Present: Francis Murphy – Chairman, James Monagle, John Shinkwin, Ellen Philbin, Rafik Ghazarian and Chris Burns.

Absent: Michael Gardner, Nadia Chamblin-Foster

The meeting was called to order at 11:05 AM. The meeting was digitally recorded.

Agenda Item #1 – GASB 67 & 68

Kathleen Riley presented the GASB 67 & 68 report.

Riley reminded the Board that although the system only performs a valuation every two years, they are required to prepare an accounting report every year. The report covers much of the same material as the valuation report, but includes the investment returns from 2018. The system saw significant losses in 2018. The funded ratio fell from 88.02% to 79.89%. Riley noted that the system updated their mortality table at the last valuation. Since then, the Society of Actuaries has come out with new tables for public employees. The new tables are not dramatically different from the current mortality table. Riley stated that the State Retirement Board does not intend to adopt the new tables immediately. The State has conducted an experience study every five years, and they concluded that there would be no reason to adopt changes prior to the next study. Motion by Shinkwin, seconded by Monagle to adopt the GASB reports. Voted unanimously.

Agenda Item #2 – Annual Statement

The Board reviewed a revised version of the 2018 Annual Statement.

The Director stated that a revision to the Annual Statement was necessary after finding that entries for one manager had been omitted.

Motion by Monagle, seconded by Shinkwin to accept the revised Annual Statement. Voted unanimously.

Agenda Item #3 – Segal Marco Advisors

Ghazarian reviewed Segal Marco's written analysis of investment performance for the period ending March 31, 2019. Returns were strong across most asset classes following the steep losses in the last quarter of 2018.

Ghazarian reviewed the system's current asset allocation. The system has made significant progress in putting money into the Private Equity sleeve. That segment is now only 1.22% below the target. The fund remains slightly overallocated to Domestic Equity.

Overall, the total fund was valued at \$1.340 billion, representing a gain of 6.97% during the quarter. The fund underperformed with the policy index return of 8.23%. Lazard underperformend significantly in the last quarter and is now below their benchmark over the last seven years. Their 10-year and since inception returns remain positive. Cambridge Bancorp has also shown negative returns over the last year, significantly underperforming the S&P 500. Ghazarian noted that the financial sector has underperformed the broader market. Cambridge Bancorp's longer term performance has been strong. Ghazarian stated that the stock's dividends are included in Segal's calculation of the overall return from this stock.

Ghazarian reviewed Segal's asset allocation study. He noted that this was previously reviewed at the December investment meeting, although the Board has not yet taken a vote to approve new target allocations. He reviewed the different proposals that Segal has prepared. According to Segal's model, all of the proposed mixes would generate higher returns, and give the system a higher probability of meeting the 7.5% return assumption. Mix 1 and Mix 2 would reduce

allocations to core fixed income and hedge funds. Funds would be added to equities, real estate, timber and infrastructure. Mix 3 cuts the hedge fund allocation to zero and makes no changes to the fixed income sleeve. Allocations to equities, real estate, timber and infrastructure would increase. This mix would have the highest risk component of any of the options. Mix 4 and Mix 5 add Bank Loans as an asset class, cutting back allocations to core fixed income and high yield in order to fund the new mandate. The Director stated that the Board may wish to consider meeting with the Bank Loans candidates to learn more about their products before making a final decision on whether to commit to investing in that asset class.

Ghazarian noted that the system is already slightly overallocated to infrastructure, but Segal feels that they system could invest up to \$10 million more if the Board desires to. He reviewed Segal's analysis of the responses to the infrastructure RFP. The system received seven proposals. Segal eliminated three candidates after their initial review. Axium was eliminated because the portfolio is not well diversified. 89% of assets are related to energy. EagleCrest was eliminated because their submission did not include all required materials. CBRE was eliminated because the strategy has not yet launched. Brookfield is still under review by Segal, and Ghazarian stated that Segal would likely give them a positive recommendation within the next six months once due diligence is complete. Segal gave positive recommendations to the other three applicants. IFM, the incumbent manager, was rated as "Highly Advantageous". JP Morgan and Ullico were rated as "Advantageous". Ghazarian noted that IFM has the best track record of returns, as well as the lowest management fee. The product offered by IFM is exactly the same as the one the system currently invests in. Should Cambridge opt to place additional funds with them, it would simply be added into the existing fund. The Ullico fund is more weighted toward investments in the United States, and they have a policy of only investing in projects that use union labor. Their management fee is significantly higher than the other two managers. Motion by Monagle, seconded by Shinkwin to invite IFM, JP Morgan and Ullico to interview before the Board. Voted unanimously.

