SEPTEMBER PERFORMANCE REPORT

HOWARD COUNTY RETIREMENT PLANS

October 24, 2019

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CALENDAR YEAR INDEX PERFORMANCE

	2010	2011	2012	2013	2014	2015	2016	2017	2018	Sep	YTD
S&P 500	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	1.9%	20.6%
Russell 1000	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	1.7%	20.5%
Russell 2000	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	2.1%	14.2%
Russell 2500	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	1.8%	17.7%
MSCI EAFE	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	2.9%	12.8%
MSCI EM	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	1.9%	5.9%
MSCI ACWI	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	2.1%	16.2%
Private Equity	19.8%	9.5%	12.6%	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	-	4.9%
BC TIPS	6.3%	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	-1.4%	7.6%
BC Municipal	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	-0.8%	6.7%
BC Muni High Yield	7.8%	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	-0.2%	9.7%
BC US Corporate HY	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	0.4%	11.4%
BC US Agg Bond	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	-0.5%	8.5%
BC Global Agg	5.5%	5.6%	4.3%	-2.6%	0.6%	-3.2%	2.1%	7.4%	-1.2%	-1.0%	6.3%
BC Long Treasuries	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	-2.5%	19.8%
BC US Long Credit	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	-1.5%	21.9%
BC US STRIPS 20+ Yr	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.1%	-3.6%	28.4%
JPM GBI-EM Global Div	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	15.2%	-6.2%	1.0%	7.9%
JPM EMBI Glob Div	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	-0.5%	13.0%
CS Hedge Fund	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	1.2%	7.1%	-3.2%	-	7.1%
BBG Commodity	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	1.2%	3.1%
Alerian MLP	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	18.3%	-6.5%	-12.4%	0.7%	11.1%
FTSE NAREIT Equity REITs	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	2.9%	27.0%

Source: FactSet, Barclays, Thomson One

*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag

TRAILING ANNUAL INDEX PERFORMANCE

Equity	Sep-19	Q3	YTD	1 YR	3 YR	5 YR	10 YR
MSCI ACWI	2.1%	0.0%	16.2%	1.4%	9.7%	6.6%	8.3%
S&P 500	1.9%	1.7%	20.6%	4.2%	13.4%	10.8%	13.2%
Russell 1000	1.7%	1.4%	20.5%	3.9%	13.2%	10.6%	13.2%
Russell 2000	2.1%	-2.4%	14.2%	-8.9%	8.2%	8.2%	11.2%
Russell 2500	1.8%	-1.3%	17.7%	-4.0%	9.5%	8.5%	12.2%
MSCI EAFE	2.9%	-1.1%	12.8%	-1.3%	6.5%	3.3%	4.9%
MSCI EM	1.9%	-4.2%	5.9%	-2.0%	6.0%	2.3%	3.4%

Credit	Sep-19	Q3	YTD	1 YR	3 YR	5 YR	10 YR
BC Global Agg	-1.0%	0.7%	6.3%	7.6%	1.6%	2.0%	2.3%
BC US Agg	-0.5%	2.3%	8.5%	10.3%	2.9%	3.4%	3.7%
BC Credit	-0.7%	3.0%	12.6%	12.6%	4.3%	4.5%	5.3%
BC US HY	0.4%	1.3%	11.4%	6.3%	6.1%	5.4%	7.9%
BC Muni	-0.8%	1.6%	6.7%	8.5%	3.2%	3.6%	4.2%
BC Muni HY	-0.2%	2.8%	9.7%	10.0%	5.9%	6.0%	7.0%
BC TIPS	-1.4%	1.3%	7.6%	7.1%	2.2%	2.4%	3.5%
BC 20+ STRIPS	-3.6%	12.0%	28.4%	34.1%	5.3%	9.4%	9.5%
BC Long Treasuries	-2.5%	7.9%	19.8%	24.7%	4.1%	6.7%	6.8%
BC Long Credit	-1.5%	5.6%	21.9%	19.8%	6.5%	6.9%	7.8%
BC Govt/Credit 1-3 Yr	-0.1%	0.7%	3.4%	4.6%	1.8%	1.6%	1.5%
JPM EMBI Glob Div	-0.5%	1.5%	13.0%	11.5%	4.6%	5.7%	6.9%
JPM GBI-EM Glob Div	1.0%	-0.8%	7.9%	10.1%	3.1%	0.6%	2.5%

