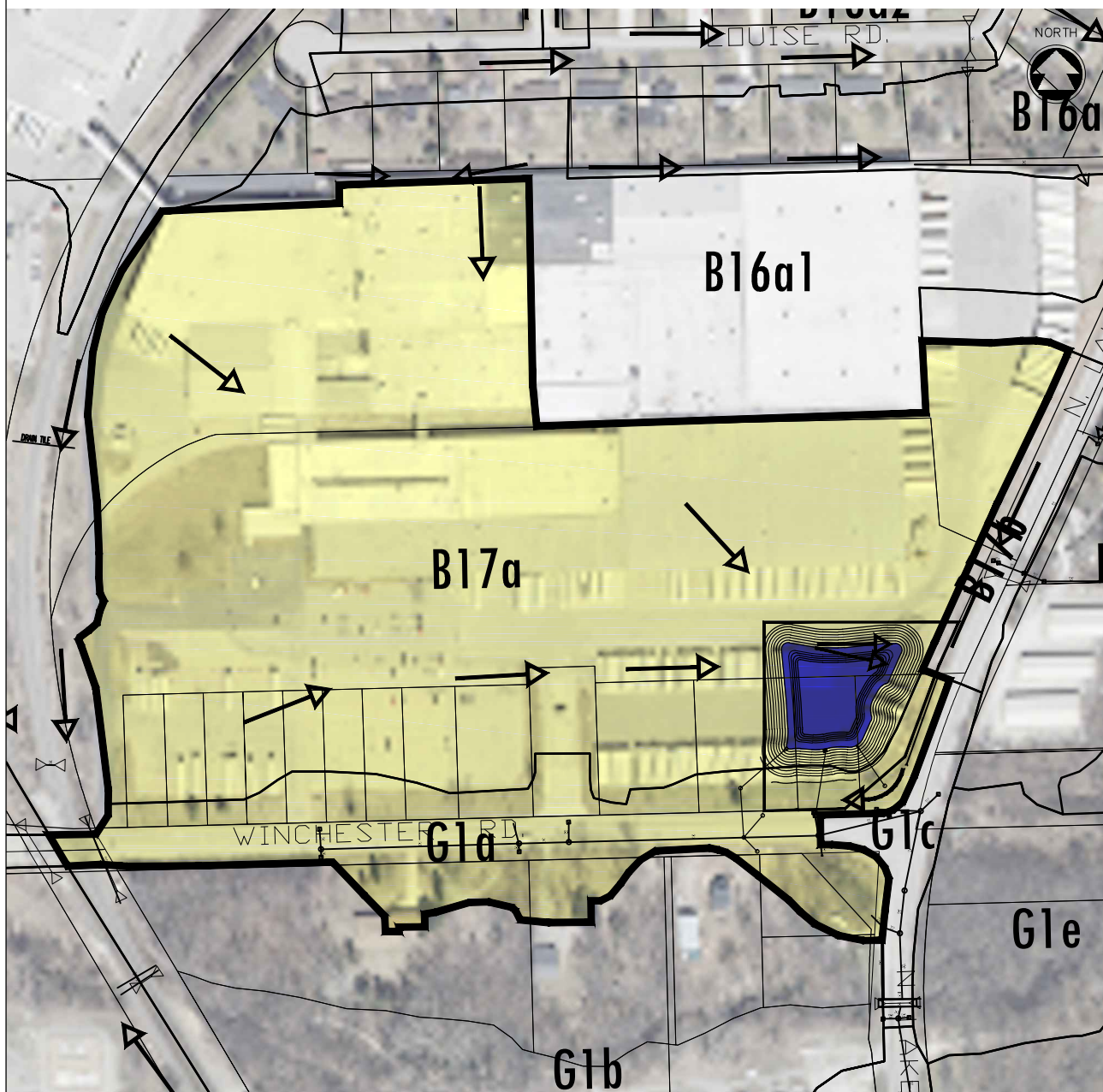
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: SCA LAKE SOUTH POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: B17a	Total Drainage Area: 26.3 acres
Imperviousness (Future): 75.3 %	Runoff Curve Number (Future): 92	Water Quality Volume (Future): 2.39 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): >5 ft Remediation: ☐ Yes ☒ No Wetland: ☐ Potential ☐ Yes ☒ No
Bedrock Depth (in): >60 in Historical: ☐ Yes ☒ No Public Well < 400 ft: ☐ Yes ☒ No
USDA Soil Texture: OMRO CLAY LOAM 100-Year Floodplain: ☐ Yes ☒ No Private Well < 100 ft: ☐ Yes ☒ No

Wetland: ☐ Potential ☐ Yes ☒ No
Public Well < 400 ft: ☐ Yes ☒ No
Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer to the south side of Winchester Road.

Infrastructure modifications or flow diversions required for retrofit:

Route the ditch SE of the pond into the pond and the Winchester Road storm sewer into the pond with storm sewer.

Site access for future BMP maintenance:

Access is from N. Lake Street or Winchester Road.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Utility conflicts, storm sewer depth, groundwater and private parking lot property.

Approx. Size of BMP Retrofit:	Approx. Land Required (ac):	Estimated Cost:
-------------------------------	-----------------------------	-----------------

0.51 acre permanent pool	1.48 acres	\$285,000
--------------------------	------------	-----------

Approx. Land Required (ac):	Estimated Cost:
-----------------------------	-----------------

1.48 acres	\$285,000
------------	-----------

Estimated Cost:	
-----------------	--

\$285,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-B17a-R

McM PROJECT NO: M0003-910495

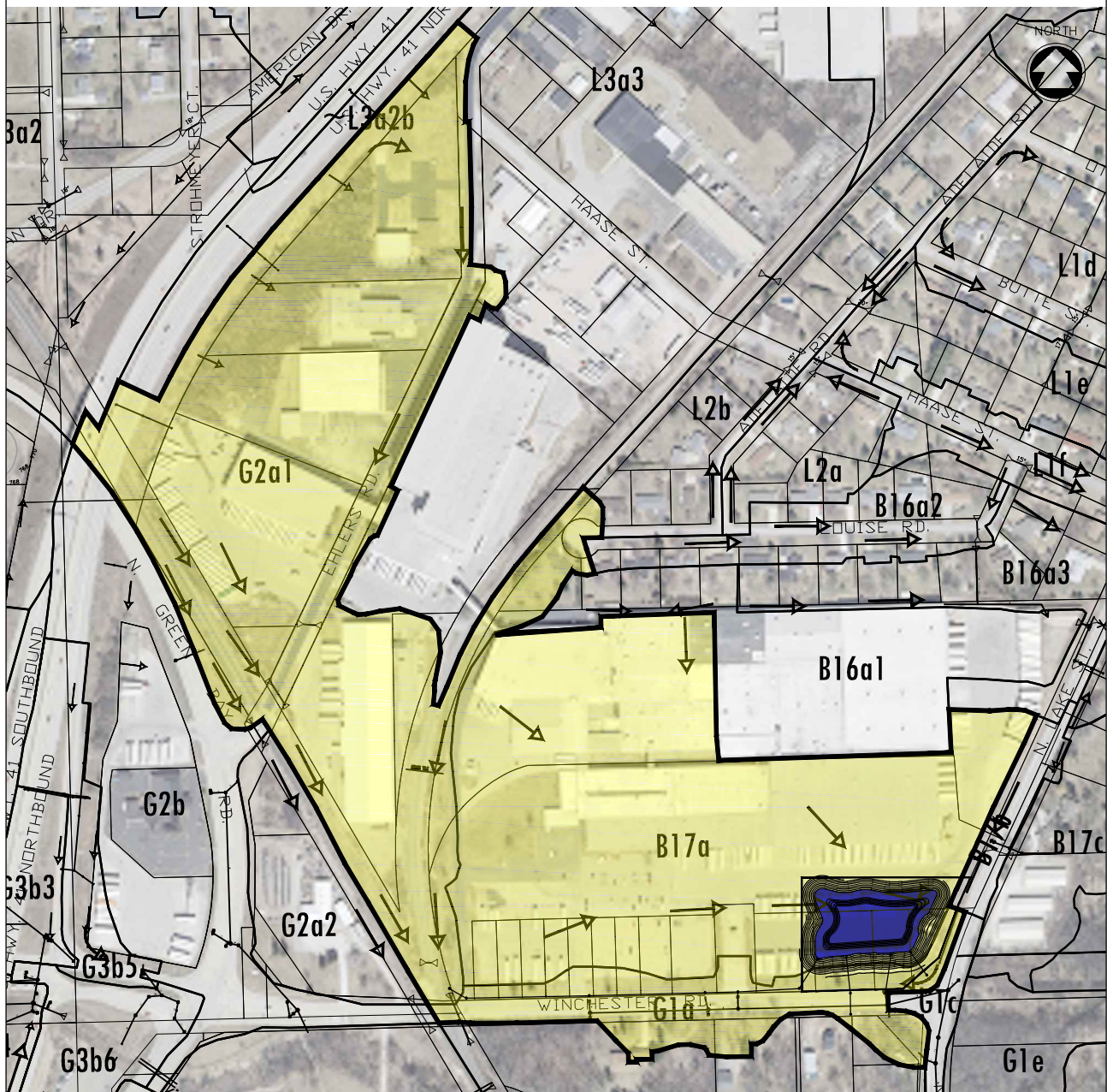
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: SCA LAKE POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: B17a, G1a	Total Drainage Area: 53.9 acres
Imperviousness (Future): 70.9 %	Runoff Curve Number (Future): 90	Water Quality Volume (Future): 4.64 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): >5 ft	Remediation:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wetland:	<input type="checkbox"/> Potential <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Bedrock Depth (in): >60 in	Historical:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Public Well < 400 ft:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
USDA Soil Texture: OMRO CLAY LOAM	100-Year Floodplain:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Private Well < 100 ft:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):
Outfall via storm sewer south to Winchester Road.

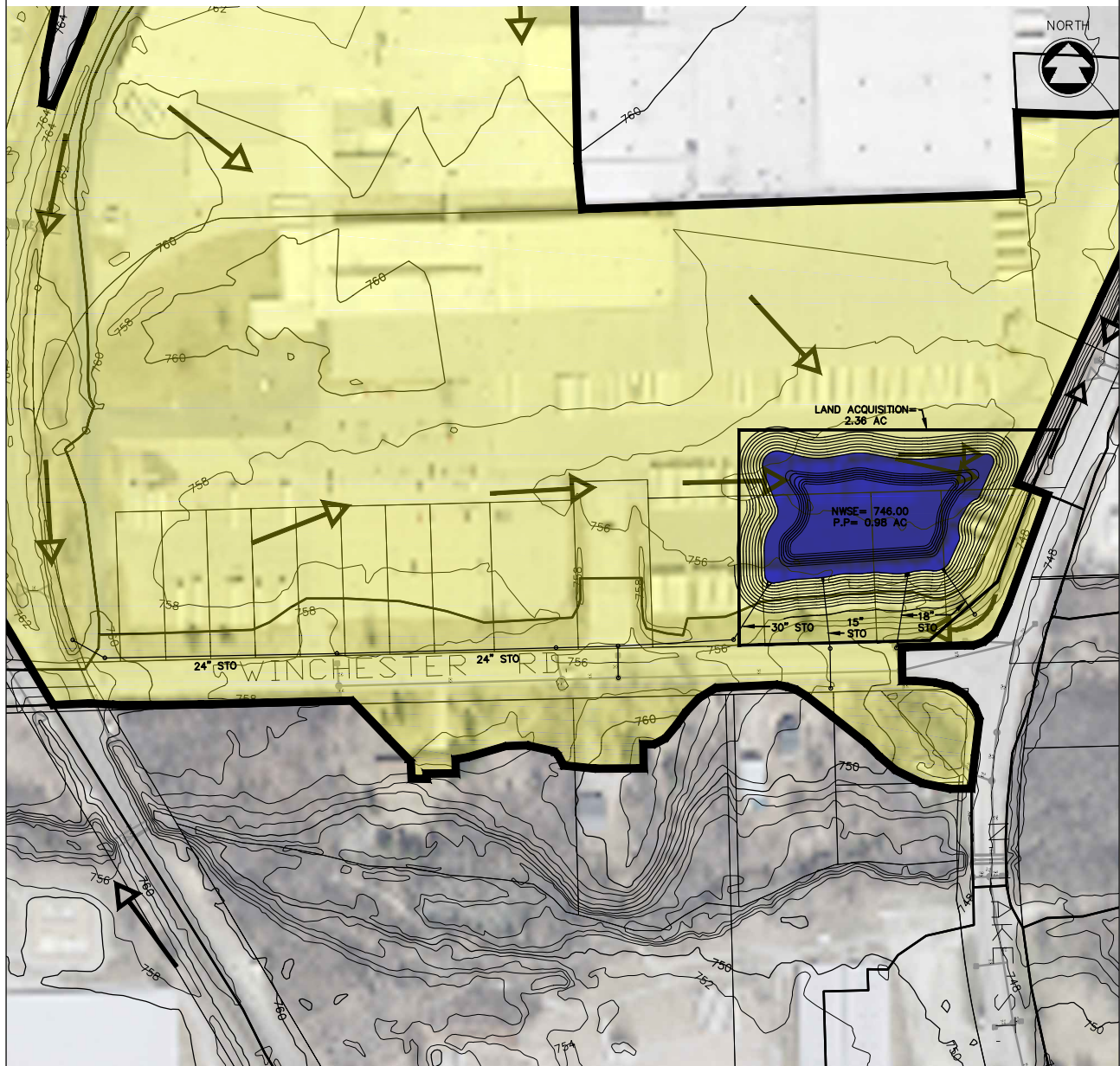
Infrastructure modifications or flow diversions required for retrofit:
Reroute the ditch SE of the pond and storm sewer along Winchester Road west to the Railroad into the pond via storm sewer.

Site access for future BMP maintenance:
Access is from N. Lake Street or Winchester Road.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):
Potential utility conflicts, storm sewer depth, groundwater and private property.

Approx. Size of BMP Retrofit: 0.98 acre permanent pool	Approx. Land Required (ac): 2.36 acres	Estimated Cost: \$490,000
---	---	------------------------------

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C2a1

McM PROJECT NO: M0003-910495

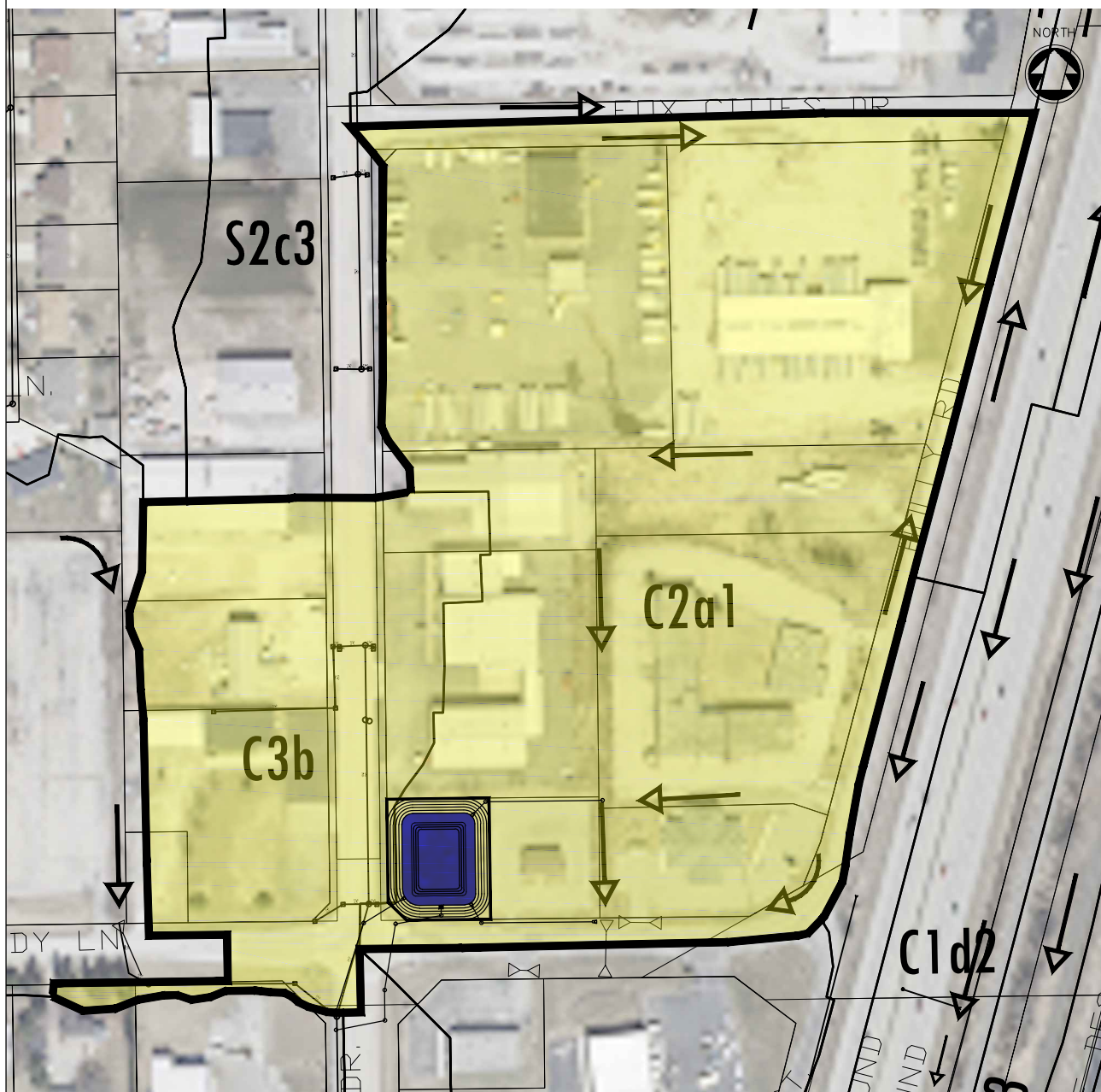
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: FOX INN POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C2a1, C3b	Total Drainage Area: 24.4 acres
Imperviousness (Future): 85.3 %	Runoff Curve Number (Future): 95	Water Quality Volume (Future): 2.50 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 2-3 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: WINNECONNE SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain: ☐ Yes ☒ No

Wetland: ☐ Potential ☐ Yes ☒ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer south along American Drive, to existing storm sewer on American Drive.

Infrastructure modifications or flow diversions required for retrofit:

Divert the ditches west of the pond, and the storm sewer at the American Dr / Shady Ln intersection to the pond via storm sewer.

Site access for future BMP maintenance:

Access is from American Dr. or E. Shady Lane

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, storm sewer depth, groundwater and private property.

Approx. Size of BMP Retrofit:

0.28 acre permanent pool

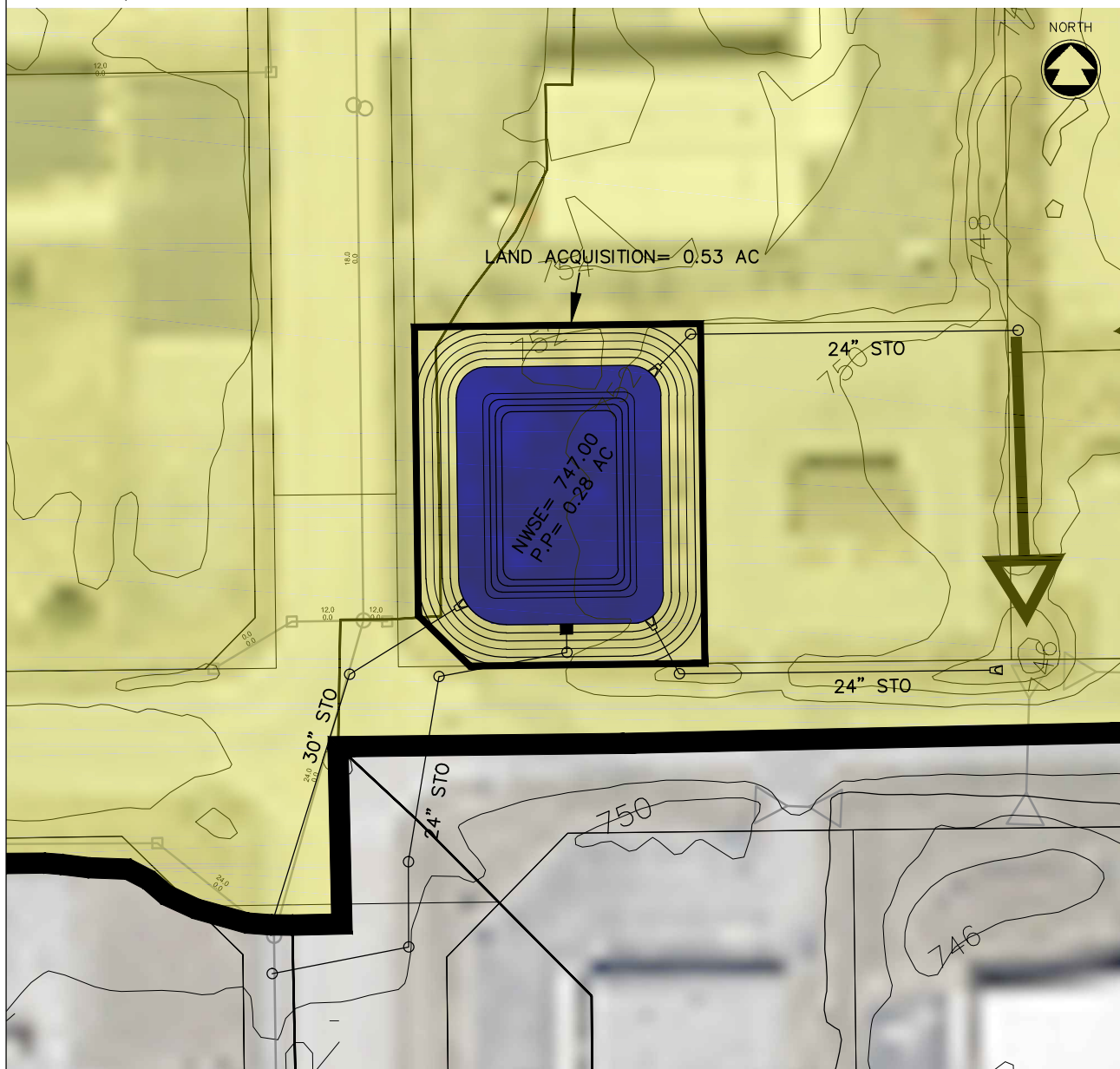
Approx. Land Required (ac):

0.53 acres

Estimated Cost:

\$230,000

Sketch of Proposed BMP Retrofit:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 1-2 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: NEENAH SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer NE of the pond.

Infrastructure modifications or flow diversions required for retrofit:

Infrastructure will be completed by WI DOT.

Site access for future BMP maintenance:

Access from USH 41 and associated ramps.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Rock excavation, cost share with Wisconsin DOT, DOT R/W.

Approx. Size of BMP Retrofit:

0.69 acre permanent pool

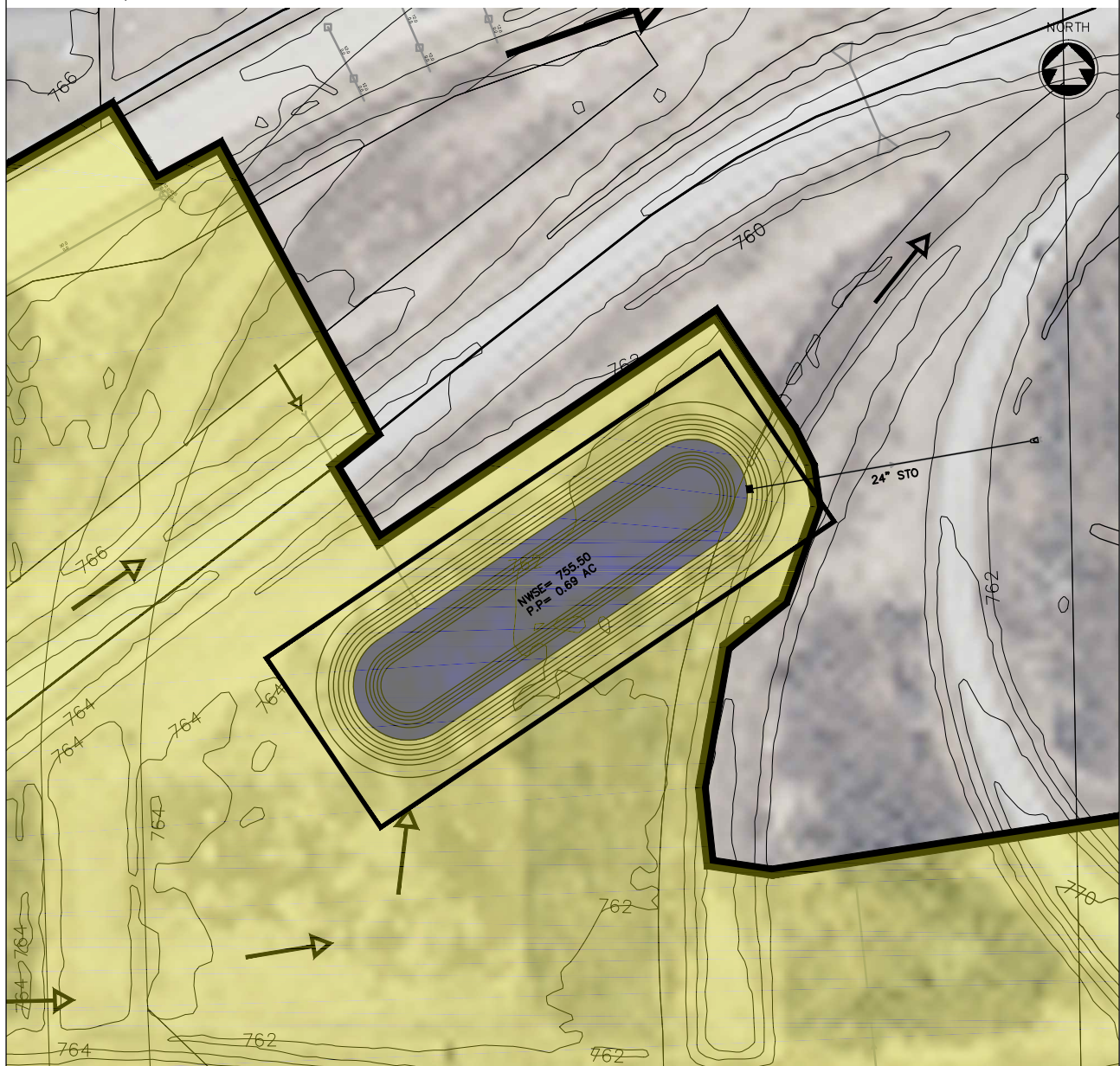
Approx. Land Required (ac):

1.65 acres

Estimated Cost:

\$435,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C2b6

McM PROJECT NO: M0003-910495

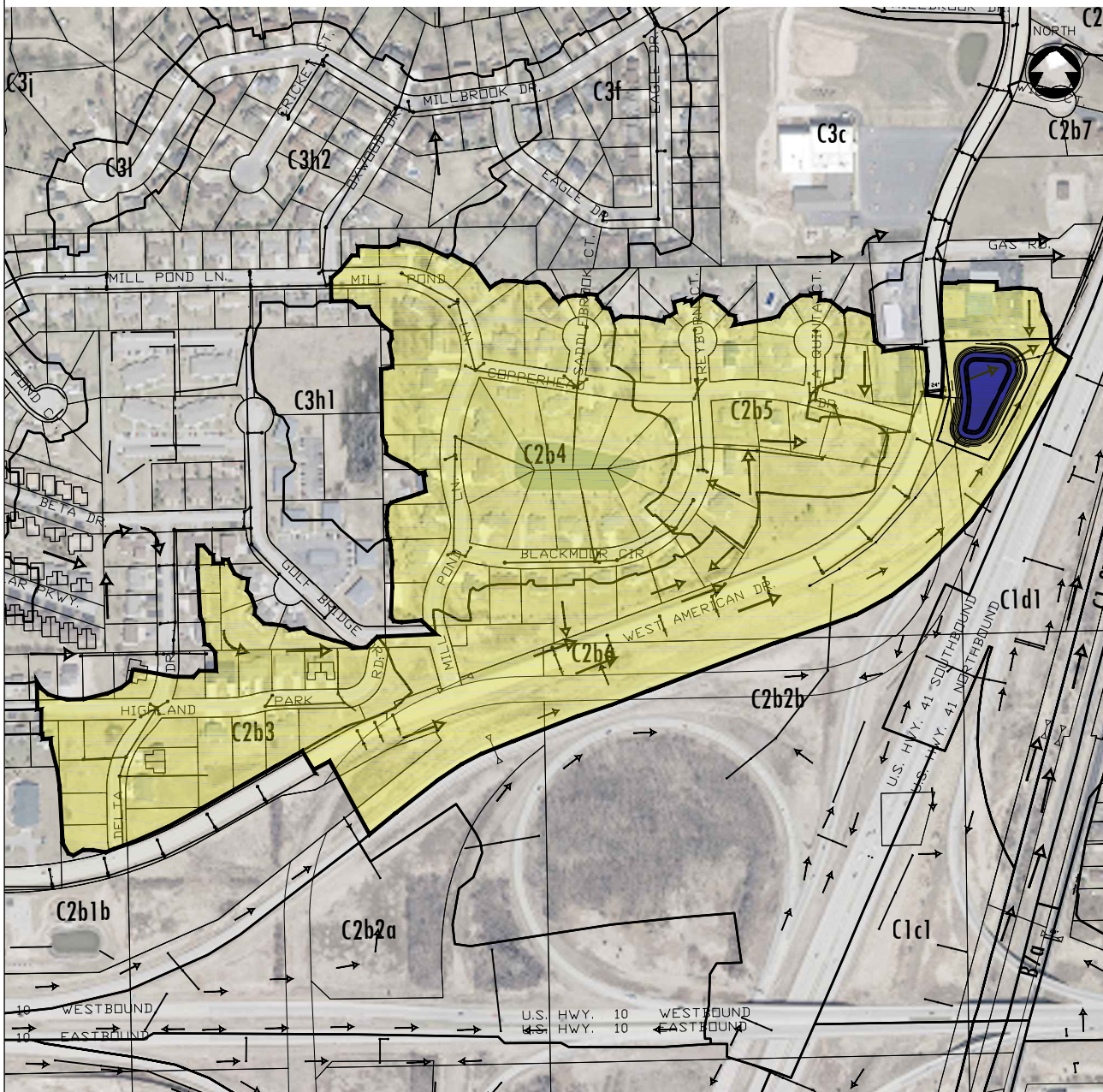
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: SOUTH AMERICAN DRIVE POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C2b6	Total Drainage Area: 65.9 acres
Imperviousness (Future): 44.1 %	Runoff Curve Number (Future): 85	Water Quality Volume (Future): 3.69 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 2-3 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: WINNECONNE SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☐ Potential ☐ Yes ☒ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer into the west USH 41 ditch.

