

# Tartan West Community Association

## Reserve Study Update - 2020

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Note A - This exhibit summarizes measurements in following two Appendix documents

Observations regarding the pond measurements are recorded in the Condition Assessment Summary - Section B above.

# **Tartan West Community Association**

## **Reserve Study Update - 2020**

### **Executive Summary**

Tartan West Community Association was established by Tartan Development Company (WEST), LLC, as a non-profit Ohio corporation to govern and manage the community. The declaration for the Association was signed October 6, 2004. The community, located in Dublin, Ohio, consists of 388 discrete lots i.e. a parcel of real property which has been identified on a recorded subdivision plat. And while some development continues, all planned lots for the community have been defined.

### **Scope**

This study was requested by the Board of Directors of the Association and conducted by the Lozier Group, Mason, Ohio. The study was performed in accordance with standards established by the American Institute of Certified Public Accountants (AICPA), the American Society of Testing and Materials (ASTM), and the Guide for Association Practitioners for Reserve Funds published by the Community Associations Institute.

This was an “Update” reserve study conducted for the Association and includes:

- Condition assessment based on on-site visual observations
- Useful life and valuation estimates
- Fund status
- Funding plan based on a financial projection

The physical analysis of the community did not include destructive, intrusive or invasive testing. Components of the Replacement Reserve were observed or measured as considered necessary. The financial projection was prepared for the thirty-year period ending December 31, 2050 and the presentation was designed to provide information to establish the required funding level to meet anticipated replacement of common properties of the Association.

The Board of Directors through the Association’s property manager, Capital Property Solutions, provided information regarding existing reserve balances, reserve fund assets, budget details and recent reserve projects. No independent verification or audit of this information was conducted.

We were also engaged to conduct updated measurements of seven retention ponds located within the community. We use a tool called the “SludgePro” from Pollard Water Company because it gives us an indication of existing sludge and silt accumulation as well as water depth measures. Retention pond restoration costs are assumed to be part of the Replacement Reserve.

### **Approach**

A primary goal of the study was to provide information needed to determine yearly replacement reserve funding to meet the commitments of the Declaration. The financial projection includes capital items for which the Replacement Reserve is intended as well as maintenance items i.e periodic repair costs. Adequate funding of these items is required to realize the economic lives of the related assets

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The financial projection was prepared based on the assumption that the return on assets accumulated in the Replacement Reserve will be at least 2% (1/2% in 2021 to 2025) after tax and inflation of 2% will be realized on replacement costs for the components covered in the projection. Investment income in the first five years is reduced due to unusually low rates of return available on fully guaranteed assets. The Board of Directors has adopted the "Threshold Funding" policy to determine the funding plan. Under this policy, the Board's goal is to maintain the Replacement Reserve balance at no less than one year's reserve funding. In the event of a severe financial setback, one full year of reserve funding could be omitted without jeopardizing Replacement Reserve project funding if all other assumptions in the financial projection hold true.

The demand for funds, which is triggered by components reaching the end of their useful lives, is calculated using the "Full Funding" approach, then discounted by the long-term investment earnings rate to develop a level assessment stream of payments. All elements of the Replacement Reserve: component replacement project costs, assessments, and investment earnings were combined in the projection to determine how much the Full Funding assessment could be reduced to achieve the Threshold Funding goal.

**Findings**

*Condition Report*

The roadways, sidewalk, and concrete curbs in the complex were completed principally in 2004-2005 and are maintained by the City of Dublin.

The physical condition of the common area property was generally very good and consistent with the age of the complex. There were primarily routine maintenance defects on Community Common Elements maintained by the Association:

- Land Improvements - One potential tripping hazard was identified at the north monument at the Hyland-Croy & Corazon Drive entrance. The pergolas at this entrance were in excellent condition. One routine maintenance issue and numerous, small concrete slab cracks were also identified.
- Land Improvements, Irrigation - A significant area of the irrigation system has been inactive or may be declared inactive after further study by the Board. For the purposes of this projection, 100% of the original system coverage area has been included as a component in the detailed calculations.
- Structure Components and Equipment - The Property Manager notified us regarding damage to tile roofs at Tuscany & Hyland-Croy entry tower and the pump house along Hyland-Croy. A quote for that work was used to set up remediation projects for 2021. Three monuments were listed for cleaning and two routine maintenance defects were listed for follow-up. We found no Priority B defects. Three monuments were listed for cleaning and two routine maintenance defects were listed for follow-up.

**Tartan West Community Association**  
**Reserve Study Update - 2020**  
**Executive Summary**

- Landscaping and Other - The Community has a vendor that supports all of their pumping equipment. They may already be aware of the pump room with rust on the floor. They should be able to conclude quickly whether this condition is significant and requires maintenance work.

While issues could emerge on other components that would result in a shortened life span, none are fully evident at this time. Remediation of the identified defects and attention to a preventive maintenance program is needed to fully realize the economic lives of the Community Common Elements.

*Retention Ponds*

We updated the sludge measurements at the seven retention ponds managed by the Association. The latest observations were made reasonably close to the site of prior measurements, and were completed in May, 2020. There were four key observations made during this work and while reviewing the measurement results:

1. If all measurements are combined, there is about a one-third reduction in the quantity of sludge measured. The measurement figures are a key indicator of sediment buildup but other conditions such as weed and algae overgrowth, oxygen depletion, and aesthetics could also justify a need for dredging. Based on the fact that the amount of sludge decreased, we left the Stormwater project Reserve component unchanged at \$75,000.
2. Pond #3 - Upper [east of Ventura Way Circle] - In the prior study, samples #7 and #8 had 15" of sludge reported. In the most recent study, those two areas (#7 and #8) totaled 48" of sludge. An image of this pond, including the sample locations, is included in the Appendix documentation. The pond is not very deep so these readings may be significant. Given this finding, we have included a sludge removal project for \$30,000 in the Other category of the
3. The water depth measurements for the two largest ponds increased as compared to the baseline measures.
4. Ponds #6, #7 and #8 had depth reductions of about one-third.

The reasons for these changes and their implications for dredging policy should be discussed with a civil engineer who specializes in retention pond dynamics.

*Determination of "Fully Funded Balance"*

We determined the Fully Funded Balance using the replacement cost, economic life and remaining useful life estimates from the study. We did not use the hypothetical assumptions for inflation and investment earnings in that calculation although doing so would have reduced the Fully Funded Balance. We then compared the Reserve Fund estimated balance at year end 2020 to that figure to determine the current funding status of the Replacement Reserve.

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*Adequacy of Replacement Reserve*

The financial projection was based on the estimated Replacement Reserve balance at December 31, 2020. At that date, the Replacement Reserve is approximately 35% of the “Fully Funded Balance.” Using the financial projection, at December 31, 2021, the estimated Replacement Reserve will be approximately 26% of the fully funded balance. The Replacement Reserve is adequate based on the following criteria:

- (1) The total budgeted income for 2020 is \$329,800 and the amount allocated to the Replacement Reserve is \$50,000 or 15.2%. The 10% of annual budget standard is legally required for condominium associations but there is no such minimum for homeowner associations as the scope of common property to be funded from reserves is much less.
- (2) Special assessments are not required given the achievement of all other assumptions used for the projection.

*Recommended Funding*

Based on all of the findings contained in this report - Component Inventory, Condition Assessment, Projected Replacement Reserve and the Summary of Significant Assumptions and Accounting Policies - annual reserve funding needs to be increased to meet the Threshold Funding goal and all of the Replacement Reserve commitments.

The funding plan calls for a series of increases to meet all of the commitments that are part of the Replacement Reserve. Starting in 2022, Reserve funding is increased by \$65 per Owner per year and held at that level through 2026. In 2027, another increase of about \$65 is planned but that level of funding is held steady until 2035. Similar, “step” increases totaling \$40 in 2035 and \$40 in 2043 are required to meet all commitments during the thirty year projection period. Due to the uncertainty of the assumptions behind the financial projection, we recommend that the financial projection be updated every three to five years along with a review of physical condition.

# **Tartan West Community Association**

## **Reserve Study Update - 2020**

### **Condition Assessment - Summary**

The onsite inspection for the Condition Assessment phase of the Reserve Study was performed primarily in July, 2020. The following assumptions are relevant to this Condition Assessment:

- The Physical Condition Assessment was conducted in accordance with professional standards established by the American Society of Testing and Materials (ASTM).
- The assessment was performed visually by experienced individuals. Other more invasive or destructive techniques may have identified other significant findings but they are beyond the scope of this study, in part because there were no indications that such techniques should be used.
- This assessment was not performed to identify construction defects.
- The Property Manager supplied information regarding ongoing Reserve Projects that have an impact on this Condition Assessment.