Scott Conlon and John Grybauskas represented Aberdeen. A written portfolio review was submitted to the Board. Grybauskas provided an update on the merger with Standard Life PLC, which was completed 18 months earlier. The firm operated with a co-CEO structure for over a year, but Keith Skeoch has now been appointed as sole CEO. He also stated that Stephanie Bruce has been appointed as CFO following the retirement of Bill Rattray. The firm has now opened a new office in Shanghai, as the firm looks to improve their research capability in China. Over the last year, the fund has returned -4.76% vs. the benchmark at -7.07%. Conlon stated that the relative out performance was due to good stock selection. Overall, 2018 was a difficult year for emerging markets, mainly due to the strong US Dollar and the possibility of a US-China trade war. Returns have come back in 2019. Conlon credited this to the Fed's announcement that there would likely be no further interest rate increases in 2019. Further, China has made moves to stimulate their economy through tax cuts. Conlon stated that he believes the portfolio is well positioned to take advantage of increased buying power from Chinese consumers. He noted that Aberdeen has invested in Chinese domestic firms under a special license for a number of years. Typically, foreigners are limited to only investing through offshore facilities. These restrictions have been loosened over the last few years. He described the holding of Moutai, a Chinese liquor producer, and noted that they have been able to produce more expensive products for upscale consumers. He stated that about half of the portfolio's Chinese holdings are geared toward the domestic market, and half are more export-focused. Looking forward, Conlon said that he anticipates that there will be a resolution to the US-China trade dispute but that, even in the event of a deal, some firms will opt to move operations outside of China. He also described the investment process, noting that within Emerging Markets, there can be issues around transparency and corporate governance that would not be present in developed markets.

Frank Sposato and Ben Wulfsohn represented Lazard Asset Management. A written portfolio review was submitted to the Board. There have been no changes to the portfolio management or strategy over the last year. The firm has opened a new office in Hong Kong. Wulfsohn stated that it was important to have people on the ground in order to understand the Chinese markets. Value investing was somewhat more in favor during the fourth quarter of 2018. The portfolio's relative performance was helped by steep declines for Tencent and Alibaba, which are not in the Lazard portfolio. Markets rallied in February, based mainly on rumors of a settlement of the US-China trade dispute. Growth stocks seemed to come back into favor and the portfolio's performance declined. The portfolio was hurt by an overweight exposure to South Africa. There have been fears of a downgrade by ratings agencies following a decision by the government to bail out a stateowned electrical producer. The firm still has avoided the large Chinese e-commerce stocks, feeling that they are overvalued. Wulfsohn stated that the firm is positioned defensively, in anticipation that there will be no quick resolution to the trade war. He stated that the firm would likely underperform if a deal were struck quickly. He noted the current environment seems more favorable to firms like Uber and Tesla, which generate no profit, but have the potential for future growth. He stated that a return to a focus on fundamentals would benefit the portfolio. Wulfsohn described the firm's investment process, focusing on their accounting validation. He stated the importance of this process, for verifying the balance sheets of firms which may have transparency issues. Sposato stated that Lazard has no written statements on diversity that could be released to the public. He stated that the firm was working on developing written statements. They have also begun a recruiting program at HBCUs since 2018 and have created a Board committee devoted to diversity issues.

Leigh Crosby and Marena Hnat-Dembitz represented Wellington Management. A written portfolio summary was reviewed by the Board. There have been no changes to the portfolio's management or investment strategy. Hnat-Dembitz reviewed the portfolio strategy, noting that currency exposures are actively managed, and may be hedged in some cases. Over the last year, the fund has returned -7.36% vs. the benchmark at -4.93%. The portfolio was hurt by overweight positions in South Africa, Russia and Turkey. The first quarter of 2019 saw improved returns as the Fed moved to a neutral position on interest rates. Currency depreciation was a significant drag on performance. Argentina and Turkey showed the most currency weakness. Hnat-Dembitz described potential risks to the portfolio, as global growth appears to be slowing. The firm feels that valuations are now moderately attractive, and they feel it is beneficial to maintain a pro-risk bias. The portfolio is more diverse than the benchmark, consisting of bonds from 32 countries. The benchmark includes 19 countries. The portfolio is overweight to Russia, although Hnat-Dembitz noted that there is some risk of new sanctions being imposed on Russia.

Jon Albro represented Penn Square Real Estate. A written review of the portfolio was presented to the Board. There have been no changes to the portfolio management or investment strategy. The portfolio is approaching its termination date. It has now returned \$5.2 million on \$3.4 million in contributed capital. The fund is scheduled to end in early 2020, although the firm has the right to extend this for up to two more years. Albro stated that he hoped to avoid the need for an extension, particularly given that it appears to be a good time to sell. He stated that he was pushing the underlying managers to liquidate in a timely manner. Albro stated that he was very pleased with the performance of the fund, and he would be very pleased to have Cambridge invest in a future fund. He stated that Penn Square's next fund would focus exclusively on industrial properties. The demand for industrial space has risen rapidly as the needs of e-commerce firms expand.

Maria Bascetta represented UBS. A written overview of the portfolio was presented to the Board. Cambridge has been an investor since 1988, gaining an 8.89% annual return since that time. Bascetta described the work of redeveloping CambridgeSide. One floor of retail space will be converted to offices. Bascetta said there has been a great deal of interest in renting the new office space. Another retail building on the site will be converted to offices and apartments. UBS is currently selling the Stamford Town Center mall in Connecticut. The firm considered redeveloping that site as well, but ultimately decided that it would be too expensive. She stated that real estate investors are likely to see significant write-downs on retail property in the years to come. The fund has underperformed the index over the last five years due to lower use of leverage vs. the benchmark. The fund maintains a focus on properties on the coasts. The fund now has \$21.9 billion in assets, consisting of 196 properties. UBS has been a net seller over the last two years. This is partially due to redemption requests from clients, but also because the firm feels it is an advantageous time to sell. The portfolio sold 53 State Street, Boston at the end of 2018. Value-added properties currently comprise 3% of the portfolio. The portfolio remains overweighted to apartments, with Bascetta stating the firm feels apartment properties are more stable. The firm sold two hotel properties over the last year, and hotels now comprise only 3% of the portfolio. The portfolio has the lowest risk measure of any fund in the ODCE index, as well as the lowest leverage.

The Board reviewed Segal's analysis of the responses to the Bank Loans RFP. 21 firms responded to the RFP. None of the responses came from women or minority-owned firms. Ghazarian noted that typically, a bank loan product should offer returns that are higher than fixed income, but less than high yield, with corresponding risk. Segal rated five firms as "Highly Advantageous". They are Credit Suisse, Eaton Vance, Pinebridge, Voya and Wellington. Five firms were rated as "Advantageous". They are Bain, Lord Abbett, Oaktree, Octagon and Shenkman. The remaining firms were rated as "Not Advantageous." Ghazarian said that there were a variety of reasons why some firms were rated lower. Many took a very conservative approach resulting in lower returns. Others had a shorter track record, or less assets under management. Segal's report did not include a fee analysis, but Ghazarian stated that most managers would charge between 50 and 65 basis points annually. Ghazarian noted that Octagon has the best track record of returns over the last seven years, but the portfolio has only existed since 2012. The other funds have at least a ten year record of returns. The Chairman requested that Segal amend their report to include a comparison of fees. Without objection, the Board agreed to table the matter until Segal revises their report.

Andrew Blanchard and Tara McCann represented Rockwood Capital. A written review of the portfolio was submitted to the Board. There have been no changes to the portfolio team or investment strategy. Cambridge is currently invested in Fund IX, having committed \$18 million in 2013. Blanchard stated that the fund is targeting a 13.8% net IRR. The fund is well into the harvesting phase. The final acquisitions closed in Spring 2016. Overall, the fund closed on 23 properties and has now sold 16, with one sale pending. Blanchard anticipated that the fund would be fully liquidated by June 2021, which is one year ahead of the initial contracted expiration date. The fund has targeted three additional properties for sale within the next year. To date, the fund has called 91% of committed capital. The remaining amount will be held in reserve. Blanchard reviewed the investment strategy and risk management. At the start of the fund, the majority of the targeted properties are planned to generate income within 12 to 18 months. A number of properties generate income immediately. The firm attempts to control risk by holding longer renovations (24-36 months) to between 15-30% of the fund. McCann reviewed the launch of Fund XI, at a target size of \$1.25 billion. The fund will likely be open to investors through June 2020. The strategy is largely similar to prior funds. Blanchard described the process of marketing properties for sale. He noted that there was less interest from foreign buyers than in prior years.

Scott Humber, Onnie Mayshak and Quentin Kruel represented Landmark Partners. A written portfolio report was submitted to the Board. There have been no significant changes to the portfolio team over the last year. The Board is now invested in two secondary funds, Real Estate Fund VI and Private Equity Fund XV.

Kruel reviewed the performance of the real estate fund. The fund consists mainly of US-based funds, with some investments in Europe and Asia. This fund is now fully subscribed. The portfolio

closed 30 transactions, acquiring 83 partnership interests. It is generating a net IRR of 19.6%. The total fund invested \$681 million, and has now made \$912 million in distributions. The remaining value of the fund is \$116 million. All the remaining managers are in the process of liquidating, and the fund should terminate within 24 months.

Humber reviewed the performance of the private equity fund. The fund closed in 2014 and has now finalized its investments. The portfolio closed 56 transactions, acquiring 179 partnership interests. It is generating a net IRR of 16.7%. The portfolio is well diversified in terms of vintage year, industry and strategy. The fund has now returned 75% of invested capital. Humber described the liquidation process. He noted that Landmark has no control over when and how underlying managers wind down their funds. Generally speaking, managers will be reluctant to sell out in down markets, such as the 4th quarter of 2018. The firm will likely begin raising a Private Equity Fund XVII before the end of the year.

The Board agreed to conduct the infrastructure manager interviews on July 1, 2019 starting at 2:00 PM, with the Board taking up regular business immediately following the interviews.

Monagle moved to adjourn at 3:55 PM.