Infrastructure modifications or flow diversions required for retrofit:

Rerouting storm sewer from American Drive and from the south ditch along American Drive into the pond via storm sewer.

Site access for future BMP maintenance:

Site access is from American Drive.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential wetlands, high groundwater, potential utility conflicts, storm sewer depth, and private property.

Approx. Size of BMP Retrofit:

0.81 acre permanent pool

Approx. Land Required (ac):

2.00 acres

Estimated Cost:

\$290,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C3d2

McM PROJECT NO: M0003-910495

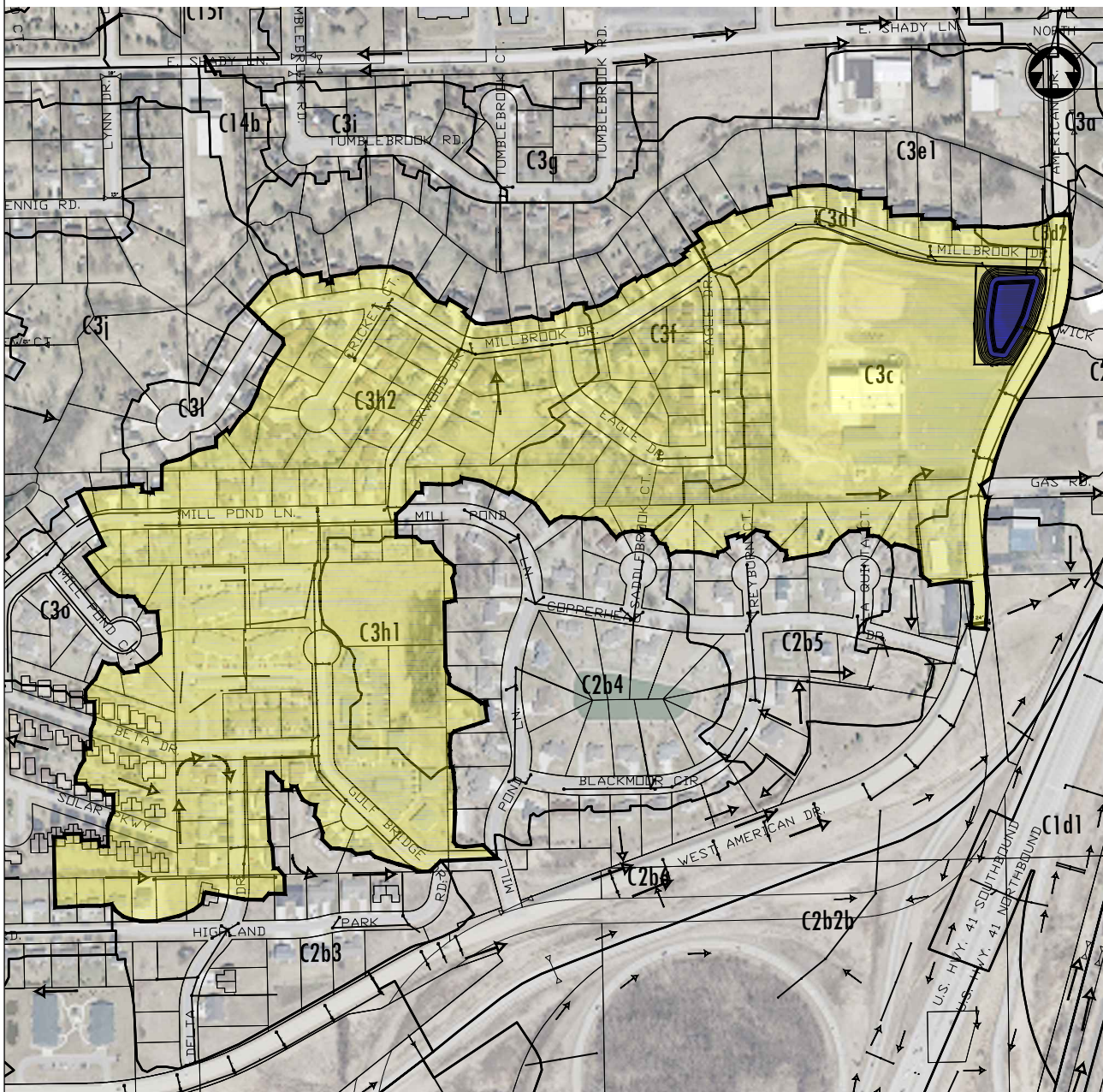
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: HOPE POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C3d1, C3d2, C3f, C3h1, C3h2	Total Drainage Area: 84.7 acres
Imperviousness (Future): 39.9 %	Runoff Curve Number (Future): 84	Water Quality Volume (Future): 4.34 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 2-3 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: WINNECONNE SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☐ Potential ☐ Yes ☒ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer north along the east side of American Drive to the stream.

Infrastructure modifications or flow diversions required for retrofit:

Reroute storm sewer from American Drive into the pond and storm sewer along Millbrook Drive west to Oxwood Drive.

Site access for future BMP maintenance:

Site access from Millbrook Drive or American Drive.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, storm sewer depth, groundwater and private property.

Approx. Size of BMP Retrofit:

0.79 acre permanent pool

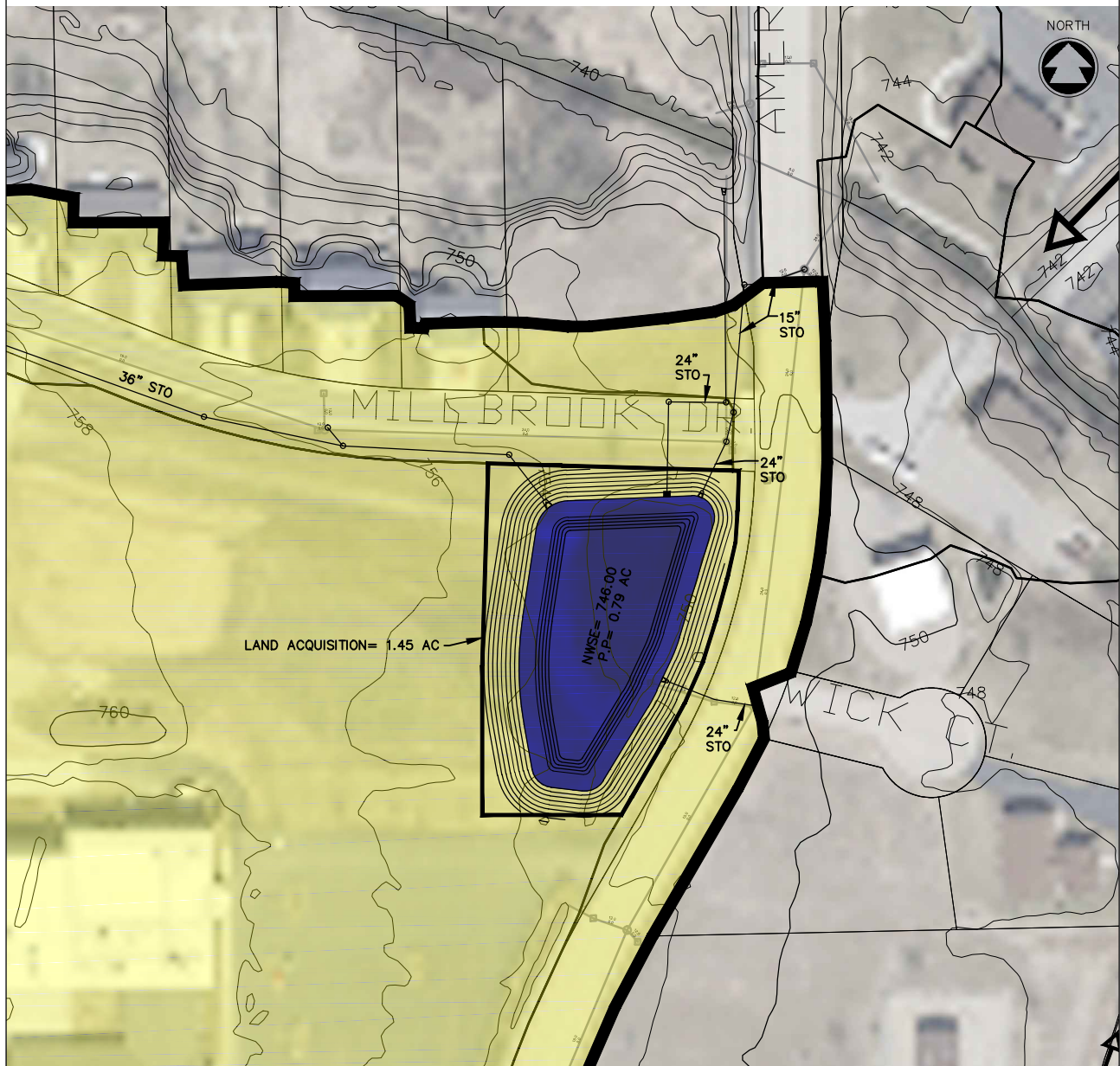
Approx. Land Required (ac):

1.45 acres

Estimated Cost:

\$720,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C3 □

McM PROJECT NO: F0057-9-17-00221

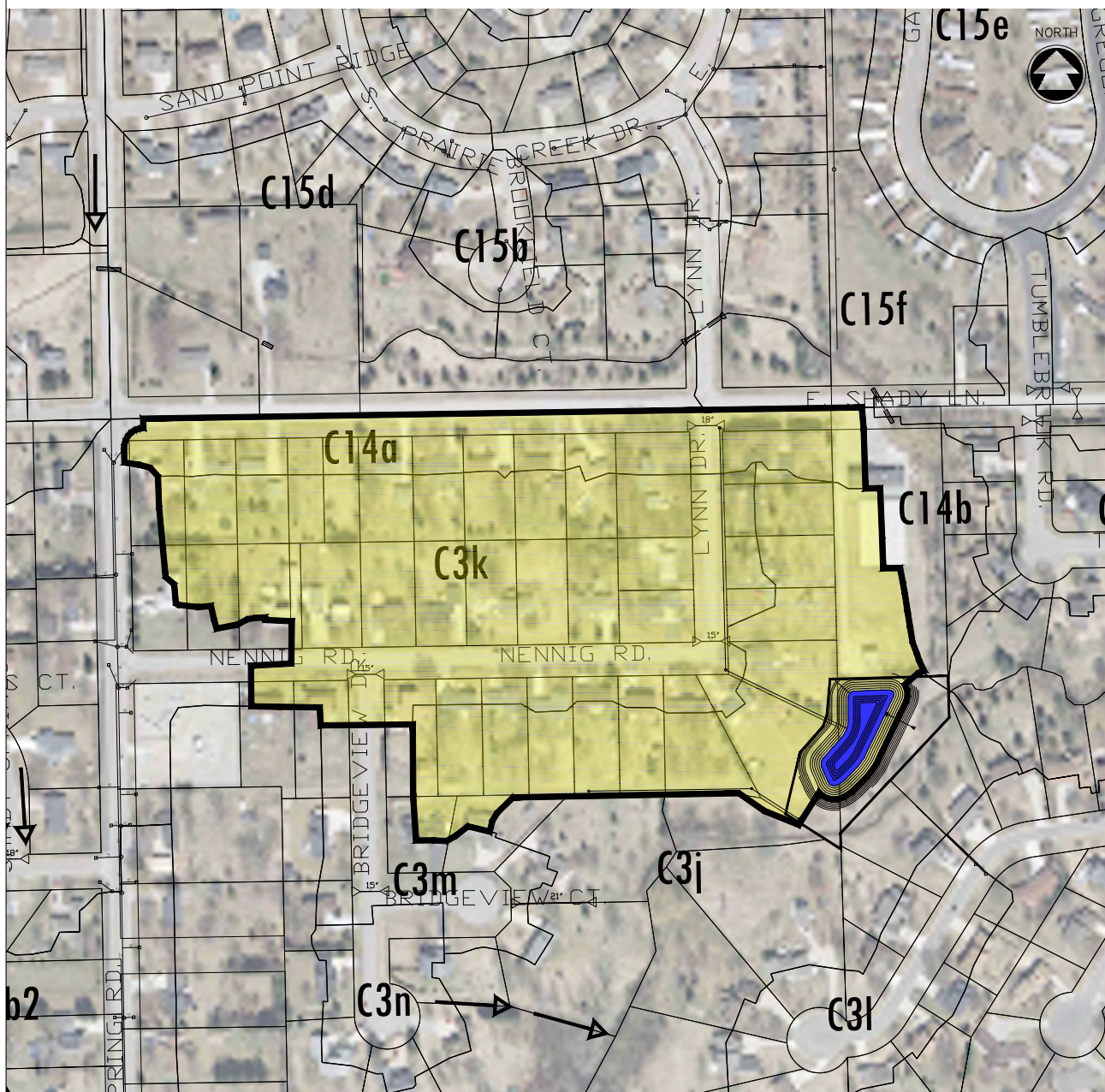
SITE INFORMATION:

Municipality: VILLAGE OF FOX CROSSING	Date: MAY, 2018
Proposed BMP Name: DISTRICT POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C3k, portions of C14a & C3j	Total Drainage Area: 19.6 acres
Imperviousness (Future): 38 %	Runoff Curve Number (Future): 83	Water Quality Volume (Future): 0.96 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 0 FT Remediation: ☐ Yes ☒ No Wetland: ☒ Potential ☐ Yes ☐ No
Bedrock Depth (in): > 60 IN Historical: ☐ Yes ☒ No Public Well < 400 ft: ☐ Yes ☒ No
USDA Soil Texture: MENASHA CLAY 100-Year Floodplain: ☒ Yes ☐ No Private Well < 100 ft: ☐ Yes ☒ No

Remediation: ☐ Yes ☒ No Wetland: ☒ Potential ☐ Yes ☐ No
 Historical: ☐ Yes ☒ No Public Well < 400 ft: ☐ Yes ☒ No
 100-Year Floodplain: ☒ Yes ☐ No Private Well < 100 ft: ☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No
Public Well < 400 ft: ☐ Yes ☒ No
Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.): Outfall via storm sewer to ditch.

Infrastructure modifications or flow diversions required for retrofit:
Storm sewer along Lynn Drive from Shady Lane.

Site access for future BMP maintenance:
Access from Lynn Drive.

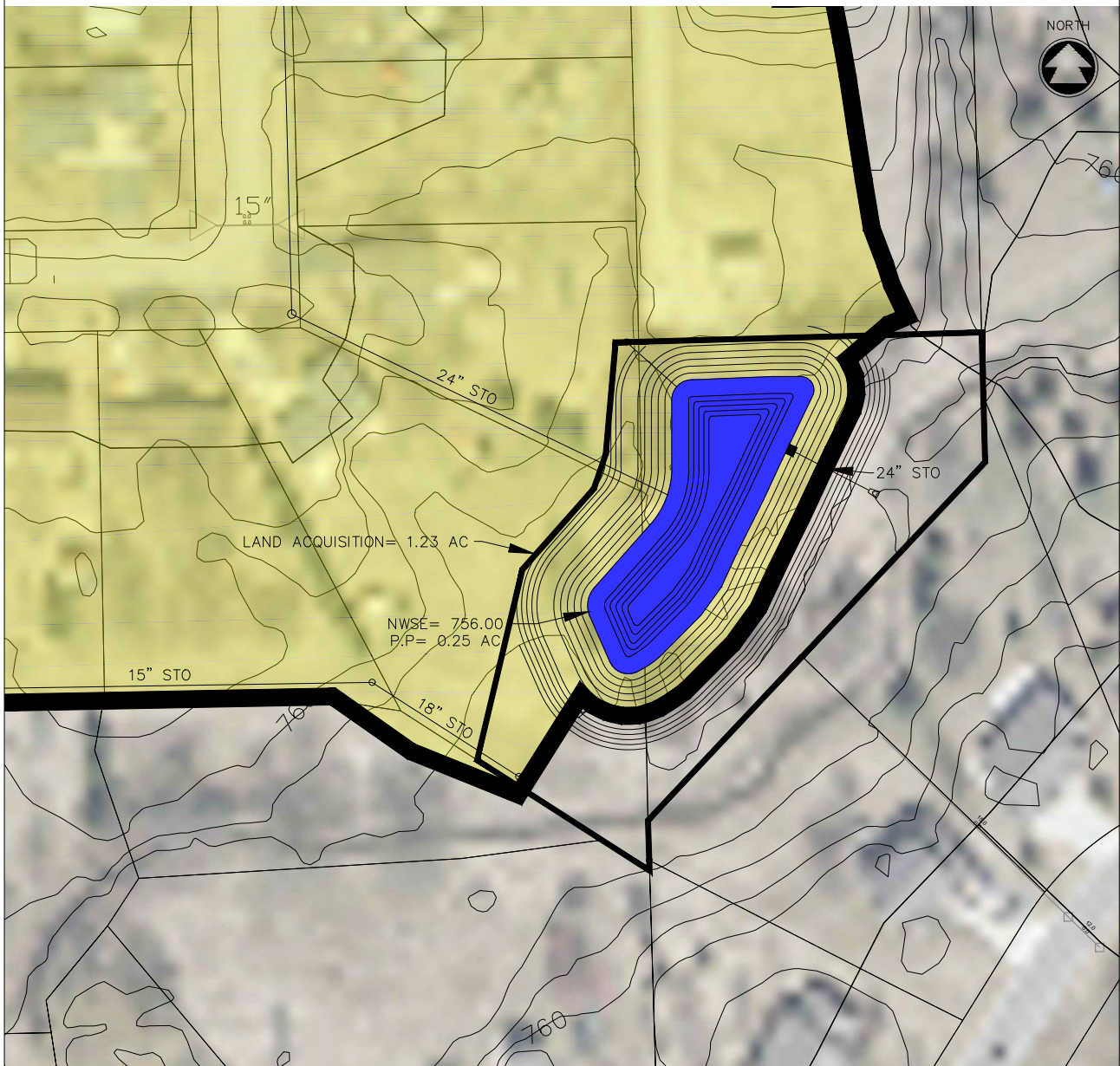
Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):
Rock excavation, floodplain, groundwater and private property.

Approx. Size of BMP Retrofit: 0.25 acre permanent pool	Approx. Land Required (ac): 1.23 acres	Estimated Cost: \$289,000
---	---	------------------------------

Approx. Land Required (ac): 1.23 acres	Estimated Cost: \$289,000
---	------------------------------

Estimated Cost:	\$289,000
-----------------	-----------

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C3m

McM PROJECT NO: M0003-910495

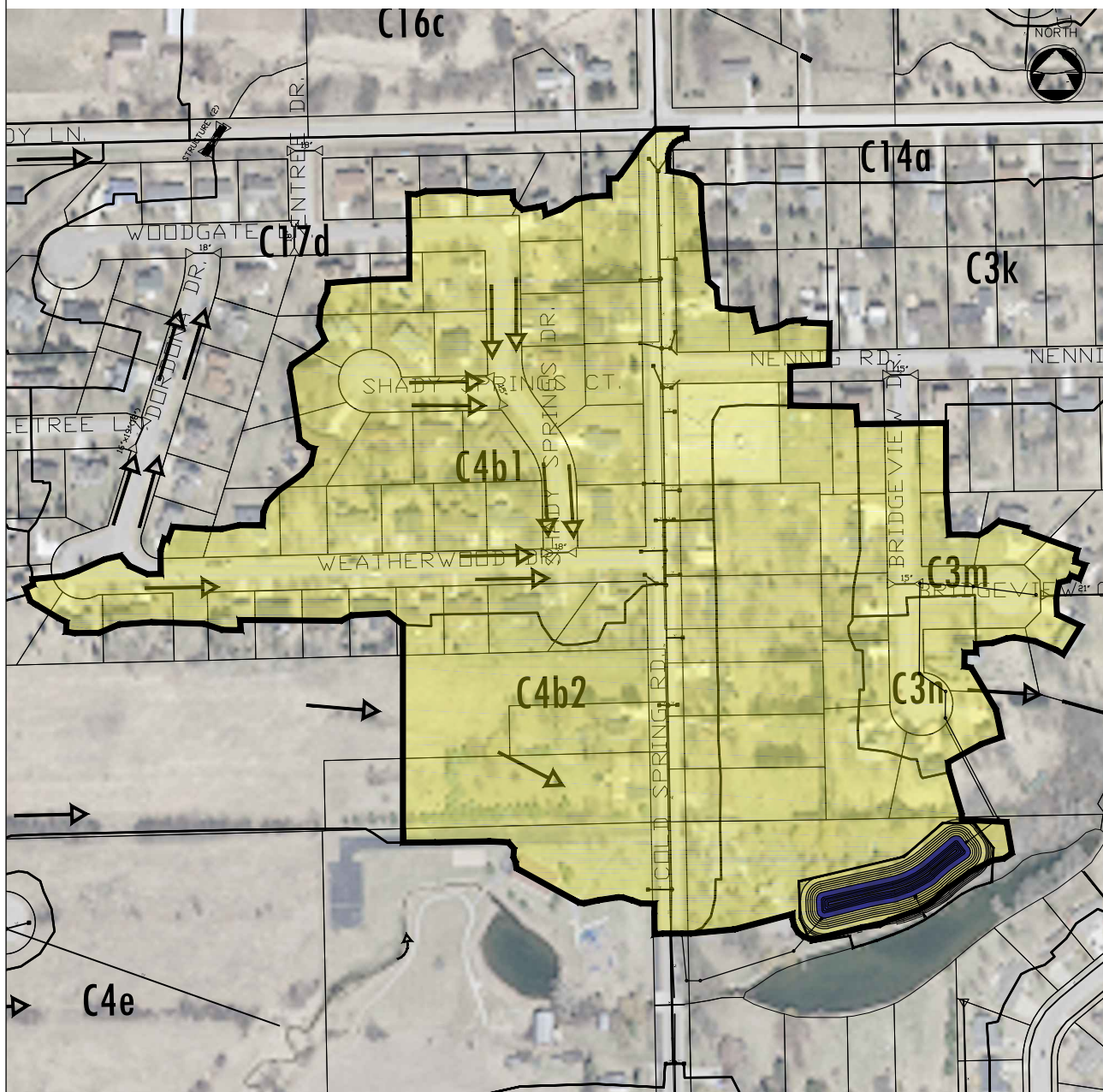
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: HILDEBRAND POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C3j, C3m, C3n	Total Drainage Area: 34.9 acres
Imperviousness (Future): 32.1 %	Runoff Curve Number (Future): 82	Water Quality Volume (Future): 1.48 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 2-3 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: WINNECONNE SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer directly into Millbrook Creek south of the pond.

Infrastructure modifications or flow diversions required for retrofit:

Divert storm sewer from Cold Spring Road and from Bridgewood Court into the pond.

Site access for future BMP maintenance:

An easement must be obtained from Cold Spring Road for site access

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, storm sewer depth, groundwater, rock excavation, and private property adjacent to the creek.

