There being a quorum, Rob Dubow, Board Chair, called the Investment Committee Meeting to order at 10:06 a.m., in the Board Conference Room, 2 Penn Center Plaza, 16th Floor.

Present:

Rob Dubow, Finance Director
Jacqueline Dunn, Alternate, Chief of Staff, Office of the Director of Finance
Ronald Stagliano, Vice Chairman, Trustee
Pedro Rodriguez, Director of Human Resources
Rebecca Rhynhart, City Controller
Brian Abernathy, Alternate, First Deputy Managing Director
Carol G. Stukes-Baylor, Trustee
Veronica M. Pankey, Trustee
Brian Coughlin, Trustee
Jo Rosenberger Altman, Esquire, Alternate, Divisional Deputy City Solicitor
Matt Stitt, City Council Designee

Francis X. Bielli, Esquire, Executive Director Christopher DiFusco, Esquire, Chief Investment Officer Bernard J. Buckley Jr., Deputy Chief Investment Officer Shamika Taliaferro, Deputy Director of Pensions James Cousounis, Chief Compliance Officer William Rubin, Audit Manager Dominique A. Cherry, Senior Investment Officer Tyrone Jordan, Senior Investment Officer Eryn-Ashlei Bailey, Investment Officer Kristyn Bair, Senior Investment Analyst

Also Attending:

Rosamond R. Howard, Senior Director of Strategy & Policy Analysis Kellan White, First Deputy Controller Marsha Greene-Jones, Deputy Director of Human Resources Adam Coleman, Esquire, Assistant City Solicitor Ellen Berkowitz, Esquire, Senior Attorney Sharolyn L. Murphy, Esquire, Senior Attorney Lavonia Jenkins, Administrative Technician Neshea Bumpus, Clerk Typist I Dave Smith, Marquette Emanuel Mahand, Nationwide Bina Kumar, Nationwide Ken Kent, Cheiron Anu Patel, Cheiron Brett Warren, Cheiron Matthew Coyne, Torrey Cove James Kirby, Deerpath Capital Management Antonella Napolitano, Deerpath Capital Management Tas Hasan, Deerpath Capital Management

Agenda Item #1 - Approval of the Investment Committee Minutes of February 22, 2018

Mr. Dubow requested approval of the Minutes for February 22, 2018. Mr. Stagliano made the motion. Mr. Coughlin seconded. The motion carried unanimously.

Agenda Item #2 - Cheiron- Actuarial Presentation: Experience Study

Mr. Kent announced that he is retiring and that Anu Patel will assume the lead role for Cheiron in rendering actuarial services for the Board. The Board Chair and Trustees thanked Mr. Kent and expressed their appreciation for his work for the Board over the years.

Ms. Patel presented the experience study results for the period of July 1, 2012 through June 30, 2017. She discussed the historic fluctuations in plan assets and liabilities over the last 10 years. Ms. Patel noted that the unfunded liability of the plan as of July 1, 2012 was approximately \$5,083.1M. Since then, the unfunded liability increased to \$6,114.7M as of June 30, 2017. The unfunded liability of the plan primarily increased due to asset losses over that time.

Mr. Patel reported that there is an expected decrease in the Minimum Municipal Obligation ("MMO") going forward. Ms. Patel noted the liability experience losses of \$267M. Ms. Patel further explained that the Philadelphia sales tax revenue contributed to the Fund in accordance with state law reduces the unfunded liability of the plan. Ms. Patel detailed the assumed rate of return used for the Board and noted those changes over the period of the experience study and their impacts. Decreases in the assumed rate of return have increased the unfunded liability of the portfolio over time but improved the risk profile of the Fund.

Ms. Patel reviewed the Cheiron experience study background, methodology, and the economic and demographic assumptions used. Ms. Patel explained that based on the demographic assumptions, healthy retirees are expected to live longer than disabled retirees. Ms. Patel referenced several mortality tables published by the Society of Actuaries including the RP-2000 Blue Collar and the RP-2014 Employee Table. Ms. Patel presented the current assumption using the RP-2000 Blue Collar projected to 2017 versus an alternative assumption using the RP-2014 Employee projected to 2021. Ms. Patel further explained that the data used was specific to the United States, and varied from region to region. Mr. Dubow asked if the projections shown assumed that the members will live longer and Ms. Patel confirmed that they did.