#### General Comments by Category

The roadways, sidewalk, and concrete curbs in the complex were completed principally in 2004-2005 and are maintained by the City of Dublin.

#### *Land Improvements*

Land improvements include paved areas, irrigation system, retaining walls and pavement at the monuments that enhance the brand identity of the complex, all of which were inspected. One potential tripping hazard was identified at the north monument at the Hyland-Croy & Corazon Drive entrance. The pergolas at this entrance were in excellent condition. One routine maintenance issue and numerous, small concrete slab cracks were also identified.

#### *Structure Components and Equipment*

The Property Manager notified us regarding damage to tile roofs at Tuscany & Hyland-Croy entry tower and the pump house along Hyland-Croy. A quote for that work was used to set up remediation projects for 2021. We found no Priority B defects. Three monuments were listed for cleaning and two routine maintenance defects were listed for follow-up.

We were advised that the generator and maintenance building on Tuscany Drive are maintained by the City of Dublin. We recorded one site with insect damage and three routine maintenance defects for this structure, which can presumably be left for the city to resolve.

The Community has a vendor that supports all of their pumping equipment. They may already be aware of the pump room with rust on the floor. They should be able to conclude quickly whether this condition is significant and requires maintenance work.

**Tartan West Community Association  
Reserve Study Update - 2020  
Condition Assessment - Summary**

The community is fifteen years old and some of the equipment components are very near the end of their useful life. Service contracts are in place for many of the components in this category and continuous renewal of these contracts is necessary to realize the full economic lives of the underlying components.

*Landscape and Other*

The following items were included in this category: Landscape, Exterior lighting, Signage, Miscellaneous, and Stormwater projects. No defects were recorded for this category although the potential for pond sludge projects is considered below. The detailed measurements are included in the exhibits for the Condition Assessment.

*Sludge Project*

Tartan West Pond ID#	Description	Sludge Sample Totals			Water Depth Samples		
		2020	2013	Change Increase Or Decrease	2020	2013	Change Increase Or Decrease
1	Largest pond - runs along Hyland-Croy Road	137"	146"	6%	6.47	5.16'	25%
2	South of largest pond	28"	148"	81%	7.45'	5.50'	35%
8	Adjacent to Vineyard Haven & Winerack	78"	56"	28%	3.80'	5.39'	29%
7	Just north of Pond #8	46"	60"	23%	3.88'	6.03'	36%
6	Just west of Pond #7 - near Vineyard Haven	31"	63"	49%	3.58'	5.41'	34%
3 - Lower	Near Ventura Way - larger	40"	97"	59%	4.65'	4.91'	5%
3 - Upper	Near Ventura Way - smaller	75"	67"	12%	4.56'	4.27'	7%
	Totals	435"	637"	32%	4.91'	5.01'	2%
					Weighted Average 6.18'		

We updated the sludge measurements at the seven retention ponds managed by the Association. The latest observations were made reasonably close to the site of prior measurements, and were completed in May, 2020. There were four key observations made during this work and while reviewing the measurement results:

1. If all measurements are combined, there is about a one-third reduction in the quantity of sludge measured. The measurement figures are a key indicator of sediment buildup but other conditions such as weed and algae overgrowth,

**Tartan West Community Association  
Reserve Study Update - 2020  
Condition Assessment - Summary**

oxygen depletion, and aesthetics could also justify a need for dredging. Based on the fact that the amount of sludge decreased, we left the Stormwater project Reserve component unchanged at \$75,000.

2. Pond #3 - Upper [east of Ventura Way Circle] - In the prior study, samples #7 and #8 for this pond had 15" of sludge reported. In the most recent study, those two areas (#7 and #8) totaled 48" of sludge. An image of this pond, including the sample locations, is included in the Appendix documentation. The pond is not very deep so these readings may be significant. Given this finding, we have included a sludge removal project for \$30,000 in the Other category of the projection.
3. The water depth measurements for the two largest ponds increased as compared to the baseline measures.
4. Ponds #6, #7 and #8 had depth reductions of about one-third.

The reasons for these changes and their implications for dredging policy should be discussed with a civil engineer who specializes in retention pond dynamics. A small project (~\$2,500) was set up to initiate this process.

In recent years, the demand for projects to control retention pond accumulations of silt has increased and a number of firms have innovated sludge removal services. The emergence of a competitive market for this work should help keep project costs down. We were able to obtain a quote from Sediment Removal Solutions - a vendor in the market for sludge removal. As you might expect, this is not a fixed price quote but at least provides insight to the initial range of pricing. The quote, which totals \$30,744, assumes three feet of sludge on a 1/3 acre pond which is quite a bit more than our measurements would suggest. There are just twelve samples out of sixty-nine with "watery" sludge measurements of one foot or more. This quote is included as one of the exhibits for the Condition Assessment Details.

The current assumptions for Retention Ponds are two-fold:

- \$75,000 for any stormwater or drainage project - set up with a thirty year life. You could also look at this as a \$2,500 per year allowance. Given the community age, the projection anticipates ~ \$100k project(s), fourteen years out.
- \$30,000 for sludge removal in retention ponds - set up on a five year cycle (which could also be seen as a \$6k per year allowance (it is just a coincidence that the \$30k figure is close to the quote we received). The first project which would be charged to this component entry is assumed to be in 2024, but Reserves are adequate to do it sooner.



**Tartan West Community Association  
Reserve Study Update - 2020  
Condition Assessment - Summary**

Detailed Documentation - Introduction

The detailed documentation of the Condition Assessment includes photo(s) and observations regarding the severity of the issue. Priorities were assigned using the following criteria:

- Priority A - Failures that would have a major effect on useful life of a Replacement Reserve item; urgent and important items.
- Priority B - Defects related to Replacement Reserve items; important, but not necessarily urgent items.
- Priority C - Defects related to the general condition and appearance of the community or which are ordinary maintenance items paid for with operating budget funds. These items may have more urgency than Priority B but less impact on Replacement Reserve components.
- Priority D - Defects which are cosmetic, or require periodic monitoring only.
- Priority E - Defects or conditions that have safety or legal liability implications.

Tartan West Community Association  
Reserve Study Update - 2020

Prospective Financial Information



PO Box 1255  
Mason, Ohio 45040

Board of Directors  
Tartan West Community Association

The accompanying financial projection of the Replacement Reserve of Tartan West Community Association for each of the thirty years ended December 31, 2050, was not subjected to an examination, review or compilation engagement by me and I do not express an opinion nor provide any assurance on it.

A handwritten signature in cursive script, reading "RW Lozier", is displayed on a light gray background.

By: Richard W. Lozier, CPA  
Mason, Ohio  
January 31, 2021

**Tartan West Community Association  
Projected Replacement Reserve  
Assuming Investment Earnings of 2% (1/2% in 2021-2025) and 2% Inflation  
For the Thirty Year Period Ending December 31, 2050**

<b>Hypothetical Assumptions</b>															
	Investment Earnings	2.00%	<i>Adjusted to 1/2% in 2021-25</i>												
	Inflation Rate	2.00%													
	<b>Projection Element</b>			<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>					
	Beginning Balance - Replacement Reserve			\$ 183,275	\$ 148,173	\$ 189,140	\$ 219,961	\$ 231,035	\$ 198,779	\$ 243,962					
<b>Projected Outflows</b>															
		<b>Replacement Cost</b>	<b>Hypothetical Cost - 30 Years</b>												
<b>A</b>	Land Improvements	\$ 514,026	\$ 1,000,259	\$ 7,120	6,242	6,367	6,495	49,897	6,757	6,892					
<b>B</b>	Structures and Equipment	\$ 243,268	\$ 906,892	\$ 27,554	12,933	22,816	9,742	41,758	10,433	25,192					
<b>C</b>	Landscaping and Other	\$ 154,552	\$ 1,149,743	\$ 51,255	15,918	16,236	49,034	16,892	17,230	17,575					
	Replacement Reserve Total	\$ 911,846	\$ 3,056,894	\$ 85,929	35,094	45,420	65,271	108,547	34,420	49,659					
	<b>Inflows to Reserve Fund</b>														
<b>A</b>	Land Improvements			\$ 50,613	49,736	49,861	49,988	50,118	44,455	44,590					
<b>B</b>	Structures and Equipment			\$ 59,775	40,549	35,660	30,927	30,054	27,363	27,566					
<b>C</b>	Landscaping and Other			\$ 71,819	38,972	39,291	39,615	38,928	39,266	39,611					
	<b>Estimated Full Funding Requirement</b>			\$ 182,208	129,258	124,812	120,530	119,100	111,084	111,766					
	Adjust Full Funding to Threshold Funding			\$ (132,208)	(54,038)	(49,592)	(45,310)	(43,880)	(35,864)	(11,326)					
	<b>Threshold Funding Total</b>			\$ 50,000	75,220	75,220	75,220	75,220	75,220	100,440					
	<b>Investment Earnings on:</b>														
<b>1</b>	Beginning Balance			\$ 916	741	946	1,100	1,155	3,976	4,879					
<b>2</b>	Annual Net Cash Flow - In (Out)			\$ (90)	100	75	25	(83)	408	508					
				\$ 827	841	1,020	1,125	1,072	4,384	5,387					
	Ending Balance - Replacement Reserve			\$ 148,173	\$ 189,140	\$ 219,961	\$ 231,035	\$ 198,779	\$ 243,962	\$ 300,131					
	<b>Reserve Fund - Budget</b>	<b>2021</b>	<b>\$ 50,000</b>												
	<b>Minimum Balance after 2021</b>	<b>2036</b>	<b>\$ 124,717</b>												
	<b>Initial annual increase per Owner</b>	<b>2022</b>	<b>\$ 65.00</b>												
	<b>Note - POPY is Per Owner Per Year</b>														
		<b>Units</b>	<b>388</b>												
		<b>Recommended Step Funding Approach After 2021</b>													
		<b>Years</b>													
		<b>Increase POPY</b>													
		<b>Amount</b>													
		<b>Total</b>													
		2022 - 2026	\$ 65	\$ 25,220	75,220										
		2027 - 2034	\$ 65	\$ 25,220	100,440										
		2035 - 2042	\$ 40	\$ 15,520	115,960										
		2043 - 2050	\$ 40	\$ 15,520	131,480										