Approx. Size of BMP Retrofit:

0.34 acre permanent pool

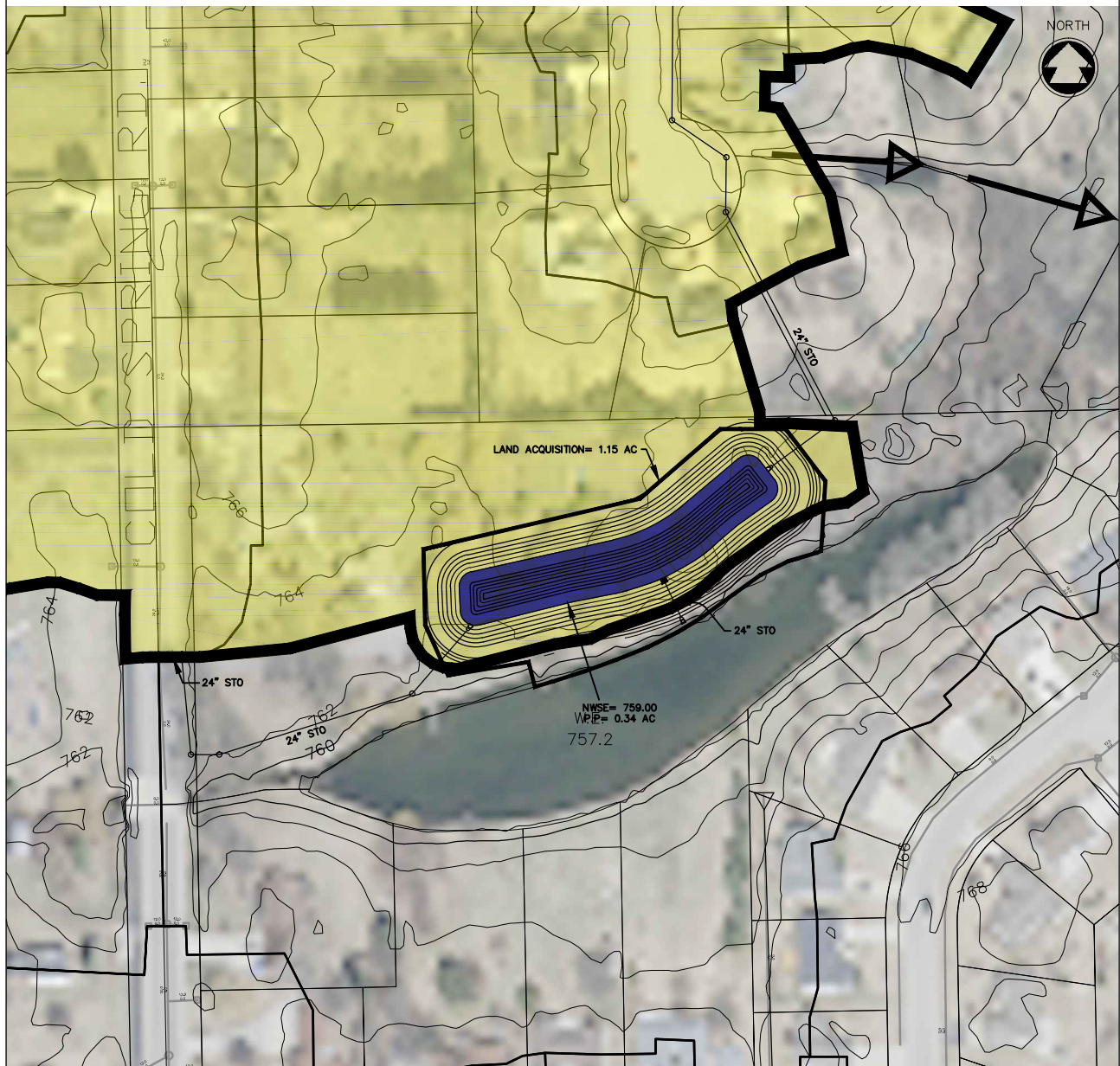
Approx. Land Required (ac):

1.15 acres

Estimated Cost:

\$295,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C4a

McM PROJECT NO: M0003-910495

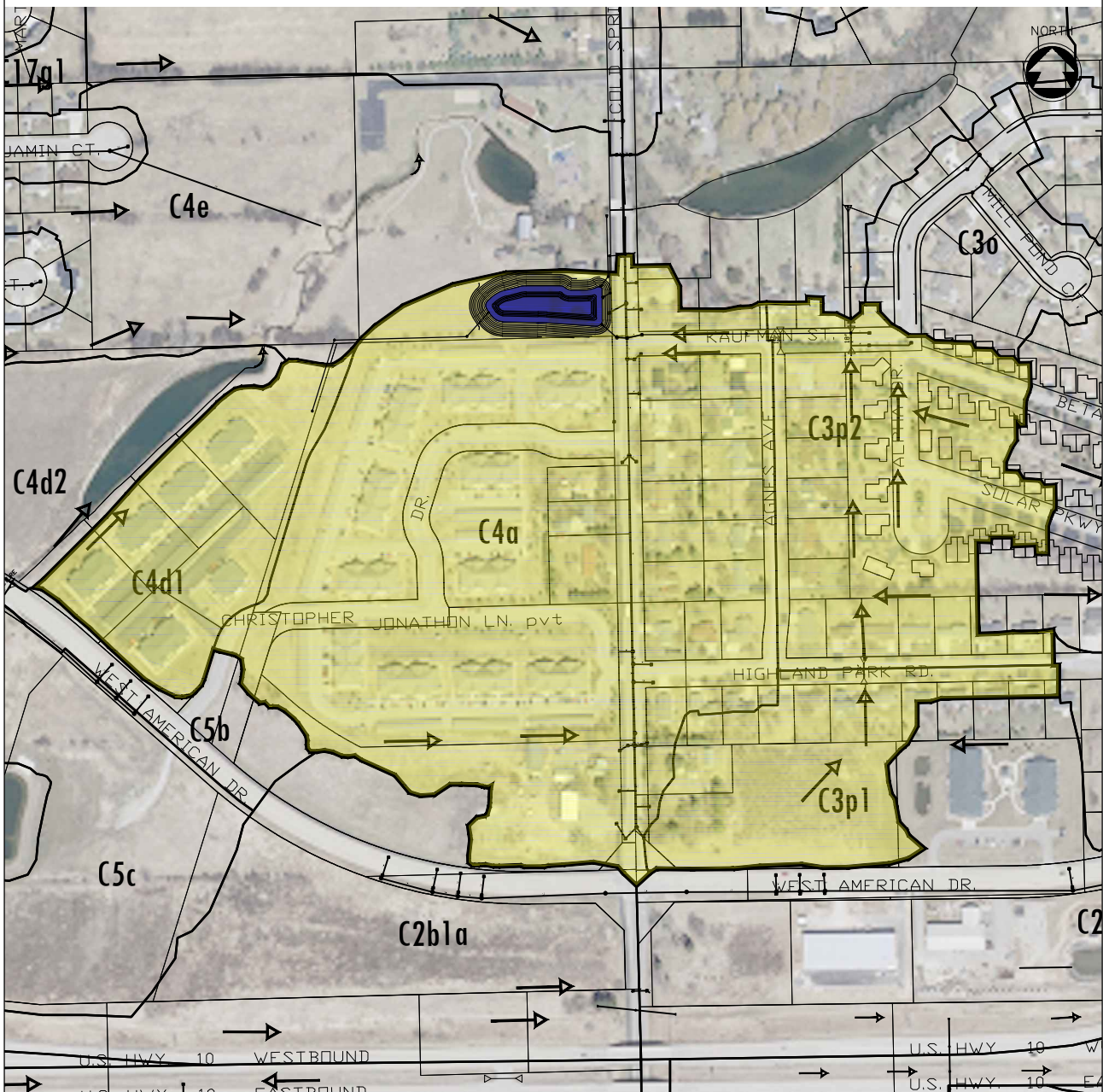
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: CHRISTOPHER POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C3p1, C3p2, C4a	Total Drainage Area: 59.3 acres
Imperviousness (Future): 44.7 %	Runoff Curve Number (Future): 85	Water Quality Volume (Future): 3.35 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 2-3 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: WINNECONNE SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain: ☐ Yes ☒ No

Wetland: ☐ Potential ☐ Yes ☒ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer along the west side of Cold Spring Road north to Millbrook Creek.

Infrastructure modifications or flow diversions required for retrofit:

Reroute storm sewer east of the Kaufman St./Agnes Ave. intersection and the Cold Spring Rd storm sewer into the pond.

Site access for future BMP maintenance:

Access is from Cold Spring Road.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, storm sewer depth, groundwater, and rock excavation.

Approx. Size of BMP Retrofit:

0.55 acre permanent pool

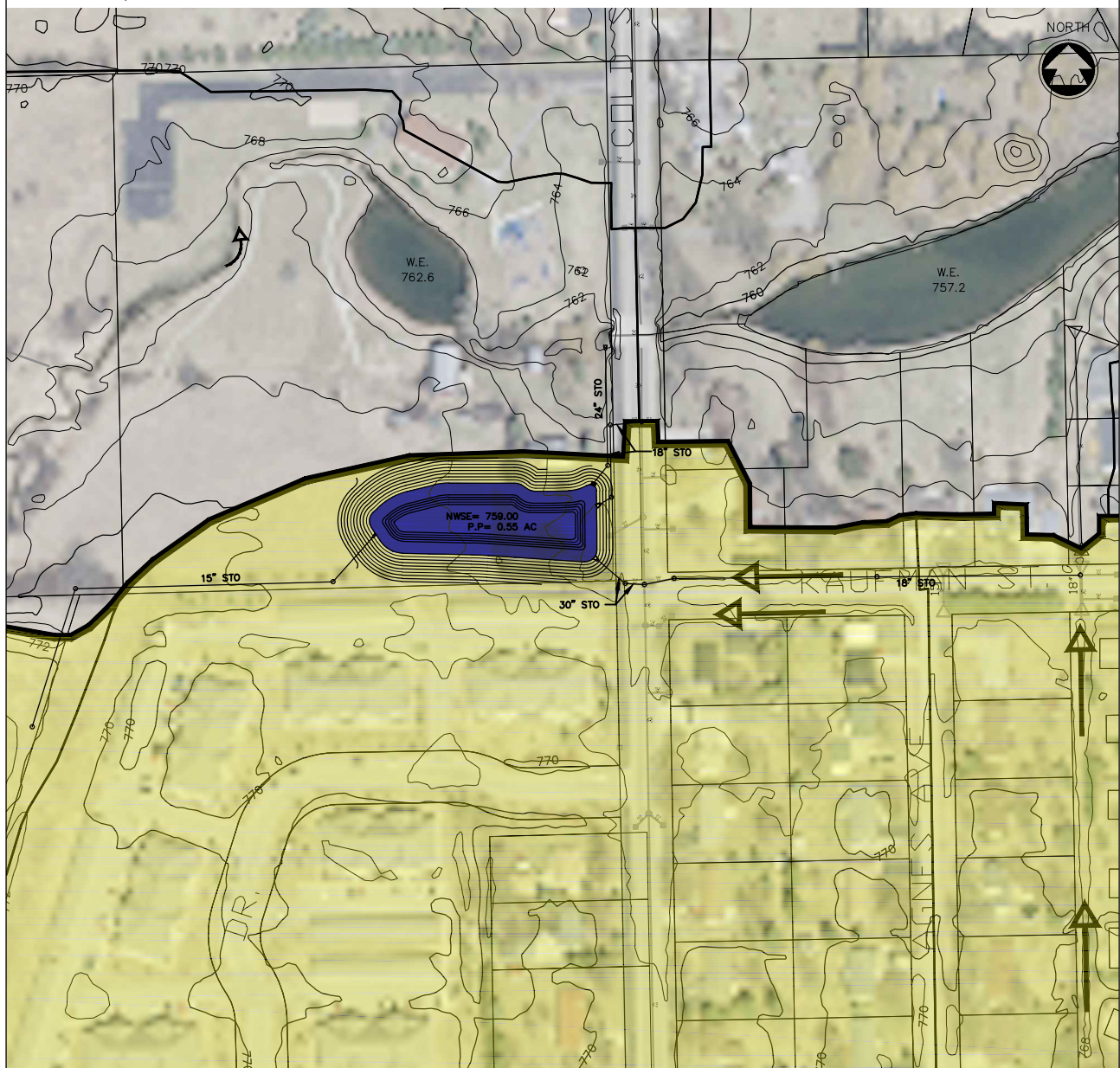
Approx. Land Required (ac):

1.30 acres

Estimated Cost:

\$385,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C4b2

McM PROJECT NO: M0003-910495

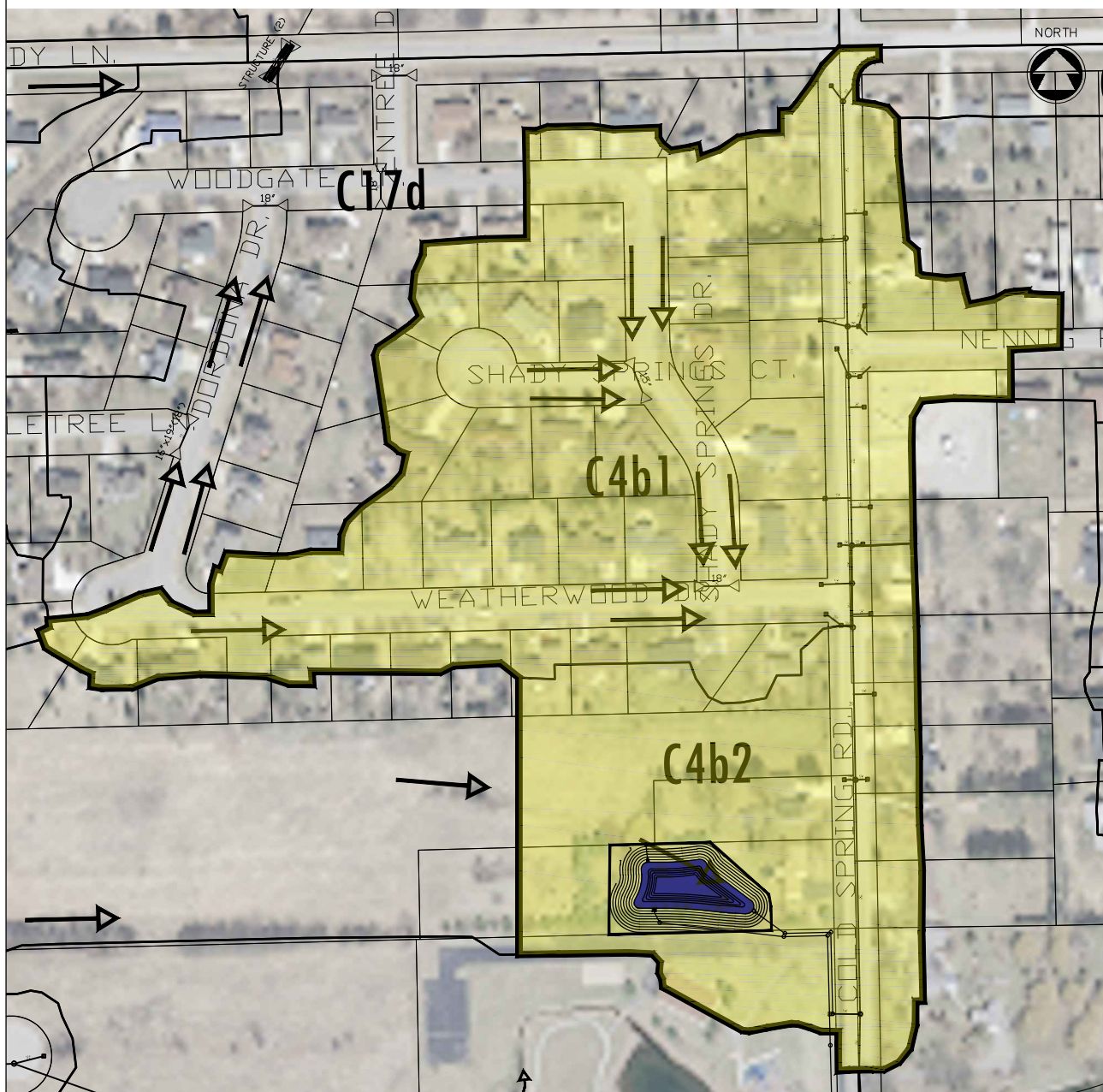
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: WEATHERWOOD POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C4b1, C4b2	Total Drainage Area: 23.4 acres
Imperviousness (Future): 33.7 %	Runoff Curve Number (Future): 85	Water Quality Volume (Future): 1.03 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 2-3 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: WINNECONNE SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☐ Potential ☐ Yes ☒ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer south along the west side of Cold Spring Road to Millbrook Creek.

Infrastructure modifications or flow diversions required for retrofit:

Divert storm sewer from Cold Spring Road and the swale NW of the pond to the pond via storm sewer.

Site access for future BMP maintenance:

Access will be from the Schildt Park parking lot from Cold Spring Road.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, storm sewer depth, groundwater, rock excavation, and private property adjacent to the park.

Approx. Size of BMP Retrofit:

0.23 acre permanent pool

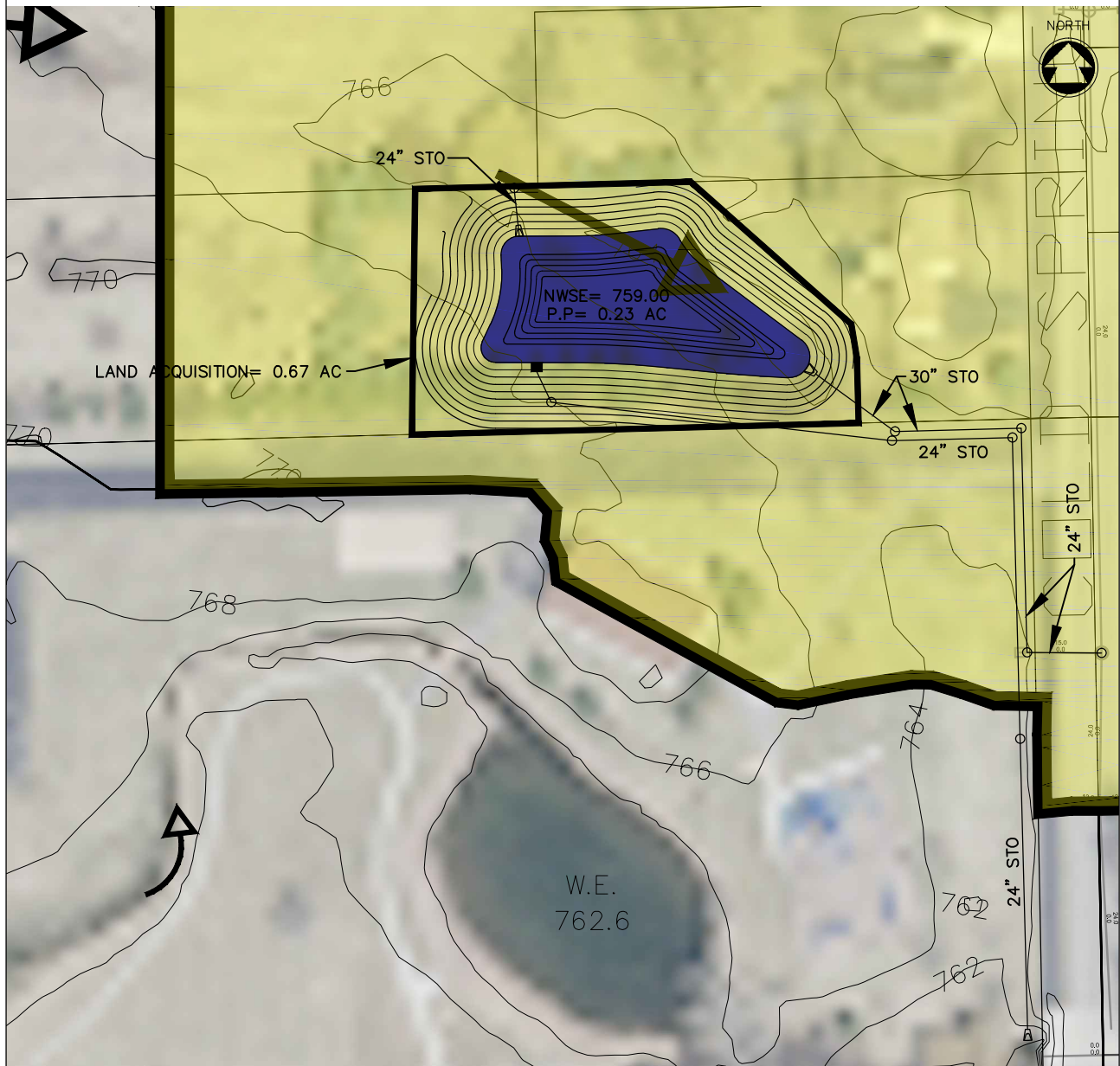
Approx. Land Required (ac):

0.67 acres

Estimated Cost:

\$250,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C4d2

McM PROJECT NO: M0003-910495

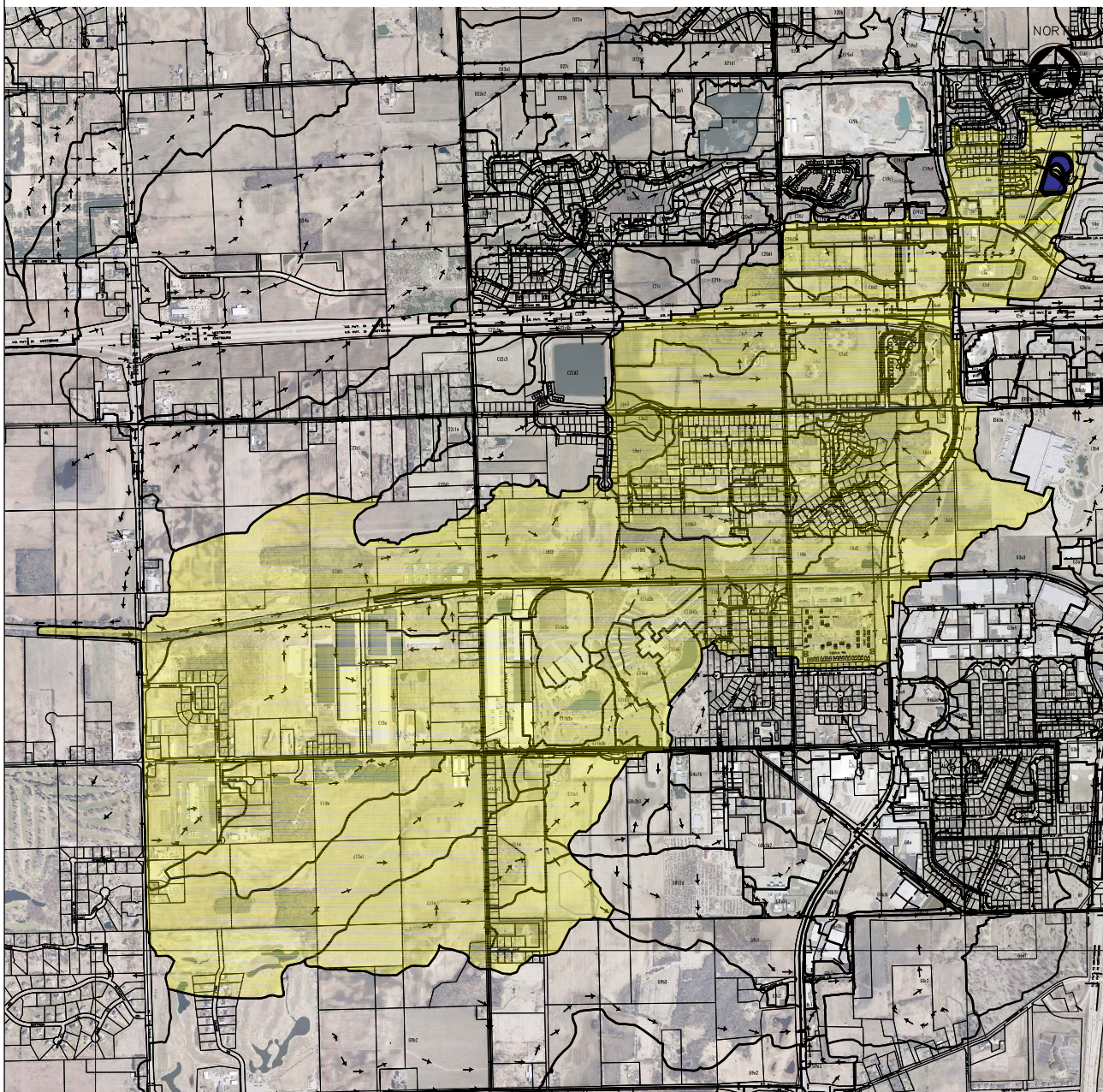
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: MILL CREEK POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C10a, C10b, C10c, C10d3, C10f, C10g, C10h, C10i, C11a1, C11a2b, C11b4b, C4d2, C4e, C5a, C5b, C5c, C5d, C5f, C6a4, C6c1, C6d1, C6d2, C7a1, C7d, C7e, C8d2, C8d3, C8d4, C8f, C9a, C9c	Total Drainage Area: 2111.5 acres
Imperviousness (Future): 52.2 %	Runoff Curve Number (Future): 85	Water Quality Volume (Future): 137.13 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 2-3 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: WINNECONNE SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☐ Potential ☐ Yes ☒ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via weir and overflow

Infrastructure modifications or flow diversions required for retrofit:

Route the navigable stream through the pond.

Site access for future BMP maintenance:

Site access from Schildt Park.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Online pond, groundwater, rock excavation.

Approx. Size of BMP Retrofit:

4.15 acre permanent pool

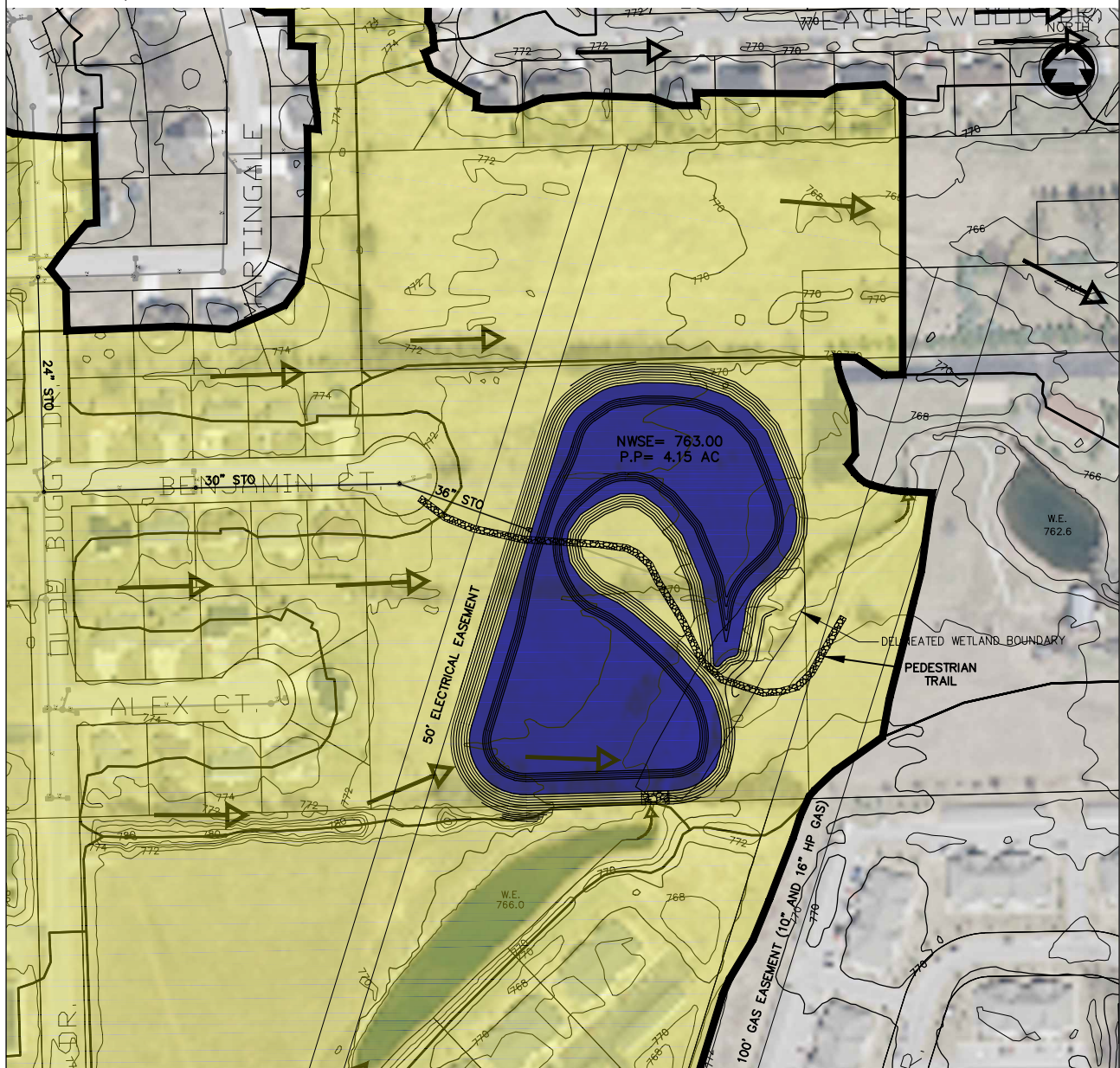
Approx. Land Required (ac):

7.15 acres

Estimated Cost:

\$1,865,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C4e2

McM PROJECT NO: M0003-910495

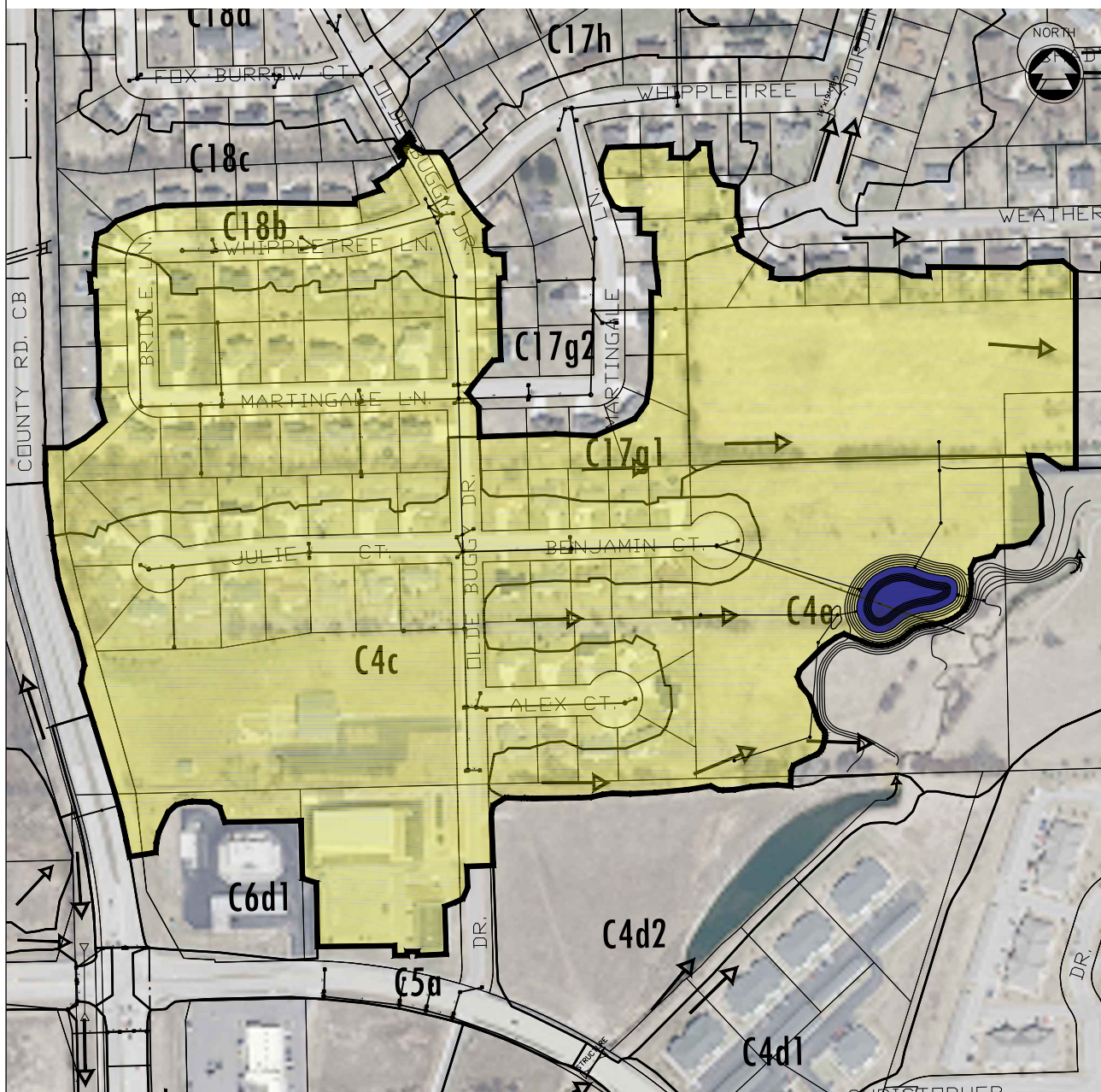
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: SCHILDT PARK POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C17g1, C17g2, C4b2, C4c, C4e	Total Drainage Area: 2111.5 acres
Imperviousness (Future): 40.8 %	Runoff Curve Number (Future): 82	Water Quality Volume (Future): 2.73 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 2-3 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: WINNECONNE SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☐ Potential ☐ Yes ☒ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer directly into Millbrook Creek.