Real Assets	Sep-19	Q3	YTD	1 YR	3 YR	5 YR	10 YR
BBG Commodity	1.2%	-1.8%	3.1%	-6.5%	-1.5%	-7.2%	-4.3%
Alerian MLP	0.7%	-5.0%	11.1%	-8.1%	-2.5%	-8.6%	6.2%
FTSE NAREIT Equity REITs	2.9%	7.8%	27.0%	18.3%	7.3%	10.2%	13.0%

Source: S&P, MSCI, Russell, Barclays, JPM, Alerian, FTSE, FactSet

TOTAL FUND PERFORMANCE SUMMARY (GROSS)

	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
										Ending September 30, 2019		
Total Fund Composite	**1,096,403,723**	**100.0**	**100.0**	**1.3**	**0.5**	**11.1**	**5.1**	**8.6**	**7.0**	**8.2**	**7.3**	**Apr-97**
Policy Index				*1.2*	*0.7*	*10.7*	*5.7*	*7.4*	*6.3*	*7.6*	*7.3*	*Apr-97*
Allocation Index				*0.7*	*0.2*	--	--	--	--	--	--	*Apr-97*
Total US Equity Composite	**267,883,126**	**24.4**	**20.0**	**2.0**	**0.2**	**19.3**	**0.2**	**13.7**	**10.9**	**13.7**	**8.5**	**Jul-97**
Russell 3000				*1.8*	*1.2*	*20.1*	*2.9*	*12.8*	*10.4*	*13.1*	*7.8*	*Jul-97*
US Equity Allocation Index				*1.5*	*0.6*	*19.5*	*1.3*	*12.3*	*10.3*	*13.1*	--	*Jul-97*
Total International Equity	**192,385,535**	**17.5**	**20.0**	**2.3**	**-2.9**	**12.0**	**-0.1**	**7.3**	**3.6**	**4.9**	**4.6**	**Jul-97**
MSCI ACWI ex USA				*2.6*	*-1.8*	*11.6*	*-1.2*	*6.3*	*2.9*	*4.5*	*4.5*	*Jul-97*
Total Fixed Income Composite	**321,576,370**	**29.3**	**30.0**	**-0.2**	**1.5**	**8.3**	**9.5**	**3.7**	**4.2**	**5.1**	**5.5**	**Jul-97**
Fixed Income Policy Index				*-0.5*	*2.3*	*8.5*	*10.3*	*2.9*	*3.4*	*3.7*	*5.3*	*Jul-97*
Total Real Assets Composite	**38,460,850**	**3.5**	**7.5**	**1.7**	**1.7**	**0.6**	**3.5**	**9.7**	**8.7**	**5.0**	**7.3**	**Jul-03**
NCREIF Property Index 1 Qtr. Lag				*1.5*	*1.5*	*4.8*	*6.5*	*6.9*	*8.8*	*9.2*	*8.8*	*Jul-03*
Cash Composite	**7,844,113**	**0.7**		**0.1**	**0.4**	**1.6**	**2.3**	**1.3**	**0.8**	**0.4**	**1.4**	**Dec-03**
91 Day T-Bills				*0.2*	*0.5*	*1.7*	*2.3*	*1.5*	*1.0*	*0.5*	*1.3*	*Dec-03*
Hedge Fund Composite	**121,996,737**	**11.1**	**12.5**	**-0.4**	**0.2**	**5.7**	**3.0**	**4.8**	**4.2**	**--**	**4.7**	**Jan-11**
HFRI FOF: Conservative Index				*-0.2*	*-0.3*	*4.4*	*1.0*	*3.1*	*2.0*	*2.7*	*2.4*	*Jan-11*
Private Equity Composite	**146,256,992**	**13.3**	**10.0**	**3.4**	**3.4**	**10.3**	**15.7**	**17.2**	**15.2**	**13.6**	**13.0**	**Jul-08**
Cambridge Associates Global All PE				*0.0*	*0.0*	*8.3*	*7.0*	*13.0*	*10.9*	*12.9*	*9.5*	*Jul-08*