See accompanying Summary of Significant Forecast Assumptions and Accounting Policies

**Tartan West Community Association  
Projected Replacement Reserve  
Assuming Investment Earnings of 2% (1/2% in 2021-2025) and 2% Inflation  
For the Thirty Year Period Ending December 31, 2050**

	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>	<b>2034</b>	<b>2035</b>	<b>2036</b>	<b>2037</b>	<b>2038</b>	<b>2039</b>
	\$ 300,131	\$ 352,035	\$ 314,119	\$ 367,102	\$ 419,674	\$ 470,293	\$ 524,664	\$ 248,689	\$ 301,528	\$ 124,717	\$ 193,193	\$ 142,184
<b>A</b>	7,030	16,741	7,314	7,460	7,609	7,762	202,907	8,075	211,104	8,401	128,442	8,741
<b>B</b>	30,037	38,755	28,237	29,175	31,618	8,963	22,431	39,902	16,836	20,807	19,995	29,136
<b>C</b>	17,926	89,455	18,651	19,024	19,404	39,196	158,733	20,592	69,051	21,424	21,852	65,994
	54,993	144,951	54,201	55,659	58,632	55,921	384,071	68,569	296,991	50,632	170,290	103,871
<b>A</b>	44,728	44,868	44,492	44,638	44,787	44,939	45,095	36,800	36,962	37,127	37,295	37,466
<b>B</b>	28,049	30,584	29,749	29,980	29,721	30,327	30,502	30,642	30,286	30,311	30,783	30,783
<b>C</b>	39,962	40,321	38,407	38,780	39,161	39,549	40,094	39,140	39,552	40,833	41,262	41,699
	112,738	115,773	112,648	113,398	113,669	114,815	115,691	106,582	106,800	108,271	109,339	109,948
	(12,298)	(15,333)	(12,208)	(12,958)	(13,229)	(14,375)	(15,251)	9,378	9,160	7,689	6,621	6,012
	100,440	100,440	100,440	100,440	100,440	100,440	100,440	115,960	115,960	115,960	115,960	115,960
<b>1</b>	6,003	7,041	6,282	7,342	8,393	9,406	10,493	4,974	6,031	2,494	3,864	2,844
<b>2</b>	454	(445)	462	448	418	445	(2,836)	474	(1,810)	653	(543)	121
	6,457	6,596	6,745	7,790	8,812	9,851	7,657	5,448	4,220	3,148	3,321	2,965
	\$ 352,035	\$ 314,119	\$ 367,102	\$ 419,674	\$ 470,293	\$ 524,664	\$ 248,689	\$ 301,528	\$ 124,717	\$ 193,193	\$ 142,184	\$ 157,238
	50.4%											
	33.5%											
	15.5%											
	13.4%											

See accompanying Summary of Significant Forecast Assumptions and Accounting Policies



**Tartan West Community Association  
Summary of Significant Assumptions and Accounting Policies Employed in  
Preparation of the Projected Replacement Reserve  
For the Thirty-Year Period Ending December 31, 2050**

This financial projection of the Replacement Reserve presents, to the best of the Board of Directors' knowledge and belief, the expected replacement costs, future assessments and net investment income for the projection period assuming investment earnings of 2% (1/2% in 2021 to 2025) after tax, and inflation of 2% per year. Accordingly, the projection reflects the Board of Directors' judgment as of November 25, 2020, the date of this projection, of the expected conditions and its expected course of action if investment earnings of 2% (1/2% in 2021 to 2025) after tax and inflation of 2% per year are achieved. The presentation is designed to provide information to establish the required funding level to meet anticipated replacement of common properties of the Association and cannot be considered to be a presentation of expected future results. Accordingly, this projection may not be useful for other purposes. The assumptions disclosed herein are those that the Board of Directors believes are significant to the projection; however, there can be no assurance that the traditional relationship of inflation and fixed income market returns will occur. Furthermore, even if investment earnings of 2% (1/2% in 2021 to 2025) after tax and inflation of 2% per year are achieved, there will usually be differences between projected and actual results because events and circumstances frequently do not occur as expected, and those differences may be material.

1. Significant Accounting Policies

- A. *Fund Accounting* - The Association uses fund accounting, which requires that funds, such as operating funds, deferred maintenance funds, and funds designated for future major repairs and replacements, be classified separately for accounting and reporting purposes. Disbursements from the operating fund are generally at the discretion of the Board of Directors and property manager. Disbursements from the Replacement Reserve generally may be made only for designated purposes.
- B. *Basis of Presentation* - The Association uses the modified cash basis of accounting for this projection which is limited to the Replacement Reserve Fund.
- C. *Projected Outflows* - Disbursements for Replacement Reserve components that have reached the end of their economic life are assumed to be paid out in that year.
- D. *Inflows to Reserve Fund* - Transfers to the Replacement Reserve are assumed to be made ratably throughout the year.
- E. *Investment Earnings* - The Association's policy is to allocate to each fund interest earned on all cash, time deposits and investments net of income taxes. Assumed earnings are shown as if they are received as earned in the year of the projection without regard to when investment income may actually be received or the timing of projected inflows and outflows.

2. Beginning Balance -- The beginning balance - \$183,275 - of the Replacement Reserve as of December 31, 2020 was based on information supplied by the Property Manager.

3. Hypothetical Assumptions – Investment Earnings of 2% (1/2% in 2021 to 2025) After Tax and Inflation of 2%. The projection is based on the assumption that the return on assets accumulated in the Replacement Reserve will be at least 2% (1/2% in 2021 to 2025) after tax and inflation of 2% will be realized on replacement costs for the Community Common Elements covered by the Replacement Reserve. During November 2020, the yield on Treasury Inflation Protected Securities, which adjust with changes in the Consumer Price Index, has varied from -0.77% to -0.84% for ten-year issues and from -0.15% to -0.26% for thirty-year issues. Unusually low rates exist at this time in US Government securities and FDIC guaranteed deposit accounts. This unusual market condition is why investment returns in the first five years of the projection period were downgraded from traditional norms.
4. Projected Outflows. Economic life and estimated remaining useful life assumptions are detailed in Exhibit 1. The following assumptions were adopted for Community Common Elements and other commitments assumed by the Association which are included in the Replacement Reserve, including items considered within deferred maintenance. In all categories below, quotes from qualified suppliers and contractors have been compared to other objective sources of information regarding costs.
  - A. Land Improvements – Concrete pavement areas have an estimated failure rate of 50%. Irrigation system ongoing repair costs are provided for with a \$6,000 allowance annually based on recent spending levels. A significant area of the irrigation system has been inactive or may be declared inactive after further study by the Board. For the purposes of this projection, 100% of the original system coverage area has been included as a component in the detailed calculations.
  - B. Structures and Equipment - Entry and subdivision monuments have a variety of components with periodic renewal or preventive maintenance cycles. Lintels are set up with 25 year cycles, stucco surfaces - 5 years, and stonework pointing & renewal at 20 years.
  - C. Landscape and Other – This category includes exterior lighting, signage, miscellaneous items, and storm water components and other drainage projects. Storm water project costs are subjective estimates. The Association has developed a detailed plan for landscape renewal on a 15-year cycle and that plan has been added as a component within the Replacement Reserve. An annual allowance for the replacement of plantings & trees is also included in this category.
  - D. Excluded Components – A variety of components are excluded from Replacement Reserve funding. Major structural elements such as foundations, walls, wireline/conduit utility components and other structural elements are assumed to have an indefinite, long life. When long-lived elements are excluded, routine preventive maintenance is assumed. Future reserve studies could incorporate such elements if warranted.