Infrastructure modifications or flow diversions required for retrofit:

Divert swales north & south of the pond in the park and relay storm sewer from the Olde Buggy Dr./Whippletree Ln. intersection.

Site access for future BMP maintenance:

Access is from Schildt Park.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, storm sewer depth, groundwater, rock excavation.

Approx. Size of BMP Retrofit:

0.46 acre permanent pool

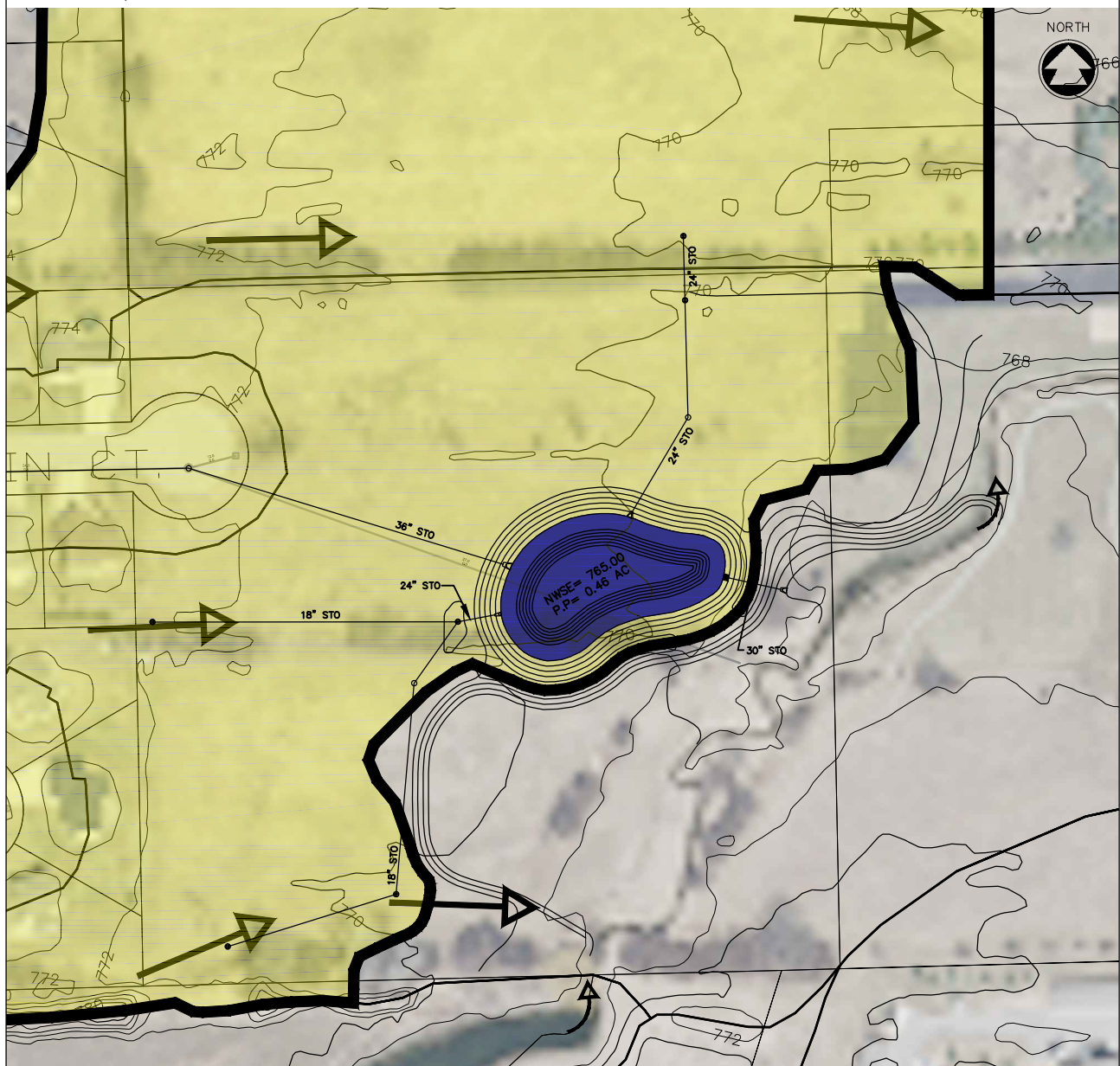
Approx. Land Required (ac):

1.20 acres

Estimated Cost:

\$580,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C6a3

McM PROJECT NO: M0003-910495

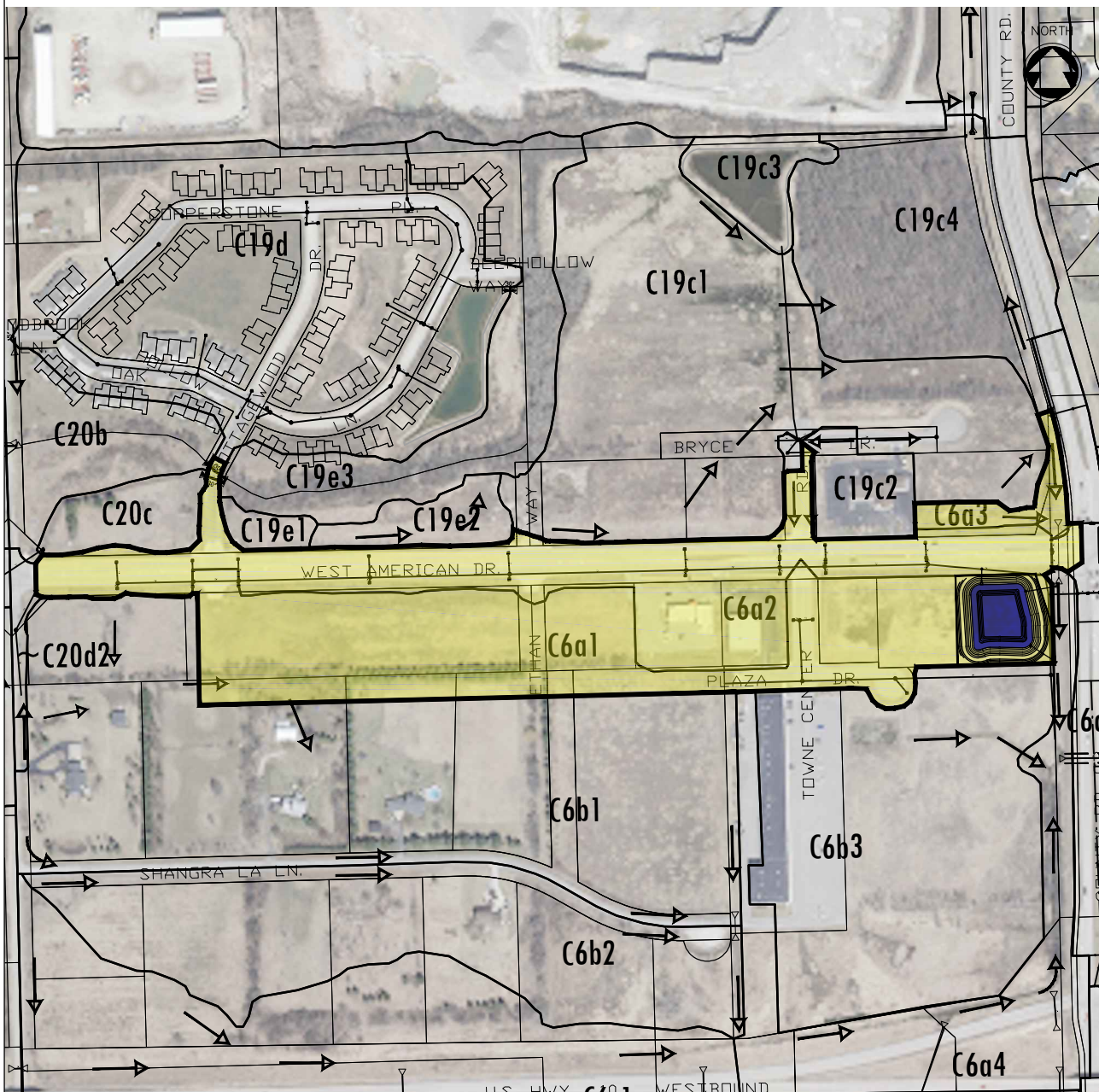
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: PLAZA POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C6a1, C6a2, C6a3	Total Drainage Area: 21.8 acres
Imperviousness (Future): 86.9 %	Runoff Curve Number (Future): 94	Water Quality Volume (Future): 2.26 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 1-2 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: NEENAH SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer to the west ditch along CTH 'CB'

Infrastructure modifications or flow diversions required for retrofit:

Route the West American Drive storm sewer into the pond with storm sewer.

Site access for future BMP maintenance:

Access is from West American Drive.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, storm sewer depth, groundwater, rock excavation, and private property at a high traffic intersection.

Approx. Size of BMP Retrofit:

0.53 acre permanent pool

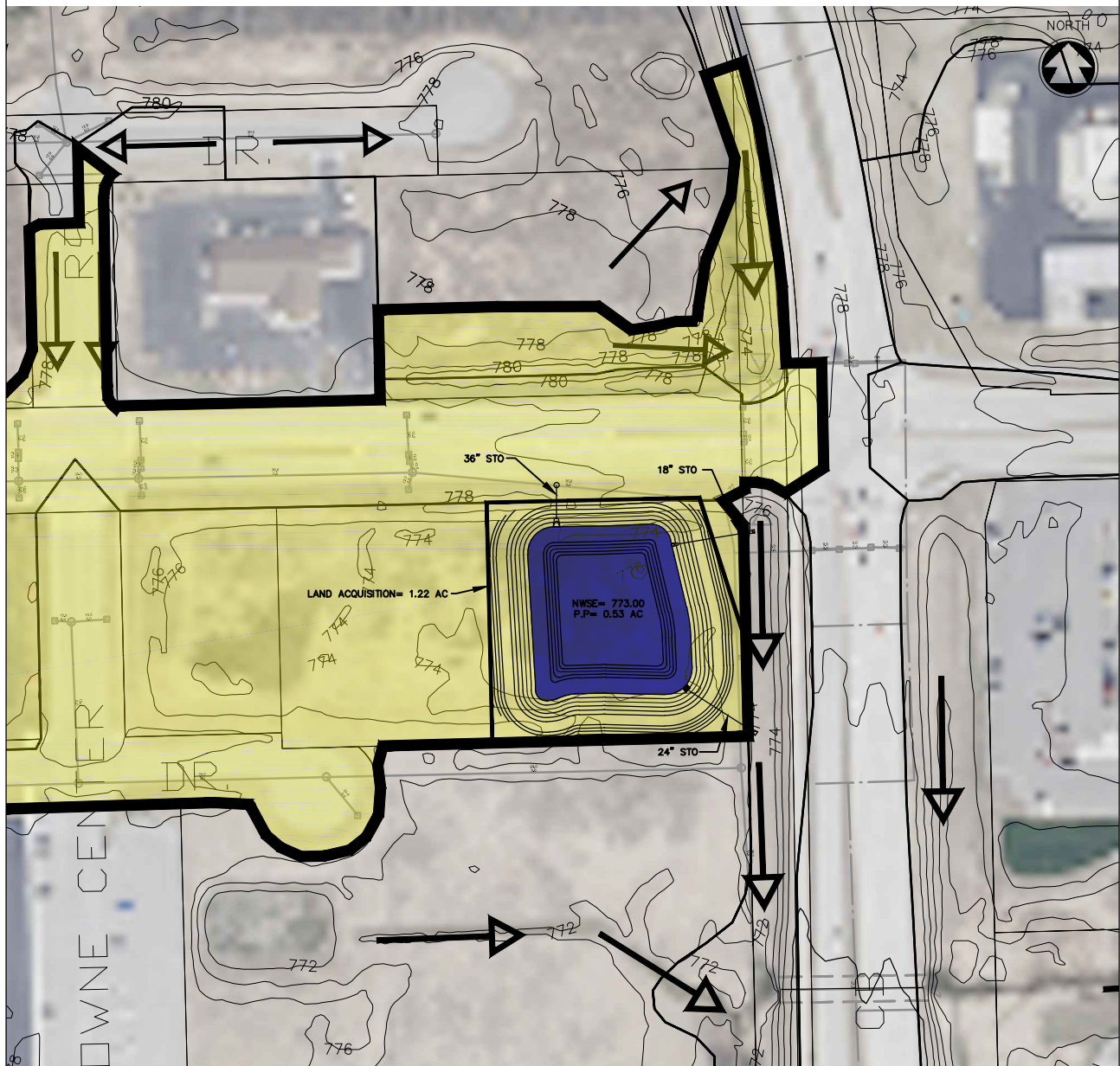
Approx. Land Required (ac):

1.22 acres

Estimated Cost:

\$235,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

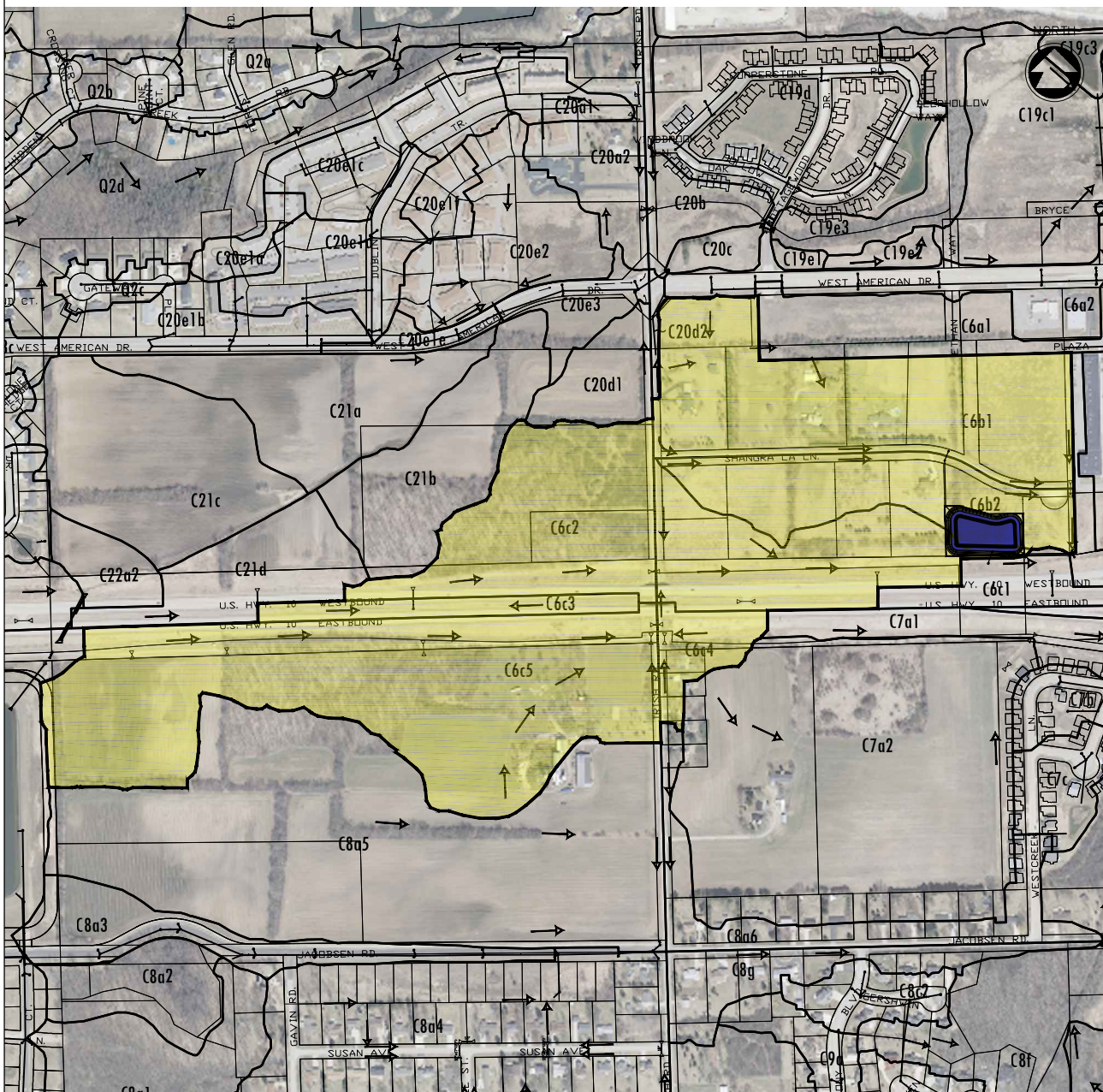
BMP ID: P-BMP-C6c1

McM PROJECT NO: M0003-910495

SITE INFORMATION:	
Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: SHANGRA POND	Initials: AWS

DRAINAGE AREA:		
Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C6b1, C6b2, C6c1, C6c2, C6c3, C6c4, C6c5	Total Drainage Area: 103.5 acres
Imperviousness (Future): 56.5 %	Runoff Curve Number (Future): 84	Water Quality Volume (Future): 7.23 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 1-2 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: NEENAH SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer to the north ditch along USH '10'

Infrastructure modifications or flow diversions required for retrofit:

Divert ditches along Shangra La Lane, at the end of Shangra La Ln. and USH 10 with storm sewer into the pond.

Site access for future BMP maintenance:

An ingress/egress easement is needed from Shangra La Lane.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, groundwater, rock excavation, and private property.

Approx. Size of BMP Retrofit:

1.05 acre permanent pool

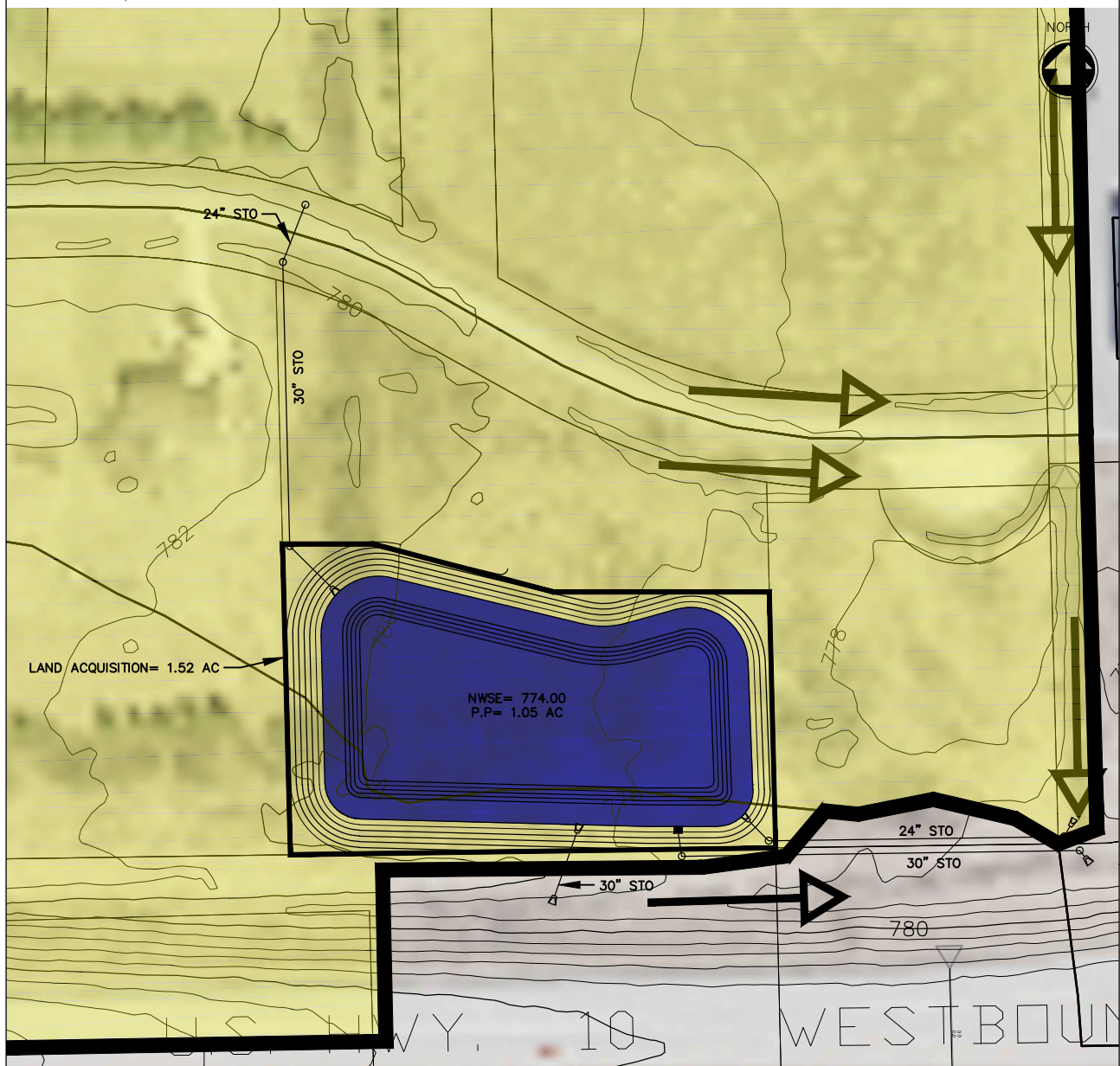
Approx. Land Required (ac):

1.52 acres

Estimated Cost:

\$505,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

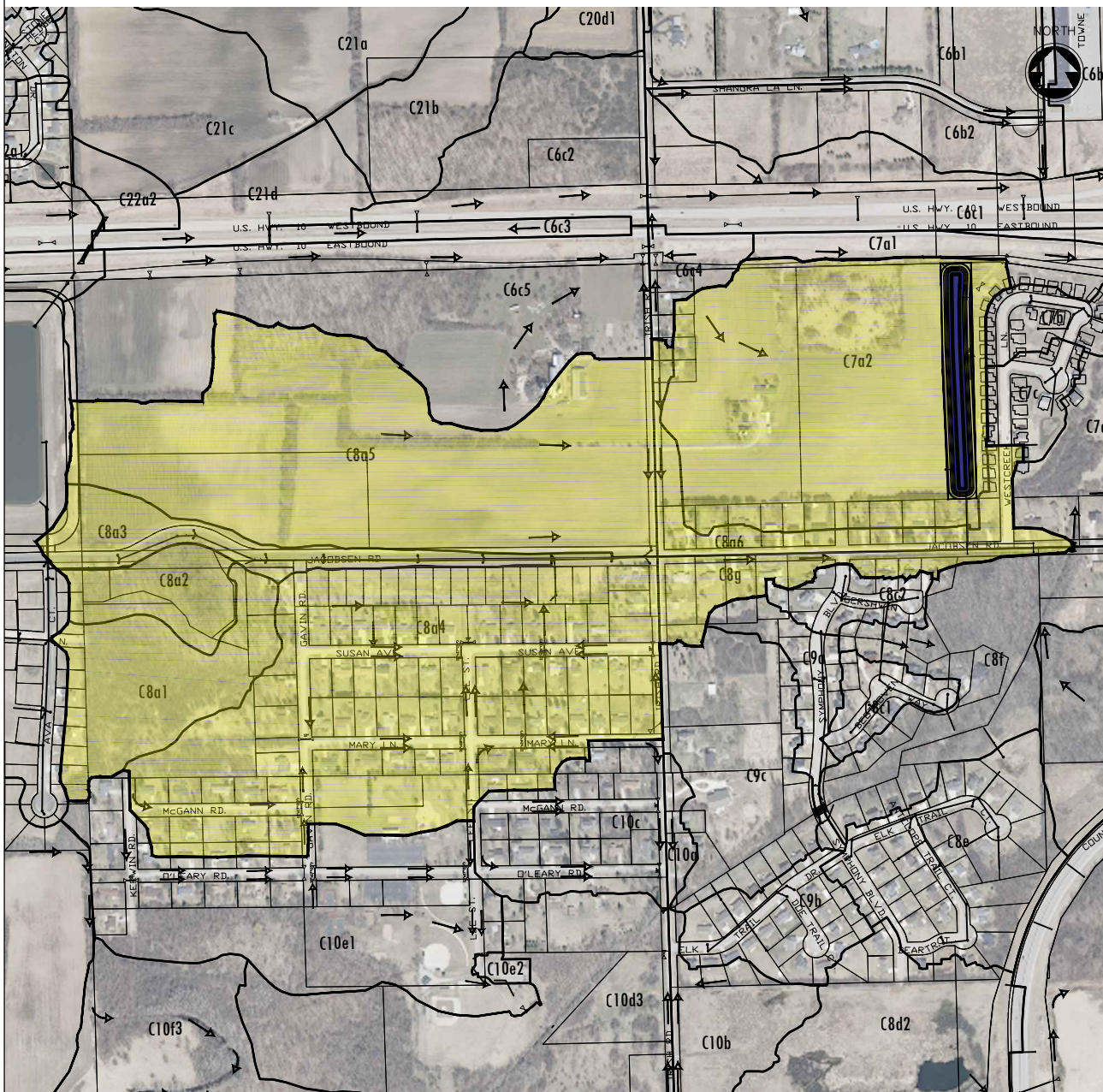
BMP ID: P-BMP-C7a2

McM PROJECT NO: M0003-910495

SITE INFORMATION:	
Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: JACOBSEN POND	Initials: AWS

DRAINAGE AREA:		
Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C7a2, C8a6, C8g	Total Drainage Area: 179.7 acres
Imperviousness (Future): 37.9 %	Runoff Curve Number (Future): 80	Water Quality Volume (Future): 3.01 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 1-2 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: WHALAN SILT LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer into the ditch NE of the pond.

Infrastructure modifications or flow diversions required for retrofit:

Divert the Jacobsen Road ditches into the pond.

Site access for future BMP maintenance:

An easement shall be obtained from Westcreek Lane or Jacobsen Road to the pond for access.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, groundwater, rock excavation, and private property.