Fiscal year end 6/30.

All history prior to 3/1/2019 was provided by AndCo.

TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
							Ending September 30, 2019					
Total Fund Composite	**1,096,403,723**	**100.0**	**100.0**	**1.3**	**0.5**	**11.2**	**5.1**	**8.7**	**7.0**	**8.2**	**7.3**	**Apr-97**
Policy Index				*1.2*	*0.7*	*10.7*	*5.7*	*7.4*	*6.3*	*7.6*	*7.3*	*Apr-97*
Allocation Index				*0.7*	*0.2*	*--*	*--*	*--*	*--*	*--*	*--*	*Apr-97*
Total US Equity Composite	**267,883,126**	**24.4**	**20.0**	**2.0**	**0.2**	**19.3**	**0.2**	**13.7**	**10.9**	**13.7**	**8.5**	**Jul-97**
Russell 3000				*1.8*	*1.2*	*20.1*	*2.9*	*12.8*	*10.4*	*13.1*	*7.8*	*Jul-97*
US Equity Allocation Index				*1.5*	*0.6*	*19.5*	*1.3*	*12.3*	*10.3*	*13.1*	*--*	*Jul-97*
Large Cap Composite	**207,005,462**	**18.9**	**15.0**	**2.4**	**0.4**	**18.3**	**1.0**	**13.2**	**10.0**	**13.2**	**8.4**	**Apr-01**
Russell 1000				*1.7*	*1.4*	*20.5*	*3.9*	*13.2*	*10.6*	*13.2*	*7.6*	*Apr-01*
Invesco IQS – US Enhanced 1% Risk SMA	69,340,435	6.3		2.0	1.0	17.7	1.6	12.6	9.6	12.9	7.7	Apr-01
S&P 500				*1.9*	*1.7*	*20.6*	*4.3*	*13.4*	*10.8*	*13.2*	*7.3*	*Apr-01*
LSV Asset Management SMA	63,101,304	5.8		5.6	1.0	14.9	-0.8	10.1	8.0	12.5	9.6	May-00
Russell 1000 Value				*3.6*	*1.4*	*17.8*	*4.0*	*9.4*	*7.8*	*11.5*	*6.9*	*May-00*
Westfield Capital Management SMA	74,563,723	6.8		0.2	-0.7	21.8	2.0	16.8	12.2	--	15.4	Jul-10
Russell 1000 Growth				*0.0*	*1.5*	*23.3*	*3.7*	*16.9*	*13.4*	*14.9*	*16.3*	*Jul-10*
Small/Mid Cap Composite	**60,877,664**	**5.6**	**5.0**	**0.7**	**-0.2**	**23.1**	**-2.2**	**15.4**	**14.0**	**14.7**	**12.2**	**Apr-93**
Russell 2500				*1.8*	*-1.3*	*17.7*	*-4.0*	*9.5*	*8.6*	*12.2*	*10.2*	*Apr-93*
William Blair SMA	20,349,538	1.9		-1.9	1.1	26.1	3.0	18.8	15.3	16.3	12.2	Jun-06
Russell 2500 Growth				*-1.9*	*-3.2*	*20.0*	*-4.1*	*12.3*	*10.2*	*13.5*	*9.2*	*Jun-06*
ICM Small Company - ICSCX	22,978,919	2.1		6.3	1.0	19.0	-5.4	10.8	10.8	12.3	11.8	Apr-93
Russell 2000 Value				*5.1*	*-0.6*	*12.8*	*-8.2*	*6.5*	*7.2*	*10.1*	*9.6*	*Apr-93*
Brown Capital Small Company Strategy SMA	17,549,207	1.6		-3.0	-3.2	25.3	-3.6	18.0	17.1	--	18.1	Aug-11
Russell 2000 Growth				*-0.8*	*-4.2*	*15.3*	*-9.6*	*9.8*	*9.1*	*12.2*	*10.5*	*Aug-11*

TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
											Ending September 30, 2019	
Total International Equity	**192,385,535**	**17.5**	**20.0**	**2.3**	**-2.9**	**12.0**	**-0.1**	**7.3**	**3.6**	**4.9**	**4.6**	**Jul-97**
MSCI ACWI ex USA				*2.6*	*-1.8*	*11.6*	*-1.2*	*6.3*	*2.9*	*4.5*	*4.5*	*Jul-97*
International Developed Markets Composite	**125,503,083**	**11.4**	**13.0**	**3.3**	**-1.7**	**13.6**	**-1.5**	**6.3**	**3.4**	**5.5**	**2.9**	**Mar-08**
MSCI EAFE				*2.9*	*-1.1*	*12.8*	*-1.3*	*6.5*	*3.3*	*4.9*	*2.2*	*Mar-08*
Mondrian International Equity Fund, L.P.	59,222,113	5.4		4.7	-1.9	8.6	-2.0	5.5	2.6	5.0	1.6	Dec-07
MSCI EAFE				*2.9*	*-1.1*	*12.8*	*-1.3*	*6.5*	*3.3*	*4.9*	*1.2*	*Dec-07*
Baillie Gifford EAFE Pure K - BGPKX	66,280,970	6.0		2.1	-1.5	18.5	-0.8	--	--	--	0.6	May-18
MSCI EAFE				*2.9*	*-1.1*	*12.8*	*-1.3*	*6.5*	*3.3*	*4.9*	*-2.4*	*May-18*
International Emerging Markets Composite	**66,882,452**	**6.1**	**7.0**	**0.5**	**-5.0**	**9.2**	**2.5**	**9.3**	**4.0**	**3.7**	**5.8**	**Feb-06**
MSCI Emerging Markets				*1.9*	*-4.2*	*5.9*	*-2.0*	*6.0*	*2.3*	*3.4*	*4.3*	*Feb-06*
DFA Emerging Markets Value Portfolio Institutional - DFEVX	25,928,567	2.4		2.6	-6.9	0.4	-7.7	5.5	1.8	2.7	5.1	Feb-06
MSCI Emerging Markets				*1.9*	*-4.2*	*5.9*	*-2.0*	*6.0*	*2.3*	*3.4*	*4.3*	*Feb-06*
GQG Partners Emerging Markets Equity Fund	40,953,885	3.7		-0.8	-3.8	15.6	--	--	--	--	15.3	Dec-18
MSCI Emerging Markets				*1.9*	*-4.2*	*5.9*	*-2.0*	*6.0*	*2.3*	*3.4*	*3.1*	*Dec-18*
Total Fixed Income Composite	**321,576,370**	**29.3**	**30.0**	**-0.2**	**1.5**	**8.3**	**9.5**	**3.7**	**4.2**	**5.1**	**5.5**	**Jul-97**
BBgBarc US Aggregate TR				*-0.5*	*2.3*	*8.5*	*10.3*	*2.9*	*3.4*	*3.7*	*5.1*	*Jul-97*
Core Fixed Income Composite	**276,681,360**	**25.2**	**25.0**	**-0.4**	**2.0**	**--**	**--**	**--**	**--**	**--**	**6.8**	**Mar-19**
BBgBarc US Aggregate TR				*-0.5*	*2.3*	*8.5*	*10.3*	*2.9*	*3.4*	*3.7*	*7.4*	*Mar-19*
Dodge & Cox SMA	134,129,860	12.2		-0.3	2.1	8.8	9.4	4.1	4.1	--	4.7	May-10
BBgBarc US Aggregate TR				*-0.5*	*2.3*	*8.5*	*10.3*	*2.9*	*3.4*	*3.7*	*3.7*	*May-10*
PIMCO Total Return	119,712,669	10.9		-0.3	2.1	8.4	9.9	3.4	3.6	--	4.1	May-10
BBgBarc US Aggregate TR				*-0.5*	*2.3*	*8.5*	*10.3*	*2.9*	*3.4*	*3.7*	*3.7*	*May-10*
State Street Global Advisors TIPS	22,838,831	2.1		-1.4	1.3	7.5	7.1	2.2	2.4	--	3.3	Nov-09
BBgBarc US TIPS TR				*-1.4*	*1.3*	*7.6*	*7.1*	*2.2*	*2.4*	*3.5*	*3.4*	*Nov-09*
Emerging Markets Debt Composite	**44,895,010**	**4.1**	**5.0**	**1.4**	**-1.4**	**--**	**--**	**--**	**--**	**--**	**2.8**	**Mar-19**
JP Morgan GBI EM Global Diversified TR USD				*1.0*	*-0.8*	*7.9*	*10.1*	*3.1*	*0.6*	*2.4*	*3.4*	*Mar-19*
Colchester Local Markets Debt Fund	44,895,010	4.1		1.4	-1.4	7.3	10.6	4.4	--	--	8.3	Oct-15
JP Morgan GBI EM Global Diversified TR USD				*1.0*	*-0.8*	*7.9*	*10.1*	*3.1*	*0.6*	*2.4*	*6.4*	*Oct-15*

