

**Precision 20/20
Full Reserve Study
for
Havenwood at Hunters Crossing
Property Owners Association, Inc.
New Braunfels, Texas
January 29, 2014**





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1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Havenwood at Hunters Crossing Property Owners Association, Inc. (Havenwood at Hunters Crossing)

Location: New Braunfels, Texas

Reference: 132016

Property Basics: Havenwood at Hunters Crossing Property Owners Association, Inc. is a homeowners association which is responsible for the common elements currently shared by 634 single family homes. The development began construction in 2006. The anticipated date of completion is 2019. The total planned development will include 675 single family homes. The development contains pools, a pool house, tennis courts, a playground and asphalt pavement streets and parking areas.

Reserve Components Identified: 22 Reserve Components.

Inspection Date: January 29, 2014.

Funding Goal: The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes this threshold funding year in 2030 due to the partial mill and overlay of the asphalt pavement.

The **Reserve Funding Plan** recommends 2044 year end accumulated reserves of approximately \$2,782,372. We judge this amount of accumulated reserves in 2044 desirable or necessary, to fund the likely replacement of the asphalt pavement after 2044. Future replacement costs beyond the next 30 years for the asphalt pavement is likely to more than double the current cost of replacement, now estimated at approximately \$2,460,500 (185,000 square yards times \$13.30 per square yard). These future needs, although beyond the limit of the Cash Flow Analysis of this Reserve Study, are reflected in the amount of accumulated 2044 year end reserves.

Cash Flow Method: We use the Cash Flow Method to compute the Reserve Funding Plan. This method offsets future variable Reserve Expenditures with existing and future stable levels of reserve funding. Our application of this method also considers:

- current and future local costs of replacement
- 1.1% annual rate of return on invested reserves
- 1.4% future Inflation Rate for estimating Future Replacement Costs

Sources for Local Costs of Replacement: Our proprietary database, historical costs and published sources, i.e., R.S. Means, Incorporated.

Cash Status of Reserve Fund: \$551,020 as of January 1, 2014. A potential deficit in reserves might occur by 2027 based upon continuation of the most recent annual reserve contribution of \$45,497 and the identified Reserve Expenditures.

Recommended Reserve Funding: The Association budgeted \$45,497 for Reserve Contributions in 2014. We recommend that the Association budget annual phased increases in Reserve Contributions of approximately \$30,200 from 2015 through 2019. Afterwards, the Association should budget gradual



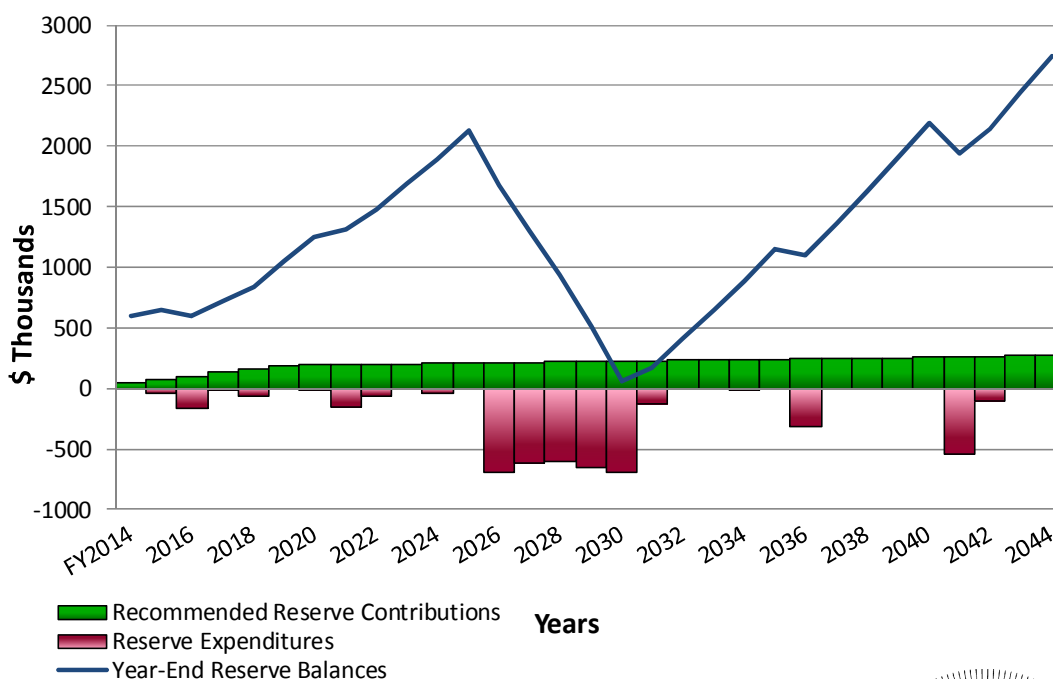
annual increases in reserve funding, that in part consider the effects of inflation. The initial adjustment in Reserve Contributions of \$30,203 represents about an eight percent (8.0%) adjustment in the 2014 total Operating Budget of \$378,300. The following table demonstrates the monthly contributions from the current build out in 2015 through the total build out in 2019, based on our recommended contributions and the number of homes per year.

Year	Homes	Monthly Contribution
2015	634	\$9.95
2016	641	\$13.76
2017	651	\$17.42
2018	663	\$20.90
2019	675	\$24.25
2020	675	\$24.60 (Inflationary)

Certification: This *Precision 20/20 Full Reserve Study* exceeds the Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a “Level I Full Reserve Study.”

Havenwood at Hunters Crossing Recommended Reserve Funding Table and Graph

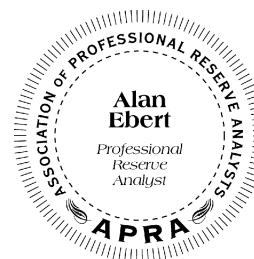
Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2015	75,700	645,812	2025	213,600	2,138,558	2035	245,500	1,171,103
2016	105,900	596,440	2026	216,600	1,692,584	2036	248,900	1,119,948
2017	136,100	724,439	2027	219,600	1,310,631	2037	252,400	1,386,056
2018	166,300	841,689	2028	222,700	947,845	2038	255,900	1,658,610
2019	196,500	1,048,528	2029	225,800	527,463	2039	259,500	1,937,782
2020	199,300	1,250,621	2030	229,000	76,995	2040	263,100	2,223,645
2021	202,100	1,317,418	2031	232,200	191,538	2041	266,800	1,978,922
2022	204,900	1,477,589	2032	235,500	430,440	2042	270,500	2,175,770
2023	207,800	1,702,785	2033	238,800	675,288	2043	274,300	2,475,512
2024	210,700	1,902,852	2034	242,100	914,197	2044	278,100	2,782,372



Respectfully submitted on February 27, 2014 by
RESERVE ADVISORS, INC.



Alan M. Ebert, PRA, RS, Associate Director of Quality Assurance
Visual Inspection and Report by: Sarah Girls
Reviewed by: Nicole L. Lowery, RS



¹ PRA (Professional Reserve Analyst) is the professional designation of the Association of Professional Reserve Analysts. Learn more about APRA at <http://www.apra-usa.com>.

² RS (Reserve Specialist) is the reserve provider professional designation of the Community Associations Institute (CAI) representing America's more than 300,000 condominium, cooperative and homeowners associations.



2. RESERVE STUDY REPORT

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Precision 20/20 Full Reserve Study* of

Havenwood at Hunters Crossing Property Owners Association, Inc.

New Braunfels, Texas

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, January 29, 2014.

We present our findings and recommendations in the following report sections and spreadsheets:

- **Identification of Property** - Segregates all property into several areas of responsibility for repair or replacement
- **Reserve Expenditures** - Identifies reserve components and related quantities, useful lives, remaining useful lives and future reserve expenditures during the next 30 years
- **Reserve Funding Plan** - Presents the recommended Reserve Contributions and year-end Reserve Balances for the next 30 years
- **Condition Assessment** - Describes the reserve components, describes our recommendations for repairs or replacement, and includes detailed solutions and procedures for replacements for the benefit of current and future board members
- **Photographs** - Documentation of Condition of various property elements
- **Methodology** - Lists the national standards, methods and procedures used, financial information relied upon for the Financial Analysis of the Reserve Study
- **Definitions** - Contains definitions of terms used in the Reserve Study, consistent with national standards
- **Professional Service Conditions** - Describes Assumptions and Professional Service Conditions
- **Credentials and Resources**

IDENTIFICATION OF PROPERTY

Havenwood at Hunters Crossing Property Owners Association, Inc. is a homeowners association which is responsible for the common elements currently shared by 634 single family homes. The development began construction in 2006. The anticipated date of completion is 2019. The total planned development will include 675 single family homes. The development contains pools, a pool house, tennis courts, a playground and asphalt pavement streets and parking areas. We identify 22 major reserve components that are likely to require capital repair or replacement during the next 30 years.

Our investigation includes Reserve Components or property elements as set forth in your Declaration. Our analysis begins by segregating the property elements into several areas of responsibility for repair and replacement. Our process of identification helps assure that future boards and the management team understand whether reserves, the operating budget or Homeowners fund certain replacements and assists in preparation of the annual budget. We derive these segregated classes of property from our review of the information provided by the Association and through conversations with Management and the Board. These classes of property include:

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Homeowners
- Property Maintained by the United States Postal Service

We advise that the Board conduct an annual review of these classes of property to confirm its policy concerning the manner of funding, i.e., from reserves or the operating budget.

The Reserve Study identifies Reserve Components as set forth in your Declaration or which were

identified as part of your request for proposed services. Reserve Components are defined by CAI as property elements with:

- Havenwood at Hunters Crossing responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

Long-Lived Property Elements do not have predictable Remaining Useful Lives. The operating budget should fund infrequent repairs. Funding untimely or unexpected replacements from reserves will necessitate increases to Reserve Contributions. Periodic updates of this Reserve Study will help determine the merits of adjusting the Reserve Funding Plan. We identify the following Long-Lived Property Elements as excluded from reserve funding at this time.

- Electrical Systems, Common
- Foundations (Pavilion, Pool House, Mailbox Kiosk)
- Irrigation System
- Pipes, Interior Building, Water and Sewer, Common
- Pipes, Subsurface Utilities
- Pool Structures
- Structural Frames (Pavilion, Pool House, Mailbox Kiosk)
- Windows and Doors (Pavilion, Pool House)

The operating budget provides money for the repair and replacement of certain Reserve Components. Operating Budget Funded Repairs and Replacements relate to:

- General Maintenance to the Common Elements
- Expenditures less than \$4,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Culverts, Repairs
- Fountain, Entrance Monument
- Gutters and Downspouts
- Irrigation System, Controllers
- Landscape
- Light Fixtures (Pavilion, Pool House, Mailbox Kiosk)
- Paint Finishes, Touch Up
- Pumps Less Than Five-HP (horsepower)

- Sidewalks (including Pavilion)
- Signage, Street and Traffic
- Valves, Small Diameter (we assume replacement as needed in lieu of an aggregate replacement of all the small diameter valves as a single event)
- Volleyball Court
- Walking Paths
- Other Repairs normally funded through the Operating Budget

Property Maintained by Homeowners relates to:

- Homes and Lots

Certain items have been designated as the responsibility of others to repair or replace.