Approx. Size of BMP Retrofit:

1.52 acre permanent pool

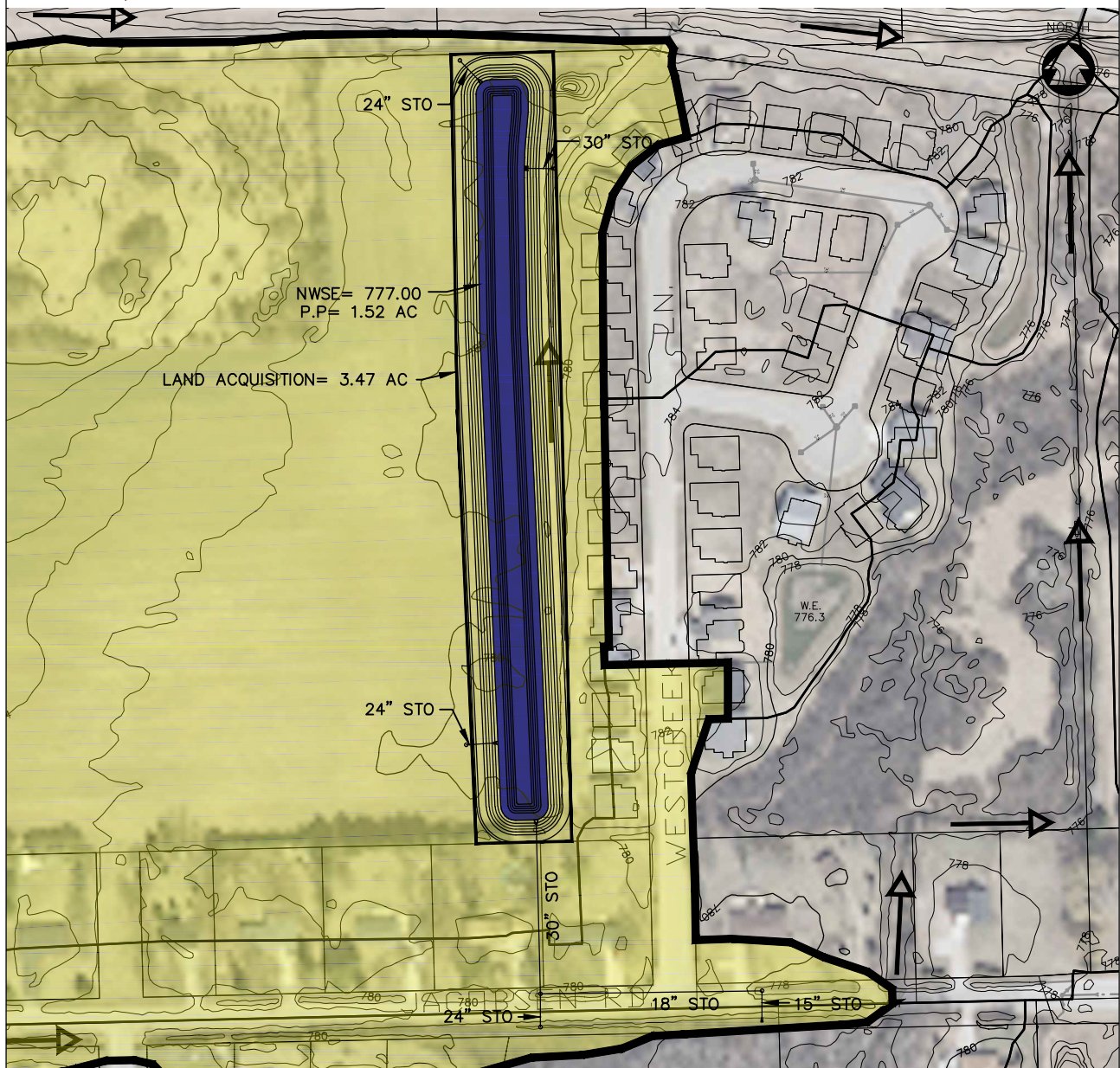
Approx. Land Required (ac):

3.47 acres

Estimated Cost:

\$510,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C7e

McM PROJECT NO: M0003-910495

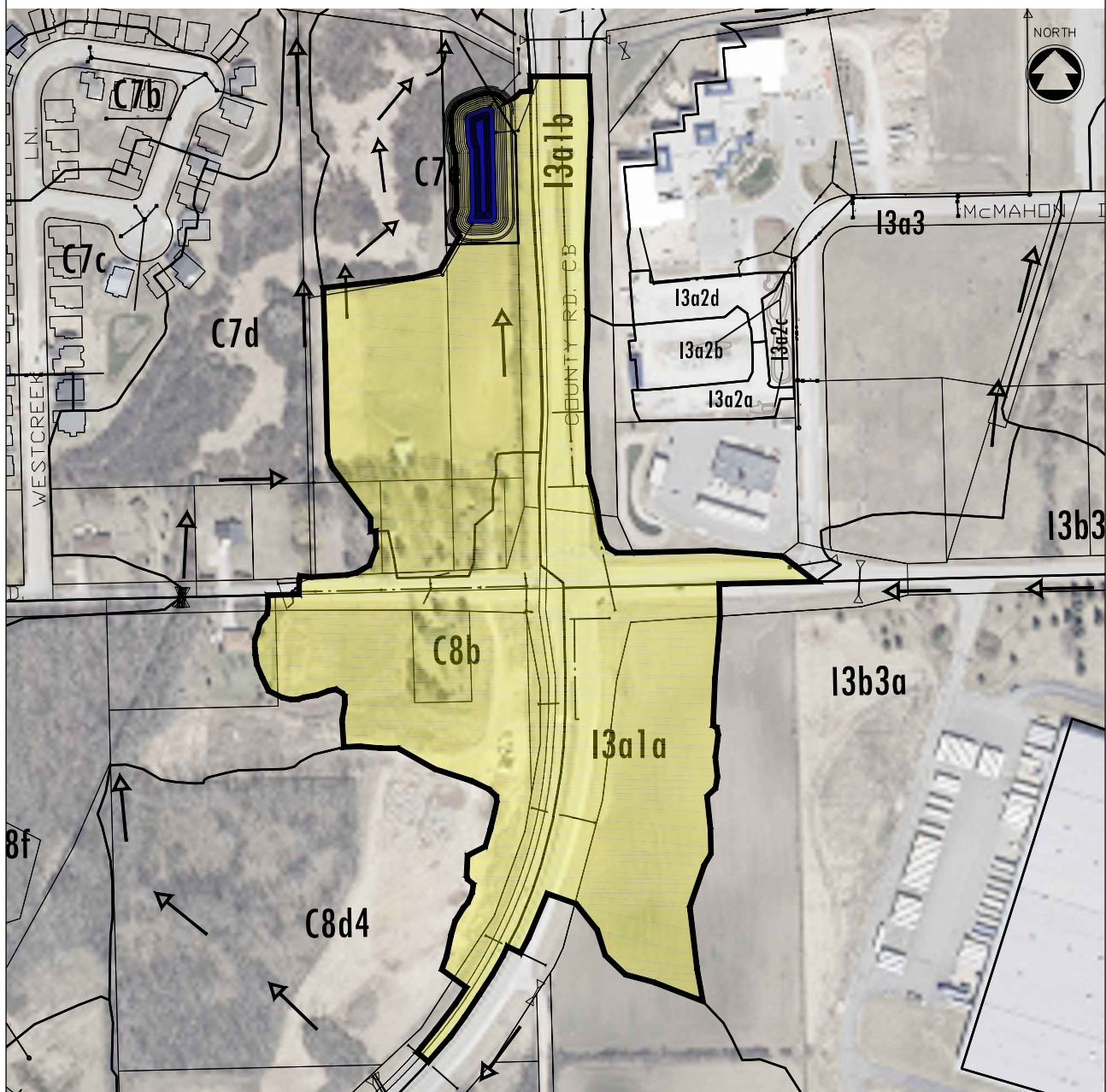
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: KIMBALL POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C7e, C8b, I3a1a, I3a1b	Total Drainage Area: 23.2 acres
Imperviousness (Future): 68.7 %	Runoff Curve Number (Future): 90	Water Quality Volume (Future): 1.94 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 1-2 ft

Bedrock Depth (in): 36-60 in

USDA Soil Texture: MANAWA SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer north to the south USH 10 ditch.

Infrastructure modifications or flow diversions required for retrofit:

Divert storm sewer from Jacobsen Road north to the pond, and storm sewer from CTH 'CB' to the pond.

Site access for future BMP maintenance:

Access is from CTH 'CB'

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, wetlands, high groundwater, rock excavation, and private property.

Approx. Size of BMP Retrofit:

0.31 acre permanent pool

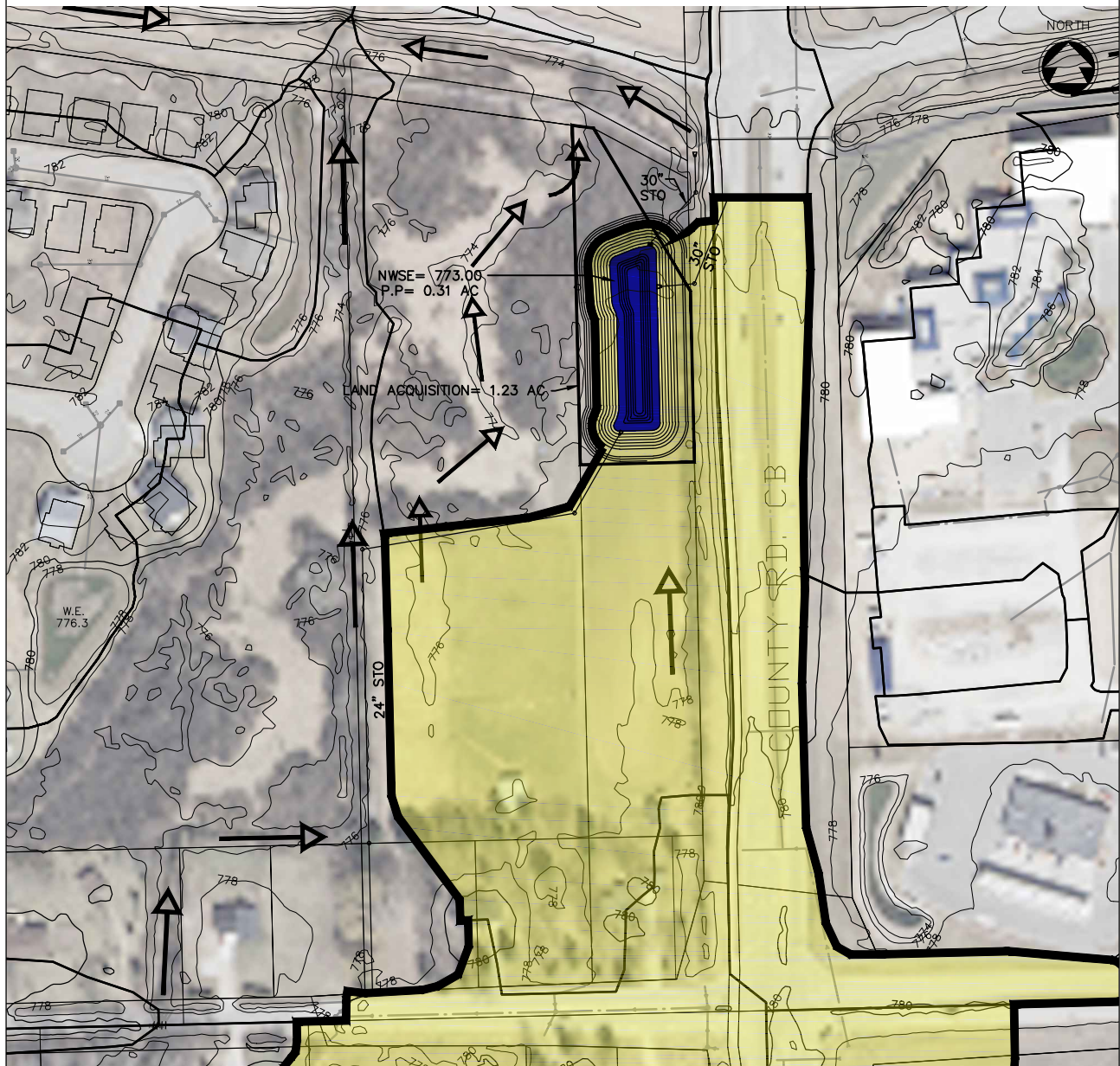
Approx. Land Required (ac):

1.23 acres

Estimated Cost:

\$320,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C8d1

McM PROJECT NO: M0003-910495

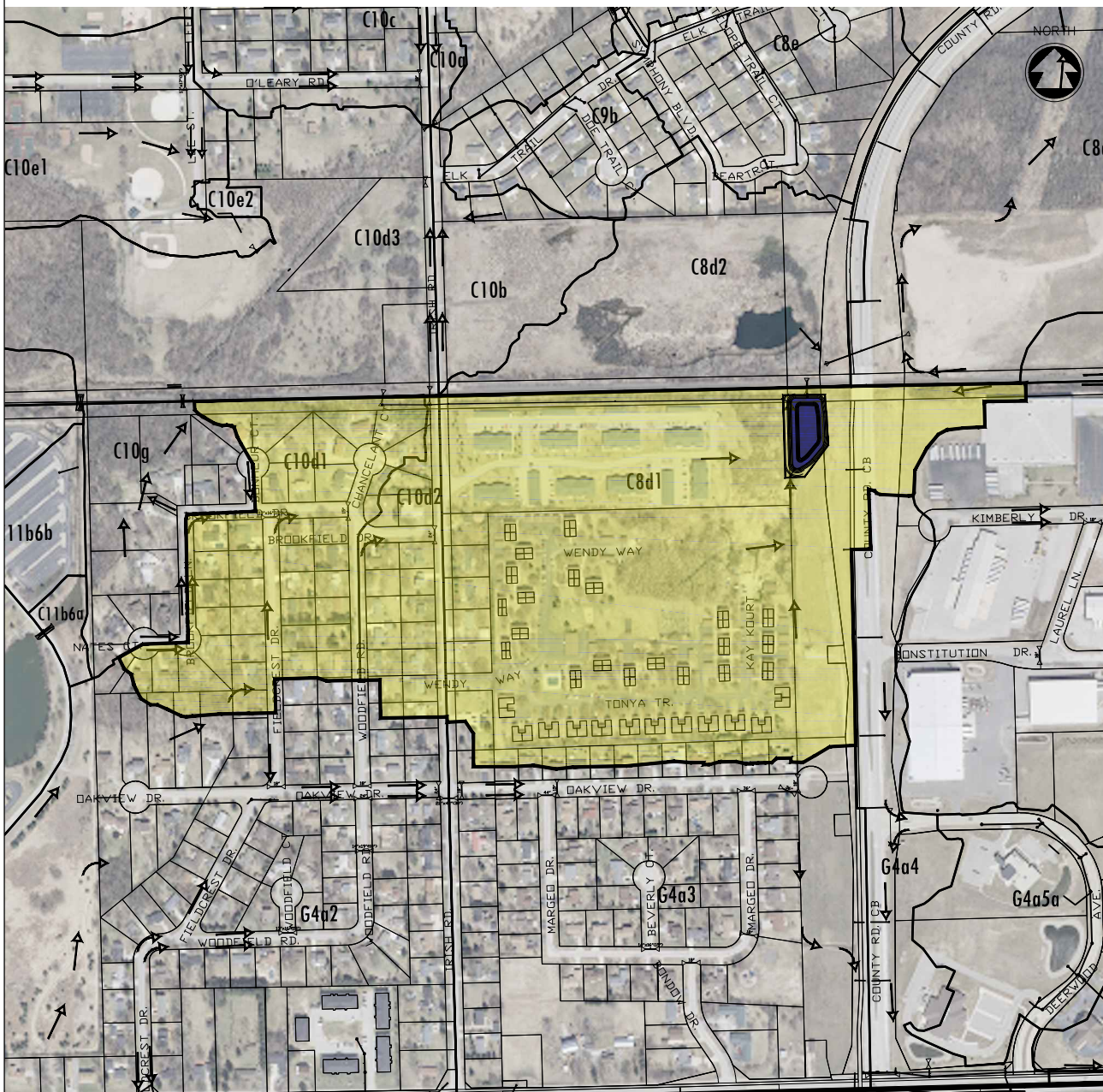
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: KAY POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C10d1, C10d2, C8d1	Total Drainage Area: 77.1 acres
Imperviousness (Future): 45.9 %	Runoff Curve Number (Future): 81	Water Quality Volume (Future): 4.46 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 1-2 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: NENNO LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☐ Potential ☒ Yes ☐ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer to the railroad culvert north of the pond.

Infrastructure modifications or flow diversions required for retrofit:

Divert the swale along the south side of the railroad north of the Chancelant Court cul-de-sac east to the pond via storm sewer.

Site access for future BMP maintenance:

An ingress/egress easement is required for future maintenance from Oakeview Drive.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, wetlands, high groundwater, rock excavation, and private property.

Approx. Size of BMP Retrofit:

0.64 acre permanent pool

Approx. Land Required (ac):

1.04 acres

Estimated Cost:

\$435,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C9a

McM PROJECT NO: M0003-910495

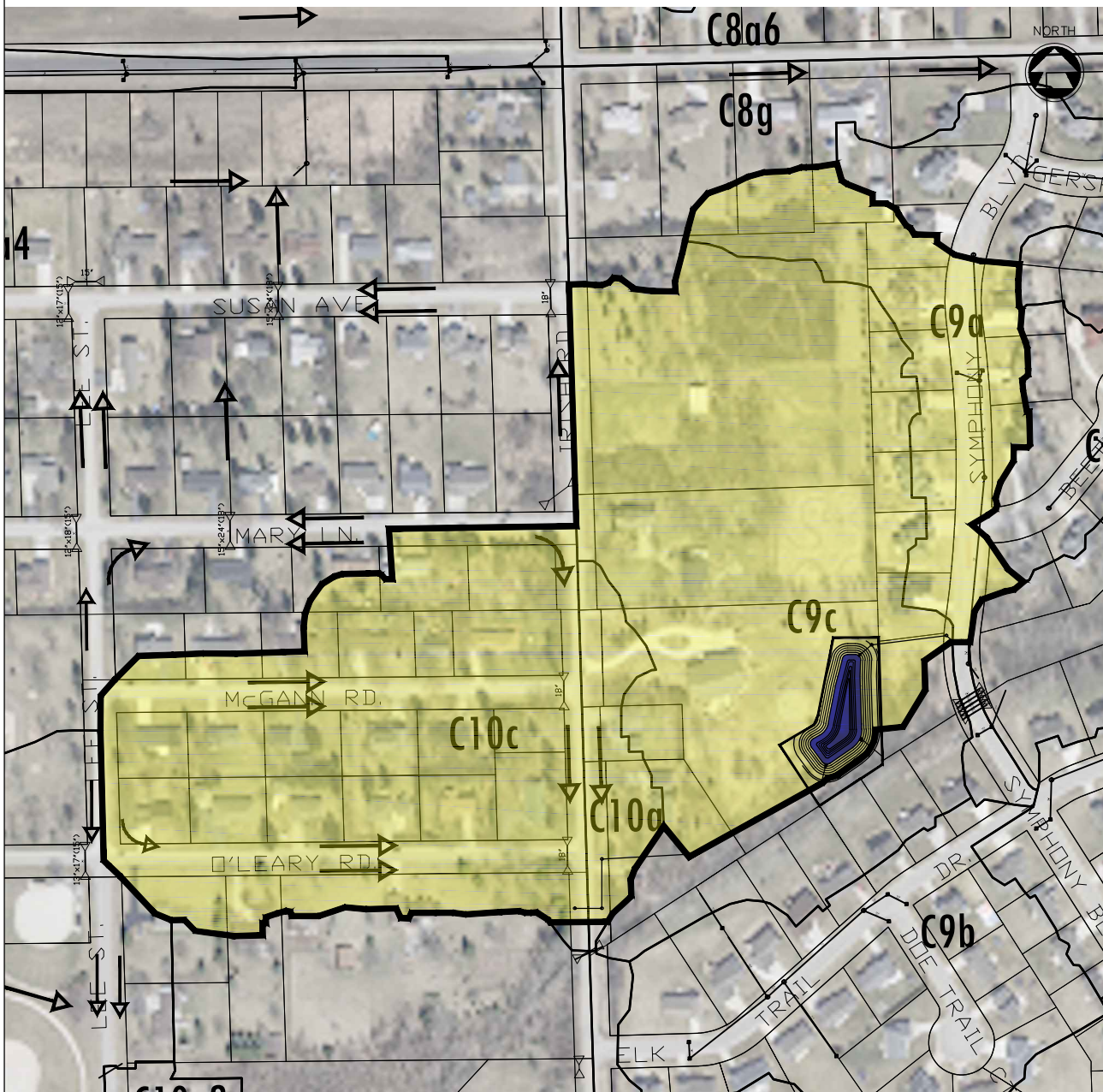
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: SYMPHONY POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C10a, C10c, C9a, C9c	Total Drainage Area: 30.2 acres
Imperviousness (Future): 28.8 %	Runoff Curve Number (Future): 76	Water Quality Volume (Future): 1.17 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): <1 ft	Remediation:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wetland:	<input type="checkbox"/> Potential <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Bedrock Depth (in): >60 in	Historical:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Public Well < 400 ft:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
USDA Soil Texture: POYGAN SILTY CLAY LOAM	100-Year Floodplain:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Private Well < 100 ft:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer to the stream south of the pond.

Infrastructure modifications or flow diversions required for retrofit:

Divert the Irish Road ditches and the storm sewer on Symphony Blvd. to the pond via storm sewer.

Site access for future BMP maintenance:

An easement is required for access from Irish Road or Symphony Blvd. to the pond.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, storm sewer depths, wetlands, high groundwater, rock excavation, and private property.

Approx. Size of BMP Retrofit:

0.24 acre permanent pool

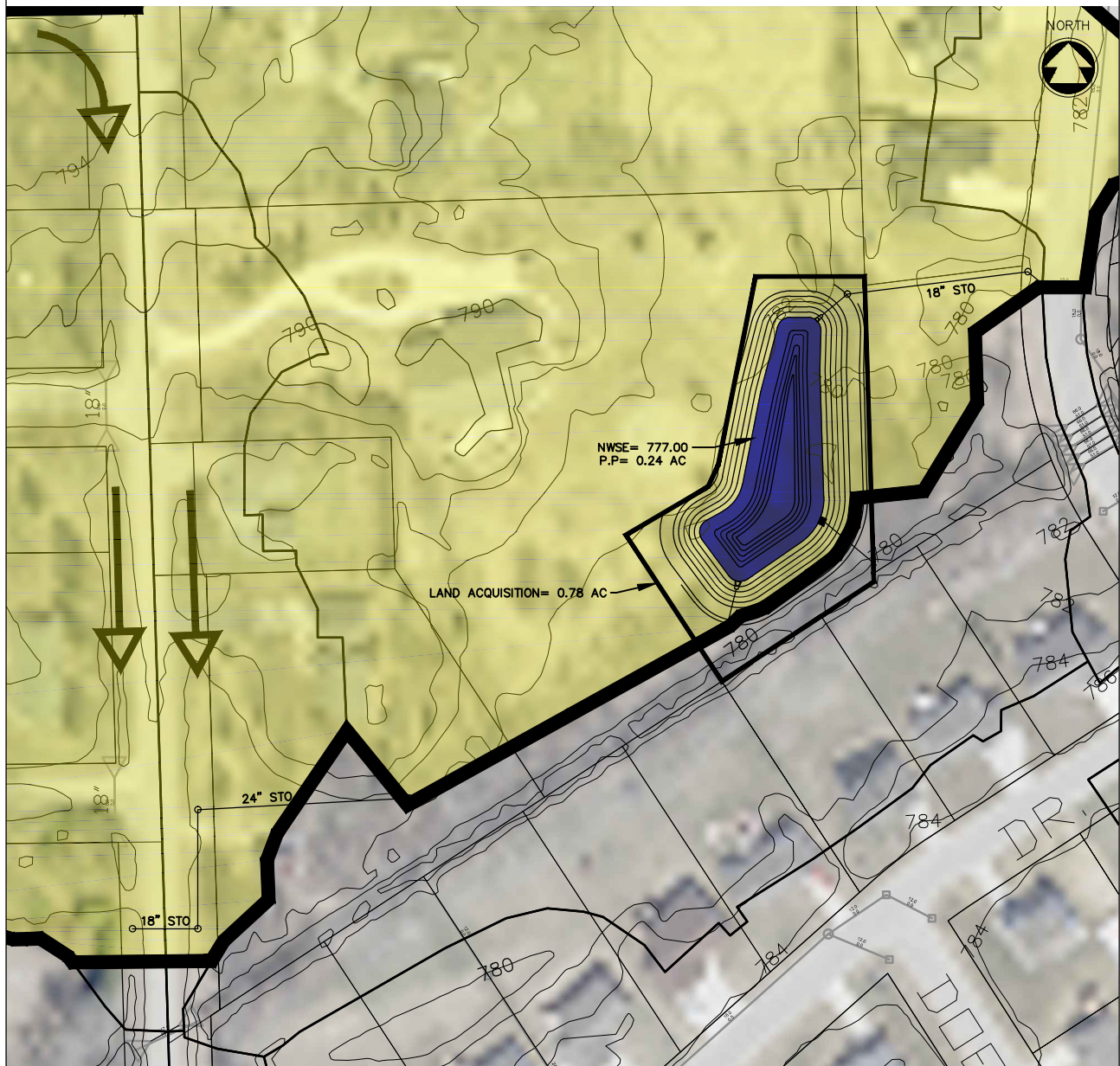
Approx. Land Required (ac):

0.78 acres

Estimated Cost:

\$130,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C15f

McM PROJECT NO: M0003-910495

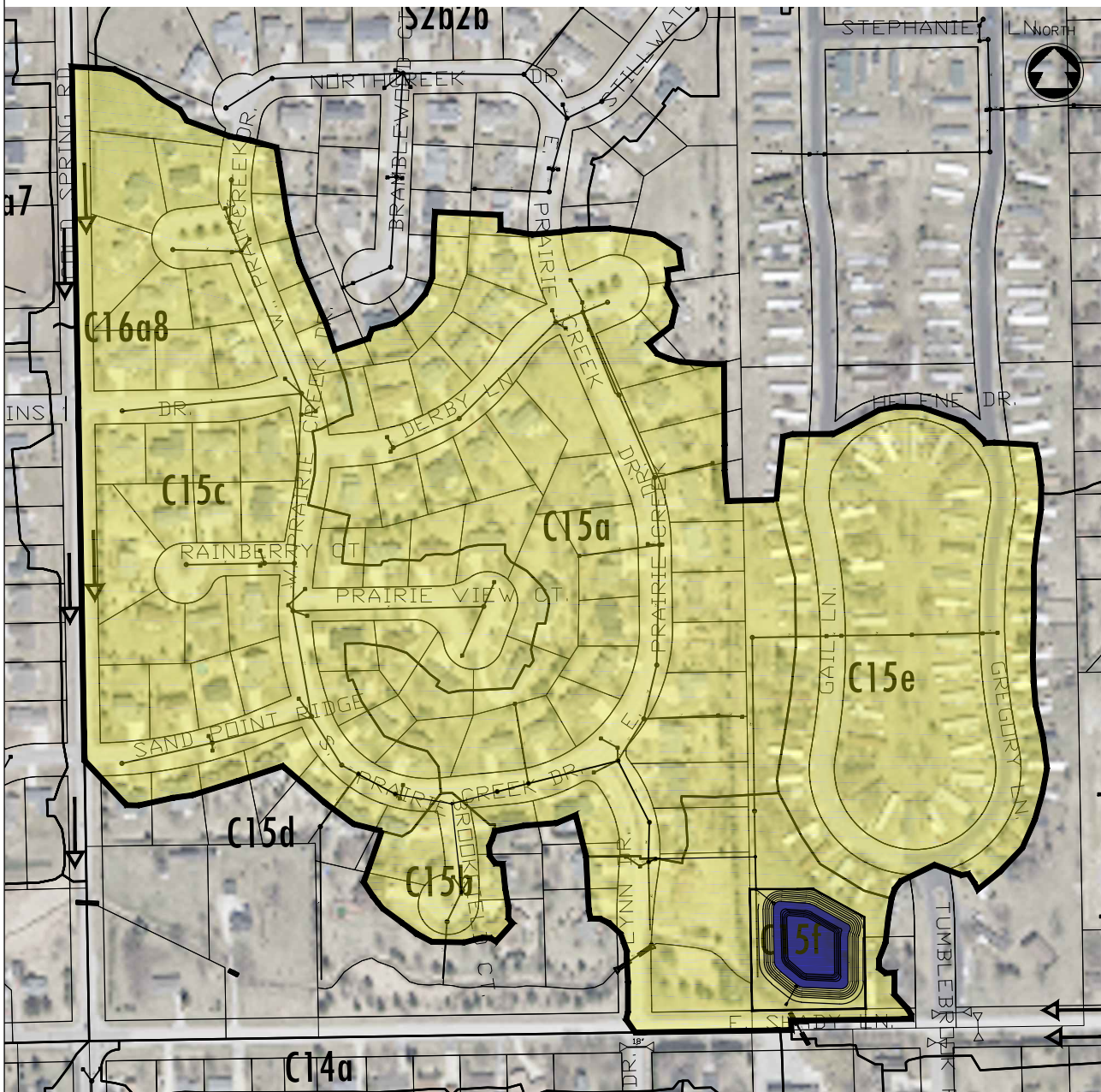
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: TUMBLEBROOK POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C15a, C15b, C15c, C15e, C15f	Total Drainage Area: 52.9 acres
Imperviousness (Future): 39.1 %	Runoff Curve Number (Future): 83	Water Quality Volume (Future): 2.66 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 2-3 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: WINNECONNE SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☐ Potential ☐ Yes ☒ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer south to the E. Shady Lane culvert.

Infrastructure modifications or flow diversions required for retrofit:

Reroute the storm sewer on Lynn Drive and adjacent to Prairie Creek Drive into the pond via storm sewer.

Site access for future BMP maintenance:

Access from E. Shady Lane.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, rock excavation, storm sewer depth, groundwater and private property.