TOTAL FUND PERFORMANCE DETAIL (GROSS)

				Ending September 30, 2019								
	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Real Assets Composite	**38,460,850**	**3.5**	**7.5**	**1.7**	**1.7**	**1.7**	**4.6**	**10.1**	**8.9**	**5.2**	**7.4**	**Jul-03**
NCREIF Property Index 1 Qtr. Lag				*1.5*	*1.5*	*4.8*	*6.5*	*6.9*	*8.8*	*9.2*	*8.8*	*Jul-03*
Real Estate Composite	**25,795,227**	**2.4**		**2.5**	**2.5**	**--**	**--**	**--**	**--**	**--**	**3.0**	**Mar-19**
NCREIF Property Index 1 Qtr. Lag				*1.5*	*1.5*	*4.8*	*6.5*	*6.9*	*8.8*	*9.2*	*4.8*	*Mar-19*
Realty Associates Fund VIII L.P.	6,414	0.0		-31.8	-31.8	-42.2	-38.8	-10.1	-2.1	-1.5	-2.0	Jul-07
Partners Group Global RE 2011	5,101,243	0.5		0.4	0.4	-10.2	-12.8	1.6	2.3	--	3.9	Mar-12
Partners Group Global RE 2014	16,691,895	1.5		3.5	3.5	5.5	7.5	11.6	--	--	9.6	Dec-14
Partners Group Global RE 2017	3,990,280	0.4		1.0	1.0	4.2	--	--	--	--	4.2	Dec-18
NCREIF Property Index 1 Qtr. Lag				*1.5*	*1.5*	*4.8*	*6.5*	*6.9*	*8.8*	*9.2*	*6.5*	*Dec-18*
Real Assets Composite	**12,665,623**	**1.2**		**-0.1**	**-0.1**	**--**	**--**	**--**	**--**	**--**	**-4.4**	**Mar-19**
Cambridge Associates Global Natural Resources (1 Qtr Lag)				*-2.4*	*-2.4*	*-7.4*	*-5.4*	*5.9*	*-2.4*	*5.1*	*-7.4*	*Mar-19*
Commonfund Natural Resources X	5,047,260	0.5		-0.9	-0.9	4.5	5.4	40.1	--	--	18.9	Apr-16
Commonfund Natural Resources XI	794,870	0.1		-24.4	-24.4	-41.7	-41.7	--	--	--	-41.7	Oct-18
Aether Real Assets IV	5,937,285	0.5		2.1	2.1	2.0	9.2	5.6	--	--	5.0	Jun-16
Aether Real Assets V	886,208	0.1		-1.7	-1.7	-69.8	-46.0	--	--	--	-41.0	Aug-18
Cambridge Associates Global Natural Resources (1 Qtr Lag)				*-2.4*	*-2.4*	*-7.4*	*-5.4*	*5.9*	*-2.4*	*5.1*	*-1.7*	*Aug-18*
Cash Composite	**7,844,113**	**0.7**	**0.0**	**0.1**	**0.4**	**1.6**	**2.3**	**1.3**	**0.8**	**0.4**	**1.4**	**Dec-03**
91 Day T-Bills				*0.2*	*0.5*	*1.7*	*2.3*	*1.5*	*1.0*	*0.5*	*1.3*	*Dec-03*
Hedge Fund Composite	**121,996,737**	**11.1**	**12.5**	**-0.4**	**0.2**	**5.7**	**3.0**	**4.8**	**4.2**	**--**	**4.7**	**Jan-11**
HFRI FOF: Conservative Index				*-0.2*	*-0.3*	*4.4*	*1.0*	*3.1*	*2.0*	*2.7*	*2.4*	*Jan-11*
