City of Philadelphia
Board of Pensions and Retirement

Investment Policy Statement

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Section 1 - Introduction

The principal purpose of the Municipal Pension Fund (hereinafter the "Fund") is to assure the availability of resources adequate to provide retirement benefits for its members and their beneficiaries. Investment decisions will be based upon safety of principal and optimal total return in that order.

The members of the Board of Pensions and Retirement (hereinafter, "Board" or "Board Members") shall be the trustees of the fund and shall have exclusive control and management of the Fund and full power to invest and preserve the same subject, however, to the exercise of that degree of judgment, skill and care under the circumstances then prevailing which persons of prudence, discretion and intelligence, who are familiar with such matters would use in the conduct of an enterprise of a like character and with like aims. The Board shall appoint an Investment Committee comprised of all of its members. The Director of Finance shall serve as Chairman of the Investment Committee. Oversight of investment activities shall be the responsibility of the Investment Committee.

Section 2 – Responsibilities of Parties

Policy 2.1 - Responsibilities of Chief Investment Officer and Investment Staff

The day-to-day oversight and management of the Fund's investment program are delegated to the Chief Investment Officer (CIO) and the Investment Staff. The CIO is responsible for execution of those elements of the Investment Policies and Procedures identified to the CIO and for keeping the Investment Committee informed of developments regarding the Fund, its investments including asset classes, manager strategies, and managers, and developments within the financial marketplace which may impact the Fund.

The Investment Staff is responsible for the monitoring of asset classes, manager strategies and managers and for preparation of recommendations and other materials that will be submitted to the CIO for review and approval prior to being placed on the Investment Committee agenda for action.

It is intended that the role of the Investment Staff be proactive in bringing matters of concern and opportunity to the attention of the CIO and Investment Committee. The CIO shall recommend to the Investment Committee that independent consultants be retained as required to supplement the resources of the Investment Staff and to provide an independent source of review to the Investment Committee.

Rationale:

It is the desire of the Investment Committee that the CIO and Investment Staff assume a larger role in the review and control of the Fund and its investments. The Investment Committee will be relying upon the Investment Staff to prepare the monitoring and review reports mandated by these Policies and Procedures and with the endorsement of their recommendations by the CIO, provide actionable proposals to the Investment Committee for approval.

Procedure:

1. The CIO shall divide responsibility for asset classes, manager strategies, and managers among the members of the Investment Staff.

   In order to provide for a diversity of ideas and to protect the integrity of the CIO review and approval process, it is not the desire of the Investment Committee that the CIO assume primary responsibility for any asset class, manager strategy, or manager in which Fund managers are selected pursuant to Philadelphia Code Chapter 17-1400.

2. The CIO shall organize and chair periodic meetings of the Investment Staff to review the Fund's investments and determine which recommendations and materials are to be presented to the Investment Committee.

Policy 2.2 - Responsibilities of Investment Managers

The Investment Committee has delegated to various investment managers (hereinafter "Investment Managers", or "managers"), subject to the Investment Policy and manager-specific guidelines and restrictions, the responsibility to manage a portion of the assets of the plan.

The relevant portions of the Investment Policy and manager-specific guidelines and restrictions shall be incorporated into the individual Investment Manager contracts and their compliance shall be certified by the manager and reviewed by the Investment Staff on an annual basis.

In order to provide an opportunity for the Investment Committee to interact directly with the Fund's Investment Managers, each Investment Manager will meet with the Investment Committee upon request of the Investment Committee.

Rationale:

The Investment Committee has, at present, determined that external Investment Managers will be used to manage assets of the Fund. The responsibilities of external Investment Managers shall be defined by their contracts and all other applicable legal requirements.

Procedure:

1. The CIO will schedule meetings with external Investment Managers upon the request Investment Committee members at the next scheduled Investment Committee meeting.

Policy 2.3 - Responsibilities of Investment Consultants

While the Investment Committee places primary responsibility to provide analysis and recommendations with the CIO and Investment Staff, the Investment Committee may utilize external generalist and specialist consultants (each a "Consultant") to provide additional expertise and Investment Manager oversight.

Rationale:

As the Fund's investments increase in scope and complexity, it would be beneficial to the CIO and Investment Staff to utilize Consultants to provide additional human and analytical resources to the Plan. These Consultants can supplement the resources available to the CIO and Investment Staff and address issues for which internal development of those resources is not feasible or cost effective.