Approx. Size of BMP Retrofit:

0.51 acre permanent pool

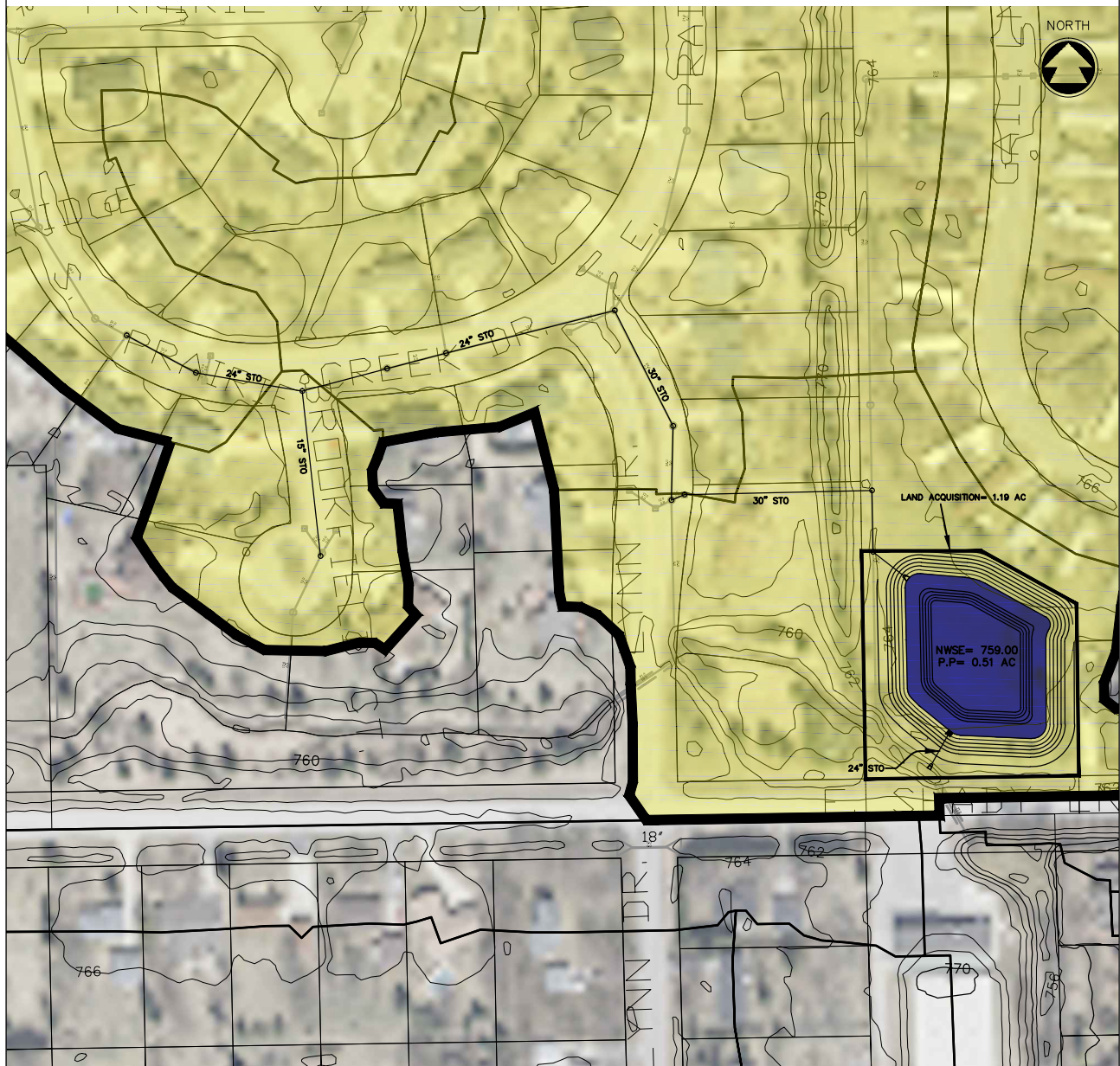
Approx. Land Required (ac):

1.19 acres

Estimated Cost:

\$500,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C17c

McM PROJECT NO: M0003-910495

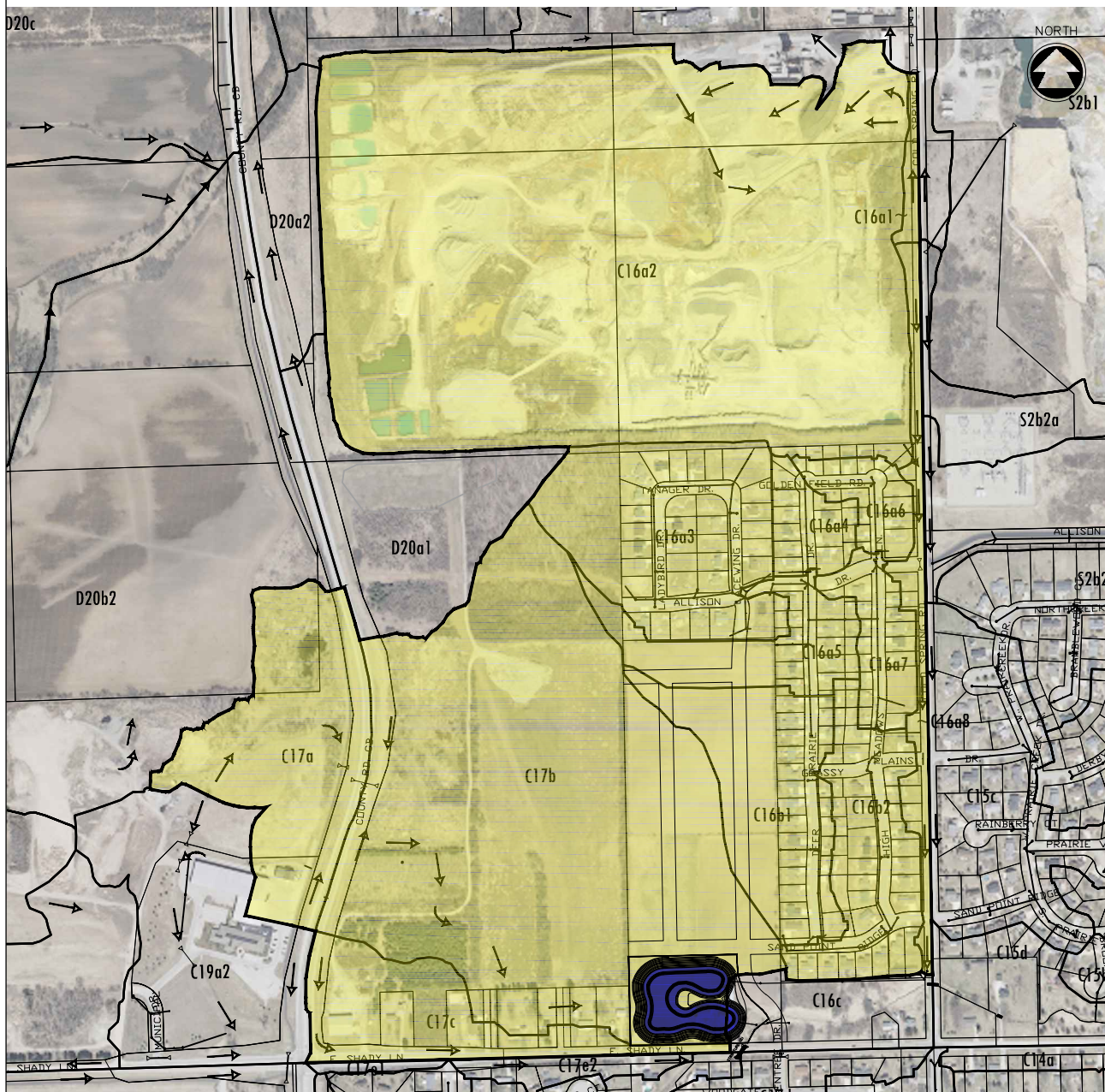
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: SAND POINT POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C17a, C17b, C17c	Total Drainage Area: 256.8 acres
Imperviousness (Future): 56.9 %	Runoff Curve Number (Future): 82	Water Quality Volume (Future): 18.04 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 2-3 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: WINNECONNE SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain: ☐ Yes ☒ No

Wetland: ☐ Potential ☒ Yes ☐ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer east to Millbrook Creek.

Infrastructure modifications or flow diversions required for retrofit:

Divert the Cold Spring Road ditches west to the pond via storm sewer.

Site access for future BMP maintenance:

Access from East Shady Lane.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, rock excavation, groundwater and private property with existing buildings.

Approx. Size of BMP Retrofit:

2.09 acre permanent pool

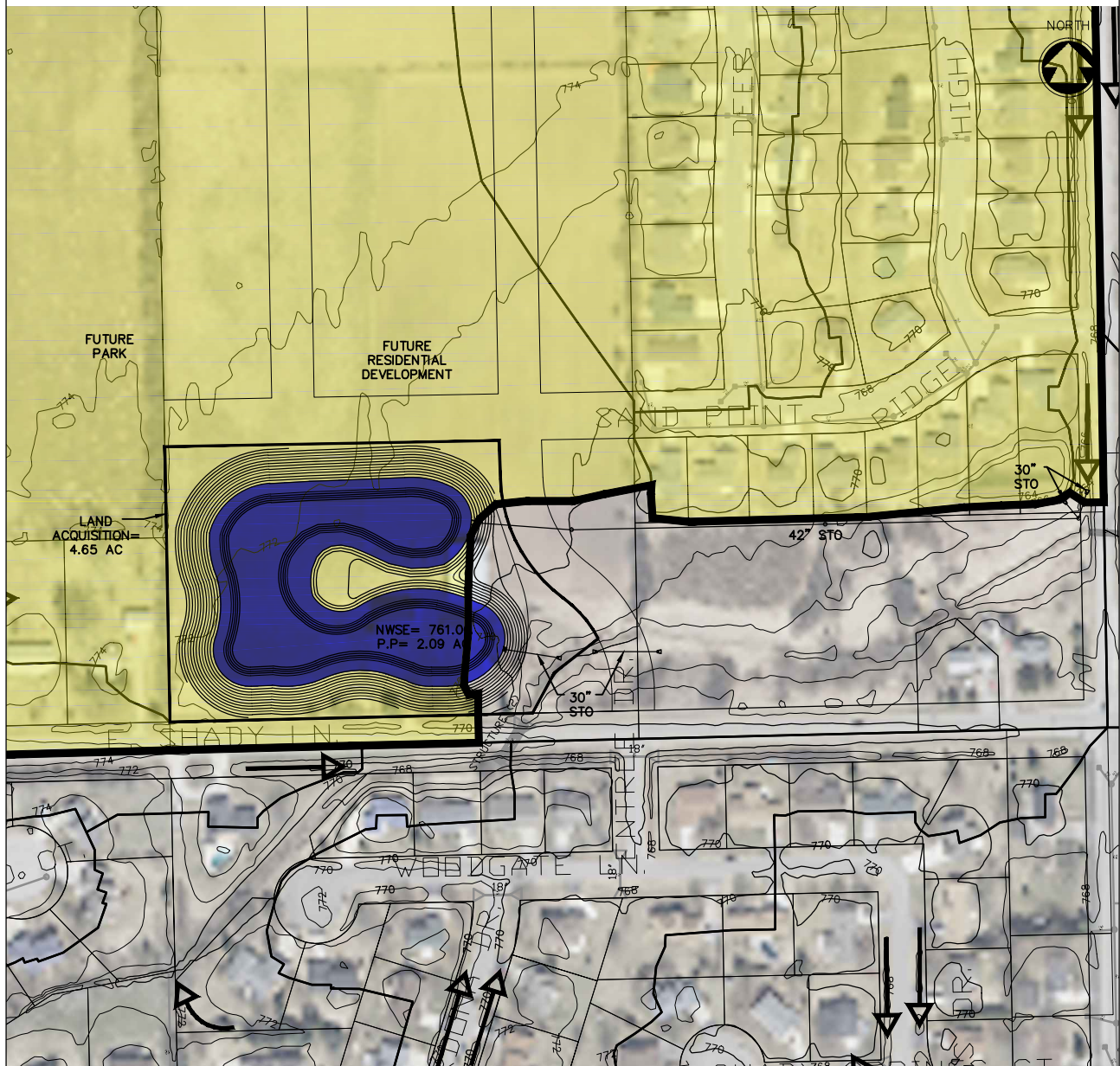
Approx. Land Required (ac):

4.65 acres

Estimated Cost:

\$2,000,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C19a3

McM PROJECT NO: M0003-910495

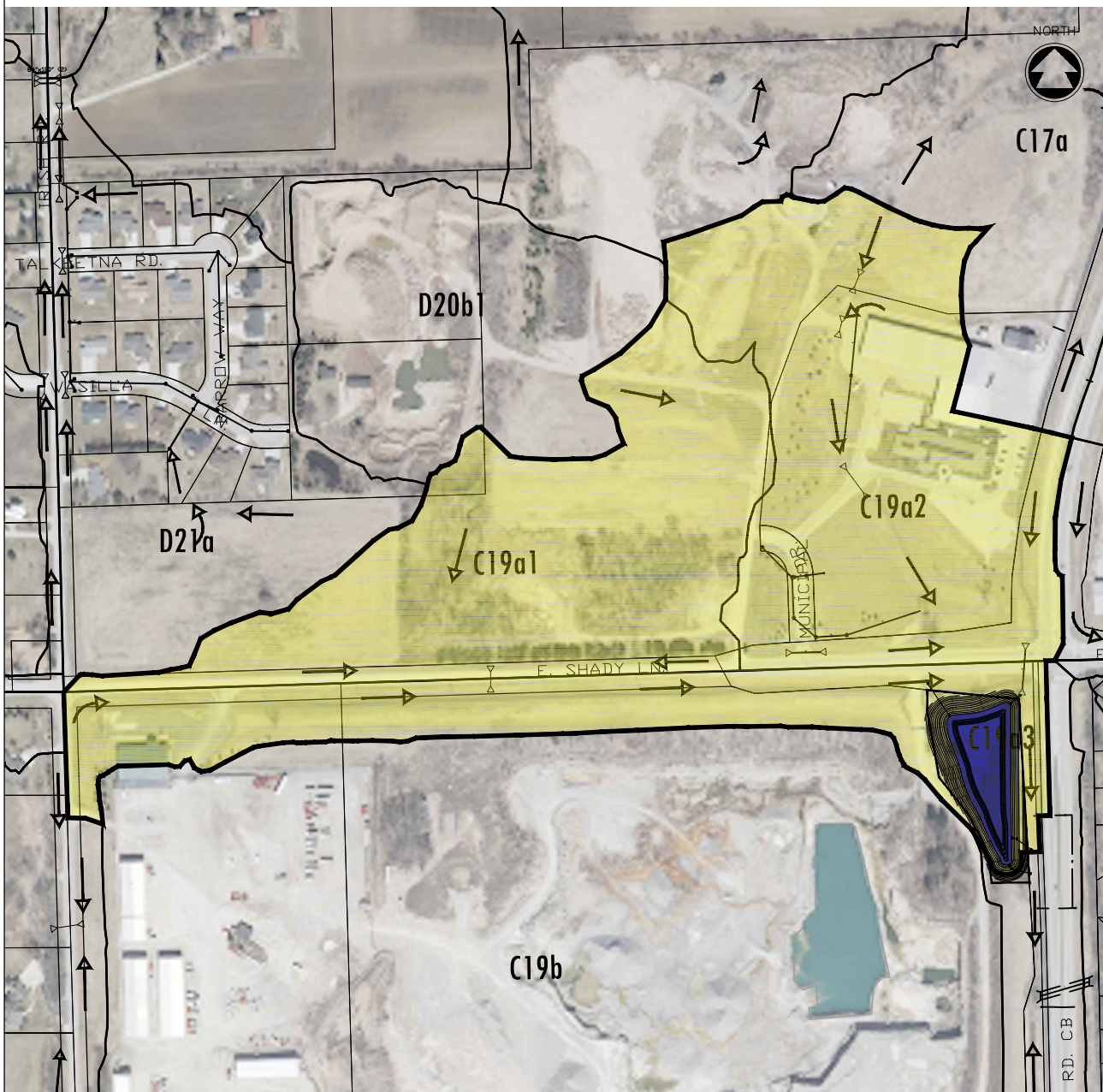
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: DIETZ POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C19a1, C19a2, C19a3	Total Drainage Area: 49.2 acres
Imperviousness (Future): 57.4 %	Runoff Curve Number (Future): 77	Water Quality Volume (Future): 3.49 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 6-7 ft

Bedrock Depth (in): 12-24 in

USDA Soil Texture: HOCHHEIM LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☐ Potential ☐ Yes ☒ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Infrastructure modifications or flow diversions required for retrofit:

Divert the E. Shady Lane ditches and the west CTH 'CB' ditch into the pond via storm sewer.

Site access for future BMP maintenance:

Site access is from E. Shady Lane.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, rock excavation, groundwater and private property.

Approx. Size of BMP Retrofit:

1.00 acre permanent pool

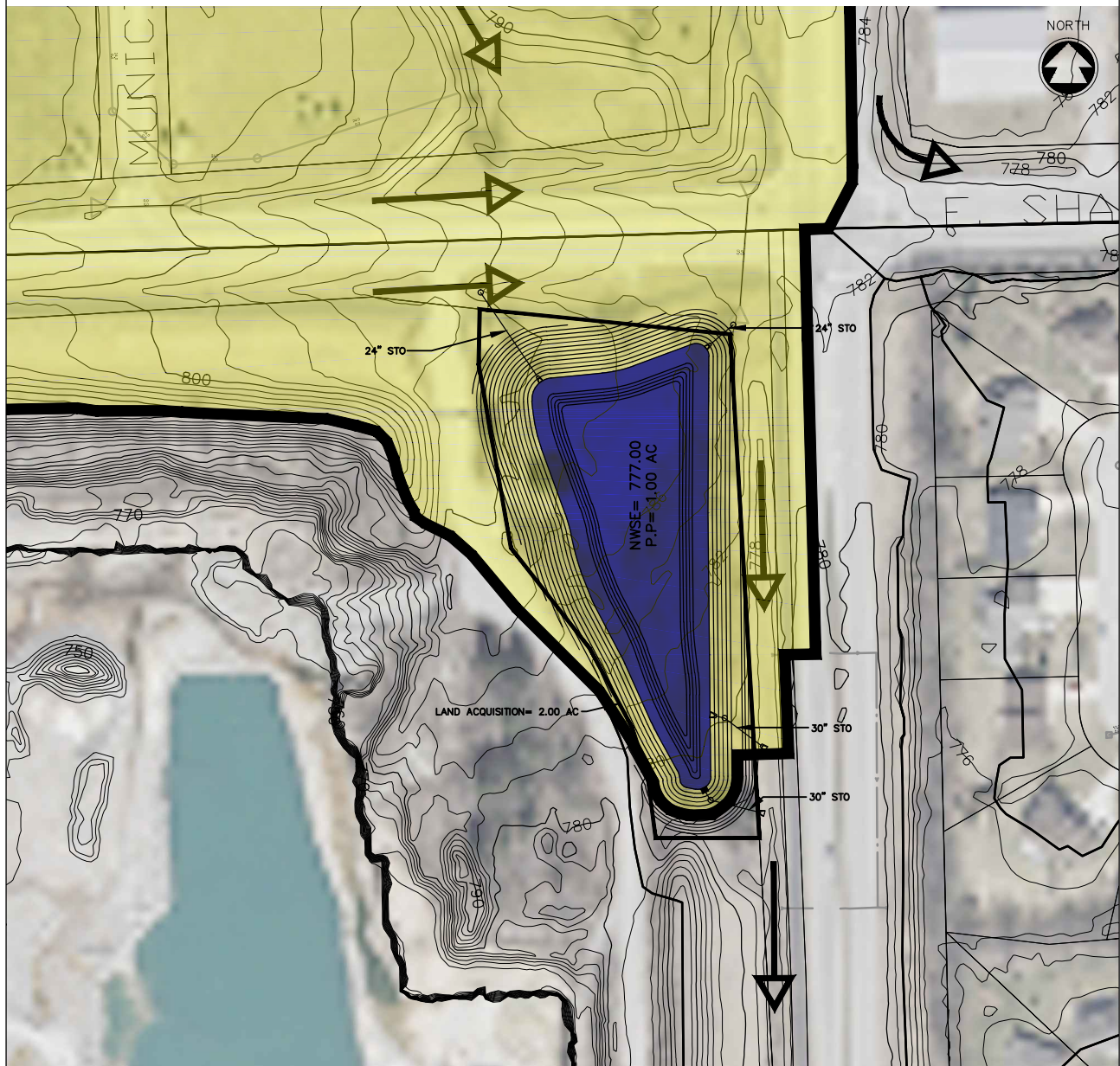
Approx. Land Required (ac):

2.00 acres

Estimated Cost:

\$535,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C20a2

McM PROJECT NO: M0003-910495

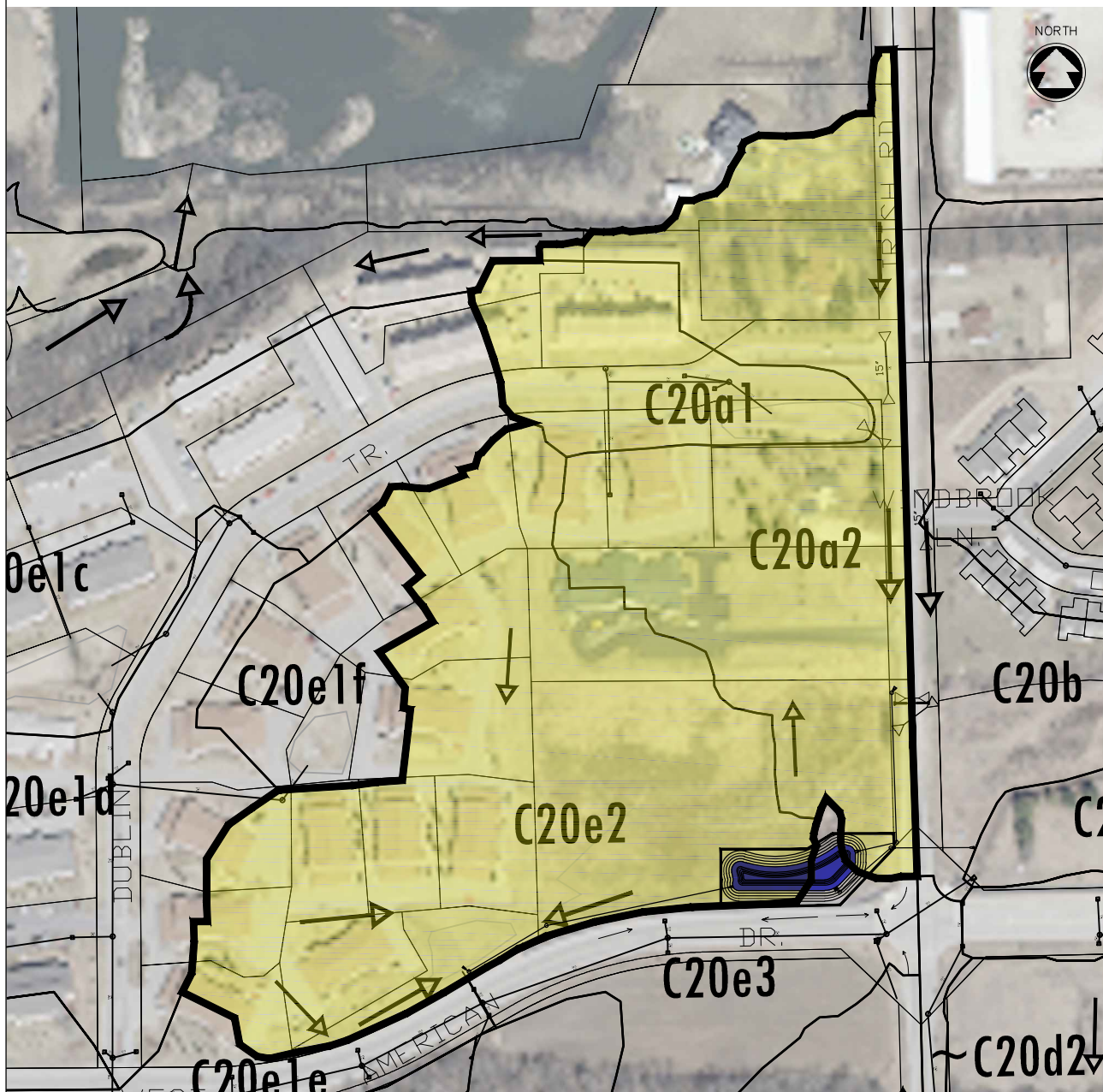
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: DUBLIN POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C20a1, C20a2	Total Drainage Area: 20.3 acres
Imperviousness (Future): 58.7 %	Runoff Curve Number (Future): 87	Water Quality Volume (Future): 1.47 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 1-2 ft
Bedrock Depth (in): >60 in
USDA Soil Texture: NENNO LOAM

Remediation: ☐ Yes ☒ No
Historical: ☐ Yes ☒ No
100-Year Floodplain: ☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No
Public Well < 400 ft: ☐ Yes ☒ No
Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer to the east side of Irish Road into Millbrook Creek.

Infrastructure modifications or flow diversions required for retrofit:

Divert the west Irish Road ditch and the existing dry pond located west of the pond into the pond via storm sewer.

Site access for future BMP maintenance:

Access from Irish Road and American Drive is available.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, rock excavation, groundwater and private property.