5. Projected Inflows to Reserve Fund – The Board of Directors has adopted a “Threshold Funding” policy for estimating reserve requirements. The goal for this approach is to limit the reserve balance during the projection period to no less than one year’s reserve funding. The funding plan calls for a series of increases to meet all of the commitments that are part of the Replacement Reserve. Starting in 2022, Reserve funding is increased by \$65 per Owner per year and held at that level through 2026. In 2027, another increase of 65\$ is planned but that level of funding is held steady until 2035. Similar, “step” increases totaling \$40 in 2035 and \$40 in 2043 are required to meet all commitments during the thirty year projection period.  
  
The “Full Funding” calculation (shown in the section “*Inflows to Reserve Fund*”) uses the component method to provide for anticipated replacement cost over the remaining economic life of each component discounted by the investment earnings assumption. An adjustment is then calculated for each year to reflect the expected funding level calculated using the Threshold Funding policy. The Replacement Reserve balance exceeds the lower limit under the Threshold Funding policy in all but two years of the projection. Careful management of the scope, timing and cost of projects will be especially needed during those two years.
6. Investment Earnings – Investment Earnings are calculated based on the hypothetical assumption of 2% return net of tax. Since near term rates of return have been unusually low, investment earnings were adjusted to 1/2% per year for 2021 to 2025.
7. Reserve Status - Based on the component method calculation, Replacement Reserves are 35% and 26% of the Fully Funded Balance at the inception and the end of the first year of the projection period. The projection shows that the Replacement Reserve balance exceeds the Threshold Funding limit in all years of the projection period. The Ohio statutes do not have specific reserve requirements for homeowners associations, but the following criteria are commonly evaluated to determine adequacy:
  - (1) *At least 10% of the annual budget is allocated to the Replacement Reserve -*  
The total budgeted income for 2021 is \$329,800 and the amount allocated to the Replacement Reserve is \$50,000 or 15.2%. The 10% of annual budget standard is legally required for condominium associations but there is no such minimum for homeowner associations as the scope of common property to be funded from reserves is much less.
  - (2) *No special assessments are needed or owners are provided sufficient notice -*  
Special assessments are not required based on the projection given the achievement of all other assumptions.

Tartan West Community Association						
Projected Replacement Reserve						
Component Summary						
Category	Component	Quantity	Measure	Replacement Cost	Economic Life	Remaining Useful Life
Land Improvements	Concrete pavement	1,275	Square Feet	\$ 11,475	50	34
Land Improvements	Pavers	818	Square Feet	\$ 12,016	40	24
Land Improvements	Irrigation system	351,852	Square Feet	\$ 443,334	25	14
Land Improvements	Retaining walls	364	Square Feet	\$ 8,008	25	9
Land Improvements	Shade structure	289	Square Feet	\$ 7,225	20	5
Land Improvements	Large trellis structure	1	Project	\$ 31,968	20	5
Structures and Equipment	Clay tile roofing	3,035	Square Feet	\$ 43,006	50	35
Structures and Equipment	Other structure components	1	Collection	\$ 14,168	20 - 45	5 - 30
Structures and Equipment	Aerators	1	Collection	\$ 49,277	7 - 15	5 - 15
Structures and Equipment	Pumps	1	Collection	\$ 22,618	4 - 20	5 - 6
Structures and Equipment	Turbines	1	Collection	\$ 28,000	7	3 - 7
Structures and Equipment	Motors and other equipment	1	Collection	\$ 26,200	5 - 10	6 - 16
Structures and Equipment	Pond fountains	1	Collection	\$ 60,000	7 - 20	1 - 10
Landscaping and Other	Exterior lighting	1	Collection	\$ 15,552	25	9
Landscaping and Other	Entry signs	7	Each	\$ 14,000	25	9
Landscaping and Other	Landscape plan - main entrance	1	Project	\$ 50,000	15	13 - 15
Landscaping and Other	Stormwater project	1	Project	\$ 75,000	30	14
	<b>Total Replacement Cost</b>			<b>\$ 911,846</b>		
		<b>Current</b>				
	<b>Periodic Maintenance Items</b>	<b>Cycle Cost</b>		<b>Annually</b>		
	Irrigation system	\$ 6,000		\$ 6,000	Annual	
	Landscape replacements - annual	\$ 6,300		\$ 6,300	Annual	
	Lintel maintenance	\$ 6,164		\$ 247	25	
	Stucco maintenance	\$ 4,931		\$ 986	5	
	Stonework maintenance	\$ 3,375		\$ 337	10	
	Retention ponds - periodic renewal	\$ 30,000		\$ 6,000	5	
	Unallocated repair & maintenance	\$ 9,000		\$ 9,000	Annual	
	<b>Total Periodic Maintenance</b>			<b>\$ 28,870</b>		

**Tartan West Community Association  
Projected Replacement Reserve  
Schedule of Projected Outflows**

<b>Year</b>	<b>Replacement Reserve Component</b>	<b>Amount</b>	<b>Category</b>	<b>Subtotals</b>
<b>2021</b>	Irrigation system - annual allowance for components that extend economic life	\$ 6,120	Land Improvements	
	Concrete pavement - repair work based on CA	\$ 1,000	Land Improvements	\$ 7,120
	Fountain replacement & two light kits	\$ 12,954	Structures and Equipment	
	Hip roof replacement - Tuscany & Hyland-Croy drive tower	\$ 6,600	Structures and Equipment	
	Hip roof replacement - Pump house along Hyland-Croy	\$ 8,000	Structures and Equipment	\$ 27,554
	Landscape renewal - Tuscany & Corazon Drive	\$ 35,700	Landscaping and Other	
	Annual landscape replacements allowance	\$ 6,426	Landscaping and Other	
	Civil engineer retention pond consulting	\$ 2,550	Landscaping and Other	
	Annual unallocated repair & maintenance	\$ 6,579	Landscaping and Other	\$ 51,255
		\$ 85,929		\$ 85,929
<b>2022</b>	Irrigation system - annual allowance for components that extend economic life	\$ 6,242	Land Improvements	\$ 6,242
	Fountain replacement - end of economic life	\$ 7,803	Structures and Equipment	
	Stucco - periodic repair project	\$ 5,130	Structures and Equipment	\$ 12,933
	Annual landscape replacements allowance	\$ 6,555	Landscaping and Other	
	Annual unallocated repair & maintenance	\$ 9,364	Landscaping and Other	\$ 15,918
		\$ 35,094		\$ 35,094
<b>2023</b>	Irrigation system - annual allowance for components that extend economic life	\$ 6,367	Land Improvements	\$ 6,367
	Line shaft turbine	\$ 14,857	Structures and Equipment	
	Fountain replacement - end of economic life	\$ 7,959	Structures and Equipment	\$ 22,816
	Annual landscape replacements allowance	\$ 6,686	Landscaping and Other	
	Annual unallocated repair & maintenance	\$ 9,551	Landscaping and Other	\$ 16,236
		\$ 45,420		\$ 45,420
<b>2024</b>	Irrigation system - annual allowance for components that extend economic life	\$ 6,495	Land Improvements	\$ 6,495
	Fountain motor replacement to extend economic life	\$ 9,742	Structures and Equipment	\$ 9,742
	Initial dredging work - pond(s) to be determined	\$ 32,473	Landscaping and Other	
	Annual landscape replacements allowance	\$ 6,819	Landscaping and Other	
	Annual unallocated repair & maintenance	\$ 9,742	Landscaping and Other	\$ 49,034
		\$ 65,271		\$ 65,271
	See page 2 for 2025 and larger (>\$25k) projects in 2026 - 2050			