Property Maintained by the United States Postal Service relates to:

- Mailbox Stations



3. RESERVE EXPENDITURES and FUNDING PLAN

The tables following this introduction present:

Reserve Expenditures

- Line item numbers
- Total quantities replaced during the next 30 years
- Quantities replaced per phase (in a single year)
- Reserve component inventory
- Estimated first year of event (i.e., replacement, application, etc.)
- Life analysis showing
 - useful life
 - remaining useful life
- Unit cost of replacement
- 2014 local cost of replacement
- Total future costs of replacement anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

Reserve Funding Plan

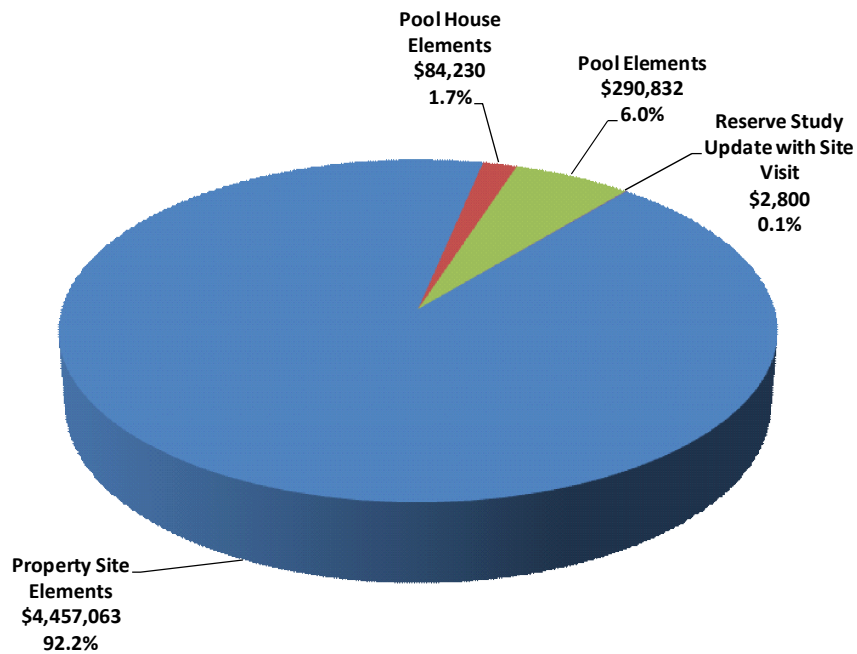
- Reserves at the beginning of each year
- Total recommended reserve contributions
- Estimated interest earned from invested reserves
- Anticipated expenditures by year
- Anticipated reserves at year end
- Predicted reserves based on current funding level

Financial statements prepared by your association by you or others might rely in part on information contained in this section. For your convenience, we have provided an electronic data file containing the tables of *Reserve Expenditures* and *Reserve Funding Plan*.



The most important category of Reserve Components noted in *Reserve Expenditures* is the Property Site Elements. The following chart illustrates the relative importance of the Reserve Expenditures and relative funding during the next 30 years.

Havenwood at Hunters Crossing
Future Expenditures Relative Cost Illustration



RESERVE EXPENDITURES

Havenwood at Hunters Crossing
Property Owners Association, Inc.
New Braunfels, Texas

Explanatory Notes:

- 1) 1.4% is the estimated future Inflation Rate for estimating Future Replacement Costs.
2) FY2014 is Fiscal Year beginning January 1, 2014 and ending December 31, 2014.

Line Item	Quantities:			Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Unit Cost, \$	2014 Cost per Phase, \$	Total Future Costs, \$	RUL = 0 FY2014	1 2015	2 2016	3 2017	4 2018	5 2019	6 2020	7 2021	8 2022	9 2023	10 2024	11 2025	12 2026	13 2027	14 2028	15 2029
	30-Year Total	Per Phase	Units			Useful	Remaining																			
Property Site Elements																										
4.020	740,000	185,000	Square Yards	Asphalt Pavement, Crack Repair, Patch and Partial Seal Coat	2016	3 to 5	2	0.70	129,500	640,216			133,151				142,737									
4.040	185,000	37,000	Square Yards	Asphalt Pavement, Mill and Overlay, Phased	2026	15 to 20	12	13.30	492,100	2,989,775												581,445	589,585	597,840	606,209	
4.103	12	6	Each	Benches, Metal and Wood	2024	to 20	10	1,800.00	10,800	28,351											12,411					
4.220	1	1	Allowance	Fence, Chain Link (Baseball Backstop)	2031	to 25	17	4,200.00	4,200	5,320																
4.231	13,000	3,250	Linear Feet	Fences, Metal, Paint Finishes	2015	6 to 8	1	12.00	39,000	184,131		39,546						43,588							48,043	
4.245	3,250	3,250	Linear Feet	Fences, Metal (Includes Pool Fence)	2041	to 35	27	49.00	159,250	231,795																
4.310	4	2	Panels	Gate Entry System	2021	10 to 15	7	3,000.00	6,000	14,760							6,613									
4.320	15	5	Each	Gate Operators	2016	to 10	2	4,000.00	20,000	71,351			20,564									23,631				
4.330	5	5	Each	Gates	2026	to 20	12	3,000.00	15,000	17,723												17,723				
4.660	1	1	Allowance	Playground Equipment	2026	15 to 20	12	24,000.00	24,000	28,357												28,357				
4.830	10,500	2,100	Square Yards	Tennis and Basketball Court, Color Coat	2017	4 to 6	3	7.00	14,700	90,723				15,326				16,429					17,612			
4.840	600	600	Linear Feet	Tennis Court, Fence	2031	to 25	17	43.00	25,800	32,679																
4.850	10	10	Each	Tennis Court, Light Poles and Fixtures	2041	to 35	27	2,800.00	28,000	40,755																
4.860	2,100	2,100	Square Yards	Tennis and Basketball Court, Surface Replacement	2031	to 25	17	30.50	64,050	81,127																
Pool House Elements																										
5.501	4	4	Each	Rest Room Renovation	2026	to 20	12	5,500.00	22,000	25,994												25,994				
5.600	50	50	Squares	Roofs, Metal (Pavilion, Pool House, Mailbox Kiosk)	2041	to 35	27	450.00	22,500	32,750																
5.611	950	950	Square Feet	Soffit and Fascia, Wood	2041	to 35	27	4.50	4,275	6,222																
5.701	16,200	5,400	Square Feet	Walls, Masonry, Inspections and Repairs (Pavilion, Pool House, Mailbox Kiosk, Monuments)	2016	8 to 12	2	1.00	5,400	19,264			5,552									6,380				
Pool Elements																										
6.200	13,800	4,600	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2018	8 to 12	4	2.50	11,500	43,496					12,158											
6.500	2	1	Allowance	Furniture	2024	to 12	10	15,616.00	15,616	39,148											17,945					
6.600	4	1	Allowance	Mechanical Equipment, Phased	2020	to 15	6	9,000.00	9,000	45,551						9,783							10,783			
6.800	12,900	4,300	Square Feet	Pool Finish, Plaster	2018	8 to 12	4	10.00	43,000	162,637					45,459											
	1	1	Allowance	Reserve Study Update with Site Visit	2016	2	2	2,800.00	2,800	2,800			2,800													
Anticipated Expenditures, By Year										\$4,834,925	0	39,546	162,067	15,326	57,617	0	9,783	149,350	60,017	0	30,356	0	683,530	617,980	597,840	654,252

RESERVE EXPENDITURES

Havenwood at Hunters Crossing
Property Owners Association, Inc.
New Braunfels, Texas

Line Item	Quantities:			Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Unit Cost, \$	2014 Cost per Phase, \$	Total Future Costs, \$	16 2030	17 2031	18 2032	19 2033	20 2034	21 2035	22 2036	23 2037	24 2038	25 2039	26 2040	27 2041	28 2042	29 2043	30 2044	
	30-Year Total	Per Phase	Units			Useful	Remaining																			
Property Site Elements																										
4.020	740,000	185,000	Square Yards	Asphalt Pavement, Crack Repair, Patch and Partial Seal Coat	2016	3 to 5	2	0.70	129,500	640,216							175,835					188,493				
4.040	185,000	37,000	Square Yards	Asphalt Pavement, Mill and Overlay, Phased	2026	15 to 20	12	13.30	492,100	2,989,775	614,696															
4.103	12	6	Each	Benches, Metal and Wood	2024	to 20	10	1,800.00	10,800	28,351												15,940				
4.220	1	1	Allowance	Fence, Chain Link (Baseball Backstop)	2031	to 25	17	4,200.00	4,200	5,320	5,320															
4.231	13,000	3,250	Linear Feet	Fences, Metal, Paint Finishes	2015	6 to 8	1	12.00	39,000	184,131							52,954									
4.245	3,250	3,250	Linear Feet	Fences, Metal (Includes Pool Fence)	2041	to 35	27	49.00	159,250	231,795											231,795					
4.310	4	2	Panels	Gate Entry System	2021	10 to 15	7	3,000.00	6,000	14,760							8,147									
4.320	15	5	Each	Gate Operators	2016	to 10	2	4,000.00	20,000	71,351							27,156									
4.330	5	5	Each	Gates	2026	to 20	12	3,000.00	15,000	17,723																
4.660	1	1	Allowance	Playground Equipment	2026	15 to 20	12	24,000.00	24,000	28,357																
4.830	10,500	2,100	Square Yards	Tennis and Basketball Court, Color Coat	2017	4 to 6	3	7.00	14,700	90,723							19,960					21,396				
4.840	600	600	Linear Feet	Tennis Court, Fence	2031	to 25	17	43.00	25,800	32,679	32,679															
4.850	10	10	Each	Tennis Court, Light Poles and Fixtures	2041	to 35	27	2,800.00	28,000	40,755											40,755					
4.860	2,100	2,100	Square Yards	Tennis and Basketball Court, Surface Replacement	2031	to 25	17	30.50	64,050	81,127	81,127															
Pool House Elements																										
5.501	4	4	Each	Rest Room Renovation	2026	to 20	12	5,500.00	22,000	25,994																
5.600	50	50	Squares	Roofs, Metal (Pavilion, Pool House, Mailbox Kiosk)	2041	to 35	27	450.00	22,500	32,750											32,750					
5.611	950	950	Square Feet	Soffit and Fascia, Wood	2041	to 35	27	4.50	4,275	6,222											6,222					
5.701	16,200	5,400	Square Feet	Walls, Masonry, Inspections and Repairs (Pavilion, Pool House, Mailbox Kiosk, Monuments)	2016	8 to 12	2	1.00	5,400	19,264							7,332									
Pool Elements																										
6.200	13,800	4,600	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2018	8 to 12	4	2.50	11,500	43,496	14,365											16,973				
6.500	2	1	Allowance	Furniture	2024	to 12	10	15,616.00	15,616	39,148							21,203									
6.600	4	1	Allowance	Mechanical Equipment, Phased	2020	to 15	6	9,000.00	9,000	45,551					11,885						13,100					
6.800	12,900	4,300	Square Feet	Pool Finish, Plaster	2018	8 to 12	4	10.00	43,000	162,637	53,713											63,465				
	1	1	Allowance	Reserve Study Update with Site Visit	2016	2	2	2,800.00	2,800	2,800																
Anticipated Expenditures, By Year										\$4,834,925	682,774	119,126	0	0	11,885	0	312,587	0	0	0	0	534,511	96,378	0	0	