Approx. Size of BMP Retrofit:

0.18 acre permanent pool

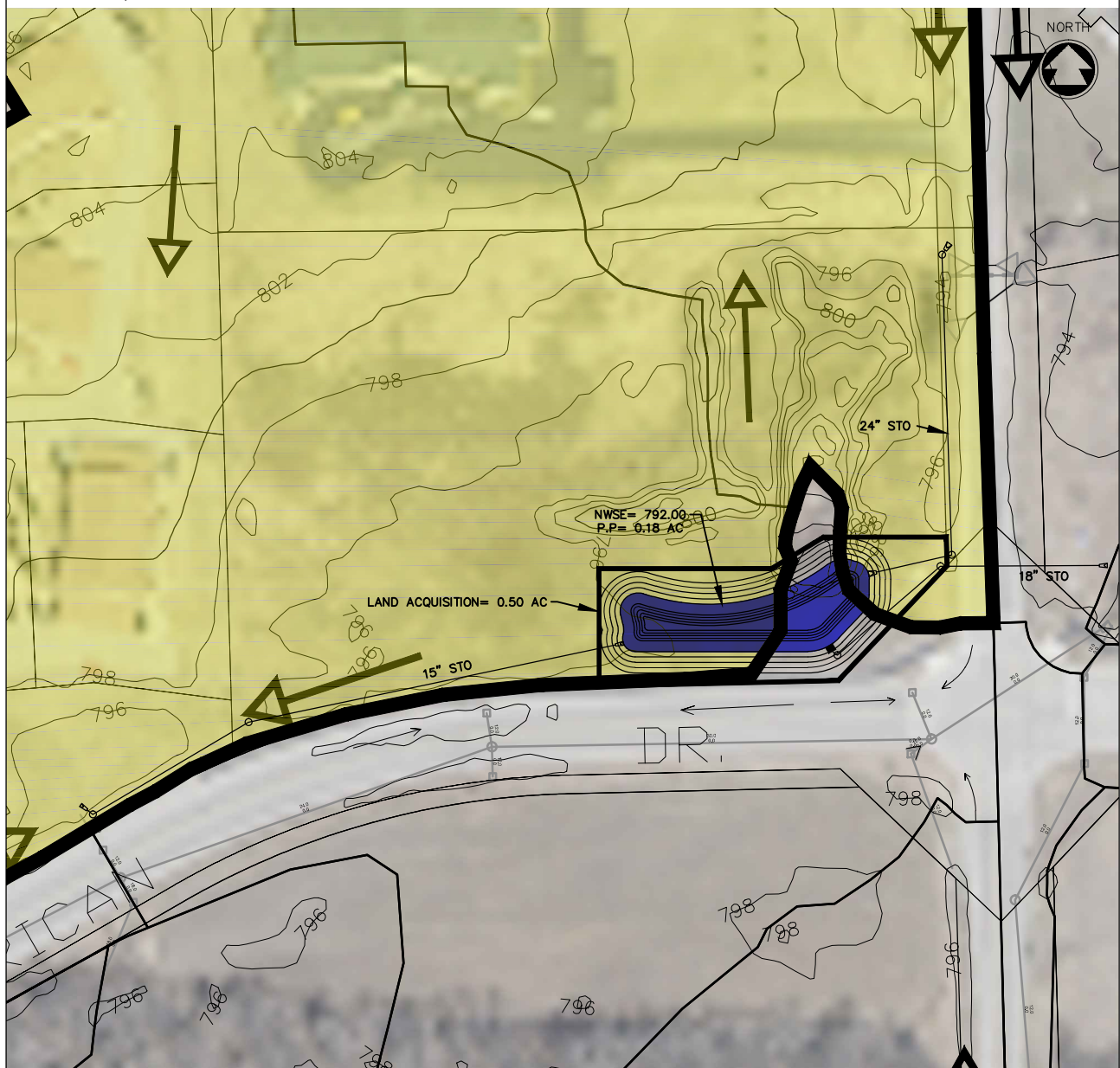
Approx. Land Required (ac):

0.50 acres

Estimated Cost:

\$200,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C20d1

McM PROJECT NO: M0003-910495

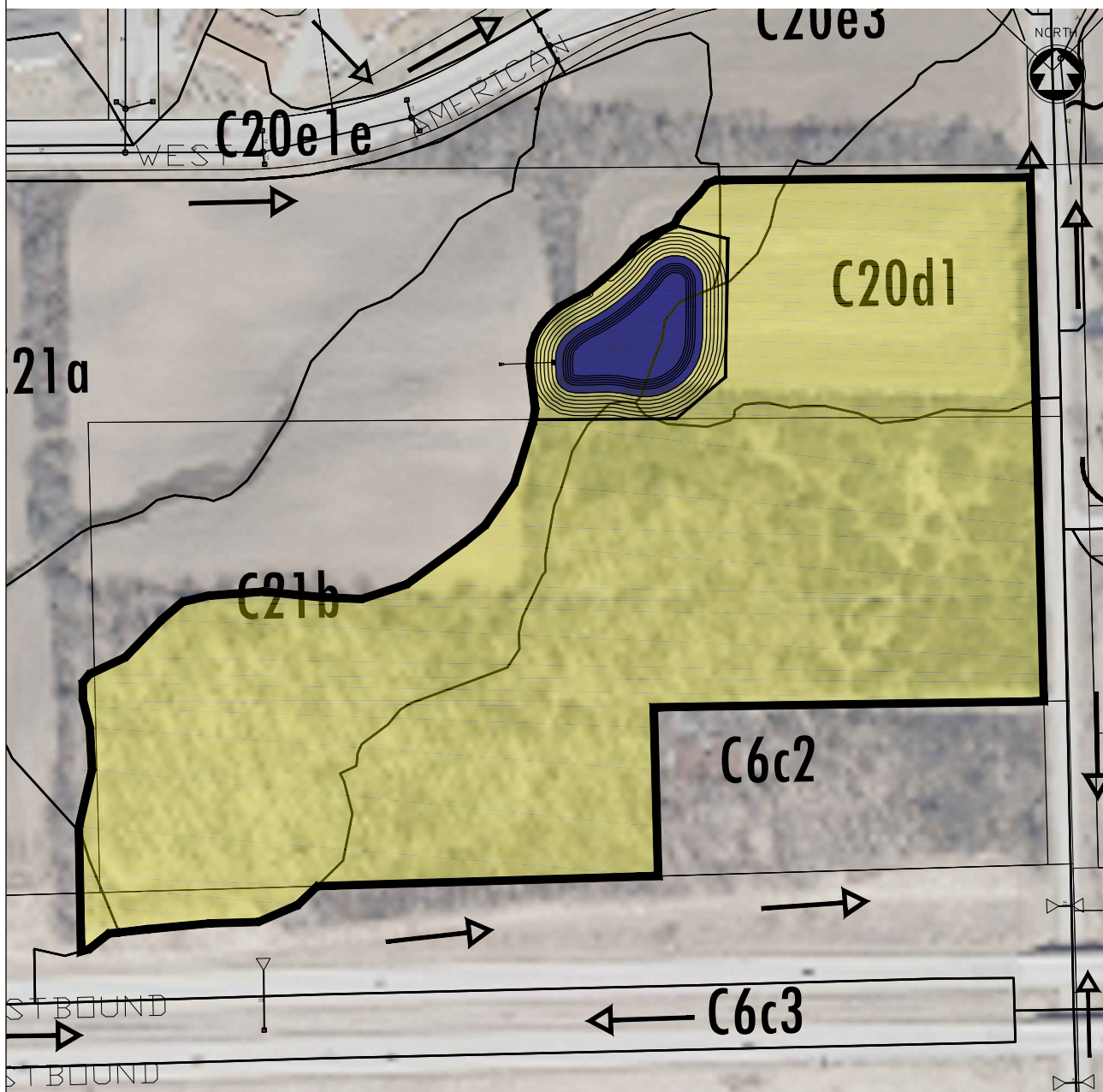
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: GRUNDMAN POND (FUTURE DEVELOPMENT BMP)	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C20d1, C20e3, C21b, C21d	Total Drainage Area: 16.3 acres
Imperviousness (Future): 83.9 %	Runoff Curve Number (Future): 92	Water Quality Volume (Future): 1.64 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 2-3 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: WINNECONNE SILTY CLAY LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain: ☐ Yes ☒ No

Wetland: ☐ Potential ☐ Yes ☒ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer to Millbrook Creek or to the proposed wetland area adjacent to the pond.

Infrastructure modifications or flow diversions required for retrofit:

Future storm sewer from adjacent undeveloped area.

Site access for future BMP maintenance:

An ingress/egress easement shall be obtained from Irish Road to the pond for access.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Rock excavation, groundwater and private property, future development BMP.

Approx. Size of BMP Retrofit:

0.56 acre permanent pool

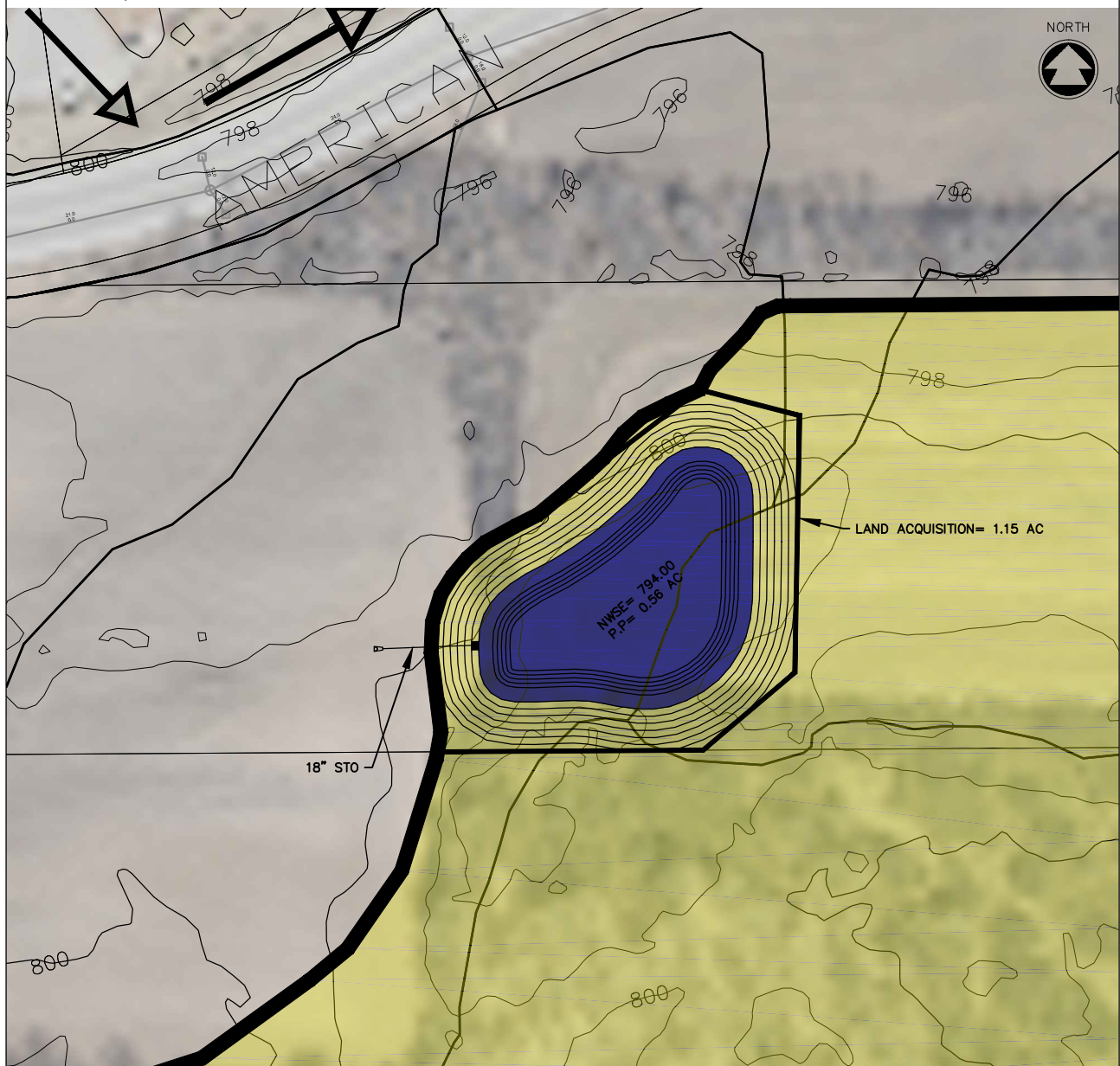
Approx. Land Required (ac):

1.15 acres

Estimated Cost:

\$350,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-C20e1

McM PROJECT NO: M0003-910495

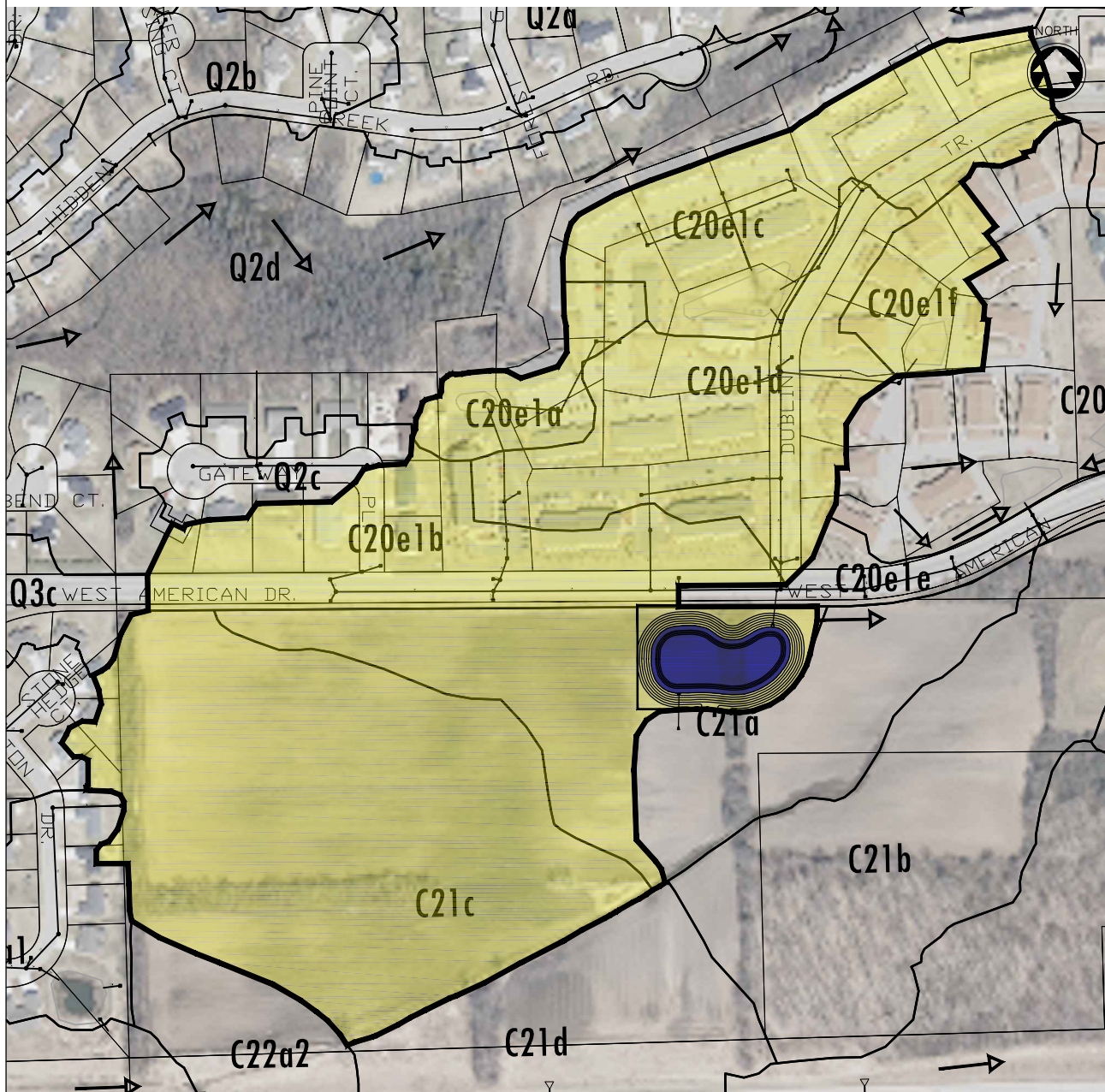
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: SCHOOL POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: C20e1a, C20e1b, C20e1c, C20e1d, C20e1f, C21a, C21c	Total Drainage Area: 47.5 acres
Imperviousness (Future): 54.5 %	Runoff Curve Number (Future): 87	Water Quality Volume (Future): 3.21 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 1-2 ft

Bedrock Depth (in): >60 in

USDA Soil Texture: NENNO LOAM

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer to Millbrook Creek or to the proposed wetland area adjacent to the pond.

Infrastructure modifications or flow diversions required for retrofit:

Future storm sewer to serve the adjacent undeveloped area and storm sewer from the intersection of W. American Dr/Dublin Tr.

Site access for future BMP maintenance:

Access from W. American Drive.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Rock excavation, groundwater and private property.

Approx. Size of BMP Retrofit:

0.84 acre permanent pool

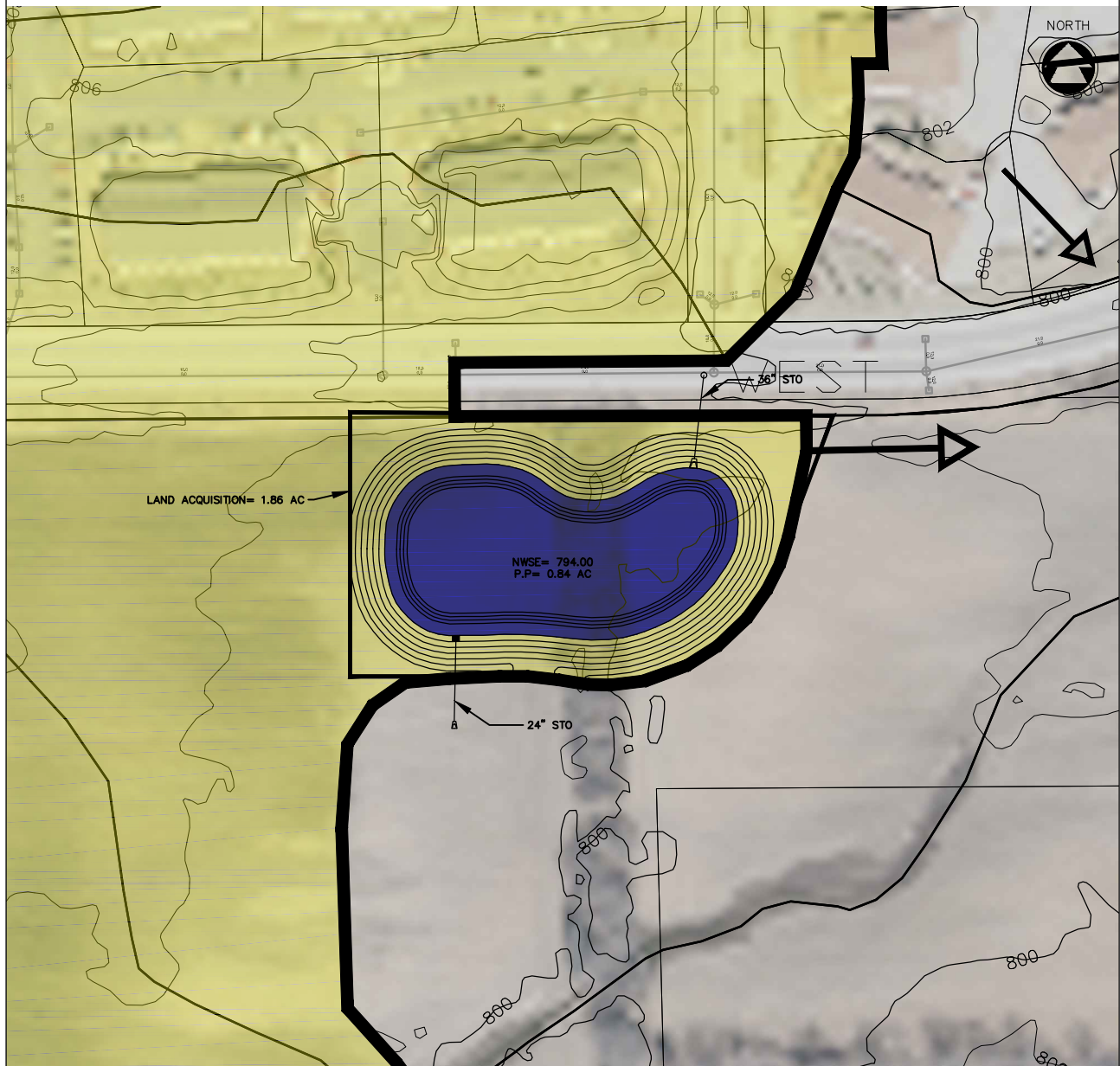
Approx. Land Required (ac):

1.86 acres

Estimated Cost:

\$560,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-D16a2

McM PROJECT NO: M0003-910495

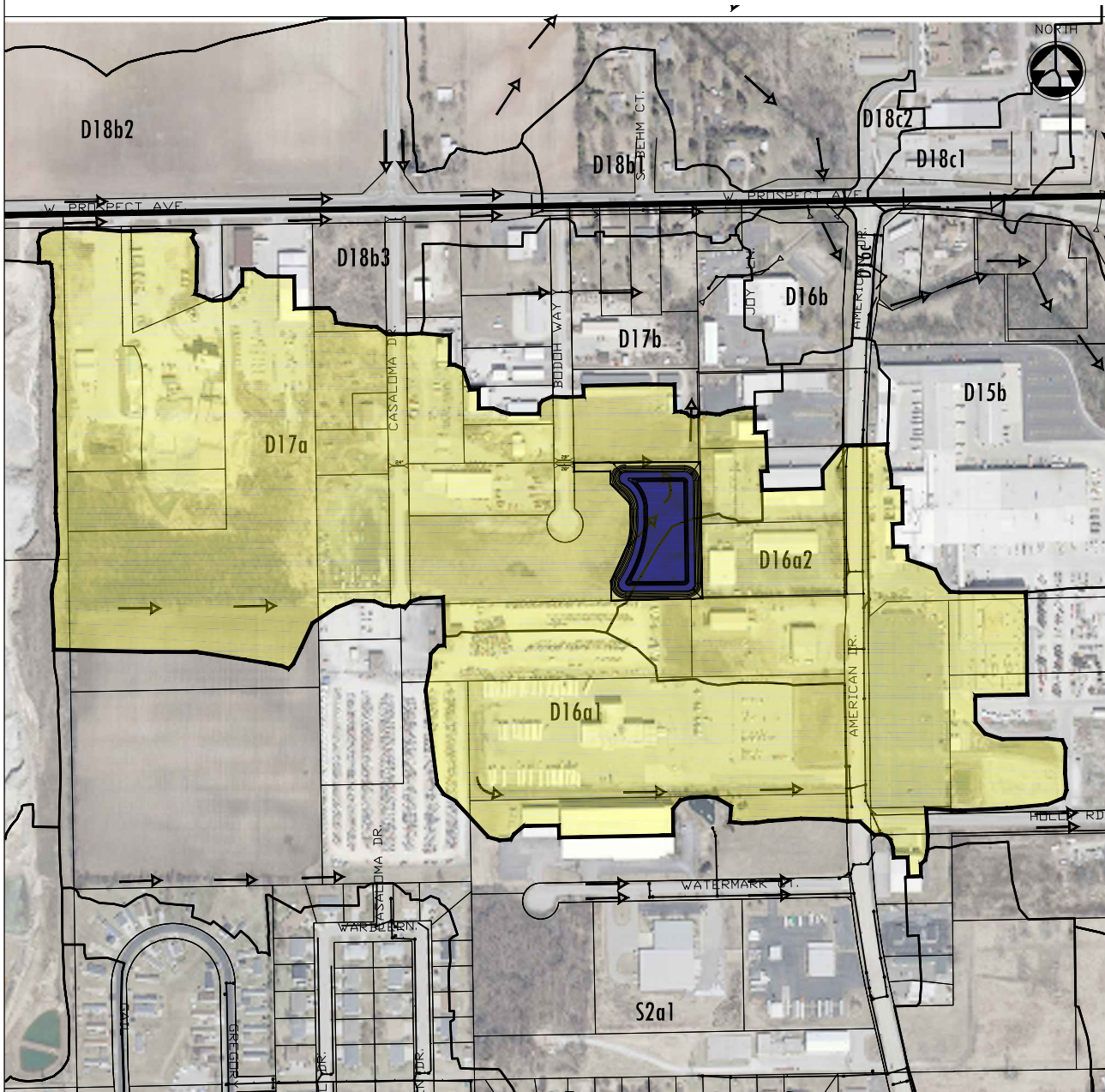
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: AUTO POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: D16a1, D16a2	Total Drainage Area: 90.8 acres
Imperviousness (Future): 81.6 %	Runoff Curve Number (Future): 93	Water Quality Volume (Future): 8.90 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft):	<1 ft	Remediation:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wetland:	<input checked="" type="checkbox"/> Potential <input type="checkbox"/> Yes <input type="checkbox"/> No
Bedrock Depth (in):	>60 in	Historical:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Public Well < 400 ft:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
USDA Soil Texture:	NEENAH SILTY CLAY LOAM	100-Year Floodplain:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Private Well < 100 ft:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer north and east to the existing storm sewer on American Drive.

Infrastructure modifications or flow diversions required for retrofit:

Divert storm sewer from American Drive to the pond and divert the swale north of the pond into the pond.

Site access for future BMP maintenance:

Access is from Bodoh Way via property acquisition or future easement.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, storm sewer depths, wetlands, high groundwater, private property.

Approx. Size of BMP Retrofit:

1.92 acre permanent pool

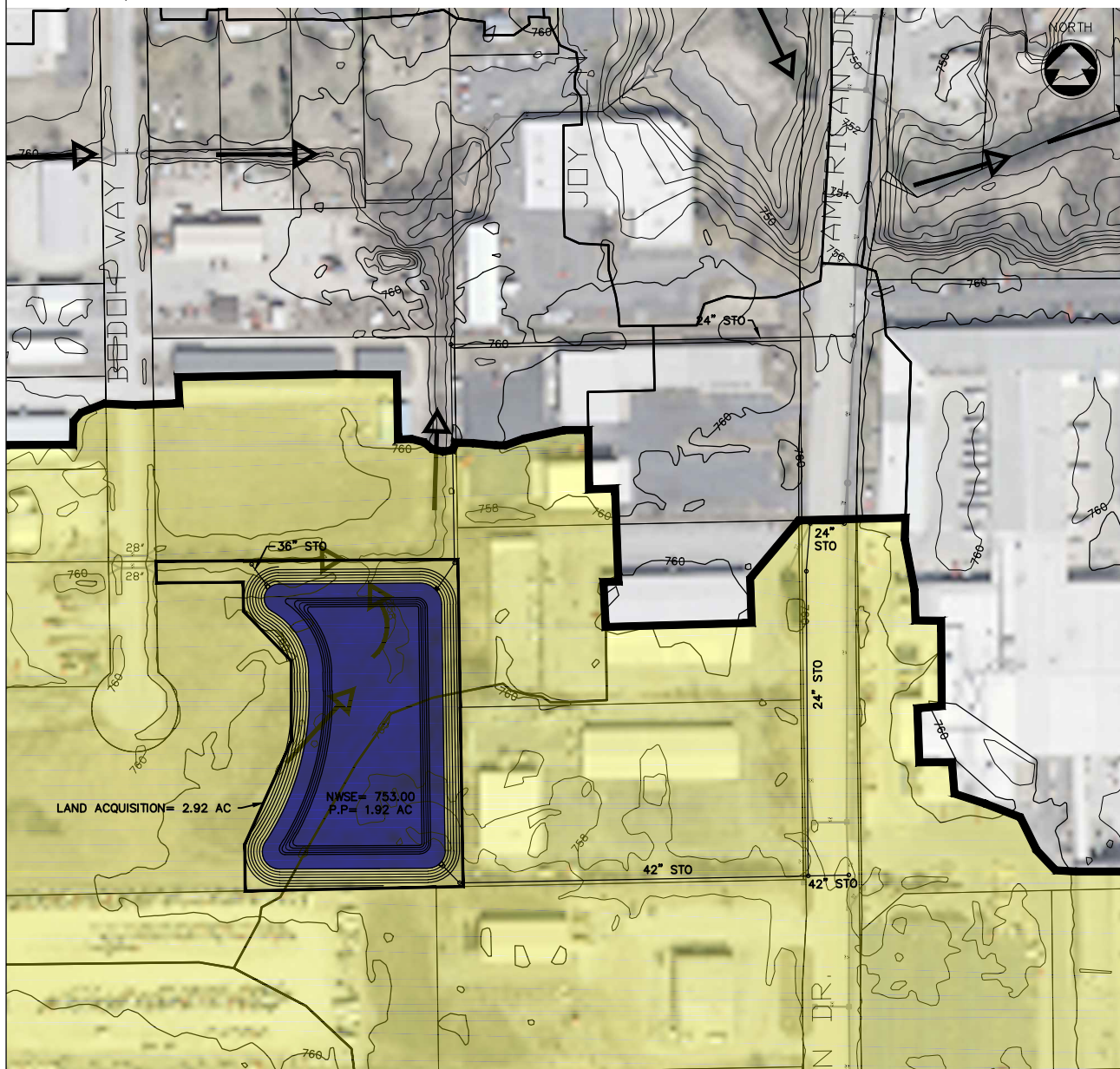
Approx. Land Required (ac):

2.92 acres

Estimated Cost:

\$720,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-D17a

McM PROJECT NO: M0003-910495

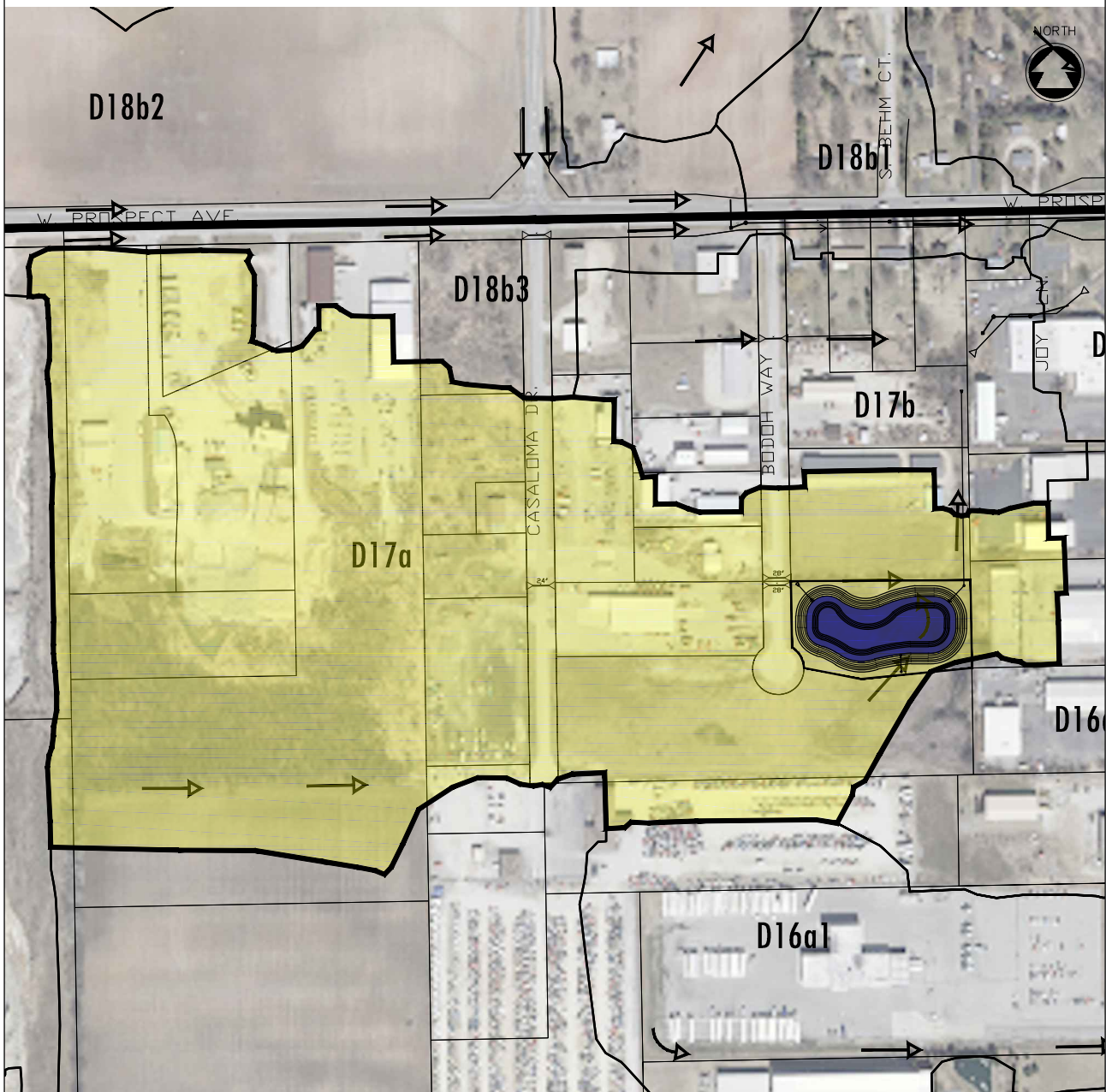
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: BODOH POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: D17a	Total Drainage Area: 51.0 acres
Imperviousness (Future): 81.7 %	Runoff Curve Number (Future): 93	Water Quality Volume (Future): 5.01 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): <1 ft	Remediation:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wetland:	<input checked="" type="checkbox"/> Potential <input type="checkbox"/> Yes <input type="checkbox"/> No
Bedrock Depth (in): >60 in	Historical:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Public Well < 400 ft:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
USDA Soil Texture: NEENAH SILTY CLAY LOAM	100-Year Floodplain:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Private Well < 100 ft:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer north to the stream SW of the American Drive/Prospect Ave. intersection.