**Tartan West Community Association  
Projected Replacement Reserve  
Schedule of Projected Outflows**

<b>2025</b>	Irrigation system - annual allowance for components that extend economic life	\$ 6,624	Land Improvements	
	Periodic renewal of trellis and pergola structures	\$ 43,272	Land Improvements	\$ 49,897
	Aerators - end of economic life	\$ 22,082	Structures and Equipment	
	Sewage transfer pump - end of economic life	\$ 7,650	Structures and Equipment	
	Irrigation pumps - end of economic life	\$ 7,094	Structures and Equipment	
	Monument stonework - periodic repairs	\$ 3,726	Structures and Equipment	
	Other structures/monuments - roof renewals	\$ 1,207	Structures and Equipment	\$ 41,758
	Annual landscape replacements allowance	\$ 6,956	Landscaping and Other	
	Annual unallocated repair & maintenance	\$ 9,937	Landscaping and Other	\$ 16,892
		\$ 108,547		\$ 108,547
	Projects scheduled for later years > \$25,000			
<b>2028</b>	Aerators - end of economic life - may be broken into phases	\$ 28,120	Structures and Equipment	
<b>2029</b>	Pond fountains - end of economic life	\$ 26,890	Structures and Equipment	
<b>2029</b>	Stormwater - pond dredging	\$ 35,853	Land Improvements	
<b>2032</b>	Aerators - end of economic life	\$ 25,365	Structures and Equipment	
<b>2034</b>	Irrigation system - end of economic life - Phase 1	\$ 194,990	Land Improvements	
<b>2034</b>	Stormwater projects (contingent items) - end of assigned economic life	\$ 98,961	Landscaping and Other	
<b>2034</b>	Stormwater - pond dredging	\$ 39,584	Landscaping and Other	
<b>2035</b>	Aerators - end of economic life	\$ 32,301	Structures and Equipment	
<b>2036</b>	Irrigation system - end of economic life - Phase 2	\$ 202,867	Land Improvements	
<b>2036</b>	Main entry - periodic renewal	\$ 48,047	Landscaping and Other	
<b>2038</b>	Irrigation system - end of economic life - Phase 3	\$ 211,063	Land Improvements	
<b>2039</b>	Stormwater - pond dredging	\$ 43,704	Landscaping and Other	
<b>2042</b>	Aerators - end of economic life	\$ 37,104	Structures and Equipment	
<b>2044</b>	Stormwater - pond dredging	\$ 48,253	Landscaping and Other	
<b>2045</b>	Periodic renewal - trellis structure	\$ 52,447	Land Improvements	
<b>2046</b>	Aerators - end of economic life	\$ 33,468	Structures and Equipment	
<b>2049</b>	Aerators - end of economic life	\$ 42,620	Structures and Equipment	
<b>2049</b>	Pond fountains - end of economic life	\$ 39,957	Structures and Equipment	
<b>2049</b>	Stormwater - pond dredging	\$ 53,275	Landscaping and Other	
	Note			
	The Reserve Study needs to be updated routinely.			
	CA = Condition Assessment			

Tartan West Community Association		Projected Replacement Reserve - Status		Note A			
Category	Replacement Cost	Fully Funded Balance	Required Annually				
Land Improvements	\$ 514,026	\$ 328,692	\$ 20,543				
Structures and Equipment	\$ 243,268	\$ 104,020	\$ 22,000				
Other	\$ 154,552	\$ 95,113	\$ 6,615				
Sub-totals	\$ 911,846	\$ 527,825	\$ 49,158				Note B
Preventive & Periodic Maintenance							
Irrigation system			\$ 6,000				
Landscape replacements			\$ 6,300				
Dredging allowance			\$ 6,000				
Stonework pointing and repair			\$ 1,570				
Unallocated - diverse causes			\$ 9,000				
Sub-total			\$ 28,870				Note C
"Normal" Annual Funding Requirement			\$ 78,028				Note D
Reserve Balance - 12/31/2020		\$ 183,275					
Percent Funded		34.7%					
Reserve Deficiency at 12/31/2020		\$ 344,550					
Debt Service - 4%, 25 year			\$ 22,055				Note E
Cash Flow Impact			\$ 100,084				Note F

Note A - This section of calculation estimates the amount that should have been set aside to date for the Component Inventory based on replacement cost, and estimated economic and remaining useful life.

Note B - This section of calculation estimates the amount that should be set aside each year based on current economic life and replacement cost.

Note C - This section of calculation estimates the amount that should be set aside each year based on periodic maintenance cycle and estimated cost of those periodic projects [ See also Exhibit 1 ]

<b>Tartan West Community Association</b>				
Note D - This figure is the amount that must be set aside each year to prevent the accumulation of a Reserve Deficiency				
Note E - This figure is a hypothetical estimate of the debt service requirement if funds were borrowed to eliminate a Reserve Deficiency. It does not represent a suggestion that the Association actually borrow funds to cover the Deficiency				
Note F - This sum completes the hypothetical example from above. The Funding Plan recommended will have to reach approximately this level to be able to meet all Replacement Reserve funding in the thirty year projection period.				
Reserve Status - Projected at 12/31/2021				
Adjusted Fully Funded Balance		\$ 576,983		
Replacement Reserve - Beginning		\$ 183,275		
Add - Budgeted Assessment		\$ 50,000		
Less - Project Costs		\$ 85,929		
Add - Investment Income		\$ 827		
Projected Reserve - 12/31/2021		\$ 148,173		
Percent Funded		25.7%		

# Tartan West Community Association Reserve Study Update - 2020

## Condition Assessment - Detailed Documentation and Observations

**Tartan West Community Association  
Reserve Study Update - 2020  
Condition Assessment – Details**

<b>Item</b>	<b>Site</b>	<b>Priority</b>	<b>Condition</b>	<b>Recommendation</b>	<b>Photo #</b>
1	Hyland-Croy Rd Tuscany Drive - Entrance	N/A	Monument at entrance ~25' tall	No defects to report on the monument itself Also see below	1
2	Hyland-Croy Rd Tuscany Drive - Entrance	D	Numerous, small sidewalk slab cracks	Monitoring item - periodic inspection	2
3	Hyland-Croy Rd Tuscany Drive - Entrance	N/A	Waterfall from Pond #1 to Pond #2 appears to be working well	No defects to report	3
4	Hyland-Croy Rd Tuscany Drive - Entrance	C	Rebar is rusting and cracking cement overlay of the monument	Repair and seal as needed	4 5
11	Shelter/Pump house at Pond #1	N/A	Exterior and Interior of pump room for Pond #1 - appears to be well maintained	No apparent issues	11 12 13
12	Shelter/Pump house at Pond #1	D	Numerous small, concrete slab cracks adjacent to structure	Monitoring item - periodic inspection	14 15
13	Hyland-Croy Rd Corazon Drive - Entrance	N/A	Two monuments at entrance ~25' tall	No defects to report	16
14	Hyland-Croy Rd Corazon Drive - Entrance	N/A	North monument - Pergola looks great	No defects to report	17



**Tartan West Community Association  
Reserve Study Update - 2020  
Condition Assessment – Details**

<b>Item</b>	<b>Site</b>	<b>Priority</b>	<b>Condition</b>	<b>Recommendation</b>	<b>Photo #</b>
15	Hyland-Croy Rd Corazon Drive - Entrance	E	North monument - Sidewalk is 1" low at monument base slabs. Rated as a potential tripping hazard, along with numerous small slab cracks	Repair or replace as needed Continue to monitor	18
16	Hyland-Croy Rd Corazon Drive - Entrance	N/A	South monument - Pergola appears to be in excellent condition	No defects to report	19
17	Hyland-Croy Rd Corazon Drive - Entrance	C	Trees are overgrown and in contact with pergola cedar components	Trim trees off structure	20
18	Hyland-Croy Rd Corazon Drive - Entrance	D	Numerous small, concrete slab cracks adjacent to structure	Monitoring item - periodic inspection	
19	Shelter/Pump house at Pond #5	D/C	Exterior and Interior of pump room for Pond #5 - small area of rust on floor	Consider source of rust & determine whether remediation is needed - continue to monitor	21 22
20	Pocket park between ponds #3 & #4	N/A	Key components: retaining walls, pavers and pergola are holding up great. Recent renewal of electrical service was reported to us	No apparent issues	23
21	Marsh areas - two	N/A	Assume these are wetlands areas subject to easement and/or regulatory constraints	No apparent issues	24 25