Procedure:

None is required for implementation of this policy.

Section 3 - General Operations

Policy 3.1 - Operating Cash

It is the policy of the Investment Committee to minimize the amount of short-term fixed income or cash equivalents given the potential to adversely impact performance of the Fund over the long-term. Such cash equivalents may also adversely impact the investment process of the active Investment Managers.

In furtherance of the above, the Investment Committee has established a cash allocation within the approved asset allocation. The level of cash and equivalents will be reviewed and determined by the CIO on an ongoing basis and the Investment Committee will be advised at the earlier of 30 days or the next Board meeting.

Rationale:

The Plan, in the ordinary course of its operations, has substantial cash inflows from periodic contributions by the City, dividends, coupons, distributions and redemption proceeds and outflows necessary to make payments to beneficiaries. Fund assets maintained in cash equivalents either awaiting investment or held to fund future benefits payments may have an adverse impact on the fund's performance.

Procedure:

1. The level of cash and equivalents will be reviewed and determined by the CIO on an ongoing basis and the Investment Committee will be advised at the earlier of 30 days or the next Board meeting.

Policy 3.2 - Generation of Required Cash Balances

Should cash be required for benefits payments or other plan expenses beyond that available from the cash allocation, such cash shall be generated with steps taken in the following order:

1. The Independence Fund shall transfer all cash not required to settle already-traded transactions. The Independence Fund shall receive cash equal to the amount so transferred upon determination by the CIO and Investment Staff that the cash allocation has sufficient cash to satisfy future cash needs.

2. Managers should be requested to transfer income cash when received to the Fund.

3. Managers with un-invested cash not required to settle already-traded purchases shall be requested to transfer the cash required to the Fund.

4. External managers will be requested to make sales based on an identification of the least attractive securities presently held, based on their investment strategy and process, and to transfer the cash so generated to the Fund. This step shall be continued until the funding requirements are met.

In all cases, it is objective of the Investment Committee to minimize the potential disruption to investment processes of the Fund's Investment Managers.

To the extent not already contained in the Board's investment management agreements with managers, all such agreements shall reserve to the Board the explicit right to demand from managers income cash, un-invested cash, proceeds from prospective sales, and sales of the least attractive securities presently held.

The Investment Committee delegates to the CIO the authority to permit exceptions to the strict application of the procedure with respect to any given manager or transaction if the best interests of the Fund are enhanced by that exception.

Rationale:

While undesirable, it is occasionally necessary to request funds from the managers in order to maintain an appropriate level of liquidity. The process established in this policy is intended to minimize the impact on the Plan's performance and the performance of each Investment Manager.

Procedure:

1. The CIO will ensure that steps 1-4 are completed and report any exceptions to the Investment Committee at the earlier of 30 days or the next scheduled Investment Committee meeting.

Policy 3.3 - Investment of Available Excess Cash Balances

The investment of available excess cash balances shall be used, to the extent possible to rebalance the asset class weights to the policy targets. Should the cash allocation exceed the upper limit of the target range, such cash shall be distributed with steps in the following order:

1. Those asset classes which are below the target levels for the current asset allocation shall be increased to target levels. The cash shall be distributed to Investment Managers demonstrating the ability to meet their stated investment objectives. No manager currently on the Watch-list (as defined in Policy 8.5) or in the process for addition to the Watch-list will be the recipient of excess cash allocations.

2. If cash remains after increasing asset classes to target levels, the asset classes with the highest expected returns will be increased to a level between the target and the upper limit of the target range. Investment Managers demonstrating the ability to meet their stated investment objectives shall be considered. No manager on the Watch-list or being contemplated for addition to the Watch-list will be the recipient of excess cash allocations.

The Investment Committee pre-delegates to the CIO the authority to deviate from the strict application of this policy if the interests of the Fund are best served by that flexibility.

Rationale:

If additional cash is available for investment, it should first be used to increase asset classes with current allocations below target and then used to increase allocations to those asset classes and Investment Managers with the most attractive expected returns.

Procedure:

1. Upon the identification that excess cash is available, the CIO shall advise the Investment Committee and direct the Investment Staff to identify which managers and asset classes are to be impacted.

2. After advising the Investment Committee of the actions to be taken, the CIO shall advise the managers of the forthcoming cash.