Mr. Rodriguez asked if the disability assumptions were compared to other jurisdictions. Mr. Kent stated they would look to see if any useful experiential information had been collected. Mr. Coughlin asked for the basis of the estimated cost impact rates and whether the assumptions are based on the average assumed rate of retirement. Mr. Kent stated that assumptions were not based on the average age of retirement, since more employees are working beyond the average retirement age. Mr. Dubow questioned why the net impact was different for each assumption. Ms. Patel stated that the net increase changes are based upon the current assumption and proposed assumption.

Ms. Patel noted that since 2009, many pension plans have reduced their assumed rate of return for investments. Ms. Patel reported that the median assumption is now around 7.50% and the number of plans using an assumed rate of 7.5% or lower has increased significantly.

Mr. Dubow asked if they examined the economic assumptions by year. Ms. Patel stated they did look at the rates by year: for 2 years, there were both increases and decreases in assumptions and actual experience. Mr. Warren stated that, in general, the increases within the last 5 years have been the same without any changes on a year to year basis.

Mr. DiFusco asked if the inflation assumptions were based upon Core CPI or a modified version of CPI. Mr. Kent stated the inflation assumption uses Core CPI without stripping or eliminating items. Ms. Patel stated the current payroll growth assumption is 3.30% for municipal and uniformed employees alike.

Mr. Warren discussed the retirement rates. Retirements due to changes in DROP eligibility and terms likely skewed rates higher in the last 5 years. Ms. Rhynhart asked Mr. Warren to clarify whether the reports showed retirement rates at age 65 for Municipal employees under Plan 87. Mr. Warren explained that the Plan members are expected to retire at the age of 65.

Mr. Warren reported the overall terminations for both Plans 67 and 87. Mr. Coughlin asked if the rates were based upon the civil service or the non-civil service workforce. Mr. Kent stated it was not. Mr. Dubow asked Mr. Kent how members enrolled in Plan 87 who can vest early are handled. Mr. Kent stated they do not distinguish such members for purposes of the assumptions.

Ms. Stukes-Baylor asked why the uniformed male and female employees were not distinguished from each other in the reports. Mr. Warren stated that the uniformed female population is smaller and does not provide sufficient data to make statistical assumptions with necessary confidence. Ms. Stukes-Baylor stated there was a higher female population than male population in staff. Mr. Warren stated they would take an additional look at the numbers. Ms. Rhynhart asked if Cheiron could provide the cashflow projections for the past 10 years showing net inflows and outflows. Ms. Patel stated that they can provide the projections.

Mr. Stagliano made a motion to lower the assumed rates of return by 5 bps for 2018 to 7.65%, and 5 bps in 2019 to 7.60%. Mr. Rodriguez seconded the motion. The motion carried unanimously.

Agenda Item #3 - Private Equity Investment Recommendation: Deerpath

Investment Staff, together with Mr. Coyne, presented a recommendation for a \$25M investment in Fund IV of Deerpath Capital IV, LP ("Deerpath" or "the firm"), an unlevered fund. Mr. Buckley explained that Deerpath provides senior secured loans to lower and middle market companies owned by private equity sponsors. Mr. Buckley provided a brief history of the firm, including its strong performance and conservative strategy marked by only one loss since the firm began private financing.

Ms. Bailey described the due diligence processes executed by Staff in considering a potential \$25M allocation to Deerpath. Staff's due diligence process included on-site meetings with Deerpath and TorreyCove. Staff also fielded several follow up phone calls to ask additional clarifying questions to Mr. Kirby and the rest of the Deerpath team.

Ms. Bailey explained that the partnership provides financing to lower and middle market companies, where the firm faces less competition from large commercial banks. Ms. Bailey discussed Deerpath's strong industry presence, and strong relationships with over 250 private equity sponsors. Deerpath's robust network creates a competitive advantage in that Deerpath becomes a "first point of contact" for renewing relationships with private equity sponsors in need of private financing. Ms. Bailey noted that income is generated from interest income, fee income, dividend income and other sources. Ms. Bailey stated that the firm is targeting a net unlevered return of 6% - 9%.