**Tartan West Community Association  
Reserve Study Update - 2020  
Condition Assessment – Details**

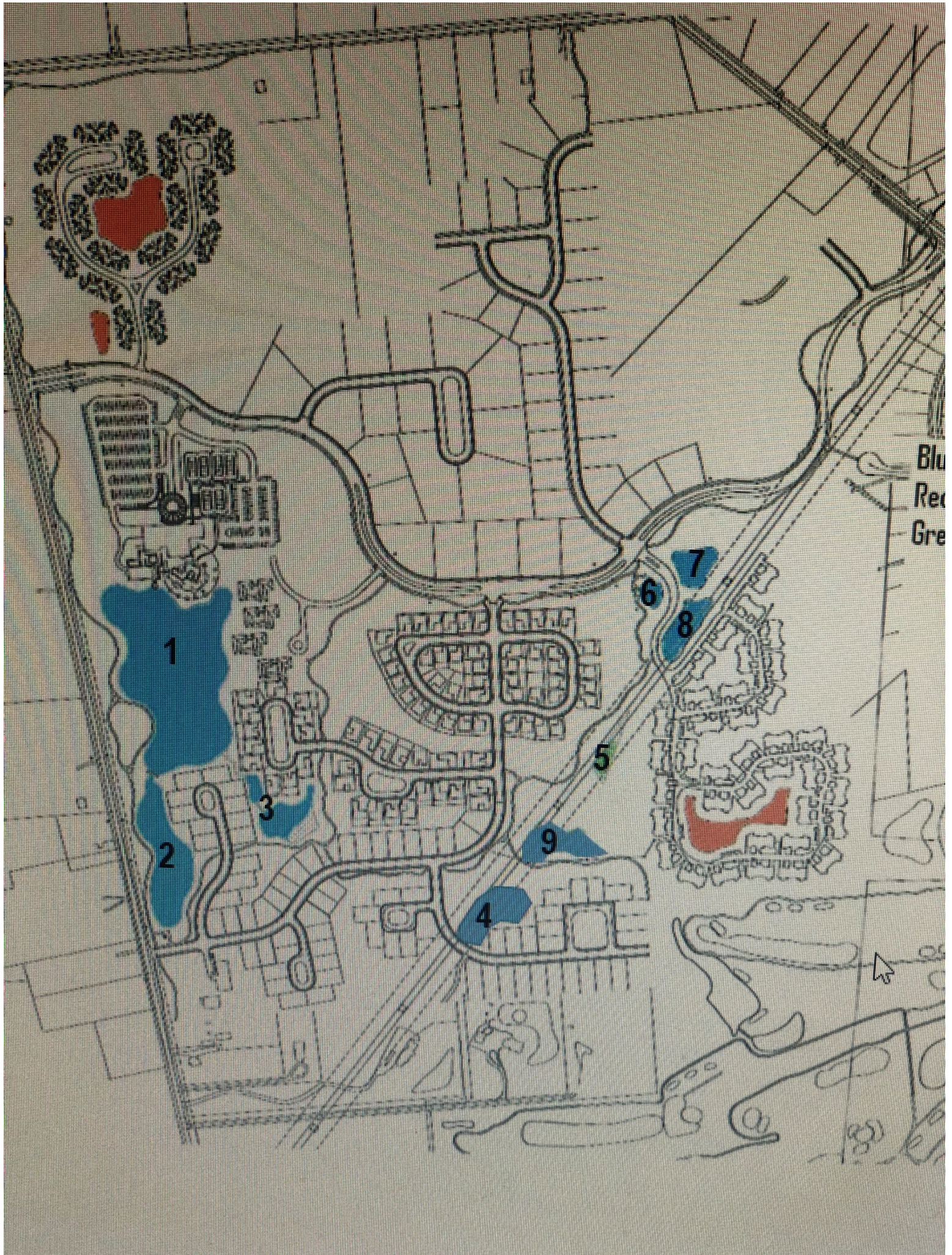
<b>Item</b>	<b>Site</b>	<b>Priority</b>	<b>Condition</b>	<b>Recommendation</b>	<b>Photo #</b>
22	Tuscany Drive & Corazon Drive	C	Small monument - needs cleaning	Clean	26
23	Ponds #3 #4 #5	N/A	Retention ponds - see separate reports regarding pond measurements	No defects to report	27 28 29
24	Jerome Road & Corazon Drive - entrance	N/A	Monument at entrance ~25' tall	No defects to report on the monument itself Also see below	30
25	Jerome Road & Corazon Drive - entrance	D	Numerous small, concrete slab cracks adjacent to structure	Monitoring item - periodic inspection	31
26	Bella Verde - small monument	C	Concrete ledge has popped off at one side	Repair and seal as needed	32 33
27	Savona - small monument	C	Needs cleaning	Clean	34
28	Bella Verde - 2nd small monument	N/A	Separate entry for Bella Verde	No apparent issues	35
29	Villas at Corazon small monument	N/A	No defects to report	No apparent issues	36
30	Hyland-Croy Rd Corazon Drive - Entrance	N/A	Grape vines growing on both sides of entry roadway	No apparent issues	37

**Tartan West Community Association  
Reserve Study Update - 2020  
Condition Assessment – Details**

<b>Item</b>	<b>Site</b>	<b>Priority</b>	<b>Condition</b>	<b>Recommendation</b>	<b>Photo #</b>
31	Hyland-Croy Rd McKittrick Drive - Entrance	N/A	High grass area on both sides of entry roadway	No apparent issues	38 39
32	Terrazza - small monument	C	Needs cleaning	Clean	40
33	Ponds #2 - #6 #7 - #1	N/A	Retention ponds - see separate reports regarding pond measurements	No defects to report	41 42 43 44
Additional Information City of Dublin Responsibility					
5	7195 Tuscany Dr Maintenance bldg	City Maint	Maintenance building & generator	See below - defects may be referred to City of Dublin	6
6	7195 Tuscany Dr Maintenance bldg	C	Bottom of garage door is deteriorating	Repair or replace as needed	7
7	7195 Tuscany Dr Maintenance bldg	C	Horizontal trim is peeling and beginning to deteriorate	Repair or replace as needed	8
8	7195 Tuscany Dr Maintenance bldg	A	Insect damage & infiltration on rear side of covered patio header	Consult with exterminator - determine if active infestation & course of action	9
9	7195 Tuscany Dr Maintenance bldg	N/A	Generator - exposed to elements but looks good for its age	No apparent issues	10
10	7195 Tuscany Dr Maintenance bldg	C	Two sidewalk cracks near generator	Repair and seal as needed	

# Tartan West Community Association Reserve Study Update - 2020

## Appendix - Retention Pond Documents



Tartan West Community Association (TWCA)  
 Comparative Pond Measurements  
 Areas 4, 5 and 9 on the preceding map document are not TWCA responsibility

Tartan West Pond ID#	Description	Sludge Sample Totals			Water Depth Samples		
		2020	2013	Change Increase Or Decrease	2020	2013	Change Increase Or Decrease
1	Largest pond - runs along Hyland-Croy Road	137"	146"	6%	6.47	5.16'	25%
2	South of largest pond	28"	148"	81%	7.45'	5.50'	35%
8	Adjacent to Vineyard Haven & Winerack	78"	56"	28%	3.80'	5.39'	29%
7	Just north of Pond #8	46"	60"	23%	3.88'	6.03'	36%
6	Just west of Pond #7 - near Vineyard Haven	31"	63"	49%	3.58'	5.41'	34%
3 - Lower	Near Ventura Way - larger	40"	97"	59%	4.65'	4.91'	5%
3 - Upper	Near Ventura Way - smaller	75"	67"	12%	4.56'	4.27'	7%
	Totals	435"	637"	32%	4.91' Weighted Average 6.18'	5.01'	2%

Lozier Group c/o Richard Lozier  
 PO Box 1255  
 Mason, OH 45040  
 513-346-8128  
 rich@theloziergroup.com

Monday, June 01, 2020

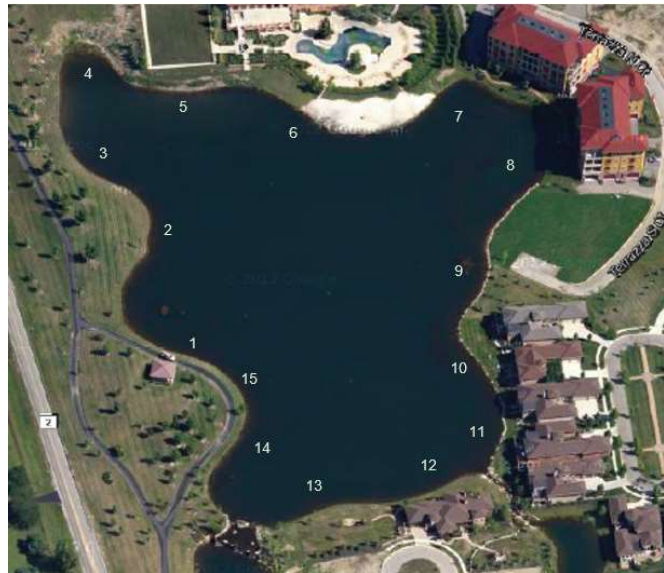
Mr. Lozier,

Thank you for contacting Jones Fish & Lake Management for your pond needs. Below you will find the requested samples from the ponds at Tartan West. All measurements were taken in May 2020 from the same approximate location in the ponds as the samples taken November 2013.

On May 9, 2020 and May 12, 2020, a representative of Jones Fish and Lake Management sampled multiple locations in the seven ponds requested at Tartan West in Dublin, Ohio. Samples were collected with the use of SludgPro™ Settled Solids Sampler. All of the sludge collected was heavy in nature, making it difficult to see through and the was primarily dark in color.