3. The CIO will report to the Investment Committee any use of the flexibility to deviate from the strict application of the policy.

Policy 3.4 - Permitted Deviations from Asset Allocation Weights and Rebalancing Procedures

In order that the asset allocation implemented will generate the desired Fund performance, it is necessary to manage asset class deviation from the target allocations. Effective management of asset class deviations will ensure that under normal circumstances the deviations have minimal impact on the ability to meet desired return and risk objectives. The CIO and Investment Staff may recommend tactical deviations from the approved asset allocation in order to better manage risk and capture excess returns. Any planned deviations from the target and approved asset allocation should be communicated to and approved by the Investment Committee. Such deviations will be limited to the approved ranges.

In the event that the CIO determines that changes required are de-minimis and adjustments are not in the best interests of the Fund, the Investment Committee pre-delegates authority to the CIO not to perform the rebalancing operations.

Rationale:

In order that the asset allocation implemented will generate the desired Fund performance, it is necessary to manage asset class deviation from the target allocations.

Procedure:

1. The CIO and Investment Staff, as part of the annual asset class review, shall compare actual asset class allocations with target ranges.

2. If the actual allocation is beyond the limits, the policy steps above shall be implemented to rebalance the portfolio.

3. If the CIO determines that rebalancing is not in the best interests of the Fund and elects to use the pre-delegated authority not to rebalance, the CIO shall report that finding to the Investment Committee.

Policy 3.5 - Manager Transition Processes

The transition of assets from one manager to another can generate significant expense for the Fund, both in terms of commissions and in diminished value from market impact of trades. It is therefore desirable to minimize that financial impact when a transition is required.

As the facts and circumstances of transitions can vary significantly, it is not possible or desirable to prescribe a procedure for all cases. However, the Investment Committee desires to minimize the impact of transitions by employing all means available, including:

1. Providing a list of all securities presently held by terminated managers to all successor managers. Successor managers are free to select securities from this list and have them transferred to their manager accounts at the custodian. In the event that multiple successor managers select the same securities, the CIO and Investment Staff will allocate the securities in a manner that reflects the best interests of the Plan.

2. Offering the remaining securities as a package to several brokers and seeking the best package price. The best package price would generally be selected.

3. If there are no bidders for the remaining securities, they shall be distributed to the successor managers who will be given a period at the discretion of the CIO to liquidate the remaining securities and begin to implement their management process.

4. The CIO may consider the employment of a transition manager.

5. The CIO shall establish the point in time where the evaluation of the new manager’s performance begins.

Rationale:

In order to minimize the costs associated with transitioning assets between managers, successor managers should have the opportunity to select assets prior to their sale, either as a package or as individual issues. In the event of sale by successor managers, the evaluation of the successor manager's performance will begin after the conversion of the former manager's securities to cash.

Procedure:

1. In the event of a transition of assets between managers, the CIO will have the responsibility to implement the steps of this Policy.

2. The CIO will make the determination as to the commencement of the evaluation period which will become the inception date of that manager's responsibility for the Fund's assets for future evaluations.

Policy 3.6 - The Independence Fund

It is the policy of the Board that there will be maintained an internal tactical investment fund, hereby known as the "Independence Fund." As set forth separately in the Independence Fund Guidelines, approved January 23, 2013, and as amended from time to time, the CIO shall act as the primary manager of the Independence Fund, with the assistance of Investment Staff.

As approved by the Board, the Independence Fund develops its strategies through internally generated research by Investment Staff. It focuses globally on both developed and emerging economies. Its strategies seek to exploit identified market inefficiencies that offer long term attractive returns.

The Independence Fund will be monitored in the manner of an Equity Long/Short Hedge Fund, as defined in the Statement of Investment Policy for Hedge Funds (the "Hedge Fund Guidelines") and according to the "Monitoring Procedures" set forth in the Hedge Fund Guidelines, and according to the individual risk control procedures set forth in the Independence Fund Guidelines.

Rationale:

The Independence Fund is designed to provide the Fund tactical flexibility to hedge against and profit from market inefficiencies and dislocations. Because it is an internal fund, managed by the CIO, the Independence Fund will provide the Fund greater liquidity and accountability to the Board than do typical Hedge Funds.

Section 4 - Investment Philosophy

Policy 4.1 – Management Approaches

It is the policy of the Investment Committee to pay active or alternative management fees only for those manager styles where there is demonstrated value added over passive management, adjusted for the fees involved with both methods.

Rationale:

In order to achieve the long-term goals of the Fund, the Fund's capital must be invested in assets which provide a return. The management of those assets entails costs, both in terms of professional fees for management and expenses as well as direct and indirect transactions costs. As these fees and expenses are a direct charge against the assets of the Plan, it is desirable to minimize their impact on the performance of the Fund.

The CIO and Investment Staff shall consider the performance of a broad style universe versus its relevant benchmark when determining the amount of active, alternative and passive exposure.

Procedure:

1. As part of the asset allocation process, there will be designated ranges for active, passive and alternative management.

2. The designated ranges can be revisited at any time when in the opinion of the CIO there has been a material change in relative performance of active managers versus their appropriate indices.

3. As part of the annual asset allocation process, ranges for active, passive and alternative management will be recommended by Investment Staff and approved by the Investment Committee.

Policy 4.2 - Risk Tolerance

In view of the public trust of the Fund, the risk tolerance of the Investment Committee is commensurate with that which would be appropriate for a public retirement fund in a similar financial position.

The Fund is prepared to assume the risks inherent in commonly used alternative and traditional asset classes and strategies. Additionally, the Fund will consider Opportunistic Investments that offer higher risk-adjusted returns.

Rationale:

The ultimate level of risk taken by the Fund should be discussed and reviewed in the course of the annual asset allocation review so that the Investment Committee can determine their comfort with the overall level of risk of the Fund.

Procedure:

1. Prior to the adoption of the annual asset allocation, the CIO and Investment Staff shall report the current and projected level of risk to be assumed by the Fund. The Investment Committee should review the worst-case scenarios and be confident that the risks are acceptable and should the scenario occur, they are confident they could maintain the policy until there is a recovery.

Section 5 - Investment Policy Statement

Policy 5.1 - Maintenance of Investment Policy Statement

In order to document and communicate the objectives, restrictions, and guidelines for the Fund's Investment Staff and investments, a continuously updated Investment Policy Statement will be maintained. The Investment Policy Statement shall be updated at the January Board meeting of each year.

Rationale:

It is necessary to have a document which can be shared with appropriate parties which provides, in an authoritative manner, a codification of parameters for operating and investment.

Procedure:

1. Annually, at the January Board meeting, the Investment Policy Statement should be reviewed and re-affirmed.

Policy 5.2 - Contents of Investment Policy Statement

The Investment Policy Statement should contain all information, with the exception of manager specific objectives, restrictions, and guidelines that are required to understand the investment protocol employed by the Fund. The information will include but is not limited to a discussion of the purpose of the fund, the source of legal authority for its management, roles of staff, board and consultants, investment goals and objectives, definitions of permitted asset classes and asset allocation percentage weight targets with tactical ranges.

Rationale:

The Investment Policy Statement is a document which can be provided to appropriate interested parties which concisely provides an authoritative overview of the Fund's investment strategy.

Procedure: None Required for Implementation

Policy 5.3 - Incorporation of Relevant Portions of Investment Policy Statement in Manager Contracts

Relevant portions of the Investment Policy Statement shall be incorporated into each manager's investment manager contract.

Rationale:

Incorporation of the relevant portions of the Investment Policy Statement into each manager's contract provides an authoritative communication of the responsibilities, guidelines and context under which their management should function. Incorporation also insures consistency between the manager contracts and the overall structure and design of the Plan.

Procedure:

1. During the process of preparing manager contracts, the appropriate sections of the Investment Policy Statement shall be incorporated.

2. The Fund will strive to have contracts approved and executed within 45 days of Board implementation. This timeliness provision shall apply to all investment related contracts.

Section 6 - Asset Allocation

Policy 6.1 - Authority of Asset Allocation Process

The asset allocation of the Fund is the most significant factor in development of the Fund's investment structure and the Fund's long-term investment performance. The asset allocation expresses the allowable asset classes and investment strategies, forecasts expected returns and risk and correlation among diversified asset categories. The process provides an opportunity to address forward looking expectations and select benchmarks for the Fund, Investment Managers and asset classes by which those expectations will be measured over short, intermediate and longer-time periods.

The current asset allocation is the authoritative source for the expectations and benchmarks. No benchmark or expectation shall be changed in a manner materially inconsistent with the assumptions for the current asset allocation.

Rationale:

The Investment Committee believes that the Fund's investment structure will reflect the assumptions in the asset allocation and that this alignment will improve the portfolio's ability achieve the Fund's long-term objectives.

Procedure:

1. The asset class return and risk expectations and benchmarks developed for each asset class and incorporated into the asset allocation shall be consistent with those benchmarks used for performance measurement purposes and evaluation purposes.

2. The expectations and benchmarks developed for each asset class shall be weighted to reflect the percentage of the Fund invested in each asset class.

3. The expectations and benchmarks developed for each Investment Manager shall be appropriate for the Investment Manager's style.

Policy 6.2 - Determination of Asset Classes to be Included

Asset classes included in the asset allocation must be defined herein and approved by the Investment Committee. Investment staff and the CIO may recommend the inclusion of a new asset class only upon the review of the overall asset allocation. This may occur during the scheduled annual process or at any regularly scheduled Investment Committee meeting.

Rationale:

The Investment Committee recognizes that new asset classes develop over time and herein provides for their inclusion.

Procedure:

1. Prior to consideration for inclusion in the Fund's portfolio, each asset class must be defined and the appropriate level of analysis provided to the Investment Committee by the CIO and Investment Staff.

Policy 6.3 - Periodic Reviews of the Validity of Asset Class Assumptions

As part of the asset allocation review, the Investment Committee will consider asset class assumptions used in the asset allocation study. These assumptions will include but not be limited to expected return and risk for each asset class.

On an annual basis, the validity of the each of the assumptions utilized in the current asset allocation will be presented by Investment Staff and or the Consultant. If during that annual review, an assumption is determined not to be valid, adjustments will be made to the asset class assumptions.

Rationale:

Assumptions used for the asset allocation should be reviewed on an annual basis to give the Investment Committee confidence that the basis of the annual asset allocation review and recommendations are valid.

If the confidence level for any assumption is below 50%, the assumption should be reviewed and adjusted based on key drivers of risk and return for that asset class or category.

Procedure:

1. If the confidence level falls below 50%, a review of that asset class assumption must be undertaken. Modifications to the assumptions should be documented.

Policy 6.4 - Periodic Reviews of Fund's Asset Class Performance

On an annual basis, the performance of the Fund's investment in each asset class shall be reviewed. If the asset class performance assumptions remain valid but the Fund's asset class performance fails to meet performance objectives the overall structure of the asset class must be reviewed including manager style weightings within the asset class, the selection of active, passive or alternative modes of management, or the actual selection of managers.

Rationale:

Under-performance by the Fund must be addressed by reviewing each asset class performance: the weighting of manager styles, the use of active, passive or alternative management or the actual selection of managers.

Application of this process can lead to adjustments including weighting between the manager styles and modes of management comprising the asset class.

Procedure:

1. Annually, the performance of the Fund in each of the asset classes represented in the present asset allocation will be reviewed and compared to the assumptions used for the present asset allocation.

2. If, during the annual review, the confidence level falls below 50% for any asset class performance, a review of the manager style weightings, mode of management, or managers used must be undertaken for that asset class.

Policy 6.5 - Periodic Reviews of Manager Performance

It is the policy of the Investment Committee to review each manager’s performance on a monthly basis through the prepared Flash Report.

Rationale:

As the overall performance of the Fund's assets is ultimately the result of the performance of individual managers, the performance of the managers should be reviewed with sufficient frequency to permit identification of substandard performance as quickly as possible. Conversely, managers with substandard short-term performance should be given sufficient time for improvement and to permit differentiation between chronic poor performers and good managers whose strategy is temporarily out of favor.

Procedure:

1 Investment Staff and/or the Consultant should prepare a monthly Flash Report displaying the performance on the Fund’s managers over short-term and long-term time periods.

2. The Investment Committee shall review the monthly Flash Reports and may make recommendations to add or remove managers from the Watch-list.

3. Managers on the Watch-list will be evaluated more closely on a month to month basis and may be required to appear before the Investment Committee.

Policy 6.6 - Extraordinary Reviews of Managers

It is the policy of the Investment Committee that if an event occurs within a manager's organization or is likely to impact the manager's organization, the CIO shall make a determination whether such event compromises the investment process or in any other manner might negatively impact the management of the Fund's assets.

Such events would include but are not limited to:

a) Change in ownership or control.

b) Sale, offer for sale, or offer to purchase the manager's business to/by another entity.

c) Significant alteration of the investment manager team responsibilities.

d) Loss of any significant investment professional directly involved with the management of Fund assets or of such significance to the manager's overall investment process as to call into question the future efficacy of that process.

e) Significant financial difficulty or loss of a sizable portion of the manager's assets under management.

f) Criminal indictments of a member of the manager’s team

g) Violations of investment guidelines or non-compliance with the other stated terms of the investment management agreement.

h) Deviation from stated investment style and/or philosophy.

i) Filing or announcement of regulatory action of non-trivial nature, particularly that involving violations of the Investment Advisers Act of 1940, the Securities Act of 1933, or the Securities Exchange Act of 1934, or any state Blue Sky Law to which the manager is subject.

j) Material litigation involving the Investment Manager.

k) Any other event which in the discretion of CIO appears to put the Fund's assets at risk of loss, either actual or opportunity.

As time may be critical, the Investment Committee shall delegate to the CIO authority, after consultation with the Chair of the Investment Committee, to take such action as required to protect the assets of the Fund. The Investment Committee must be notified of such action within 30 days or at the next Investment Committee meeting.

Rationale:

There are circumstances which can quickly develop which can adversely affect an investment manager's capability to properly manage the Fund's assets. There needs to be in place a procedure to permit appropriate action to be taken should the Fund's assets appear to be at risk.

Procedure:

1. The CIO and Investment Staff, with the assistance of consultants as required, shall continuously monitor the Fund's investment managers for occurrence of events that involve the circumstances addressed in the policy.

2. Upon the occurrence of any of these events, the CIO shall take such steps as are required to ensure compliance with this Policy and to protect the Fund's assets, including the recommendation for the Investment Committee to place Investment Managers on the Watch-list.

Section 7 - Asset Class Management and Structure

Policy 7.1 - Definition and Inclusion Asset Classes

An asset class used by the Fund should be defined herein. During the asset allocation review, the Investment Committee, Investment Staff or Consultant may recommend the addition of asset classes not presently used by the Fund. The CIO or Consultant shall evaluate the impact of the addition of that asset class when used in conjunction with the existing asset classes. In the event that multiple additional asset classes are to be considered, the CIO or Consultant shall evaluate all combinations of new asset classes in conjunction with those presently used.

Rationale:

As the financial markets evolve, additional asset classes, not currently used by the Fund, may present an attractive alternative investment. To ensure that due consideration is given to the inclusion of one or more additional asset classes, a process must be developed to fully explore the impact on the Fund.

Procedure:

1. At any Investment Committee meeting, the Investment Staff, CIO, Consultant or a Board Member may recommend the inclusion of a new asset class. A recommendation must include a full, impartial, and complete briefing to the Investment Committee that includes return characteristics, risks, and potential liabilities of that asset class.

2. The CIO or Consultant shall develop a precise definition and specifications including appropriate assumptions or the asset class for inclusion herein.

Policy 7.2 - Elimination of an Asset Class

Asset classes which are found not to be contributing to the performance and diversification of the Fund may be eliminated upon recommendation to the Board by the Investment Staff, CIO, Consultant or a Board Member during any Investment Committee meeting.

Rationale:

Asset classes which are not continuously contributing to the long-term goals and objectives of the Fund should be eliminated.

Procedure:

1. At any Investment Committee meeting, the Investment Staff, CIO, Consultant or a Board Member may recommend the elimination of an existing asset class. A recommendation must include a full, impartial, and complete briefing to the Investment Committee.

Policy 7.3 - Alternative Investments

The Fund may, from time to time, make investments in products and programs other than traditional stocks, bonds and cash equivalents. These investments, which can be broadly classified as alternative investments, may consist of hedge funds, private equity, private debt, real estate equity, real estate debt, real assets and opportunistic investments resulting from market dislocations and niche investment opportunities which do not fit with other alternative investment categories.

In order to ensure that there is adequate accounting and review of these investments, the CIO shall establish responsibility for accounting, monitoring, and reviewing these assets within the Investment Staff. External resources may be used to assist the Investment Staff in sourcing, review and monitoring alternative investments.

Rationale:

The Fund will achieve return and diversification benefits from non-traditional strategies.

Procedure:

1. The CIO will review on a semi-annual basis with the Investment Committee the assets of the Fund deemed alternative investments.

2. The CIO will establish, within the Investment Staff, responsibility for alternative investments.

3. The CIO will establish, within the Investment Staff or by use of a Consultant, a structure to ensure appropriate accounting and oversight of alternative investments.

Policy 7.4 - Number of Managers Used for Implementation

Except as required to provide access to emerging managers, the Investment Committee shall determine the number of managers used to implement the asset allocation.

Rationale:

It is the belief of the Investment Committee that diversification comes from multiple asset classes and styles and that the use of too many managers can drive results towards mediocrity. An excessive number of managers increases costs due to the sliding scale or marginal management fees used by most managers, and increases the review and monitoring effort required by the Investment Committee and Investment Staff.

Procedure:

1. The CIO with the assistance of the Investment Staff and Consultants shall make a recommendation to the Investment Committee regarding the addition new managers to implement the asset allocation.

Policy 7.5 - Manager Weightings

In the absence of an investment case, the Investment Managers utilized to manage the Fund's assets in a given asset class manager style shall be funded approximately equally. In making the manager weighting decision with respect to an emerging manager, the Investment Committee shall use criteria such as but not limited to the size and maturity of the management organization, the total assets of the management firm and in this manager style, and an assessment by the CIO of the inherent risks involved with the manager style.

Rationale:

External managers in a given asset class manager style shall be funded approximately equally unless there is an investment case to weight the managers differently.

Procedure:

1. Managers utilizing similar styles with a particular asset class should be weighted approximately equally. The CIO may make an investment case for unequal weightings.

2. Manager weights shall be rebalanced annually pursuant to Policy 3.4. The tolerances permitted from the normal weight are within 10% of the normal allocation.

3. If, in the judgment of the CIO, that tolerance is not in the best interests of the Fund in a given market environment, the CIO shall recommend and the Investment Committee consider a proposal to defer the rebalancing until such time as the CIO believes the rebalancing can be accomplished with no material negative impact on the Fund.

Section 8 - Manager Management

Policy 8.1 - Manager Search Requirements

Managers of appropriate expertise, and experience, and who have demonstrated an extremely high level of business integrity. Additionally, in order to ensure that the best investment managers are considered to manage assets for the Fund, it is necessary that minimum qualification criteria be established and approved by the relevant Investment Sub-Committee. The same criteria may be considered for new managers that are used to evaluate existing managers. To prevent the appearance of a conflict of interest, protect the independence and integrity of the Board's decision-making process, ensure that investment decisions are made for the sole benefit of the Fund's members and beneficiaries, and avoid payment of unnecessary costs or fees, Investment Staff will deal directly with any manager or partnership/general partner relating to the management of the Fund's assets and will not use (or authorize use of) any placement agent, third-party marketer, or other intermediary ("placement agent"). Consequently, the Fund will not pay or contribute towards payment of any fees, expenses, or other compensation of any such placement agent.

In general, the following requirements will be applied to all investment managers included in searches, except those granted dispensation as Diversity and Local Managers pursuant to Policy 8.2 or considered to be alternative investment managers:

a) SEC registration under the Investment Company Act of 1940 and state Blue Sky Laws as required.

b) A minimum of five years of firm experience in the management of tax-exempt, institutional assets. Three of these years may represent experience by individuals with other firms, provided there is a contractual representation that individuals utilizing experience from other firms are directly involved with the management of the Fund's assets.

c) Experience with and current client mandates with allocation of funds of a size similar to that to be invested on behalf of the Fund. In general, except for managers granted dispensation as Diversity and Local Managers, the Fund does not desire to represent more than 10% of the assets managed by the firm and more than 20% of the assets invested in the particular manager style or strategy. These tests shall be applied at the time of engagement and reviewed at each annual manager review.

Additional requirements may be imposed for specific mandates or may be required by the Philadelphia Code, the Laws of the Commonwealth of Pennsylvania, or any authoritative Federal legislation. In the event the foregoing is in conflict with any legal requirement, that legal requirement shall have precedence.

