

December 31, 2022
Richmond Retirement System
4Q 2022 RRS Alternatives

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended December 31, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Private Real Estate	(4.85%)	5.15%	7.81%	6.49%
JP Morgan Strategic Property	(5.21%)	3.64%	7.58%	6.60%
Orion Euro RE IV	59.37%	37.79%	3.44%	(6.41%)
Principal Core RE Fund	(6.24%)	4.07%	-	-
PRISA II	(6.12%)	7.54%	-	-

**JP Morgan Strategic Property
Real Estate Investment Portfolio
Quarterly Changes in Market Value**

	Beg. of Period Market	Capital Contri- butions					End of Period Market
12/2010	0	7,500,000					7,686,708
03/2011	7,686,708	7,500,000					15,633,322
06/2011	15,633,322	0					16,459,035
09/2011	16,459,035	0					16,955,609
12/2011	16,955,609	0					17,430,487
03/2012	17,430,487	0					17,861,271
06/2012	17,861,271	0					18,259,656
09/2012	18,259,656	0					18,874,294
12/2012	18,874,294	0					19,352,871
03/2013	19,352,871	0					19,961,048
06/2013	19,961,048	0					20,680,552
09/2013	20,680,552	0					21,484,499
12/2013	21,484,499	0					22,214,760
03/2014	22,214,760	0					22,685,373
06/2014	22,685,373	0					23,364,377
09/2014	23,364,377	0					23,856,939
12/2014	23,856,939	0					24,450,049
03/2015	24,450,049	0					23,537,547
06/2015	23,537,547	0					24,345,673
09/2015	24,345,673	0					25,112,107
12/2015	25,112,107	0					25,896,673
03/2016	25,896,673	0					26,319,991
06/2016	26,319,991	0					26,786,080
09/2016	26,786,080	0					27,271,641
12/2016	27,271,641	0					25,238,116
03/2017	25,238,116	0					25,652,855
06/2017	25,652,855	0					25,798,741
09/2017	25,798,741	0					25,983,025
12/2017	25,983,025	0					26,179,943
03/2018	26,179,943	0					26,477,958
06/2018	26,477,958	0					26,729,345
09/2018	26,729,345	0					26,939,282
12/2018	26,939,282	0					27,193,565
03/2019	27,193,565	0					27,052,978
06/2019	27,052,978	0					27,111,988
09/2019	27,111,988	0					26,978,224
12/2019	26,978,224	0					27,357,712
03/2020	27,357,712	0					27,514,753
06/2020	27,514,753	0					26,335,208
09/2020	26,335,208	0					25,940,455
12/2020	25,940,455	0					25,999,787
03/2021	25,999,787	0					23,239,896
06/2021	23,239,896	0					22,879,546
09/2021	22,879,546	0					24,208,964
12/2021	24,208,964	0					25,945,289
03/2022	25,945,289	0					27,569,515
06/2022	27,569,515	0					28,800,785

**JP Morgan Strategic Property
Real Estate Investment Portfolio
Quarterly Changes in Market Value**

	Beg. of Period Market	█	Capital Contri- butions	█	█	█	█	█	█	End of Period Market
09/2022	28,800,785		0		█	█	█	█	█	28,367,232
12/2022	28,367,232		0		█	█	█	█	█	26,888,720
	0		15,000,000		█	█	█	█	█	26,888,720

Net Since Inception IRR = 9.68%

**Orion Euro RE IV
Real Estate Investment Portfolio
Quarterly Changes in Market Value**

	Beg. of Period Market	Capital Contri- butions				End of Period Market
03/2014	0	112,832				112,832
06/2014	112,832	182,338				180,247
09/2014	180,247	310,527				499,285
12/2014	499,285	1,017,495				1,419,950
03/2015	1,419,950	131,917				1,572,598
06/2015	1,572,598	228,373				1,657,877
09/2015	1,657,877	0				1,660,085
12/2015	1,660,085	0				1,118,689
03/2016	1,118,689	0				1,083,133
06/2016	1,083,133	59,161				945,896
09/2016	945,896	0				1,303,365
12/2016	1,303,365	38,782				1,192,953
03/2017	1,192,953	174,589				1,289,503
06/2017	1,289,503	110,027				1,353,447
09/2017	1,353,447	0				1,097,802
12/2017	1,097,802	0				1,182,811
03/2018	1,182,811	302,992				1,497,368
06/2018	1,497,368	0				1,517,253
09/2018	1,517,253	0				1,279,052
12/2018	1,279,052	58,027				1,058,351
03/2019	1,058,351	233,996				1,244,794
06/2019	1,244,794	0				1,211,580
09/2019	1,211,580	0				1,164,829
12/2019	1,164,829	0				1,085,579
03/2020	1,085,579	34,275				894,845
06/2020	894,845	314,990				1,186,786
09/2020	1,186,786	89,345				1,187,269
12/2020	1,187,269	133,503				1,344,840
03/2021	1,344,840	198,949				1,483,299
06/2021	1,483,299	0				1,507,896
09/2021	1,507,896	0				1,522,487
12/2021	1,522,487	0				1,450,193
03/2022	1,450,193	43,665				1,438,806
06/2022	1,438,806	0				1,335,816
09/2022	1,335,816	0				1,251,083
12/2022	1,251,083	43,547				2,027,571
	0	3,819,332				2,027,571

Orion Euro RE IV
Real Estate Investment Portfolio
Quarterly Changes in Market Value

Net Since Inception IRR = 1.28%

Committed Capital = \$2,931,777

**Principal
Real Estate Investment Portfolio
Quarterly Changes in Market Value**

	Beg. of Period Market	Capital Contri- butions				End of Period Market
03/2021	0	12,000,000				12,003,466
06/2021	12,003,466	0				12,440,370
09/2021	12,440,370	12,000,000				25,166,529
12/2021	25,166,529	0				27,687,121
03/2022	27,687,121	0				29,706,509
06/2022	29,706,509	0				30,601,888
09/2022	30,601,888	0				30,730,223
12/2022	30,730,223	0				28,813,116
	0	24,000,000				28,813,116

Net Since Inception IRR = 12.67%

**PRISA II
Private Equity Investment Portfolio
Quarterly Changes in Market Value**

	Beg. of Period Market	Capital Contri- butions				End of Period Market
06/2021	0	8,400,000				8,400,000
09/2021	8,400,000	0				9,031,662
12/2021	9,031,662	8,500,000				18,121,225
03/2022	18,121,225	0				19,504,308
06/2022	19,504,308	0				20,375,832
09/2022	20,375,832	0				20,579,953
12/2022	20,579,953	0				19,258,271
	0	16,900,000				19,258,271

Net Since Inception IRR = 10.95%