Magnitude International Class A Eligible	60,202,018	5.5		-0.7	-0.2	5.5	2.1	4.3	4.1	--	4.6	Jan-11
HFRI FOF: Conservative Index				*-0.2*	*-0.3*	*4.4*	*1.0*	*3.1*	*2.0*	*2.7*	*2.4*	*Jan-11*
Blackstone Partners Offshore Fund LTD	61,794,719	5.6		0.0	0.5	5.9	3.9	5.4	4.3	--	4.8	Mar-11
HFRI FOF: Conservative Index				*-0.2*	*-0.3*	*4.4*	*1.0*	*3.1*	*2.0*	*2.7*	*2.3*	*Mar-11*
Private Equity Composite	**146,256,992**	**13.3**	**10.0**	**3.4**	**3.4**	**10.3**	**15.7**	**17.2**	**15.2**	**13.6**	**13.0**	**Jul-08**
Cambridge Associates Global All PE				*0.0*	*0.0*	*8.3*	*7.0*	*13.0*	*10.9*	*12.9*	*9.5*	*Jul-08*

Howard County Retirement Plans

TOTAL FUND PERFORMANCE DETAIL FOOTNOTES

Fiscal year ends 6/30.

Policy index consists of: 15% S&P 500 / 5% Russell 2500 / 13% MSCI EAFE / 7% MSCI Emerging Markets / 25% BBgBarc US Aggregate TR / 5% JP Morgan GBI EM Global Diversified TR USD / 7.5% NCREIF Property Index 1 Qtr. Lag / 12.5% HFRI FOF: Conservative Index / 10% Private Equity Composite.

Allocation index consists of: Weighted index of underlying managers to their respective benchmark.

Fixed Income Policy index consists of: 100% BBgBarc US Aggregate TR.

Core Fixed Income Composite, Emerging Markets Debt, Real Estate Composite, Real Assets Composite and Allocation Index performance is calculated by NEPC as of 6/30/2019.

Real Estate, Real Assets and Private Equity investments are valued as of 06/30/2019 and adjusted for capital calls and distributions through 09/30/2019.

Aberdeen US Private Equity VII is valued as of 03/31/2019 and adjusted for capital calls and distributions through 09/30/2019.

All history prior to 3/1/2019 was provided by AndCo.

Information Disclaimer

- Past performance is no guarantee of future results.

- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.

- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.

- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.

- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.

- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.

- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.