Infrastructure modifications or flow diversions required for retrofit:

Divert the swales south and northwest of the pond into the pond via storm sewer.

Site access for future BMP maintenance:

Access shall be from Bodoh Way.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Potential utility conflicts, wetlands, high groundwater, private property.

Approx. Size of BMP Retrofit:

0.96 acre permanent pool

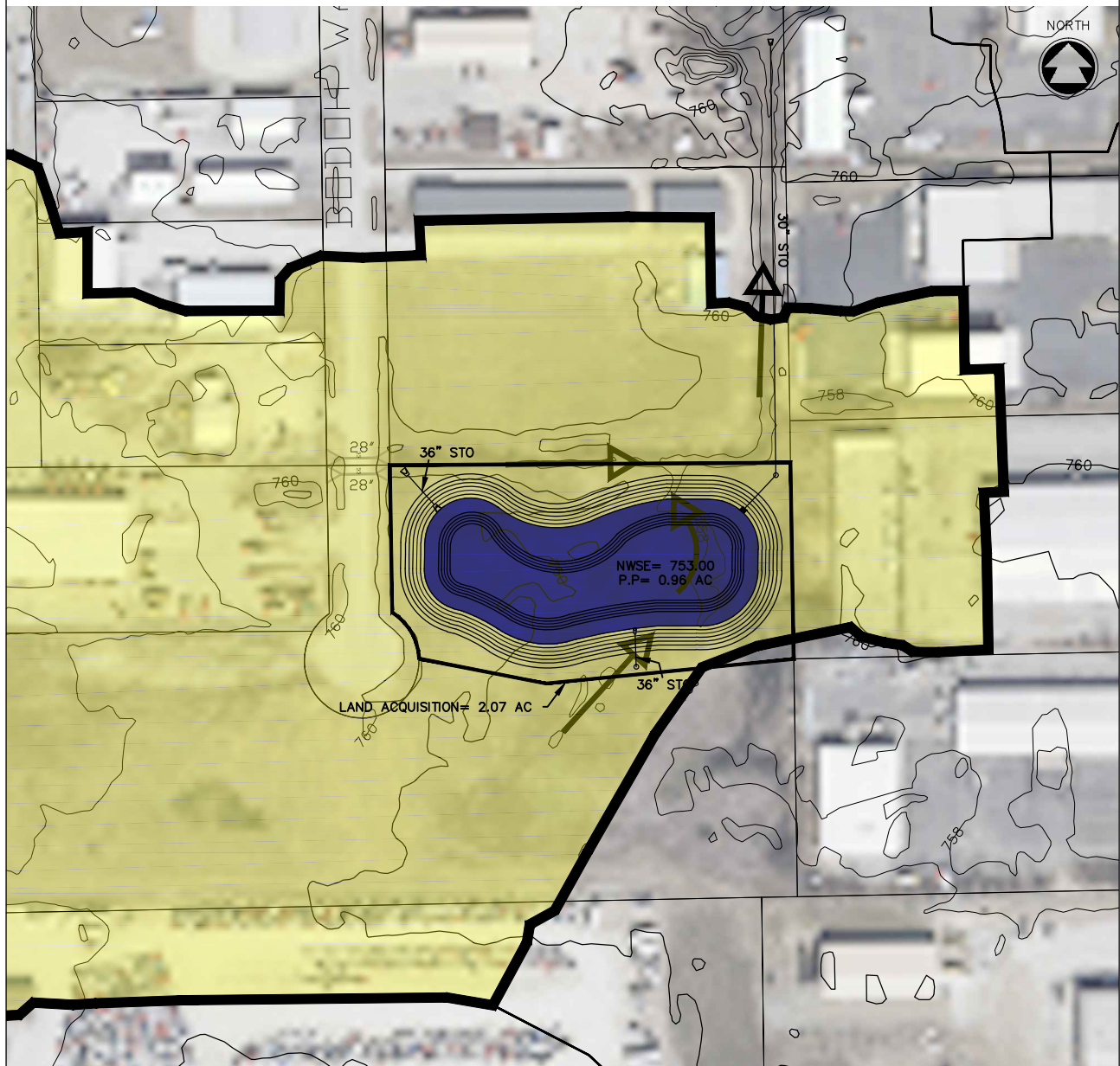
Approx. Land Required (ac):

2.07 acres

Estimated Cost:

\$360,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-D17b

McM PROJECT NO: F0057-9-17-00221

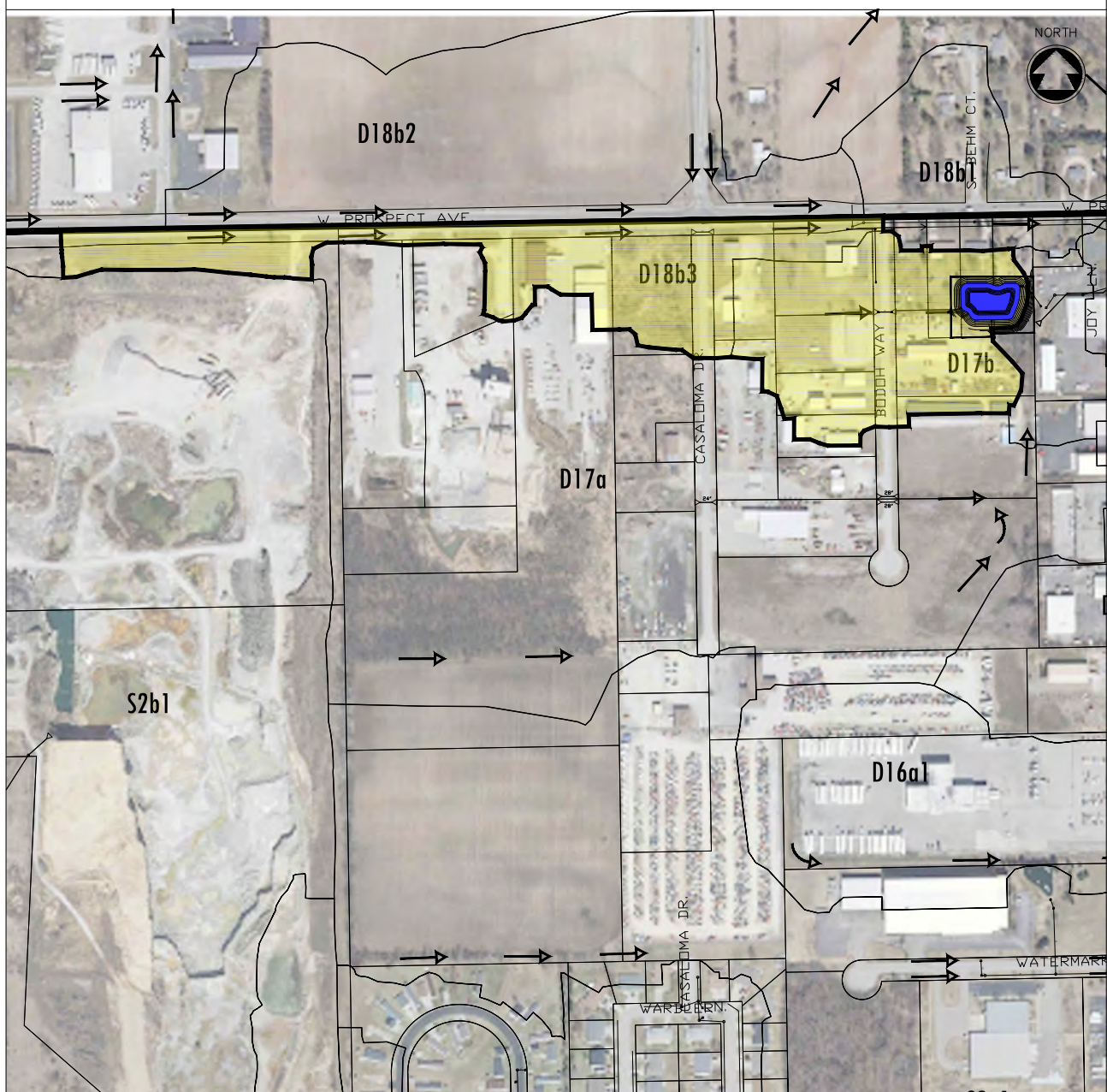
SITE INFORMATION:

Municipality: VILLAGE OF FOX CROSSING	Date: MAY, 2018
Proposed BMP Name: JOY POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: D18b3, portion of D17b	Total Drainage Area: 19.8 acres
Imperviousness (Future): 72.9 %	Runoff Curve Number (Future): 90	Water Quality Volume (Future): 1.75 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 2-3 FT

Bedrock Depth (in): > 60 IN

USDA Soil Texture: Winneconne Silty Clay Loam

Remediation:

☐ Yes ☒ No

Historical:

☐ Yes ☒ No

100-Year Floodplain:

☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No

Public Well < 400 ft: ☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer to the east.

Infrastructure modifications or flow diversions required for retrofit:

Divert storm water from CTH BB to the pond.

Site access for future BMP maintenance:

Access from a future easement from Bodoh Way.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Rock excavation, groundwater and private property.

Approx. Size of BMP Retrofit:

0.41 acre permanent pool

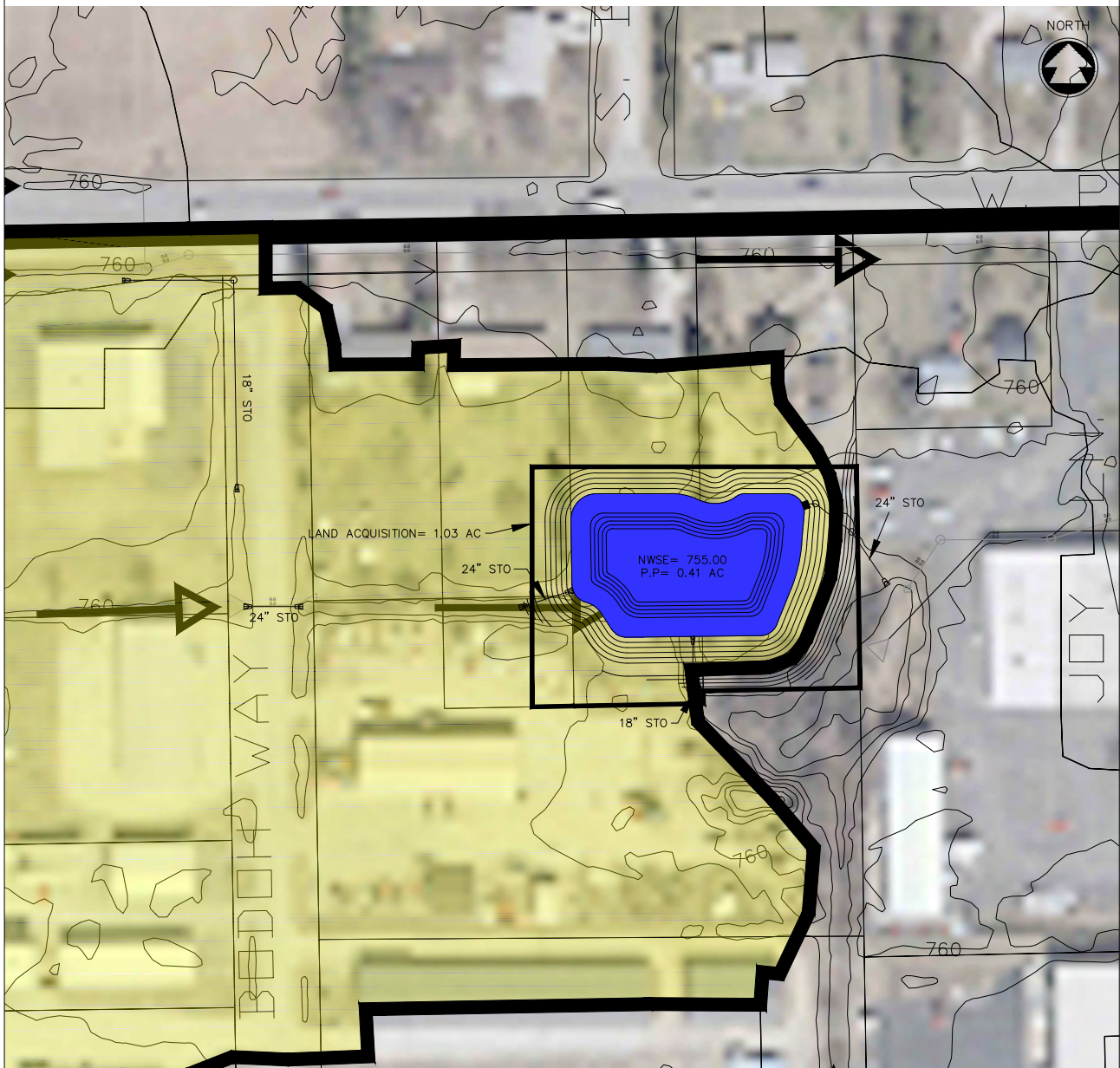
Approx. Land Required (ac):

1.03 acres

Estimated Cost:

\$242,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-D19a

McM PROJECT NO: M0003-910495

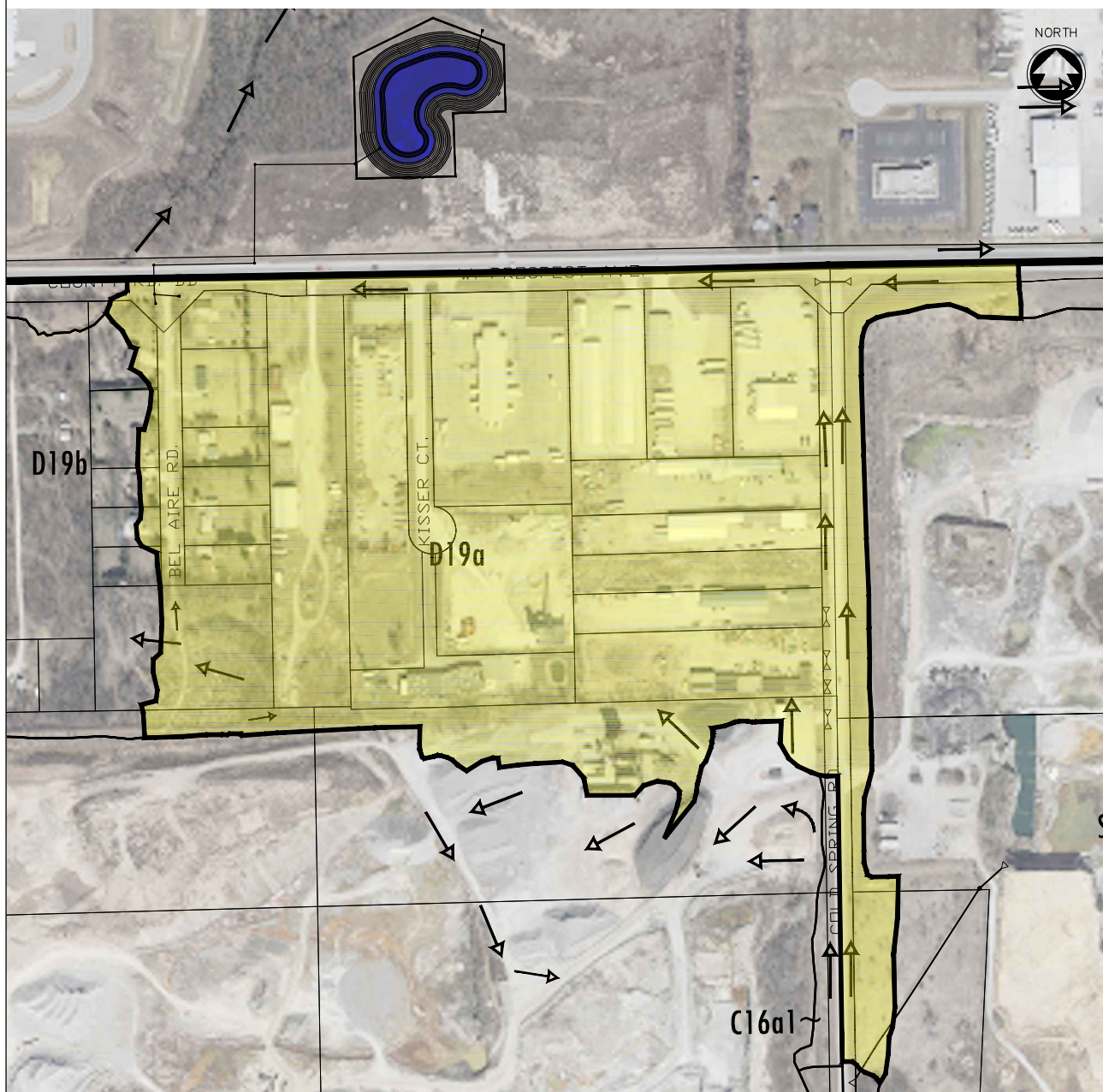
SITE INFORMATION:

Municipality: TOWN OF MENASHA	Date: DECEMBER, 2013
Proposed BMP Name: CTH BB POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: D19a	Total Drainage Area: 54.7 acres
Imperviousness (Future): 74.1 %	Runoff Curve Number (Future): 90	Water Quality Volume (Future): 4.90 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): <1 ft, 5 ft
Bedrock Depth (in): 36 in., 60 in.
USDA Soil Texture: Manawa Silty Clay Loam,
Winneconne Silty Clay Loam

Remediation: ☐ Yes ☒ No
Historical: ☐ Yes ☒ No
100-Year Floodplain: ☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No
Public Well < 400 ft: ☐ Yes ☒ No
Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):
Outfall via storm sewer north to a ditch north of the pond.

Infrastructure modifications or flow diversions required for retrofit:
Divert the ditches at the intersection of Prospect Ave & BelAire Road north and east to the pond via storm sewer.

Site access for future BMP maintenance:
An ingress/egress easement shall be acquired in the Town of Grand Chute to the pond.

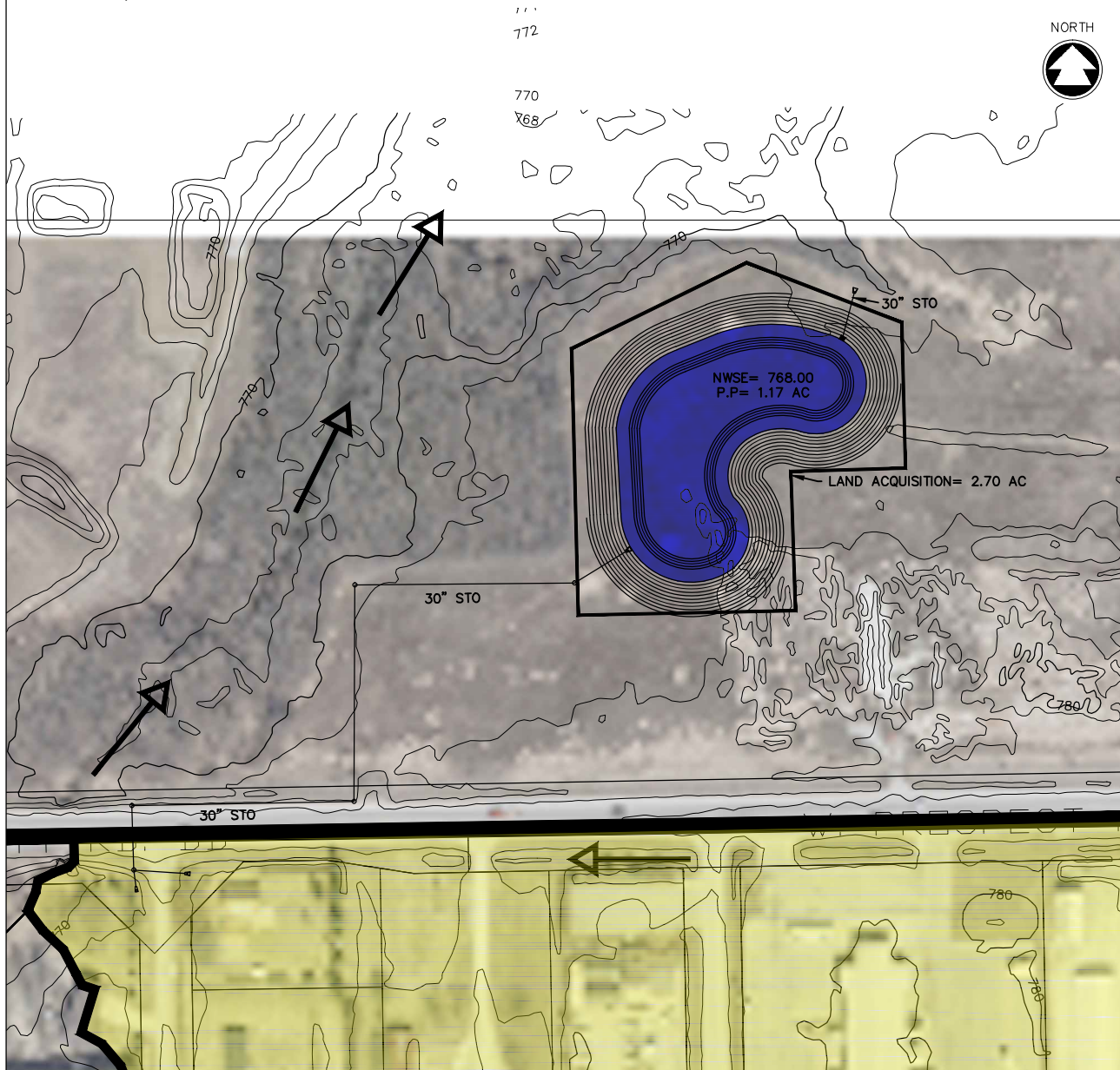
Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):
Potential utility conflicts, wetlands, high groundwater, private property in the Town of Grand Chute.

Approx. Size of BMP Retrofit:
1.17 acre permanent pool

Approx. Land Required (ac):
2.70 acres

Estimated Cost:
\$425,000

Sketch of Proposed BMP Retrofit:



POTENTIAL STORMWATER BMP RETROFIT

BMP ID: P-BMP-D20e1

McM PROJECT NO: F0057-9-17-00221

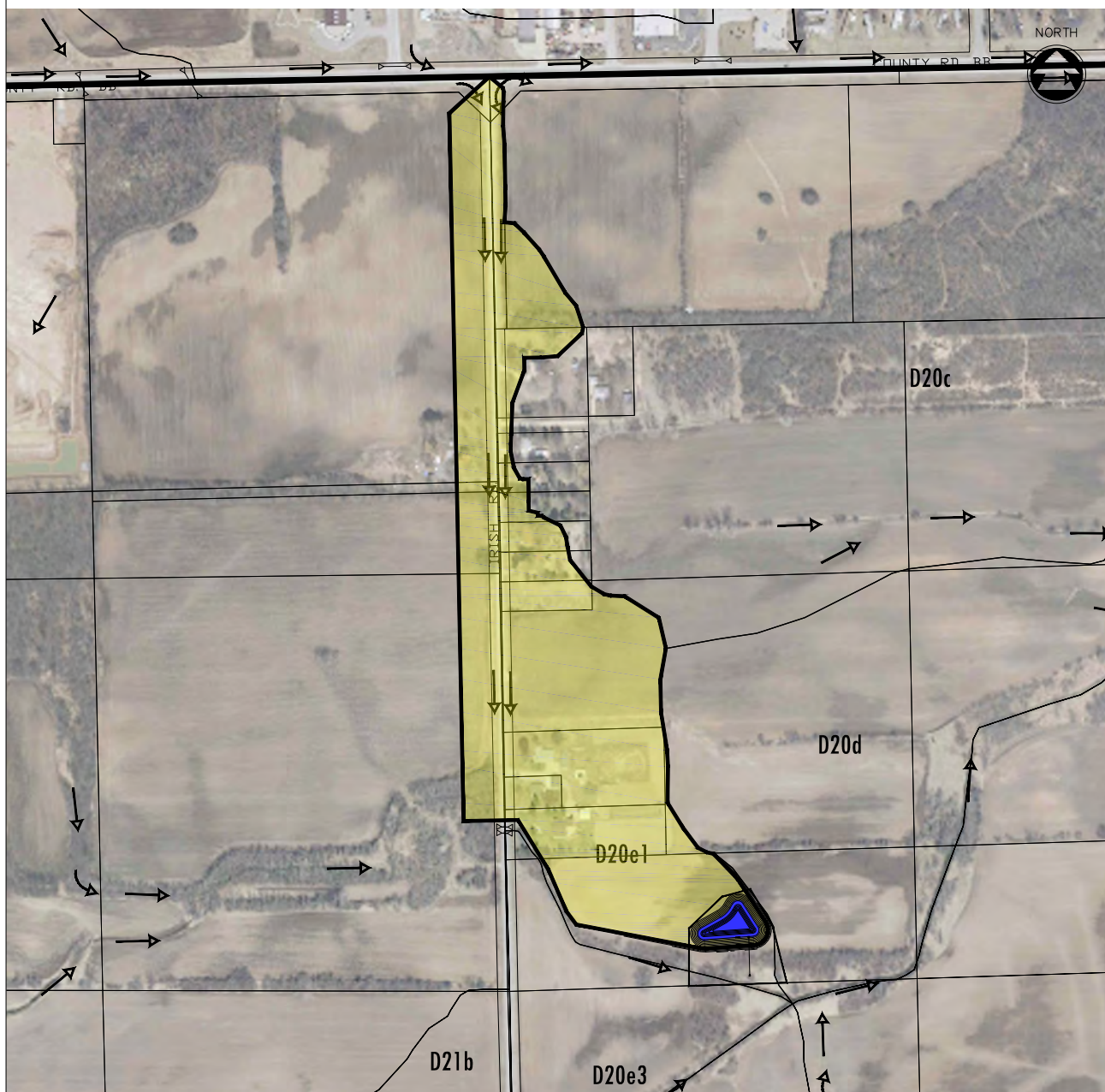
SITE INFORMATION:

Municipality: VILLAGE OF FOX CROSSING	Date: MAY, 2018
Proposed BMP Name: IRISH NORTH POND	Initials: AWS

DRAINAGE AREA:

Sub-watershed ID: FOX RIVER	Tributary Drainage Area IDs: D20e1	Total Drainage Area: 26.1 acres
Imperviousness (Future): 37.7 %	Runoff Curve Number (Future): 83	Water Quality Volume (Future): 1.27 acre-feet

Drainage Area / Site Location Map:



PROPOSED BMP RETROFIT:

Type of proposed BMP retrofit (e.g. wet pond, bioretention, proprietary device, etc.):
Wet Detention Pond

Initial BMP Screening

Groundwater Depth (ft): 0.5 ft

Remediation:

☐ Yes ☒ No

Wetland: ☒ Potential ☐ Yes ☐ No

Bedrock Depth (in): >60 in

Historical:

☐ Yes ☒ No

Public Well < 400 ft: ☐ Yes ☒ No

USDA Soil Texture: Neenah Silty Clay Loam 100-Year Floodplain:

☐ Yes ☒ No

Private Well < 100 ft: ☐ Yes ☒ No

BMP Outfall (storm sewer, stream, wetland, groundwater, etc.):

Outfall via storm sewer to the adjacent creek.

Infrastructure modifications or flow diversions required for retrofit:

Future storm sewer to serve the watershed and storm sewer from Irish Road.

Site access for future BMP maintenance:

Access from Irish Road.

Site constraints that require further investigation (e.g. utility conflicts, wetlands, groundwater, etc.):

Rock excavation, groundwater and private property.

Approx. Size of BMP Retrofit:

0.33 acre permanent pool

Approx. Land Required (ac):

1.73 acres

Estimated Cost:

\$279,400

Sketch of Proposed BMP Retrofit:

