Introduction: What is the Reserve Study and its Funding Plan?

The Oakridge Village 2 Association Reserve Policy (Effective: May 18, 2016) provides the essential requirements and descriptions of this Reserve Study and its Funding Plan. Actual reserve study and funding plan examples successfully implemented at other common interest property ownership associations have also been used.

The Reserve Study is a published physical analysis of the common interest property at the Association that is used as a tool to properly manage the financial demands of that property. The physical analysis includes the following:

- Component Inventory (identify components of the community that the Association is responsible to maintain, repair, and replace)
- Condition Assessment (determine or estimate the useful life of those components)
- Life and Valuation Estimates (establish a maintenance, repair, and replacement schedule for those components)

The Reserve Funding Plan is a published financial analysis of exactly how any work recommended by the Reserve Study to maintain the common interest property at the Association will be funded. The financial analysis includes the following:

- Fund Status (identify the finances currently available to the Association that are specifically reserved for the work of maintaining, repairing, and replacing common interest property)
- Funding Plan (establish a plan for long-term ongoing funding of such maintenance, repair, and replacement while considering the impact of inflation, projected assessment collections, and any reserve fund investment revenue)

This document, prepared by James T. Cook, the acting HOA Landscape Director who has over 20 years of engineering consulting experience, is the first formal Reserve Study and Funding Plan published by the Oakridge Village 2 Association.

The Reserve Study and Funding Plan should be periodically updated at least once every three to five year period.

Physical Analysis of Oakridge Village 2: Property Description

The Oakridge Village 2 Association consists of 94 private homes (Oakridge Village 1st Filing lots 14-40 and 2nd Filing lots 1-67) and 7.28 acres (about 320,000 square feet) of adjacent common interest "green space" areas that were originally developed circa 1986. Keenland Drive, a municipal street, forms its northern border. The "Power Trail", a municipal pathway that runs beside the Union Pacific railway line and under high voltage transmission lines, forms its eastern border. Southridge Golf Course borders it to the south. And Oakridge Village 1 Association (Oakridge Village 1st Filing lots 1-13 around Twinberry Court) forms its western border. Coralberry Court, Honeylocust Court, Iris Court, Wisteria Court, Elderberry Court, and Barberry Drive are municipal streets completely encompassed within the Association. Significant portions of municipal streets Wheaton Drive and McMurray Drive also lie within the Association. Please see the maps in the appendix for more details.

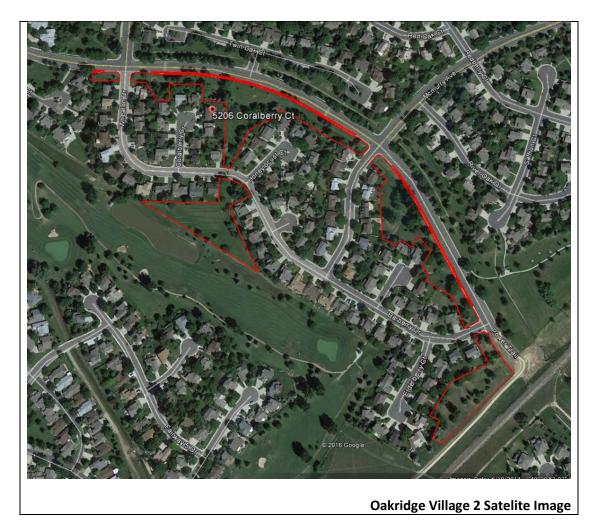
Muskrat Ditch/Creek runs through the common area just south and along Keenland Drive. It is lined with a concrete drain pan that is about 4 feet wide and 1 foot deep. Water flows along the drain pan year-round. Three additional concrete drain pans run through the common areas and feed seasonal storm water runoff into Muskrat Ditch/Creek. One is a shallow approximately 2 feet wide drain pan that

originates at Wheaton Drive between Coralberry Court and Honeylocust Court. The other two are curbed and about 6 feet wide and drain the Wisteria Court area. These concrete drain pans are the responsibility of the Association. At least one buried perforated pipe (running somewhat parallel to the smaller drain pan between Coralberry Court and Honeylocust Court) drains into Muskrat Ditch/Creek. Other buried drain pipes may exist. Their exact purpose and functioning status is currently unknown, but are also the responsibility of the Association.

Municipal concrete sidewalks run along each street in the Oakridge Village 2 area. Their maintenance is <u>not</u> the responsibility of the Association. It has also been determined (through contact with City of Fort Collins engineering departments and review of county/city maps) that even the sidewalk running along Keenland and the Association common areas, just as the streets along private homes, is a municipal sidewalk and <u>not</u> the responsibility of the Association. (The Association is responsible to keep these sidewalks adjacent to our common areas clear of snow and ice in the winter, though).

The common areas contain irrigated vegetation (grass, shrubs, and trees), but currently do <u>not</u> contain any structural apparatus (play equipment, benches, etc) of any kind.

The red lines on the satellite image below indicate the approximate boundaries of the Oakridge Village 2 common areas.



Physical Analysis of Oakridge Village 2: Component Inventory

The following common interest property components that must be maintained, repaired, and replaced by the Association have been identified.

- 1. Sprinkler irrigation system
 - a. Two(2) water tap valves (5285 Wheaton Drive and 1501 Keenland Drive)
 - i. The Wheaton Drive water tap PVB (pressure vacuum breaker) backflow prevention valve was replaced in June, 2017 (1.5" PVB Febco model 765) at a cost of \$580.
 - ii. The Keenland Drive water tap PVB backflow prevention valve (1" Febco model 765) has not yet been replaced.
 - iii. Both valves are tested and certified annually (as required by the City of Fort Collins) by a licensed backflow tester/contractor.
 - b. Four(4) controllers (Zones A, B, C and D)
 - i. Zone A (with 23 valves) is controlled by an ET Water SmartBox Controller that was newly installed in August, 2015 at a cost of \$3115.
 - ii. Zone B (with 4 valves) is controlled by an older Irritrol (model RainDialPlus).
 - iii. Zone C (with 24 valves) is controlled by an ET Water SmartBox Controller that was newly installed in June, 2014 at a cost of \$3715.
 - iv. Zone D (with 3 valves) is controlled by an older Hunter (model TBD).
 - c. Sprinkler valves (qty = 54)
 - d. Piping (approximately 8000 linear feet)
 - e. Sprinkler rotor heads/drip heads (approximately 300)
- 2. Vegetation
 - a. Deciduous trees (quantity=112)
 - Ash = 36
 - Hackberry = 15
 - Cottonwood = 10
 - Locust = 9
 - Aspen = 8
 - Oak = 6
 - Maple = 5
 - Crabapple(4), Plum(3), Willow-leaf Poplar(3), Catalpa(2), Linden(2), Willow(2), Chokecherry(2), Elm(2), unknown(3)
 - b. Evergreen trees (quantity=67)
 - Austrian Pine = 23
 - Blue Spruce = 18
 - Scotch Pine = 14
 - Spruce = 9
 - Limber Pine = 2
 - Juniper Cedar = 1
 - c. Shrubs (approximately 50)
 - d. Grass (approximately 7 acres)
- 3. Drainage and landscape infrastructure
 - a. Concrete drain pans (approximately 7,800 square feet)
 - b. Drain pipes (approximately 500 linear feet)
 - c. Shrub area edging, and river rock or mulch ground cover (approximately 1000 square feet)

Physical Analysis of Oakridge Village 2: Component Assessment and Projected Expenditures

The following estimates will be assumed for the common interest property components that have been identified:

- 1. Sprinkler irrigation system (these cost estimates include installation labor)
 - a. Main water tap valves

Cost of new water tap PVB (pressure vacuum breaker) backflow prevention valve: \$580

Expected water tap PVB backflow prevention valve useful life: 25 years

Wheaton valve (replaced in 2015) remaining life: 25 years

Keenland valve (original) remaining life: 5 years

Therefore, in 25 years, replace Wheaton valve. In next 5 years, replace Keenland valve.

b. Controllers

Cost of new Zone A or C sprinkler controller: \$3500 each

Expected sprinkler controller useful life: 25 years

Zone A sprinkler controller (replaced in 2015) remaining life: 23 years Zone C sprinkler controller (replaced in 2014) remaining life: 22 years

Cost of new Zone B or D sprinkler controller: \$500 each

Expected sprinkler controller useful life: 25 years

Zone B sprinkler controller (original) remaining life: 5 years Zone D sprinkler controller (original) remaining life: 5 years

In 22 years, replace Zone C controller. In 23 years, replace Zone A controller. In next 5 years, replace Zone B and D controllers.