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS																	
Havenwood at Hunters Crossing																	
Property Owners Association, Inc.																	
		Individual Reserve Budgets & Cash Flows for the Next 30 Years															
New Braunfels, Texas		FY2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Reserves at Beginning of Year (Note 1)		551,020	602,828	645,812	596,440	724,439	841,689	1,048,528	1,250,621	1,317,418	1,477,589	1,702,785	1,902,852	2,138,558	1,692,584	1,310,631	947,845
Total Recommended Reserve Contributions (Note 2)		45,497	75,700	105,900	136,100	166,300	196,500	199,300	202,100	204,900	207,800	210,700	213,600	216,600	219,600	222,700	225,800
Plus	Estimated Interest Earned, During Year (Note 3)	6,311	6,830	6,795	7,225	8,567	10,339	12,576	14,047	15,288	17,396	19,723	22,106	20,956	16,427	12,354	8,070
Less	Anticipated Expenditures, By Year	0	(39,546)	(162,067)	(15,326)	(57,617)	0	(9,783)	(149,350)	(60,017)	0	(30,356)	0	(683,530)	(617,980)	(597,840)	(654,252)
Anticipated Reserves at Year End		<u>\$602,828</u>	<u>\$645,812</u>	<u>\$596,440</u>	<u>\$724,439</u>	<u>\$841,689</u>	<u>\$1,048,528</u>	<u>\$1,250,621</u>	<u>\$1,317,418</u>	<u>\$1,477,589</u>	<u>\$1,702,785</u>	<u>\$1,902,852</u>	<u>\$2,138,558</u>	<u>\$1,692,584</u>	<u>\$1,310,631</u>	<u>\$947,845</u>	<u>\$527,463</u>
Predicted Reserves based on 2014 funding level of:		\$45,497	602,828	615,443	505,002	540,894	534,657	586,285	628,645	531,136	522,379	573,872	595,409	647,706	13,289	(562,196)	(1,123,761)

(continued)		Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued														
		2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Reserves at Beginning of Year		527,463	76,995	191,538	430,440	675,288	914,197	1,171,103	1,119,948	1,386,056	1,658,610	1,937,782	2,223,645	1,978,922	2,175,770	2,475,512
Total Recommended Reserve Contributions		229,000	232,200	235,500	238,800	242,100	245,500	248,900	252,400	255,900	259,500	263,100	266,800	270,500	274,300	278,100
Plus	Estimated Interest Earned, During Year	3,306	1,469	3,402	6,048	8,694	11,406	12,532	13,708	16,654	19,672	22,763	22,988	22,726	25,442	28,760
Less	Anticipated Expenditures, By Year	(682,774)	(119,126)	0	0	(11,885)	0	(312,587)	0	0	0	0	(534,511)	(96,378)	0	0
Anticipated Reserves at Year End		<u>\$76,995</u>	<u>\$191,538</u>	<u>\$430,440</u>	<u>\$675,288</u>	<u>\$914,197</u>	<u>\$1,171,103</u>	<u>\$1,119,948</u>	<u>\$1,386,056</u>	<u>\$1,658,610</u>	<u>\$1,937,782</u>	<u>\$2,223,645</u>	<u>\$1,978,922</u>	<u>\$2,175,770</u>	<u>\$2,475,512</u>	<u>\$2,782,372</u>
		(NOTE 5)														(NOTE 4)

Explanatory Notes:

- 1) Year 2014 starting reserves are as of January 1, 2014; FY2014 starts January 1, 2014 and ends December 31, 2014.
- 2) Reserve Contributions for 2014 are budgeted; 2015 is the first year of recommended contributions.
- 3) 1.1% is the estimated annual rate of return on invested reserves.
- 4) Accumulated year 2044 ending reserves consider the need to fund for replacement of the asphalt pavement shortly after 2044, and the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Year (reserve balance at critical point).



4. CONDITION ASSESSMENT

The Condition Assessment of this *Precision 20/20 Full Reserve Study* includes *Enhanced Solutions and Procedures* for select significant components. These narratives describe the Reserve Components, document specific problems and conditions, and may include detailed solutions and procedures for necessary capital repairs and replacements for the benefit of current and future board members. We advise the Board use this information to help define the scope and procedures for repair or replacement when soliciting bids or proposals from contractors. *However, the Report in whole or part is not and should not be used as a design specification or design engineering service.*

Property Site Elements

Asphalt Pavement, Crack Repair, Patch and Partial Seal Coat - Asphalt pavement comprises 185,000 square yards of streets and parking areas throughout the community. The pavement is original and in very good to good overall condition. We note cracks, isolated transverse cracks, worn edges and organic growth. To maximize the life of the pavement, the Association should plan for seal coat applications at the parking lot and repairs to the parking lot and streets every three- to five-years. These activities reduce water infiltration and the effects of inclement weather. We elaborate on solutions and procedures necessary for the optimal maintenance of asphalt pavement in the following discussion.

We recommend periodic seal coat applications, crack repairs and patching to maintain the pavement. These activities minimize the damaging effects of vehicle fluids, maintain a uniform and positive appearance, and maximize the useful life of the pavement. Depressions often appear at areas where vehicles park such as driveways and parking areas. Isolated areas of depressions, cracks and deterioration indicate the need for crack repairs and patching. The

contractor should patch areas that exhibit potholes, alligator or spider web pattern cracks, and areas of pavement that are severely deteriorated from oil and gasoline deposits from parking vehicles. Area patching requires total replacement of isolated areas of pavement. The contractor should mechanically rout and fill all cracks with hot emulsion. Crack repair minimizes the chance of the cracks transmitting through the pavement.

There are four main types of seal coats available: fog coat, acrylic sealer, chip seals and asphaltic emulsion. A *fog coat* is a simple mixture of water and asphalt. *Acrylic sealers* include an acrylic additive to the water and asphalt mixture for greater resistance to abrasion. *Fog coats* and *acrylic sealers* are typically spray applied and are only for aesthetic purposes. *Chip seal* is the most substantial type of seal coat which involves placement of oil and aggregate on the driving surface. Either a roller or normal vehicular traffic works the gravel into the oil. *Asphaltic emulsions* combine a sharp sand mixture or mineral fibers, and an emulsifying agent with the water and asphalt mixture. *Asphaltic emulsions* are typically hand applied with squeegees to ensure that the sealer fills surface abrasions and minor cracks. This prevents the infiltration of water through cracks into the underlying pavement base. Seal coats therefore minimize the damaging effects of water from expansion and contraction. We regard *asphaltic emulsions* as the most effective and economical type of seal coat.

Havenwood at Hunters Crossing should repair any isolated areas of deteriorated pavement prior to seal coat applications. Proposals for seal coat applications should include crack repairs and patching. The contractor should only apply seal coat applications after repairs are completed. A seal coat does not bridge or close cracks, therefore, unrepaired cracks render



the seal coat applications useless. Our future estimates of cost include an allowance for repair activities.

Havenwood at Hunters Crossing should plan subsequent applications of seal coat, crack repairs and patching beginning by 2016 and every five years thereafter except when subsequent repaving occurs. Line Item 4.020 of *Reserve Expenditures* notes our estimate of future costs and anticipated times of these activities.

Asphalt Pavement, Repaving - Asphalt pavement comprises 185,000 square yards of streets and parking areas throughout the community. The pavement is original and in very good to good condition. We note cracks, isolated transverse cracks, worn edges and organic growth. Pages 5.2 through 5.6 of *Photographs* depict these conditions. The useful life of pavement in New Braunfels is from 15- to 20-years. We include the following repaving solutions and procedures for the benefit of the present and future board members. The following table provides information on the conditions of each street and parking areas at Havenwood at Hunters Crossing:

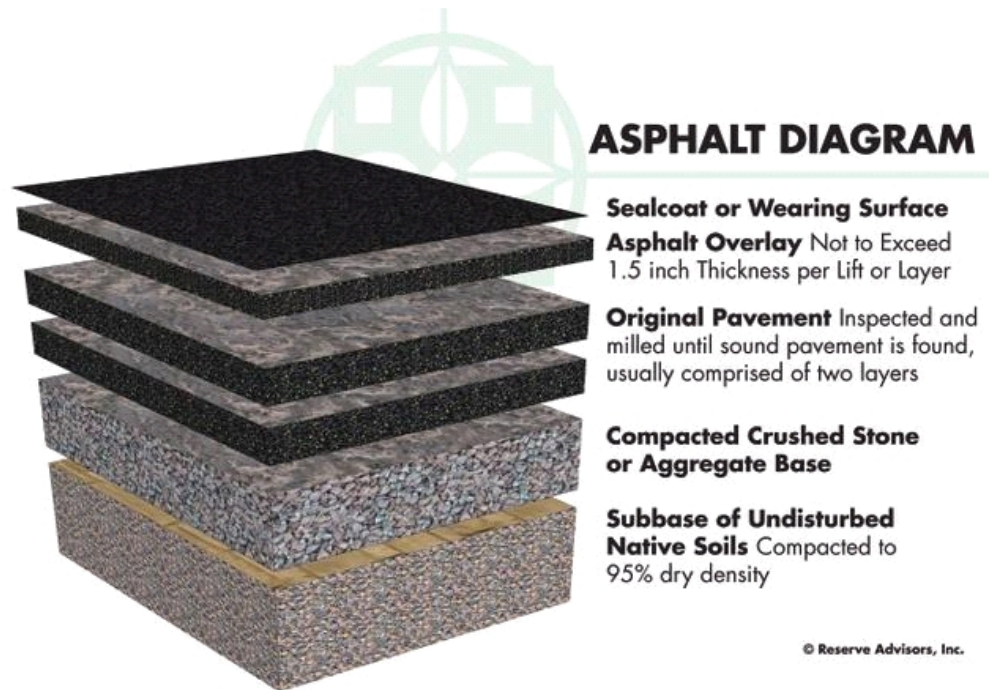
Location	Area (square yards)	Condition	Observations
Otters Way	8,000	Good	Minor cracks along edges
Wildcat Roost	1,800	Good	Larger cracks at entrance and circle and vegetation growth
Lions Den	1,800	Good	Minor cracks along edges and larger cracks near homes 2619 and 2626
Wolf Lair	1,800	Good	Minor cracks along edges and larger cracks across homes 2624
Kangaroo Court	1,800	Good	Minor cracks along edges
Camel Trail	1,800	Good	Minor cracks
Beaver Lane	12,500	Very Good	Minor isolated cracks

Deer Run Way	2,000	Very Good	Minimal cracks
Oak Bluff Trail	20,800	Good	Steep edges, consider adding stones along these edges
Red Bud Way	6,800	Good	Minor cracks and steep edges
Trophy Point	7,200	Good	One large transverse crack at intersection of Trophy Point and Oak Bluff Trail
Cambridge Drive	7,200	Good	Some areas of steep edges
Black Bear Drive	16,000	Very Good	Minor isolated cracks
Elm Cedar Drive	1,500	Very Good	Minor isolated cracks
Havenwood Blvd	21,300	Good	Minor cracks
Spanish Trail	12,800	Very Good	Minor isolated cracks
Texas Springs	5,000	Very Good	Minor isolated cracks
Havenpoint Loop	22,000	Good	Minor cracks
Ranch Loop Drive	10,700	Good	Minor cracks
Oakland Hollow	3,300	Good	Minor cracks
Haven Bluff Court	6,200	Good	Crack located near home 2362
Circles	9,200	Good	Cracks and raveling are common in these areas throughout the community
Parking Lot	3,500	Good	Cracks and raveling

Components of asphalt pavement include native soil, aggregate and asphalt. First the contractor creates a base course of aggregate or crushed stone and native soil. The base course is individually compacted to ninety-five percent (95%) dry density prior to the application of the asphalt. Compaction assures a stable base for the asphalt that reduces the possibility of settlement. The initial installation of asphalt uses at least two lifts, or two separate applications of asphalt, over the base course. The first lift is the binder course. The second lift is the wearing

course. The wearing course comprises a finer aggregate for a smoother more watertight finish.

The following diagram depicts these components:



The manner of repaving is either a *mill and overlay* or *total replacement*. A mill and overlay is a method of repaving where cracked, worn and failed pavement is mechanically removed or milled until sound pavement is found. A new layer of asphalt is overlaid atop the remaining base course of pavement. Total replacement includes the removal of all existing asphalt down to the base course of aggregate and native soil followed by the application of two or more new lifts of asphalt. We recommend mill and overlayment on asphalt pavement that exhibits normal deterioration and wear. We recommend total replacement of asphalt pavement that exhibits severe deterioration, inadequate drainage, pavement that has been overlaid multiple times in the past or where the configuration makes overlayment not possible. Based on the



apparent visual condition and configuration of the asphalt pavement, we recommend the mill and overlay method of repaving at Havenwood at Hunters Crossing.

A variety of repairs are necessary to deteriorated pavement prior to the application of an overlay. The contractor should use a combination of area patching, crack repair and milling before the overlayment. Properly milled pavement removes part of the existing pavement and permits the overlay to match the elevation of adjacent areas not subject to repaving. Milling also allows the contractor to make adjustments to the slope of the pavement to ensure proper drainage. The contractor should clean the milled pavement to ensure proper bonding of the new overlayment. We recommend an overlayment thickness that averages 1½ inches (not less than one inch or more than two inches). Variable thicknesses are often necessary to create an adequate slope for proper drainage. The contractor should identify and quantify areas of pavement that require area patching, crack repair and milling to help the Association compare proposed services.

The time of replacement is dependent on the useful life, age and condition of the pavement. The useful life is dependent in part on the maintenance applied to the pavement, the amounts and concentration of auto solvents that penetrate the pavement, the exposure to sunlight and detrimental effects of inclement weather. Havenwood at Hunters Crossing should repair any isolated areas of deteriorated pavement concurrent with periodic seal coat applications. We recommend the Association plan for a phased milling and overlayment of the pavement with area patching of up to ten percent (10%) beginning by 2026 and concluding by 2030. We depict this information on Line Item 4.040 of *Reserve Expenditures*.



Benches, Metal and Wood - Havenwood at Hunters Crossing maintains six metal and wood benches located at the pavilion. The benches are original and in good condition. These elements have a useful life of up to 20 years. We recommend the Association budget for replacement by 2024 and again by 2042. We depict this information on Line Item 4.103 of *Reserve Expenditures*.

Fence, Chain Link – The Association maintains a 30 linear feet of chain link backstop found at the baseball field. The backstop is original and in good condition. Chain link fences have useful lives of up to 25 years. We recommend the Association anticipate replacement by 2031. We suggest the Association install vinyl coated fences at the time of replacement. We depict this information on Line Item 4.220 of *Reserve Expenditures*.

Fences, Metal - Approximately 3,250 linear feet of metal fences are found at the entrances, the perimeter of the property and the pool. The fences are original and in fair to poor condition. The protective finishes are original and in poor to fair overall condition. We note loose pickets, deteriorated sections and rust. Pages 5.8 and 5.9 of *Photographs* depict these conditions. Fences of this type have a long useful life but are not maintenance free. Periodic maintenance should include periodic applications of protective paint finish to the metal surfaces and partial replacement of deteriorated sections as needed. Metal components at grade and key structural connections are especially prone to failure if not thoroughly maintained. Secure and rust free fasteners and connections will prevent premature deterioration. We recommend paint applications and partial replacements every six- to eight-years and we anticipate a useful life of up to 35 years for the fences.

Periodic applications of paint to the metal will help maximize the useful life. Preparation of the metal before application of the paint finish is important. The paint contractor should remove all soil, dirt, oil, grease and other foreign materials before application of the paint finish to maximize its useful life. The contractor should also remove paint blisters and rust prior to the paint finish application. We recommend the use of a power wire brush, scraper and/or sander as effective means of removal. The Association should require the application of a primer on bare metal. The primer for metal surfaces should include a rust inhibitor for added protection. We recommend the Association refinish the fences in 2015 and every seven years thereafter except when replacement occurs. The Association should also include partial replacements of the metal fences with the paint finishes, to help maintain its useful life. We anticipate replacement by 2041. We depict this information on Line Items 4.231 and 4.245 of ***Reserve Expenditures***.

Gate Entry System - The Association utilizes two gate entry system intercom panels for communication between the units and guests at Havenwood at Hunters Crossing. Management and the Board inform us that the panels are original and in good operational condition. Gate entry system intercom panels of this type have useful lives of 10- to 15-years. We recommend the Association anticipate replacement by 2021 and again by 2036. We depict this information on Line Item 4.310 of ***Reserve Expenditures***.

Gates and Operators - The five metal gates and five sliding operators limit access into the community. The gates and operators are original and in good condition. We anticipate a useful life of up to 10 years for the operators and recommend the Association budget for replacement by 2016 and every 10 years thereafter. The gates have a longer useful life of up to



20 years. Havenwood at Hunters Crossing should anticipate replacement of the gates by 2026. We depict this information on Line Items 4.320 and 4.330 of ***Reserve Expenditures***.

Playground Equipment - The Association maintains playground equipment near the pavilion and pool house. The playground equipment includes the following elements:

- Playset
- Surface, Mulch
- Border, Plastic

The playground equipment is original and in good condition. Safety is the major purpose for maintaining playground equipment. We recommend an annual inspection of the playground equipment to identify and repair as normal maintenance loose connections and fasteners or damaged elements. We suggest the Association learn more about the specific requirements of playground equipment at <http://www.playgroundsafety.org>. We recommend the use of a specialist for the design or replacement of the playground equipment environment. Playground equipment of this type has a useful life of 15- to 20- years. We recommend replacement of the playground equipment by 2026. We include this information on Line Item 4.660 of ***Reserve Expenditures***.

Tennis and Basketball Courts - Havenwood at Hunters Crossing maintains 2,100 square yards of asphalt comprising two tennis courts and one basketball court. The components of the courts include the *color coat, fence, light poles and fixtures*, and the *playing surfaces*. We comment on the respective quantities, conditions and times of replacements in the following sections of this narrative.

Color Coat - The court color coat surfaces are original and in good to fair overall condition. We recommend the Association apply a new color coat every four- to six-

years to maximize the useful life. Prior to the application of the color coat, the Association should require the contractor to rout and fill all cracks with hot emulsion. This deters water infiltration and further deterioration of the asphalt playing surface. We advise the Association to perform crack repairs and apply a new color coat by 2017 and every five years thereafter except when replacement occurs. We include this information on Line Item 4.830 of ***Reserve Expenditures***.

Fence - Approximately 600 linear feet of metal chain link fence enclose the courts. The chain link fence is original and in good condition. We note no visible deterioration. Chain link fences of this type have a useful life of up to 25 years. We recommend the Association anticipate replacement of the fence by 2031, concurrent with asphalt surface replacement. We depict this information on Line Item 4.840 of ***Reserve Expenditures***.

Light Poles and Fixtures – The Association maintains 10 light poles and 14 fixtures to illuminate the courts. The metal poles and fixtures are original and in good condition. Light poles and fixtures of this type have a useful life of up to 35 years. We recommend the Association anticipate replacement by 2041. We include this information on Line Item 4.850 of ***Reserve Expenditures***.

Surface - The court playing surfaces are original and in good overall condition. We note minor cracks and chips. Tennis courts have useful lives of up to 25 years. In consideration of the observed condition and to maintain a safe playing surface, we recommend the Association anticipate replacement by 2031. We note this information on



Line Item 4.860 of ***Reserve Expenditures***. We recommend replacement of the tennis standards from the operating budget on an as needed basis.

The times and costs of these replacements may vary. However, the estimated expenditures detailed in ***Reserve Expenditures*** are sufficient to budget appropriate reserves.

Pool House

Rest Rooms - The Association maintains four common area rest rooms located at the pool house. Components of the rest rooms include:

- Wood ceiling finishes (450 square feet)
- Paint finishes on the walls and ceiling (2,400 square feet)
- Light fixtures (8)
- Plumbing fixtures

The components are original and in good overall condition. The useful life of rest room components varies up to 20 years. Periodic renovations are an astute practice to maintain a positive overall appearance of the Association. We recommend the Association budget for a renovation by 2026. We note this information on Line Item 5.501 of ***Reserve Expenditures***. The Association should verify the rest room renovations comply with the Americans with Disability Act (ADA).

Roofs, Metal - Approximately 50 *squares*¹ of standing seam metal roofing comprise the roofs at Havenwood at Hunters Crossing's pavilion, pool house and mailbox kiosk. Each panel has two seams that stand up vertically and are crimped together to seal the joint and keep weather elements from penetrating. The roofs are original and in good overall condition. These types of roofs have a useful life of up to 35 years.

¹We quantify the roof area in *squares* where one square is equal to 100 square feet of surface area.



Based on the age and condition of the roofs, we recommend Havenwood at Hunters Crossing fund for replacement of the metal roofs by 2041. We note this information on Line Item 5.600 of *Reserve Expenditures*. We recommend replacement with prefinished baked enamel sheet metal.

Soffit and Fascia, Wood - Natural wood comprises approximately 950 square feet of the soffit and fascia boards located at the pool house. The soffit and fascia is original and in good overall condition. The soffit and fascia exhibit no visible deterioration.

Based on the condition, type, occurrence of defects and history of maintenance, Havenwood at Hunters Crossing should anticipate a useful life of 35 years. We include an allowance for a wood soffit and fascia replacement by 2041 in coordination with the metal roofs. We depict this information on Line Item 5.611 of *Reserve Expenditures*.

Walls, Masonry - Masonry comprises approximately 5,400 square feet of the pavilion, pool house, mailbox kiosk and monuments. The overall condition of the masonry is good to fair. We note the following components and conditions of the masonry:

- No previous repairs evident
- Masonry exhibits cracks
- Mortar deterioration is evident

Pages 5.15 through 5.17 of *Photographs* depict these conditions. We advise a complete inspection of the masonry, and partial repointing with related masonry repairs every 8- to 12-years to forestall deterioration. We elaborate on solutions and procedures necessary for the optimal maintenance of masonry walls in the following discussion.

Masonry generally requires less maintenance than other types of exteriors. However, masonry is not maintenance free. Masonry exteriors should last the life of the building with

proper maintenance. Havenwood at Hunters Crossing should plan for the periodic inspection of the masonry to identify and repair areas of deterioration. Common types of masonry deterioration include efflorescence, spalling and cracking.

The primary cause of *efflorescence*, *cracks* and *face spall* is water infiltration, therefore prevention of water infiltration is the principal concern for the maintenance of masonry applications. Masonry walls normally shed storm water and condensate from behind the wall through weep holes. However, trapped water within masonry walls can cause corrosion of metal masonry ties, studs, structural members and potentially damage building interiors. The first sign of water infiltration is usually a water stain. Eventually, water infiltration can lead to deterioration of the masonry. If left unrepaired, water infiltration can lead to efflorescence, cracks and face spall as described below.

Trapped water can also migrate through areas of cracked mortar or other points within the cavity of a masonry wall. This moisture then typically migrates to the exterior face of the masonry where it evaporates. As the moisture evaporates, it deposits soluble white salts either on the surface as efflorescence or below the surface as subflorescence. Efflorescence mars the appearance of the masonry, is typically harmless but can also indicate a harmful condition known as subflorescence. Subflorescence within a masonry unit can create pressure that will eventually spall the masonry face. In addition, accumulated (trapped) storm water within or behind mortar joints in conjunction with inclement weather can also gradually spall masonry, create mold or damage adjacent components, i.e., windows or interior finishes. Spalling is a form of deterioration where small fragments of masonry break away from the wall system.



Spalls can also occur as a result of a chemical reaction or from movement of a building structure. Spalled masonry may eventually dislodge individual masonry units.

Repointing is a process of raking and cutting out defective mortar to a depth of not less than ½ inch nor more than ¾ inch and replacing it with new mortar. *Face grouting* is the process of placing mortar over top of the existing mortar. We advise against face grouting because the existing, often deteriorated mortar does not provide a solid base for the new mortar. New mortar spalls at face grouted areas will likely occur. One purpose of a mortar joint is to protect the masonry by relieving stresses within the wall caused by expansion, contraction, moisture migration and settlement. Repointed mortar joints are more effective if the mortar is softer and more permeable than the masonry units, and no harder or less permeable than the existing mortar. The masonry contractor should address these issues within the proposed scope of work.

A complete inspection of the exterior walls can only identify the exact scope of masonry repairs and replacements. Based on the age and condition of the masonry, we recommend the Association budget for the following activities:

- Complete inspection of the masonry
- Repointing of up to two percent (2%) of the masonry
- Replacement of up to one percent (1%) of the masonry

We recommend the Association anticipate this work by 2016 and every 10 years thereafter. The times and extent of the masonry repointing and related work may vary. However, we judge at this time the estimated amounts noted on Line Item 5.701 of ***Reserve Expenditures*** appropriate to estimate sufficient reserves.

Pool Elements

Concrete Deck - A concrete deck surrounds the pool and comprises approximately 4,600 square feet. The deck is original and in good condition. We note isolated cracks and spalls. Page 5.18 of *Photographs* depicts this condition. The useful life of a concrete pool deck is up to 60 years. However, we recommend the Association conduct inspections, partial replacements and repairs to the deck every 8- to 12-years.

Inadequate subsurface preparation, improper concrete mixtures, poor finishing techniques, soil movement and water infiltration underneath the concrete deck can cause significant settlement and cracks in the concrete. The pool deck should also be free of trip hazards for the safety of residents and their guests. We recommend the Association budget for the following by 2018 and every 12 years thereafter:

- Selective cut out and replacements of up to ten percent (10%) of concrete
- Crack repairs as needed
- Mortar joint repairs
- Caulk replacement

The times, amounts and related costs of these repairs and replacements may vary. However, we judge the amounts shown on Line Item 6.200 of *Reserve Expenditures* sufficient to budget appropriate reserves.

Furniture - Associated furniture and fixtures around the pool include the following:

- Chairs (24)
- Lounges (15)

These items are in good condition at an age of two years. Pool furniture has a useful life of up to 12 years. We recommend the Association budget an allowance for replacement of the pool furniture by 2024 and every 12 years thereafter. The times and costs of these replacements may vary. However, we judge the amounts shown on Line Item 6.500 of *Reserve Expenditures*

sufficient to budget appropriate reserves. We recommend interim re-strapping, refinishing, cushion replacements, reupholstering and other repairs to the furniture as normal maintenance to maximize its useful life. The estimate of cost is based on a historical cost provided by Management and the Board.

Mechanical Equipment - The pool mechanical equipment comprises the following:

- Automatic chlorinators (3)
- Filters (4)
- Interconnected pipe, fittings and valves
- Pumps (4)
- Electrical panel

The pool mechanical equipment is original and in good condition. Pool mechanical equipment has a useful life of up to 15 years. Failure of the pool mechanical equipment as a single event is unlikely. We recommend the Association anticipate replacement of up to fifty percent (50%) of the pool mechanical equipment by 2020 and every seven years thereafter. We consider interim replacement of motors and minor repairs as normal maintenance. We note this information on Line Item 6.600 of *Reserve Expenditures*.

Pool Finish, Plaster - The pool wall and floor surfaces have a plaster finish of 4,300 square feet based on the horizontal surface area. The finish is original and in good condition. Page 5.19 of *Photographs* depicts this condition. This type of pool finish deteriorates with time and requires periodic maintenance and replacement. We recommend the Association anticipate the need to replace the finish and conduct related repairs every 8- to 12-years to maintain the integrity of the pool structure. Removal and replacement provides the opportunity to inspect the pool structure and to allow for partial repairs of the underlying concrete surfaces as needed. We recommend the Association budget for the following by 2018 and every 12 years thereafter:



- Removal and replacement of the finish
- Partial replacements of the scuppers and coping as needed
- Replacement of tiles as needed
- Replacement of joint sealants as needed
- Concrete structure repairs as needed

We include this information on Line Item 6.800 of *Reserve Expenditures*.

Reserve Study Update

An ongoing review by the Board and an Update of this Reserve Study in two- to three-years are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. Many variables change after the study is conducted that may result in significant overfunding or underfunding the reserve account. Variables that may affect the Reserve Funding Plan include, but are not limited to:

- Deferred or accelerated capital projects based on Board discretion
- Changes in the interest rates on reserve investments
- Changes in the *local* construction inflation rate
- Additions and deletions to the Reserve Component Inventory
- The presence or absence of maintenance programs
- Unusually mild or extreme weather conditions
- Technological advancements

Periodic updates incorporate these variable changes since the last Reserve Study or Update.

The Association can expense the fee for an Update with site visit from the reserve account. This fee is included in the Reserve Funding Plan. We base this budgetary amount on updating the same property components and quantities of this Reserve Study report. Budgeting for an Update demonstrates the Board's objective to continue fulfilling its fiduciary responsibility to maintain the commonly owned property and to fund reserves appropriately.

5. PHOTOGRAPHS

Photographs document the conditions of various property components as of the date of our visual inspection, January 29, 2014. The Condition Assessment contains references to these photographs.

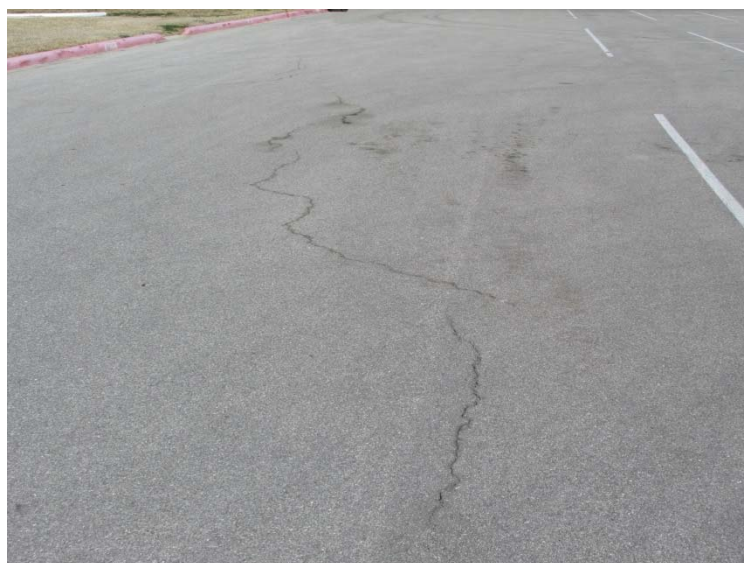
The following is an overview image of the subject property:



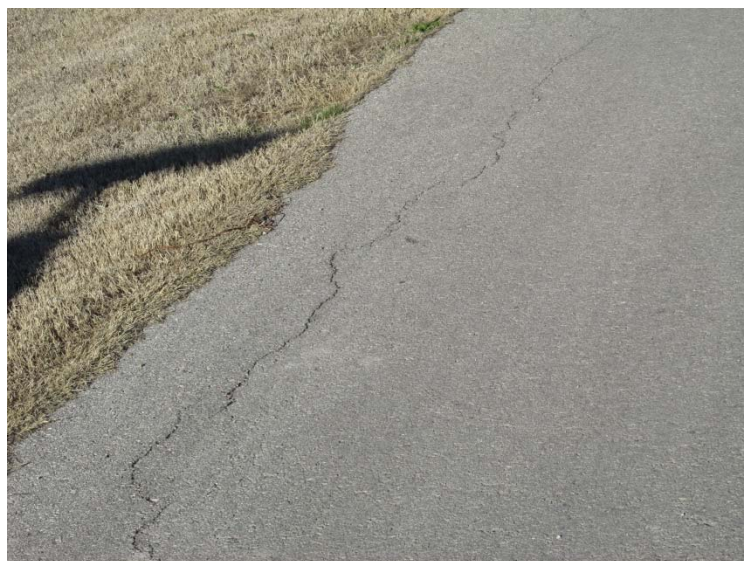
The next pages contain the photographs related to the Condition Assessment



Parking lot overview



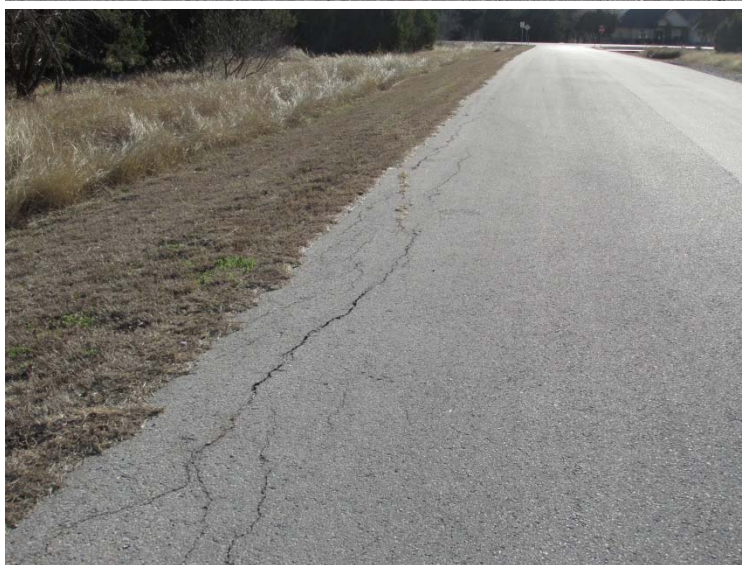
Cracks at parking lot



Cracks at Wildcat Roost



Cracks and organic growth at Wildcat Roost



Cracks at Lions Den



Intersection of Lions Den and Havenwood Blvd.

Note: Steep slope, add stones at curve to prevent pavement cracks.



Cracks at Wolf Lair



Worn edges at Oak Bluff Trail



Large crack at Trophy Point



Cracks at Black Bear Drive



Oakwood Hollow in good condition



Ranch Loop Drive in good condition



Intersection of Havenbluff Court and Spanish Trail

Note: Steep slope, add stones at curve to prevent pavement cracks.



Pavement damage due to construction at Havenbluff Court



Bench at pavilion



Crack at concrete sidewalk



Minor cracks at pavilion



Baseball backstop



Metal fence at entrance



Rust at entrance fence



Dented sections at entrance fence



Pool fence overview



Rusted out sections of pool fence

Note: Fund partial replacements of deteriorated sections at the time of paint finish applications.



Rust at pool fence



Telephone gate system



Entrance gate



Playground



Tennis court light poles and fixtures



Tennis court overview



Crack at tennis court



Basketball court overview



Minor chips in basketball court



Mailbox station



Pavilion



Pavilion interior



Pool house front elevation



Pool house rear elevation



Restroom



Metal roof at pavilion



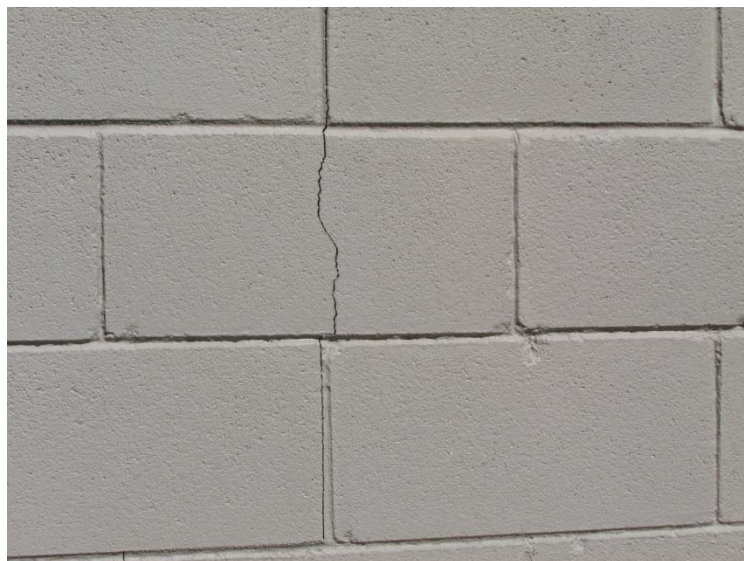
Wood soffit and fascia



Masonry cracks and loose bricks at mailbox kiosk



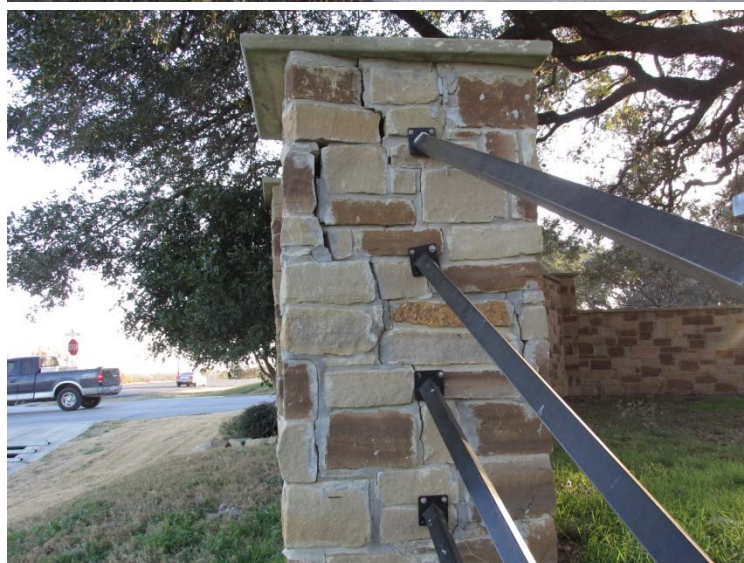
Cracks at masonry at pavilion



Crack at pool house wall



Minor cracks in monument



Major cracks in monument and metal fence connections



Major cracks in monument



Pool overview



Pool overview



Pool overview



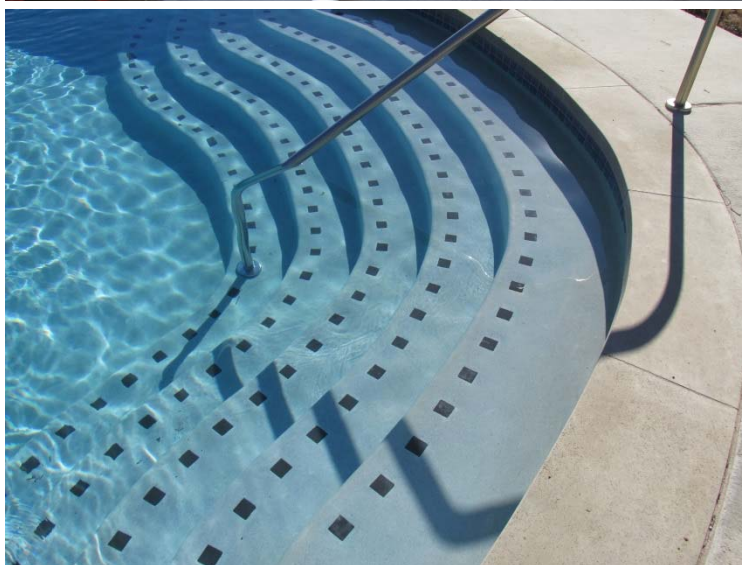
Minor cracks at deck



Minor spall at deck



Pool mechanical equipment



Pool plaster in good condition



Pool plaster in good condition



6. METHODOLOGY

Reserves for replacement are the amounts of money required for future expenditures to repair or replace Reserve Components that wear out before the entire facility or project wears out. Reserving funds for future repair or replacement of the Reserve Components is also one of the most reliable ways of protecting the value of the property's infrastructure and marketability.

Havenwood at Hunters Crossing can fund capital repairs and replacements in any combination of the following:

1. Increases in the operating budget during years when the shortages occur
2. Loans using borrowed capital for major replacement projects
3. Level monthly reserve assessments annually adjusted upward for inflation to increase reserves to fund the expected major future expenditures
4. Special assessments

We do not advocate special assessments or loans unless near term circumstances dictate otherwise. Although loans provide a gradual method of funding a replacement, the costs are higher than if the Association were to accumulate reserves ahead of the actual replacement. Interest earnings on reserves also accumulate in this process of saving or reserving for future replacements, thereby defraying the amount of gradual reserve collections. We advocate the third method of *Level Monthly Reserve Assessments* with relatively minor annual adjustments. The method ensures that Homeowners pay their "fair share" of the weathering and aging of the commonly owned property each year. Level reserve assessments preserve the property and enhance the resale value of the homes.

This Reserve Study is in compliance with and exceeds the National standards¹ set forth by the Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Full Reserve Study." These standards require a Reserve Component to have a "predictable remaining Useful Life." Estimating Remaining Useful Lives and Reserve Expenditures beyond 30 years is often indeterminate. Long-Lived Property Elements are necessarily excluded from this analysis. We considered the following factors in our analysis:

¹ Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".

Information Furnished by the Association	
2014 unaudited Cash Status of the Reserve Fund	\$551,020
2014 Budgeted Reserve Contribution	\$45,497
Anticipated Interest on Reserve Fund	\$6,311
Less Anticipated Reserve Expenditures	\$0
Projected 2014 Year-End Reserve Balance	\$602,828

The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan

Local² costs of material, equipment and labor

Current and future costs of replacement for the Reserve Components

Costs of demolition as part of the cost of replacement

Local economic conditions and a historical perspective to arrive at our estimate of long term future inflation for construction costs in New Braunfels, Texas at an annual inflation rate of 1.4%. Isolated or regional markets of greater construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

The past and current maintenance practices of Havenwood at Hunters Crossing and their effects on remaining useful lives

The Funding Plan excludes necessary operating budget expenditures. It is our understanding that future operating budgets will provide for the ongoing normal maintenance of Reserve Components.

The anticipated effects of appreciation of the reserves over time in accord with your average current return or yield on investment of your cash equivalent assets at an annual rate of 1.1% (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).

Interest rates on reserves are steady or increasing in concert with the certificates of deposit and money market rates. Slight increases exist in the savings rates of one, two or three-year CDs. Without significant differences in these savings rates, shorter term investments are the choice of many investors. We recommend consultation with a professional investment adviser before investing reserves to determine an appropriate investment strategy to maximize a safe return on reserve savings. The following

² See Credentials for addition information on our use of published sources of cost data.



table summarizes rates of inflation and key rates for government securities, generally considered as safe investment alternatives.

Interest Rate and Inflation Data	2013				2014			
Average or Last Actual = (A)	2013:1 (A)	2013:2 (A)	2013:3 (A)	2013:4 (E)	2014:1 (E)	2014:2 (E)	2014:3 (E)	2014:4 (E)
1-Year Treasury Bill	0.15%	0.13%	0.13%	0.12%	0.13%	0.15%	0.15%	0.15%
10-Year Treasury Note	1.86	1.86	2.65	2.70%	2.80%	2.90%	3.00%	3.10%
30-Year Treasury Bond	3.10	3.08	3.70	3.85%	4.00%	4.15%	4.30%	4.50%
Consumer Price Index (annualized rate)	3.21%	-1.68%	1.30%	1.50%	2.25%	2.80%	3.00%	3.25%
Residential Construction* Producer Price Index-Inflation Rate, Bureau of Labor Statistics (Year over Year August 2013)								1.7%
National Market Savings Rates as found in	0.12%	for Money Market Savings			0.40%	for 2-Year Certificate of Deposit		
http://www.bankrate.com	0.25%	for 1-Year Certificate of Deposit			0.50%	for 3-Year Certificate of Deposit		
Estimated Near Term Yield Rate for Reserve Savings				1.1%				
Est. Near Term Local Inflation Rate for Future Capital Expenditures . .				1.4%	10/17/2013			

Updates to this Reserve Study will continue to monitor historical facts and trends concerning the external market conditions.

7. DEFINITIONS

Definitions are derived from the standards set forth by the Community Associations Institute (CAI) representing America's 305,000 condominium and homeowners associations and cooperatives, and the Association of Professional Reserve Analysts, setting the standards of care for reserve study practitioners

Cash Flow Method - A method of calculating Reserve Contributions where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.

Component Method - A method of developing a Reserve Funding Plan with the total contribution is based on the sum of the contributions for individual components.

Current Cost of Replacement - That amount required today derived from the quantity of a *Reserve Component* and its unit cost to replace or repair a Reserve Component using the most current technology and construction materials, duplicating the productive utility of the existing property at current *local* market prices for *materials*, *labor* and manufactured equipment, contractors' overhead, profit and fees, but without provisions for building permits, overtime, bonuses for labor or premiums for material and equipment. We include removal and disposal costs where applicable.

Fully Funded Balance - The Reserve balance that is in direct proportion to the fraction of life "used up" of the current Repair or Replacement cost similar to Total Accrued Depreciation

Funding Goal (Threshold) - The stated purpose of this Reserve Study is to determine the adequate, not excessive, minimal threshold reserve balances.

Future Cost of Replacement - *Reserve Expenditure* derived from the inflated current cost of replacement or current cost of replacement as defined above, with consideration given to the effects of inflation on local market rates for materials, labor and equipment.

Long-Lived Property Component - Property component of Havenwood at Hunters Crossing responsibility not likely to require capital repair or replacement during the next 30 years with an unpredictable remaining Useful Life beyond the next 30 years.

Percent Funded - The ratio, at a particular point of time (typically the beginning of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.

Remaining Useful Life - The estimated remaining functional or useful time in years of a *Reserve Component* based on its age, condition and maintenance.

Reserve Component - Property elements with: 1) Havenwood at Hunters Crossing responsibility; 2) limited Useful Life expectancies; 3) predictable Remaining Useful Life expectancies; and 4) a replacement cost above a minimum threshold.

Reserve Component Inventory - Line Items in *Reserve Expenditures* that identify a *Reserve Component*.

Reserve Contribution - An amount of money set aside or *Reserve Assessment* contributed to a *Reserve Fund* for future *Reserve Expenditures* to repair or replace *Reserve Components*.

Reserve Expenditure - Future Cost of Replacement of a Reserve Component.

Reserve Fund Status - The accumulated amount of reserves in dollars at a given point in time, i.e., at year end.

Reserve Funding Plan - The portion of the Reserve Study identifying the *Cash Flow Analysis* and containing the recommended Reserve Contributions and projected annual expenditures, interest earned and reserve balances.

Reserve Study - A budget planning tool that identifies the current status of the reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures.

Useful Life - The anticipated total time in years that a *Reserve Component* is expected to serve its intended function in its present application or installation.



8. PROFESSIONAL SERVICE CONDITIONS

Our Services - Reserve Advisors, Inc. will perform its services as an independent contractor in accordance with our professional practice standards. Our compensation is not contingent upon our conclusions.

Our inspection and analysis of the subject property is limited to visual observations and is noninvasive. We will inspect sloped roofs from the ground. We will inspect flat roofs where safe access (stairs or ladder permanently attached to the structure) is available. The report is based upon a “snapshot in time” at the moment of our observation. Conditions can change between the time of inspection and the issuance of the report. Reserve Advisors does not investigate, nor assume any responsibility for any existence or impact of any hazardous materials, structural, latent or hidden defects which may or may not be present on or within the property. Our opinions of estimated costs and remaining useful lives are not a guarantee of the actual costs of replacement, a warranty of the common elements or other property elements, or a guarantee of remaining useful lives.

We assume, without independent verification, the accuracy of all data provided to us. You agree to indemnify and hold us harmless against and from any and all losses, claims, actions, damages, expenses or liabilities, including reasonable attorneys' fees, to which we may become subject in connection with this engagement, because of any false, misleading or incomplete information which we have relied upon as supplied by you or others under your direction, or which may result from any improper use or reliance on the report by you or third parties under your control or direction. Your obligation for indemnification and reimbursement shall extend to any controlling person of Reserve Advisors, Inc., including any director, officer, employee, affiliate, or agent. Liability of Reserve Advisors, Inc. and its employees, affiliates, and agents for errors and omissions, if any, in this work is limited to the amount of its compensation for the work performed in this engagement.

Report - Reserve Advisors, Inc. will complete the services in accordance with the Proposal. We will consider any additional information made available to us in the interest of promptly issuing a Final Report (if requested). However, the Report represents a valid opinion of our findings and recommendations and is deemed complete and final if no Final Report or changes are requested within six months of our inspection. We retain the right to withhold the Report or Final Report if payment for services is not rendered in a timely manner. All files, work papers or documents developed by us during the course of the engagement remains our property.

Your Obligations - You agree to provide us access to the subject property during our on-site visual inspection and tour. You will provide to us to the best of your ability and if reasonably available, historical and budgetary information, the governing documents, and other information that we request and deem necessary to complete our Study. You agree to pay our actual attorneys' fees and any other costs incurred in the event we have to initiate litigation to collect on any unpaid balance for our services.

Use of Our Report and Your Name - Use of our Report(s) is limited to only the purpose stated herein. Any use or reliance for any other purpose, by you or third parties, is invalid. Our Reserve Study Report in whole or part ***is not and cannot be used as a design specification, design engineering services or an appraisal.*** You may show our report in its entirety to those third parties who need to review the information contained herein. The Client and other third parties viewing this report should not reference our name or our report, in whole or in part, in any document prepared and/or distributed to third parties without our written consent. ***This report*** contains intellectual property developed by Reserve Advisors, Inc. specific to this engagement and ***cannot be reproduced or distributed to those who conduct reserve studies without the written consent of Reserve Advisors, Inc.***



We reserve the right to include our client's name in our client lists, but we will maintain the confidentiality of all conversations, documents provided to us, and the contents of our reports, subject to legal or administrative process or proceedings. These conditions can only be modified by written documents executed by both parties.

Payment Terms, Due Dates and Interest Charges - The retainer payment is due upon authorization and prior to shipment of the report. The final payment of the fee is due immediately upon receipt of the Report. Subsequent changes to the report can be made for up to six months from the initial report date. Any outstanding balance after 30 days of the invoice date is subject to an interest charge of 1.5% per month. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court in the State of Wisconsin.

CONDITIONS OF OUR SERVICE ASSUMPTIONS

To the best of our knowledge, all data set forth in this report are true and accurate. Although gathered from reliable sources, we make no guarantee nor assume liability for the accuracy of any data, opinions, or estimates identified as furnished by others that we used in formulating this analysis.

We did not make any soil analysis or geological study with this report; nor were any water, oil, gas, coal, or other subsurface mineral and use rights or conditions investigated.

Substances such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials could, if present, adversely affect the validity of this study. Unless otherwise stated in this report, the existence of hazardous substance, that may or may not be present on or in the property, was not considered. Our opinions are predicated on the assumption that there are no hazardous materials on or in the property. We assume no responsibility for any such conditions. We are not qualified to detect such substances, quantify the impact, or develop the remedial cost.

We have made a visual inspection of the property and noted visible physical defects, if any, in our report. Our inspection and analysis was made by employees generally familiar with real estate and building construction; however, we did not do any invasive testing. Accordingly, we do not opine on, nor are we responsible for, the structural integrity of the property including its conformity to specific governmental code requirements, such as fire, building and safety, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

Our opinions of the remaining useful lives of the property elements do not represent a guarantee or warranty of performance of the products, materials and workmanship.



9. CREDENTIALS

HISTORY AND DEPTH OF SERVICE

Founded in 1991, Reserve Advisors, Inc. is the leading provider of reserve studies, insurance appraisals, developer turnover transition studies, expert witness services, and other engineering consulting services. Clients include community associations, resort properties, hotels, clubs, non-profit organizations, apartment building owners, religious and educational institutions, and office/commercial building owners in 48 states, Canada and throughout the world.

The **architectural engineering consulting firm** was formed to take a leadership role in helping fiduciaries, boards, and property managers manage their property like a business with a long range master plan known as a Reserve Study.

Reserve Advisors employs the **largest staff of Reserve Specialists** with bachelor's degrees in engineering dedicated to Reserve Study services. Our principals are founders of Community Associations Institute's (CAI) Reserve Committee, that developed national standards for reserve study providers. One of our principals is a Past President of the Association of Professional Reserve Analysts (APRA). Our vast experience with a variety of building types and ages, on-site examination and a historical analyses are keys to determining accurate remaining useful life estimates of building components.

No Conflict of Interest - As consulting specialists, our **independent opinion** eliminates any real or perceived conflict of interest because we do not conduct or manage capital projects.

TOTAL STAFF INVOLVEMENT

Several staff members participate in each assignment. The responsible advisor involves the staff through a Team Review, exclusive to Reserve Advisors, Inc., and by utilizing the experience of other staff members, each of whom has served hundreds of clients. We conduct Team Reviews, an internal quality assurance review of each assignment, including: the inspection; building component costing; lifing; and technical report phases of the assignment. Each Team Review requires the attendance of several engineers, a Review Coordinator, Director of Quality Assurance and other participatory peers. Due to our extensive experience with building components, we do not have a need to utilize subcontractors.

OUR GOAL

To help our clients fulfill their fiduciary responsibilities to maintain property in good condition.

VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

Reserve Advisors, Inc. has conducted reserve studies for a multitude of different communities and building types. We've analyzed thousands of buildings, from as small as a 3,500 square-foot day care center to the 100-story John Hancock Center in Chicago. We also routinely inspect buildings with various types of mechanical systems such as simple electric heat, to complex systems with air handlers, chillers, boilers, elevators, and life safety security systems.

We're familiar with all types of building exteriors as well. Our well versed staff regularly identifies optimal repair and replacement solutions for such building exterior surfaces such as adobe, brick, stone, concrete, stucco, EIFS, wood products, stained glass and aluminum siding, and window wall systems.

OLD TO NEW

Reserve Advisors experience includes ornate and vintage buildings as well as modern structures. Our specialists are no strangers to older buildings. We're accustomed to addressing the unique challenges posed by buildings that date to the 1800's. We recognize and consider the methods of construction employed into our analysis. We recommend appropriate replacement programs that apply cost effective technologies while maintaining a building's character and appeal.



QUALIFICATIONS

THEODORE J. SALGADO

Principal Owner

CURRENT CLIENT SERVICES

Theodore J. Salgado is a co-founder of Reserve Advisors, Inc., which is dedicated to serving community associations, city and country clubs, religious organizations, educational facilities, and public and private entities throughout the United States. He is responsible for the production, management, review, and quality assurance of all reserve studies, property inspection services and consulting services for a nationwide portfolio of more than 6,000 clients. Under his direction, the firm conducts reserve study services for community associations, apartment complexes, churches, hotels, resorts, office towers and vintage architecturally ornate buildings.



PRIOR RELEVANT EXPERIENCE

Before founding Reserve Advisors, Inc. with John P. Poehlmann in 1991, Mr. Salgado, a professional engineer registered in the State of Wisconsin, served clients for over 15 years through American Appraisal Associates, the world's largest full service valuation firm. Mr. Salgado conducted facilities analyses of hospitals, steel mills and various other large manufacturing and petrochemical facilities and casinos.

He has served clients throughout the United States and in foreign countries, and frequently acted as project manager on complex valuation, and federal and state tax planning assignments. His valuation studies led to negotiated settlements on property tax disputes between municipalities and property owners.

Mr. Salgado has authored articles on the topic of reserve studies and facilities maintenance. He also co-authored "Reserves", an educational videotape produced by Reserve Advisors on the subject of Reserve Studies and maintaining appropriate reserves. Mr. Salgado has also written in-house computer applications manuals and taught techniques relating to valuation studies.

EXPERT WITNESS

Mr. Salgado has testified successfully before the Butler County Board of Tax Revisions in Ohio. His depositions in pretrial discovery proceedings relating to reserve studies of Crestview Estates Condominium Association in Wauconda, Illinois, Rivers Point Row Property Owners Association, Inc. in Charleston, South Carolina and the North Shore Club Associations in South Bend, Indiana have successfully assisted the parties in arriving at out of court settlements.

EDUCATION - Milwaukee School of Engineering - B.S. Architectural Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

American Association of Cost Engineers - Past President, Wisconsin Section
Association of Construction Inspectors - Certified Construction Inspector
Association of Professional Reserve Analysts - Past President & Professional Reserve Analyst (PRA)
Community Associations Institute - Member and Volunteer Leader of multiple chapters
Concordia Seminary, St. Louis - Member, National Steering Committee
Milwaukee School of Engineering - Member, Corporation Board
Professional Engineer, Wisconsin, Registered in 1982



JOHN P. POEHLMANN, RS
Principal

John P. Poehlmann is a co-founder of Reserve Advisors, Inc. He is responsible for the finance, accounting, marketing, and overall administration of Reserve Advisors, Inc. He also regularly participates in internal Quality Control Team Reviews of Reserve Study reports.

Mr. Poehlmann directs corporate marketing, including business development, advertising, press releases, conference exhibiting, and direct mail promotions. He frequently speaks throughout the country at seminars and workshops on the benefits of future planning and budgeting for capital repairs and replacements of building components and other assets.



Mr. Poehlmann served on the national Board of Trustees of Community Associations Institute. Community Associations Institute (CAI) is a national, nonprofit 501(c)(6) trade association created in 1973 to provide education and resources to America's 305,000 residential condominium, cooperative and homeowner associations and related professionals and service providers. The Institute is dedicated to fostering vibrant, responsive, competent community associations that promote harmony, community, and responsible leadership.

He is a founding member of the Institute's Reserve Committee. The Reserve Committee developed national standards and the Reserve Specialist (RS) Designation Program for Reserve Study providers. Mr. Poehlmann has authored numerous articles on the topic of Reserve Studies, including Planning for Replacement of Property Doesn't Have to Be Like a Trip to the Dentist, Reserve Studies for the First Time Buyer, Sound Association Planning Parallels Business Concepts, and Reserve Studies Minimize Liability. He has worked with a variety of publications, including the Chicago Tribune, The Milwaukee Journal/Sentinel, Common Ground, Common Interest, and Condo Management. He also co-authored "Reserves", an educational videotape produced by Reserve Advisors on the subject of Reserve Studies and the benefits of maintaining appropriate reserves. The videotape is available through Reserve Advisors or CAI's website, www.caionline.org and libraries in the State of Virginia.

INDUSTRY SERVICE AWARDS

CAI National Rising Star Award - To an individual whose leadership abilities and professional contributions have earmarked them for even greater accomplishments in the future.

CAI Michigan Chapter Award - "Given to the individual who contributed their time, expertise, and resources toward improving the quality of services offered by the chapter. Mr. Poehlmann was unanimously selected as the winner of the CAI Michigan Chapter Award."

EDUCATION

University of Wisconsin-Milwaukee - Master of Science Management
University of Wisconsin - Bachelor of Business Administration

PROFESSIONAL AFFILIATIONS

Community Associations Institute (CAI) - Founding member of Reserve Committee; former member of National Board of Trustees; Reserve Specialist (RS) designation; Member of multiple chapters

Association of Condominium, Townhouse, & Homeowners Associations (ACTHA) – member



QUALIFICATIONS
ALAN M. EBERT, P.E., PRA, RS
Associate Director of Quality Assurance

CURRENT CLIENT SERVICES

Alan M. Ebert, a Geological Engineer, is an Advisor for Reserve Advisors, Inc. Mr. Ebert is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analyses and Capital Replacement Forecast services and the preparation of Reserve Study Reports for condominiums, townhomes and homeowner associations.

The following is a partial list of clients served by Alan Ebert demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

Brownsville Winter Haven Located in Brownsville, Texas, this unique homeowners association contains 525 units. The Association maintains three pools and pool houses, a community and management office, landscape and maintenance equipment, and nine irrigation canals with associated infrastructure.

Rosemont Condominiums This unique condominium is located in Alexandria, Virginia and dates to the 1940's. The two mid-rise buildings utilize decorative stone and brick masonry. The development features common interior spaces, multi-level wood balconies and common asphalt parking areas.

Stillwater Homeowners Association Located in Naperville, Illinois, Stillwater Homeowners Association maintains four tennis courts, an Olympic sized pool and an upscale ballroom with commercial-grade kitchen. The community also maintains three storm water retention ponds and a detention basin.

Birchfield Community Services Association This extensive Association comprises seven separate parcels which include 505 townhome and single family homes. This Community Services Association is located in Mt. Laurel, New Jersey. Three lakes, a pool, a clubhouse and management office, wood carports, aluminum siding, and asphalt shingle roofs are a few of the elements maintained by the Association.

Oakridge Manor Condominium Association Located in Londonderry, New Hampshire, this Association includes 104 units at 13 buildings. In addition to extensive roads and parking areas, the Association maintains a large septic system and significant concrete retaining walls.

Memorial Lofts Homeowners Association This upscale high rise is located in Houston, Texas. The 20 luxury units include large balconies and decorative interior hallways. The 10-story building utilizes a painted stucco facade and TPO roof, while an on-grade garage serves residents and guests.

PRIOR RELEVANT EXPERIENCE

Mr. Ebert earned his Bachelor of Science degree in Geological Engineering from the University of Wisconsin-Madison. His relevant course work includes foundations, retaining walls, and slope stability. Before joining Reserve Advisors, Inc., Mr. Ebert was an oilfield engineer and tested and evaluated hundreds of oil and gas wells throughout North America.

EDUCATION

University of Wisconsin-Madison - B.S. Geological Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

Reserve Specialist (RS) - Community Associations Institute

Professional Reserve Analyst (PRA) - Association of Professional Reserve Analysts

Professional Engineering License - Wisconsin 2012



QUALIFICATIONS
SARAH M. GIRLS, E.I.T.
Responsible Advisor

CURRENT CLIENT SERVICES

Sarah M. Girls, a Civil Engineer, is an Advisor for *Reserve Advisors, Inc.* Ms. Girls is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. She also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. She is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services on townhomes, homeowners associations, planned unit developments and recreational associations.

The following is a partial list of clients served by Sarah Girls demonstrating her breadth of experiential knowledge of community associations in construction and related buildings systems.

Brightwater Homeowner Association Located in Missouri City, Texas, this lively planned unit development consists of 795 single family homes surrounding a picturesque lake. The Association contains a clubhouse equipped with indoor entertainment amenities. In addition to the clubhouse the development also features an outdoor pool and tennis courts for recreational activities.

Lismore Village Homeowners' Association Located in Greer, South Carolina, this quaint community comprises 76 townhomes. The buildings feature brick masonry, vinyl siding and asphalt shingle roofs. The development contains asphalt pavement, a gazebo, perimeter fences and concrete flatwork.

Pecan Park Garden Estate Condominium This attractive gated community in Austin, Texas consists of 146 units with a relaxing pool. Located throughout the property are perimeter walls, private drives and an irrigation system.

The Villages of Berry Creek Situated in Georgetown, Texas, this inviting community is comprised of 241 homes. Homeowners can enjoy two pools, a large deck and a playground that provide enough recreational space for entertaining. The development also includes perimeter fences and detention ponds.

Maple Leaf 20 Condominium Association A townhome style condominium development of 160 units in 20 buildings located in Greenfield, Wisconsin. These buildings were constructed in the mid 2000's and comprise asphalt shingle roofs, vinyl siding and masonry walls. The development contains asphalt pavement, wood fences and concrete flatwork.

Emerald Pointe Condominium Association This quaint community is located in Raleigh, North Carolina and consists of 51 townhomes in 14 buildings. The Association maintains asphalt shingle roofs, wood siding and decks, concrete flatwork and retaining walls.

PRIOR RELEVANT EXPERIENCE

Before joining *Reserve Advisors, Inc.*, Ms. Girls attended Valparaiso University in Valparaiso, Indiana where she attained her Bachelor of Science degree in Civil Engineering. During her time at Valparaiso University, Ms. Girls lead her senior design group to develop a bypass around the City of Delphi, Indiana. This project also included the design of a bridge and mechanically stabilized earth walls. Ms. Girls also worked for Hagerman Inc. as an intern project engineer. She was responsible for overseeing and inspecting the construction of Valparaiso University's new Welcome Center.

EDUCATION

Valparaiso University –B.S. Civil Engineering

PROFESSIONAL AFFILIATIONS

Engineer In Training (E.I.T.) Registration

QUALIFICATIONS



NICOLE L. LOWERY, RS
Associate Director of Quality Assurance

CURRENT CLIENT SERVICES

Nicole L. Lowery, a Civil Engineer, is an Advisor for *Reserve Advisors, Inc.* Ms. Lowery is responsible for the inspection and analysis of the condition of clients' property, and recommending engineering solutions to prolong the lives of the components and prepares reports on assignments. She is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services on condominiums, townhomes, planned unit developments, and homeowner associations.

The following is a partial list of clients served by Nicole Lowery demonstrating her breadth of experiential knowledge of community associations in construction and related buildings systems.

Berkeley Square Condominium Association A townhome style condominium development of 122 units in 18 buildings located in Tampa, Florida. The buildings feature complex roof designs, masonry veneer, and stucco construction.

3 Chisolm Street Homeowners Association This historic Charleston, South Carolina community was constructed in 1929 and 1960 and comprises brick and stucco construction with asphalt shingle and modified bitumen roofs. The unique buildings were originally the Murray Vocational School. The buildings were transformed in 2002 to 27 high-end condominiums. The property includes a courtyard and covered parking garage.

Lakes of Pine Run Condominium Association This condominium community comprises 112 units in 41 buildings of stucco construction with asphalt shingle roofs. Located in Ormond Beach, Florida, it has a domestic water treatment plant and wastewater treatment plant for the residents of the property.

Rivertowne on the Wando Homeowners Association This exclusive river front community is located on the Wando River in Mount Pleasant, South Carolina. This unique Association includes several private docks along the Wando River, a pool and tennis courts for use by its residents.

Biltmore Estates Homeowners Association This private gated community is located in Miramar, Florida, just northwest of Miami, Florida and consists of 128 single family homes. The lake front property maintains a pool, a pool house and private streets.

Bellavista at Miromar Lakes Condominium Association Located in the residential waterfront resort community of Miromar Lakes Beach & Golf Club in Fort Myers, Florida, this property comprises 60 units in 15 buildings. Amenities include a clubhouse and a pool.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Inc., Ms. Lowery was a project manager with Kipcon in New Brunswick, New Jersey and the Washington, D.C. Metro area for eight years, where she was responsible for preparing reserve studies and transition studies for community associations. Ms. Lowery successfully completed the bachelors program in Civil Engineering from West Virginia University in Morgantown, West Virginia.

EDUCATION

West Virginia University - B.S. Civil Engineering

PROFESSIONAL AFFILIATIONS / DESIGNATIONS

Reserve Specialist (RS) - Community Associations Institute



QUALIFICATIONS
TIMOTHY J. MATTHIESEN, RS
Review Coordinator

CURRENT CLIENT SERVICES

Timothy J. Matthiesen, a Civil Engineer, is an Advisor for *Reserve Advisors, Inc.*, which is dedicated to serving community associations, religious organizations, educational facilities, and public and private entities throughout the United States. Mr. Matthiesen is responsible for the inspection and analysis of the property's current condition, recommending engineering solutions to prolong the lives of building components, forecasting capital expenditures for the repair and/or replacement of the property components, and technical report preparation on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast Services on townhomes, homeowners associations and planned unit developments.

The following is a partial list of clients served by Mr. Matthiesen demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

1900 Stevens Condominium Association 1920's brick, three story condominium situated in the Stevens Square area of Minneapolis that features a roof deck as well as party, laundry and exercise rooms.

Riverstone Homeowners Association Developing community outside of Houston currently comprised of 2,400 homes. Amenities include gated sections, pools, ponds, a water park and miles of perimeter walls.

Four Seasons Resorts Colorado A total of five Reserve Studies were completed for the recently constructed 45-story high rise in Denver and state of the art ski lodge in Vail.

Sauganash Village Homeowners Association Quiet, wooded community of townhomes on the north side of Chicago. The community features brick buildings, private streets and a fountain.

Insulators & Allied Workers Local No. 14 Headquarters of the insulators and allied workers union for the Philadelphia area that houses its offices, a ballroom and an educational center.

Glenhaven Lakes Club A homeowners association of over 1,000 homes set in the mountains north of Seattle. The community is responsible for its extensive private water system and maintenance equipment.

Idaho Ronald McDonald House Constructed in 1907, this prominent home in downtown Boise was converted for Ronald McDonald House use in 1988. Subsequent additions were added in 1994 and 2002.

Vint Hill Conservancy Near Washington, D.C. is this former military base that has been converted into a mixed use development. Former army patrol roads comprise the recreational trails.

Alpha Delta Pi Sorority House Frank Lloyd Wright inspired prairie style house on the campus of the University of Arizona that maintains residences for over sixty students and a commercial kitchen.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Inc., Mr. Matthiesen was a building inspector working with the Roman Catholic Archdiocese of Greater Milwaukee. He was responsible for the inspection and condition assessment of occupied and unoccupied school buildings throughout southeastern Wisconsin. His day to day duties included conducting on-site meetings with Parish Officials, completing detailed technical inspections and creating a database of photographs and building condition information for Archdiocese Officials.

Mr. Matthiesen has also worked for the Forest Preserve District of Kane County as a Civil Engineer. He was responsible for the design and inspection of new improvements and park amenities. The park amenities included historic structures, parking lots and trails comprised of asphalt, concrete, limestone and landscape.

EDUCATION

Marquette University - B.S. Civil Engineering

PROFESSIONAL AFFILIATIONS

Reserve Specialist (RS) - Community Associations Institute



RESOURCES

Reserve Advisors, Inc. utilizes numerous resources of national and local data to conduct its Professional Services. A concise list of several of these resources follows:

Association of Construction Inspectors, (ACI) the largest professional organization for those involved in construction inspection and construction project management. ACI is also the leading association providing standards, guidelines, regulations, education, training, and professional recognition in a field that has quickly become important procedure for both residential and commercial construction, found on the web at <http://www.iami.org>. Several advisors and a Principal of Reserve Advisors, Inc. hold Senior Memberships with ACI.

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE) the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., devoted to the arts and sciences of heating, ventilation, air conditioning and refrigeration; recognized as the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines, found on the web at <http://www.ashrae.org>. Reserve Advisors, Inc. actively participates in its local chapter and holds individual memberships.

Community Associations Institute, (CAI) America's leading advocate for responsible communities noted as the only national organization dedicated to fostering vibrant, responsive, competent community associations. Their mission is to assist community associations in promoting harmony, community, and responsible leadership.

Marshall & Swift / Boeckh, (MS/B) the worldwide provider of building cost data, co-sourcing solutions, and estimating technology for the property and casualty insurance industry found on the web at <http://www.msbinfo.com>

R.S. Means CostWorks, North America's leading supplier of construction cost information. As a member of the Construction Market Data Group, Means provides accurate and up-to-date cost information that helps owners developers, architects, engineers, contractors and others to carefully and precisely project and control the cost of both new building construction and renovation projects found on the web at <http://www.rsmeans.com>

Reserve Advisors, Inc., library of numerous periodicals relating to reserve studies, condition analyses, chapter community associations, and historical costs from thousands of capital repair and replacement projects, and product literature from manufacturers of building products and building systems.