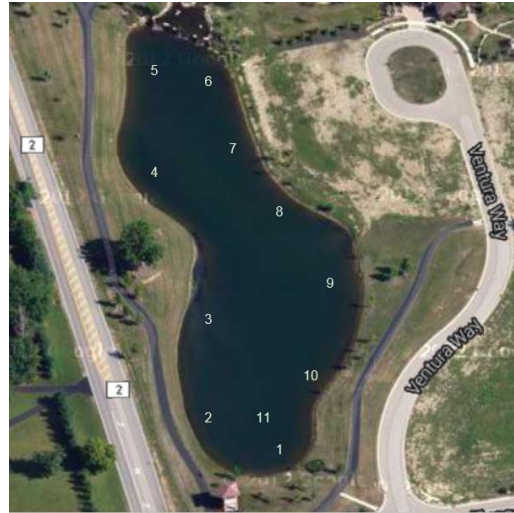
Largest Pond – near clubhouse

Sample#	Water Depth in feet	Sludge Depth in inches
1	8	3
2	8	5
3	6.5	2
4	5	21
5	5	4
6	5	12
7	9	24
8	7	8
9	5	4
10	5.5	12
11	9	3
12	7	4
13	6.5	5
14	5.5	18
15	5	12



Pond – just south of largest pond

Sample#	Water Depth in feet	Sludge Depth in inches
1	6.25	4
2	7	2
3	6	2
4	6.75	6
5	8	< 1
6	7	< 1
7	7.5	< 1
8	6	4
9	9	5
10	9	3
11	9.5	< 1



Ponds – east of Ventura Way Circle

**Upper Pond:**

Sample#	Water Depth in feet	Sludge Depth in inches
1	3.5	5
2	4	3
3	3.5	3
4	4.5	2
5	5	12
6	6	2
7	5	24
8	5	24



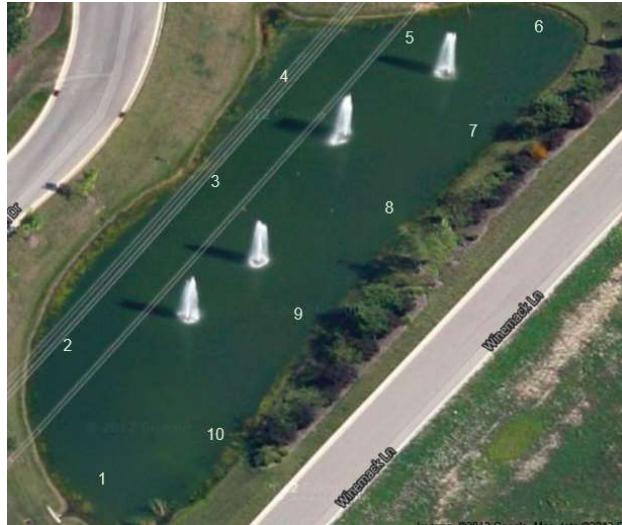
**Lower Pond:**

Sample#	Water Depth in feet	Sludge Depth in inches
1	5	5
2	5	5
3	2	< 1
4	1.5	8
5		
6	5.5	2
7	1.25	5
8	6.5	3
9	7.5	7
10	6	2
11	6.25	2



Pond – at intersection of Vineyard Haven Dr and Winemack Ln

Sample#	Water Depth in feet	Sludge Depth in inches
1	3	12
2	4	6
3	4.5	8
4	3	12
5	4	4
6	5	12
7	3.5	8
8	3.75	4
9	3.75	6
10	4	6



Pond – NE of Vineyard Haven Dr at stone pergola

Sample#	Water Depth in feet	Sludge Depth in inches
1	4	4
2	4	8
3	5	6
4	5	4
5	4.5	6
6	2	12
7	3.5	4
8	3	2



Pond – at Corazon & Vineyard Haven

Sample#	Water Depth in feet	Sludge Depth in inches
1	4	6
2	5	7
3	4	5
4	3	6
5	2.5	5
6	3	2



Again, thank you for choosing Jones Fish and Lake Management. If you have any questions or concerns regarding the above information, please do not hesitate to contact me.

Thank you,

A handwritten signature in cursive script that reads "Chris Chumbley".

Chris Chumbley  
Central Ohio Lake Management Supervisor

Tartan West Community Association  
Baseline Pond Measurements - 2013

Index	Pond Measurements Description	Water Depth	Gap to Bottom	Sediment or Sludge	Notes
	Pond #1 - Larger Runs along Hyland-Croy Road	Starting Point for Pond #1 Pavilion - west side of pond			Distance below is wheeled from the starting point - clockwise & 5' off bank Depth measured ~15' off bank
1	At pavilion	5' - 10"	9"	14"	Starting point
2	West side - proceeding north	4' - 6"	9"	5"	230.4'
3	West side - proceeding north	5' - 11"	7"	4"	384.5'
4	Northwest corner of pond	2' - 11"	13"	12"	586.2'
5	North side - proceeding east	6' - 3"	4"	5"	793.5'
6	North side - proceeding east	7' - 0"	9"	6"	1014.1'
7	Northeast corner of pond	5' - 5"	17"	2"	1269.3'
8	East side - proceeding south	9' - 2"	11"	7"	1476.7'
9	East side - proceeding south	4' - 6"	11"	15"	1687.7'
10	East side - proceeding south	4' - 0"	5"	5"	1838.3'
11	East side - proceeding south	4' - 1"	11"	13"	2012.0'
12	South side - past rock channel	4' - 3"	17"	13"	2228.7'
13	South side - near waterfall	4' - 2"	15"	24"	2405.8'
14	West side - proceeding north	4' - 7"	6"	14"	2682.1'
15	West side - proceeding north	5' - 0"	3"	7"	2692.8'

Tartan West Community Association  
Baseline Pond Measurements - 2013

Index	Pond Measurements Description	Water Depth	Gap to Bottom	Sediment or Sludge	Notes
	Pond #2 - South of largest pond Receives waterfall from Pond #1	Starting Point for Pond #2 Outlet structure - south end of pond			Distance below is wheeled from the starting point - clockwise & 5' off bank Depth measured ~15' off bank
1	At outlet structure	4' - 7"	10"	8"	Starting point
2	West side - proceeding north	5' - 5"	7"	16"	164.9'
3	West side - proceeding north	4' - 10"	6"	23"	335.3'
4	West side - proceeding north	5' - 2"	3"	6"	423.8'
5	West side - near waterfall	4' - 9"	8"	18"	699.2'
6	East side - near waterfall	6' - 6"	6"	9"	Restart measurement from waterfall 42.4'
7	East side - proceeding south	5' - 3"	2"	19"	163.7'
8	East side - proceeding south	4' - 6"	11"	7"	292.8'
9	East side - proceeding south	6" - 0"	5"	9"	403.4'
10	East side - proceeding south	4' - 4"	3"	13"	526.5'
11	Return to outlet structure - moved to middle of pond	9' - 2"	8"	20"	Original starting point - 45' from bank Debris apparently carried to this area by natural drainage

Tartan West Community Association  
 Baseline Pond Measurements - 2013

Index	Pond Measurements Description	Water Depth	Gap to Bottom	Sediment or Sludge	Notes
	Pond #8 - adjacent to Vineyard Haven and Winerack Lane	Starting Point for Pond #8 Stone pillar closer to electric line			Distance below is wheeled from the starting point - clockwise & 5' off bank Depth measured ~15' off bank
1	At overflow pipe	3" - 4"	4"	5"	Starting point
2	West side - proceeding north	6' - 1"	7"	1"	71.4'
3	West side - proceeding north	5' - 7"	6"	1"	161.3'
4	West side - proceeding north	5' - 4"	7"	7"	233'
5	West side - proceeding northeast	6' - 2"	10"	4"	330.9'
6	Northeast corner of pond	6" - 0"	20"	7"	384.6'
7	East side - proceeding south	5' - 2"	4"	4"	479.5'
8	East side - proceeding south	5' - 8"	8"	6"	537.7'
9	East side - proceeding south	5' - 2"	6"	18"	604.4'
10	East side - proceeding south	5' - 3"	5"	3"	684.7'
	Pond #7 - just north of Pond #8	Starting Point for Pond #7 Pavilion - west side of pond			Distance below is wheeled from the starting point - clockwise & 5' off bank Depth measured ~15' off bank
1	At stone pergola	5' - 11"	3"	3"	Starting point
2	West side - proceeding northwest	6' - 2"	2"	4"	85.1'