Mr. Coyne provided a brief overview of the firm. Mr. Coyne discussed historical performance of Funds I – Fund III. He referenced historical returns as of December 31, 2017, and provided an approximation of the unlevered equivalent of those returns. Mr. Coyne shared lessons learned by Deerpath, including an instance where Deerpath accepted a second lien debt position with an underlying company. When the company went bankrupt, first lien debt holders were made whole, while second lien debt holders earned just \$0.20/\$1 of investment. From that experience, Deerpath has committed to providing only first lien loans to borrowers.

Mr. Bielli stated that a 6% to 9% expected rate or return seemed modest compared to other recommendations made by Staff historically. Mr. Bielli asked what the Deerpath vehicle provides to justify the 6% to 9% return. Mr. Coyne explained that Deerpath's conservative strategy and strong historical performance provides an attractive risk-adjusted return compared to other riskier investments in the market.

Mr. Dubow asked for an explanation of staff turnover at the firm. Mr. Coyne noted the only departure of some concern was that of Bryan Yoon, since he was a managing director leading an office. Mr. Coyne added that all other departures were mainly business development and investor relations professionals, who would not necessarily have a direct impact on the business. Mr. Rodriguez asked why there were involuntary separations in 2016. Mr. Coyne stated that Mr. Kirby would be in the best position to answer those questions.

Mr. Abernathy stated there wasn't much diversity within the team at Deerpath and inquired if the issue of diversity was discussed with the team at Deerpath. Mr. Buckley stated that Staff brought this issue to the firm's attention, and that the firm responded that they are dedicated to creating a diverse

and inclusive culture at the firm. Ms. Bailey noted that the firm would be subject to the annual diversity questionnaire that is distributed to all general partners with whom the Board has contracted. Mr. Abernathy excused himself from the meeting.

Mr. Stitt asked if there was any concern with the lesser time commitment of the firm's principals other than Mr. Kirby. Mr. Coyne clarified that Mr. Kirby was more hands on with managing the day to day business of the firm, whereas the other general partners were initial founders from whom the firm leveraged their expertise, experience and contacts when needed. He mentioned that TorreyCove is comfortable with the time commitment of the partners as it currently stands.

Mr. Kirby presented an overview of the firm alongside Mr. Hasan and Ms. Napolitano. Mr. Kirby stated that the firm focuses on first-lien loans which are yielding about a 10% return. Mr. Kirby stated that Deerpath has an excellent record in avoiding credit losses. Historically, the firm has experienced only 1 credit loss. Mr. Kirby briefly mentioned the "Harvest Right" which the firm offers to limited partners. Mr. Kirby explained that after 2 years, limited partners can exercise harvest rights which will discontinue the reinvestment of a limited partners' capital into new deals. Mr. Kirby explained that the money will not be returned to limited partners immediately, since capital is contingent upon the unwinding of outstanding loans. Ms. Rhynhart asked if the Harvest Right feature would shorten or decrease the six-year lock up period of the investment. Mr. Kirby stated once the Harvest Rights are executed, a limited partner's account will be frozen and no more investments will be taken out of the account. Mr. Kirby explained that for investors who do not use their Harvest Right the firm will continue re-investing into new deals. In other words, the six-year lock up will remain.

Mr. Bielli asked Mr. Kirby if the historical staff turnover has affected the firm's ability to conduct business. Mr. Kirby assured the Board that turnover at the firm has not interrupted operations. Mr. Kirby reported that some employees were replaced due to performance and others left the firm for their own reasons. Mr. Kirby stated that they have successfully replaced every member of staff. Mr. Bielli also asked if there would be any adverse effect from the limited involvement of Mr. Wendt and Mr. Fitzgibbons. Mr. Kirby stated that the current structure and time commitment of general partners has contributed to the success of the firm so far.

Mr. Dubow asked for the talent retention policy at the firm. Mr. Kirby stated that ideally the firm wants to retain employees. Mr. Kirby noted that increased responsibility and good coaching is offered to employees, which increases talent retention. Mr. Kirby discussed the culture of the firm stating about 50% of the employees come from a diverse background considering all employees who do not identify as Caucasian male.