c. Sprinkler valves

Cost of new sprinkler valves: \$40 each

Expected sprinkler valve useful life: 20 years

(Please note: sprinkler valves are normally replaced by the landscape contractor on an

as-needed basis and their age is not tracked)

Replace about 2.7 (54/20) sprinkler valves per year.

d. Piping

Cost of new sprinkler piping: \$0.75 linear foot Expected sprinkler piping useful life: 40 years

Replace about 200 linear feet (8000/40) of sprinkler pipe per year.

e. Sprinkler rotor heads/drip heads

Cost of new sprinkler rotor heads/drip heads: \$20 each Expected sprinkler rotor heads/drip heads useful life: 20 years

(Please note: sprinkler rotor heads and drip heads are normally replaced by the

landscape contractor on an as-needed basis and their age is not tracked).

Replace about 15 (300/20) sprinkler heads per year.

So, assume starting cost of \$558 per year for ongoing sprinkler valve, pipe, and head replacements.

2. Vegetation (these cost estimates assume installation is done for free by homeowners)

a. Deciduous trees

Cost of new deciduous tree: \$150 each Expected deciduous tree useful life: 60 years

Estimated remaining deciduous tree useful life: 30 years

Therefore, in next 30 years, replace 3.7 (112/30) deciduous trees per year.

b. Evergreen trees

Cost of new evergreen tree: \$100 each Expected evergreen tree useful life: 50 years

Estimated remaining evergreen tree useful life: 20 years

In next 20 years, replace 3.4 (67/20) evergreen trees per year.

c. Shrubs

Cost of new shrub: \$25 each

Expected shrub useful life: 40 years

Estimated remaining shrub useful life: 10 years

In next 10 years, replace 5.0 (50/10) shrubs per year.

d. Grass

Cost of new grass: \$5000 per acre Expected grass useful life: 100 years

Estimated remaining grass useful life: 70 years

(Please note: damaged or deteriorated grass areas are normally replaced by the

landscape contractor on an as-needed basis and their age is not tracked)

In next 70 years, replace 0.10 acres (7.28/70) of grass per year.

So, assume starting cost of \$1740 per year for initial vegetation replacement. Then, in about 20 years to maintain an appropriate rate thereafter, replace 1.8 deciduous trees per year. Replace 1.3 evergreen trees per year. Replace 1.25 shrubs per year. And, continue to replace 0.10 acres of grass per year. So, assume starting cost of \$1620 per year (after assumed inflation rate) for ongoing vegetation replacement after the next 20 years.

3. Drainage and landscape infrastructure (these cost estimates include installation labor)

a. Concrete drain pans

Cost of new concrete drain pan: \$10 per square foot Expected concrete drain pan useful life: 50 years

Estimated remaining concrete drain pan useful life: 20 years

Therefore, in next 20 years, replace 390 square feet (7800/20) of concrete drain pans per year. So, assume starting cost of \$3900 per year for initial concrete drain pan replacement. Then, in about 20 years to maintain an appropriate rate thereafter, replace 156 square feet (7800/50) of concrete drain pans per year. So, assume starting cost of \$2500 per year (after assumed inflation rate) for ongoing concrete drain pan replacement after the next 20 years.

b. Drain pipes

Cost of new drain pipes: \$6 per linear foot Expected drain pipe useful life: 30 years

Estimated remaining drain pipe useful life: 5 years

Therefore, in next 5 years, replace about 100 linear feet (500/5) of drain pipe per year.

c. Shrub areas

Cost of new shrub area edging and ground cover: \$2 per square foot

Expected shrub area useful life: 40 years

Estimated remaining shrub area useful life: 10 years

Therefore, replace about 100 square feet (1000/10) of shrub area edging and ground cover per year.

So, assume starting cost of \$800 per year for initial drain pipe and shrub area replacements. Then, in about 5 years to maintain appropriate rate thereafter, replace about 17 linear feet (500/30) of drain pipe and about 33 square feet (1000/30) of shrub area edging and ground cover per year. So, assume starting cost of \$270 per year (after assumed inflation rate) for ongoing drain pipe and shrub area replacement after the next 5 years.

Financial Analysis of Oakridge Village 2: Assumptions/Considerations

The assumed annual inflation rate is **2.5%** (based on historical averages of 1.74% last 10 years, 2.61% last 30 years, and 3.22% last 100 years).