Tartan West Community Association  
Baseline Pond Measurements - 2013

Index	Pond Measurements Description	Water Depth	Gap to Bottom	Sediment or Sludge	Notes
3	West side - proceeding northeast	5' - 11"	2"	6"	141.5'
4	North side - proceeding east	5' - 6"	12"	12"	221'
5	North side - proceeding east	6' - 1"	5"	1"	305'
6	East side - proceeding south	6' - 5"	9"	11"	385.5'
7	East side - proceeding south	6' - 6"	11"	11"	484.3'
8	East side - proceeding south	5' - 9"	4"	12"	546.6'
	Pond #6 - West of Pond #7 - adjacent to Vineyard Haven	Starting Point for Pond #6 Overflow structure - NE corner			Distance below is wheeled from the starting point - clockwise & 5' off bank Depth measured ~10' off bank
1	At overflow structure	4' - 9"	2"	6"	Starting point
2	East side - proceeding south	6' - 1"	2"	6"	49.4'
3	South side - moved southwest	5' - 9"	3"	18"	121.8'
4	West side - proceeding northwest	5' - 1"	3"	24"	161.8'
5	Northwest corner of pond	5' - 8"	6"	4"	213.5'
6	North side - proceeding east	5' - 2"	6"	5"	259.8'

Tartan West Community Association  
 Baseline Pond Measurements - 2013

Index	Pond Measurements Description	Water Depth	Gap to Bottom	Sediment or Sludge	Notes
	Pond #3 Lower Larger of two ponds east of Ventura Way cul-de-sac	Starting Point for Pond #3 Lower Mid-point of two overflow structures			Distance below is wheeled from the starting point - clockwise Depth measured ~10' off bank/marsh
1	End of neck at northeast corner	3" - 10"	7"	11"	Starting point - 15' from end of pond
2	Bottom of neck - northeast corner	4' - 6"	1"	7"	Along pathway - 67' - middle of pond
3	East side - proceeding south	3" - 9"	2"	14"	Along pathway - 151.1'
4	East side - proceeding south	5' - 6"	1"	6"	Along pathway - 259.9'
5	South side - proceeding west	5' - 4"	8"	12"	Along pathway - 341.7'
6	South side - proceeding west	6' - 5"	6"	17"	Along pathway - 439.3'
7	South side - proceeding west	5' - 5"	9"	6"	Along bank - 523.4'
8	West side - proceeding north	3" - 7"	4"	6"	Along bank - 586.1'
9	North side - proceeding east	5' - 11"	4"	4"	Along bank - 651.0'
10	North side - proceeding east	5' - 11"	7"	8"	Along bank - 714.6'
11	North side - proceeding east	5' - 10"	2"	6"	Along bank - 768.8'
	Pond #3 - Upper Smaller of two east of Ventura Way cul-de-sac	Starting Point for Pond #3 Upper Inlet structure at northeast corner			Distance below is wheeled from the starting point - clockwise & 5' off bank Depth measured ~15' off bank
1	At Inlet structure	3" - 0"	9"	8"	Starting point - 10' off bank

Tartan West Community Association  
 Baseline Pond Measurements - 2013

Index	Pond Measurements Description	Water Depth	Gap to Bottom	Sediment or Sludge	Notes
2	East side - proceeding south	4' - 8"	6"	15"	53'
3	East side - proceeding south	4' - 6"	5"	7"	100.2'
4	At waterfall - southeast corner	4' - 0"	1"	4"	142.2'
5	West side - proceeding north	4' - 0"	7"	4"	189.7'
6	West side - proceeding north	4' - 7"	6"	14"	233.8'
7	West side - proceeding north	4' - 11"	12"	8"	287.3'
8	North side	4' - 6"	12"	7"	312.4'



# Estimate #18628



## Billing Address

Lozier Group  
 Lozier Group  
 PO Box 1255  
 Mason OH 45040 United States  
 scott@theloziergroup.com  
 +1 859 912 3509

## Service Address

Lozier Group  
 7668 Arcadia Boulevard  
 Alexandria KY 41001 United States  
 scott@theloziergroup.com  
 +1 859 912 3509

## Send Payment To

Sediment Removal Solutions of Ohio  
 P.O. Box 311  
 Wapakoneta Ohio 45895  
 (877) 772-MUCK  
 sales@mucksuckers.com

<b>Date</b>	10/14/20
<b>Sent</b>	10/14/20
<b>Total</b>	\$30,774.13
<b>Payments</b>	\$0.00
<b>Balance</b>	\$30,774.13

## Charges

Item	Description	Unit Cost	Tax	Quantity	Line Total
1SRS-Residential Daily Rate	Sediment Removal of Pond-with std 4" pump or pumps 2-diver crew pumping in combination or individually (depending on sediment composition) for a total of "4 hrs of pump time" per day (session) First Day at \$2,990.00 per day (session)	\$2,990.00	×	1.0	\$2,990.00
2SRS-Residential Daily Rate	Sediment Removal of Pond - with std 4" pump or pumps 2-diver crew-pumping in combination or individually (depending on sediment composition) for a total of "4 hrs of pump time" per day (session) Additional 9 days @ \$2,390.00 per day (session)	\$2,390.00	×	9.0	\$21,510.00
30'x50'	Sediment Container Bag 30' x 50'	\$2,925.00	✓	2.0	\$5,850.00
Subtotal					\$30,350.00
Tax (Sales Tax)					\$424.13
<b>Total</b>					<b>\$30,774.13</b>

## Notes

(Sediment Removal of Pond/Lake/Dock/Other: Estimated number of days) 10 days (based on 3' of sediment in a 1/3 acre pond) -- using std 4" pump

## Terms

We Hereby propose to furnish the materials and perform the labor necessary for the completion of:

1. The removal of organic sediment of a pond/lake/dock/etc. as described at the location stated above.
2. The operation will be performed by a scuba diver or divers with a high volume suction pump to remove organic sediment.
3. It is understood by all parties, that it is impossible to estimate how much sediment has built up over time, and for this reason, there is no guarantee that all of the sediment will be removed in the allowable time stated in the contract.
4. Each pond varies: therefore, the job is estimated per day. A day will guarantee and consist of four pump hours pump time: performed by a single diver or two divers suctioning sediment from pond for a total of four hours of pump time, per day (session). The daily rate charge is stated below.
5. It is also understood that the main function of this type of operation is to remove organic sediment from the deepest area of the pond first, since this is where the heaviest concentration of sediment exists and is doing the most environmental damage. Removal of the debris beyond organic sediment such as but not limited to leaves, Sticks, weeds, cattails, etc. will be at an additional charge (listed below).
6. The undersigned also agrees the entire system developed by SRS is unique and protected under the Trade Secrecy Acts and absolutely none of its operations can be duplicated, copied or disclosed.

All material is guaranteed to be as specified for above work and completed in a workmanlike Manner for the sum of:  
 Two thousand nine hundred ninety Dollars (\$2,990.00) 1st day  
 And the sum of: Two thousand three hundred ninety Dollars (\$2,590.00) each consecutive additional day.

SRS is not responsible for providing or choosing the discharge site.

7A. Preparation of the discharge site shall be the responsibility of: ( ) SRS ( X ) Customer

Description:

Customer is responsible for supplying 7 yards of wood chips for leveling of customer's discharge site for each geotube used.

Price \$ 50.00/man hr. for preparation or maintenance of customer's discharge site, for spreading wood chips or Removal of additional debris beyond organic sediment or for any delays or unexpected obstacles or situations.

7B. \$ 1,000.00 - Additional trip charge if job site is not ready upon SRS arrival to set up equipment to begin sediment removal. Any delays or obstacles causing additional trip except severe weather conditions.

8. SRS is not responsible for the removal of silt containers or sediment from the site. Restoration of the discharge site or damage caused by equipment to the site and/or its surroundings. SRS is held harmless from any & all liability of loss, expense or consequences by overflow of water or sediment from containers or discharge site.

9. Sediment/Silt Containers: Type: Geo-textile ( X ) None

10. Quantity: (2) - Size| 30' x 50' @ \$2,925.00/Each Sub Total: \$ 5,850.00

Note: Shipping, handling & sales tax included. 10% re-stocking charge if cancelled after container ordered. If you are tax exempt, please submit tax exempt form with deposit.

Total of Proposal as estimated and expressed above ----- \$30,774.13  
(extra man hours & trip charges additional as needed)

\$ 5850.00 -- Deposit is required to reserve a spot in our schedule (non-refundable after scheduled) & balance due in full upon completion before crew leaves the job site.

Any Alteration or deviation from the specifications involving extra costs, will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control. Customer/Landowner's liability insurance to cover job site location and holds SRS harmless of any Liability relative to removal of sediment from customer/landowner's body of water. SRS and its contractors carry Ohio Worker's Compensation insurance and Ohio Comprehensive General Liability insurance.

Date Submitted: 10-14-2020 Submitted By: Andy Moser (419) 234-4999

Note: This proposal may be withdrawn by us if not accepted within: 30 Days.

Acceptance of Proposal

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Date: \_\_\_\_\_ Signature \_\_\_\_\_

### Additional Notes

Date	Name	Note