Ms. Stukes-Baylor asked how many African Americans were employed with the firm. Mr. Kirby stated that one African-American worked out of the firm's Chicago, IL office. Mr. Kirby proceeded to explain that the firm hires employees from various backgrounds. Ms. Stukes-Baylor asked about the firm's diversity policy, considering one African American employee out of thirty-four within the firm. Mr. Kirby stated that most of the hiring is conducted through external recruiting firms. Mr. Kirby further explained that the firm typically will not hire recent college graduates. The firm specifically targets candidates with at least 2 years of experience. Ms. Stukes-Baylor asked how will college graduates get the experience required if the firm does not hire candidates without experience. Ms. Stukes-Baylor asked if there was an intern policy or summer internship offered. Mr. Kirby stated

that the firm hires candidates based on work experience. Mr. Hasan stated that the firm size limits the capacity of the firm to hire and train recent college graduates. Ms. Napolitano added that there is one intern currently with the firm, and that she is an African-American female.

Ms. Howard mentioned the additional competition in the private equity space. Ms. Howard questioned how the firm plans to secure funding in an increasingly competitive environment. Mr. Kirby stated that one of the reasons the firm handles lower and middle market segments is because the competition and risk is lower in the space. Ms. Pankey asked as each additional fund is established, will the firm commingle funds. Mr. Kirby stated at any time it's likely to have multiple funds invested in the same deal. Ms. Howard asked if the firm has a dedicated workout team for potentially difficult or troubled investments. Mr. Kirby stated that the investment committee will determine strategy in those circumstances and the investment team led by Mr. Reyes will implement action plan.

Mr. Stagliano made a motion to approve Staff's recommendation for a \$25M investment to Deerpath. Ms. Stukes-Baylor seconded. Ms. Rhynhart abstained. Mr. Abernathy did not participate in the vote. Ms. Pankey opposed the motion. The motion carried 5-1, with one abstention.

Agenda Item #4 - Flash Report for The Period Ending February 2018

Mr. DiFusco and Mr. Smith presented the Flash Report. Mr. DiFusco reported for February that the Plan underperformed its benchmark by 50 bps. Mr. Dubow asked if the numbers will be the same in March. Mr. DiFusco answered that the portfolio was estimated to be up 6.4% fiscal year to date as of Monday, March 19, 2018.

Mr. DiFusco addressed the bottom performers. He stated that Staff did not have significant concern with Brandywine Global as long-term numbers were strong. Mr. DiFusco reiterated Staff's concern with the size of the allocation to Causeway Capital. Mr. DiFusco mentioned that he anticipates a reduction to the Causeway Capital position in the future after consideration of the international small cap allocation and managers. As for AJO, Mr. DiFusco noted that Staff and Marquette were closely monitoring AJO and expected to report soon on any recommendation. Mr. Dubow asked if there was a change with the manager's investment style. Mr. DiFusco stated there was a change some time ago. Mr. DiFusco stated that Staff may present a recommendation in an upcoming meeting.

Mr. Dubow asked for any questions. There were none.

Agenda Item #5 Investment Staff Report

Mr. DiFusco presented the reports. Mr. DiFusco informed the Board of a financial literacy workshop called "Invest in Girls" conducted by Staff at the Academy at Palumbo High School. Mr. DiFusco thanked Ms. Cherry and Ms. Bailey who taught the class. Mr. DiFusco stated it was a great turn-out, they received favorable feedback, and Staff was invited to return in the future. The upcoming Board meetings are April 19, 2018, May 24, 2018 and June 28, 2018.

Mr. Dubow asked for any questions on the Investment Committee Report. There were none.

Mr. Dubow asked if there was any new or old business. There was none. Mr. Dubow asked if there was any other business. There was none.

At 12:35 p.m., Mr. Dubow requested a motion to adjourn the Investment Committee Meeting. Ms. Pankey made the motion. Mr. Rodriguez seconded. The motion passed.

The Investment Committee of the Board of Pensions and Retirement approved the Minutes on

Rob Dubow
Finance Director
Chair, Board of Pensions and Retirement

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