The assumed reserve fund investment revenue rate ("savings" account interest rate) is **1.5%** (based on historical 6-month CD average rates of 1.00% last 10 years and 3.56% last 30 years). There are currently no plans by the HOA to invest the reserve funds outside of the bank savings account.

The Oakridge Village II Association operating funds ("checking") account balance was \$7385.49 and the reserve funds ("savings") account balance was \$16,734.93 at the end of calendar/fiscal year 2017.

Historical records indicate that the reserve balance was around \$9400 ten years ago in 2006. During the past five years, reserve contributions—both budgeted and actual—have been rather inconsistent. The budgeted amounts have been \$300, \$0, \$1980, \$0, and \$370 for years 2012 to 2016 respectively for an average of \$530, while the actual reserve fund deposits have averaged around \$1480 during those years. However, much of that came from a \$4745 special assessment collected from the Association homeowners in 2012 to cover extensive tree damage cleanup costs after a severe ice/wind storm in 2011.

The budget for calendar/fiscal year 2017 estimated \$45,120 in total revenue and \$44,940 in total expenses, leaving only \$180 to add to the reserves. However, actual revenue was somewhat higher (\$47,419.77) due to home sale transfer fees, and expenses were significantly lower (\$37,048.48) due primarily to a change in the landscape maintenance contract. This allowed the Association to add \$10,000 to the reserve savings in 2017.

The budget for calendar/fiscal year 2018 estimates \$45,120 in total revenue, \$41,535 in total expenses, and that an additional \$3,500 will be added to the reserve savings account.

The homeowner assessment revenue is assumed to increase **3.9%** annually (based on the increases during the past 7-year period where dues were \$381, \$400, \$420, \$440, \$460, \$480, and \$480 for years 2012 to 2018 respectively, and on the fact that dues may increase up to 5% each year with HOA board approval only).

Other revenue sources (transfer fees due to sale of homes, late fees, etc.) can sometimes be substantial, but are highly variable, so they have been disregarded in this reserve study and funding plan.

Financial Analysis of Oakridge Village 2: Cash Flow Projections

Please see the attached financial spreadsheet for projected cash flows for the next 50 years.

Financial Analysis of Oakridge Village 2: Conclusions

With an average 3.9% annual increase in HOA dues, reserve funds should be sufficient to meet all future obligations. However, some preventative maintenance tasks, especially the concrete drain pan replacement, may need to be delayed in order to ensure adequate reserves during the next few years. In about 15 years, though, the HOA due assessments could begin to simply increase at a rate that matches annual inflation rates or even lower.

Financial Analysis of Oakridge Village 2: Recommendations

- 1. Strongly consider raising HOA annual dues by around 4% per year at least until an update to this reserve study and funding plan report is published.
- 2. Update/revise this report sometime in the next 3-5 years.
- 3. Delay any concrete drain pan replacement for about 5 years, or until an update to this report is published.
- 4. Consider investing a portion of the reserve funds in fixed income assets (e.g. bonds) with an annual return equal or greater than the rate of inflation.

${\bf 2017}\ Reserve\ Study\ and\ Funding\ Plan\ for\ Oak\ Ridge\ Village\ 2, Inc.$

Cash Flow Projection Spreadsheet

				Total Reserve Expenses							
	Total	Total Operating	December Democit	Sprinkler Irrigation PVB Valves and	Sprinkler Irrigation Valves, Pipe,	Trees, shrubs,		Drain Pipe and	Estimated Reserve	Reserve (Savings)	Cabadulad Danna Ban Dannistin
ar	Revenue		Reserve Deposit	Controllers	Heads	grass	Pans	Shrub Areas	Withdraw	Account Balance	Scheduled Reserve Item Description
2013		\$33,729.33 \$43,882.45									
2014 2015		\$39,614.08									Replaced Zone C sprinkler controller Replaced Zone A sprinkler controller
2013		\$44,991.02								\$6,732.91	Replaced Zolle A Sprillkier Controller
2010		\$37,048.48								\$16,734.93	
2017	Ş47,413.77	<i>\$37,</i> 040.40								Ş10,734.53	Begin estimated prorated common area
2018	\$45,120.00	\$41,535.00	\$3,500.00		\$588.00	\$1,740.00	\$3,900.00	\$800.00	\$7,028	\$13,206.93	infrastructure maintaince using reserve funds
2019	\$46,879.68	\$42,573.38	\$4,306.31	\$500.00							Replace Zone B sprinkler controller
2020	\$48,707.99	\$43,637.71	\$5,070.28		\$617.77						
2021	\$50,607.60	\$44,728.65	\$5,878.95	\$500.00	\$633.21	\$1,873.79	\$4,199.87	\$861.51	\$8,068	\$5,772.46	Replace Zone D sprinkler controller
2022	\$52,581.30	\$45,846.87	\$6,734.43	\$580.00	\$649.04	\$1,920.63	\$4,304.87	\$883.05	\$8,338	\$4,255.88	Replace Keenland PVB valve
											Continue replacing drain pipe and shrub areas
2023		\$46,993.04	\$7,638.93		\$665.27						reduced rates
2024		\$48,167.87	\$8,594.75		\$681.90						
2025		\$49,372.06	\$9,604.29		\$698.95						
2026		\$50,606.36			\$716.42						
2027 2028		\$51,871.52	\$11,794.69		\$734.33						
2028		\$53,168.31	\$12,980.88 \$14,231.49		\$752.69 \$771.51						
2029		\$54,497.52 \$55,859.96	\$14,231.49		\$771.53						3.9% annual due increases end
2030		\$57,256.46	\$13,349.49		\$810.56						Begin increasing dues by inflation rate
2032		\$58,687.87	\$15,238.76		\$830.83						
2032		\$60,155.06	\$15,619.73		\$851.60						
2034		\$61,658.94	\$16,010.22		\$872.89						
2035		\$63,200.41	\$16,410.48		\$894.71						
2036	\$81,601.17	\$64,780.42	\$16,820.74		\$917.08				\$10,086	\$75,298.99	
2037	\$83,641.19	\$66,399.94	\$17,241.26		\$940.01	\$2,781.65	\$6,234.74	\$381.50	\$10,338		
											Continue replacing vegetation and drain pans
2038	\$85,732.22	\$68,059.93	\$17,672.29		\$963.51	\$1,620.00	\$2,500.00	\$391.04	\$5,475	\$96,779.56	reduced rates
2039	\$87,875.53	\$69,761.43	\$18,114.10		\$987.59	\$1,660.50	\$2,562.50	\$400.82	\$5,611	\$110,733.94	
2040		\$71,505.47	\$18,566.95								Replace Zone C sprinkler controller
2041		\$73,293.10	\$19,031.12								Replace Zone A sprinkler controller
2042		\$75,125.43	\$19,506.90		\$1,063.53						
2043		\$77,003.57	\$19,994.57								Replace Wheaton PVB valve
2044		\$78,928.66									Replace Zone B sprinkler controller
2045		\$80,901.87	\$21,006.80		\$1,145.31						
2046 2047		\$82,924.42 \$84,997.53	\$21,531.97 \$22,070.27		\$1,173.94 \$1,203.29						Replace Zone D sprinkler controller
2047		\$87,122.47	\$22,670.27								Replace Keenland PVB valve
2049			\$23,187.58		\$1,264.20						
2050		\$91,533.04	\$23,767.27		\$1,295.81						
2051			\$24,361.45		\$1,328.20						
2052		\$96,166.90	\$24,970.48		\$1,361.41						
2053		\$98,571.08	\$25,594.75		\$1,395.44						
2054			\$26,234.61		\$1,430.33						
2055			\$26,890.48		\$1,466.09						
2056	\$133,713.01	\$106,150.27	\$27,562.74		\$1,502.74	\$2,526.65	\$3,899.15	\$609.89	\$8,538	\$421,622.92	
2057			\$28,251.81		\$1,540.31						
2058		\$111,524.13	\$28,958.11		\$1,578.82						
	\$143,994.29		\$29,682.06		\$1,618.29						
	\$147,594.15				\$1,658.75						
	\$151,284.00		\$31,184.71		\$1,700.21						
	\$155,066.10				\$1,742.72						
	\$158,942.75		\$32,763.44		\$1,786.29						
	\$162,916.32 \$166,989.23				\$1,830.94						
	\$166,989.23		\$34,422.09 \$35,282.64								Replace Zone C sprinkler controller Replace Zone A sprinkler controller
	\$171,163.96				\$1,923.64						
	\$175,443.06		\$37,068.82		\$2,021.02						
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	Assumptions										
		: Annual HOA	due increase								
		: Annual infla									
	2.5%	: Annual Infla	tion rate								
	2.5%	: Annual inila	donrate								