Based on the Investment Committee's desire for the inclusion of more Diversity and Local Managers (as defined in Policy 8.2), the Investment Staff and/or Consultant will include at least one Diversity or Local Manager in all searches.

Rationale:

The rationale is contained within the policy.

Procedure:

1. Investment Staff will establish Minimum Qualifications for each manager search and seek approval from the relevant Sub-committee prior to commencement of the search. The criteria will reflect the methodologies by which current managers are evaluated.

2. The Investment Staff and/or Consultant will include at least one Diversity or Local Manager who meets the minimum criteria in all searches. If no Diversity or Local Manager meets the minimum criteria, the Investment Staff/Consultant will seek to include Diversity or Local Managers who meet the criteria of Policy 8.2.

3. The Investment Staff and/or Consultant will first review the existing diverse, emerging, and local managers in the Fund in order to identify a suitable candidate for inclusion in the search.

4. The Investment Staff and/or Consultant will include an appendix in all search material which details the reasons those Diversity or Local Managers not included were excluded.

Policy 8.2 - Provision for Diversity and Local Managers

It is the belief of the Investment Committee that it is desirable to increase participation of minority-, women-, disabled-, and local-owned investment managers (“Diversity and Local Managers”). The Investment Committee acknowledges that an obstacle to access to and participation in the investment management industry is the limited history, relatively small asset size, and other barriers faced by these firms.

It is the policy of the Investment Committee to facilitate access to the industry for these firms by reducing certain of the initial screening criteria which would disadvantage or preclude participation in the competition for the management of the Fund's assets.

As such, during a manager search process, if the Investment Staff and/or Consultant is unable to identify qualified Diversity or Local Managers who meet the criteria in Policy 8.1, the Investment Staff and/or Consultant will seek to include Diversity or Local Managers who meet the criteria set forth below.

For the purpose of this Policy, a "Diversity Manager" shall mean a corporation, company, partnership, firm, business or other entity in which more than fifty percent (> 50%) of the beneficial ownership interests are held by one or more persons who are a woman, a minority person, or a disabled person. For purposes hereof, a "minority person" and a "disabled person" shall have the definitions as set forth in the Mayor's Executive Order 03-12, as may be amended from time to time. A “Local” firm will have an established office located in Philadelphia and meet the requirements of Section 17-109 of the Philadelphia Code.

The dispensations granted in the provisions of Policy 8.1 to Diversity and Local Managers are:

a) A minimum of **three** years of firm experience in the management of tax-exempt, institutional assets. **Two** of these years may represent experience by individuals with other firms, <u>provided</u> there is a contractual representation that individuals utilizing experience from other firms are directly involved with the management of the Fund's assets.

b) The firm has experience with and current client mandates with allocation of funds of a size similar to the reduced size of that to be invested on behalf of the Fund. The Fund will accept representing up to **25%** of the assets managed by the firm and up to **60%** of the assets invested in the particular manager style. These tests shall be applied at time of engagement and reviewed at each quarterly manager review.

c) Minimum firm assets under management need to be greater than $100 million.

In the event that dispensations are granted pursuant to Policy 8.1 to a Diversity or Local Manager, use of such a manager is limited as follows:

a) No more than five percent (5%) of Fund assets at time of initial allocation.

Rationale:

The rationale is contained within the policy.

Procedure:

1. The Investment Staff/Consultant will include at least one Diversity or Local Manager who meets the minimum criteria of Policy 8.1 in all searches. If no Diversity or Local Manager meets the minimum criteria of Policy 8.1, the Investment Staff and/or Consultant will seek to include a Diversity or Local Manager who meets the criteria of Policy 8.2

2. The Investment Staff and/or Consultant will first review the existing Diversity or Local Managers in the Fund in order to identify a suitable candidate for inclusion in the search.

3. The Investment Staff and/or Consultant will include an appendix in all search material which details the reason those Diversity or Local Managers not included were excluded.

4. Annually, the CIO and Investment Staff shall review the qualifications under the Diversity or Local Manager status.

Policy 8.3 – Manager Contracts and Manager Objectives, Guidelines, and Restrictions

It is the policy of the Investment Committee that prior to assumption of investment management responsibility for a portion of the Fund, each Investment Manager shall have developed for it a specific set of manager objectives, guidelines, and restrictions. These objectives, guidelines, and restrictions shall be incorporated into each manager's contract and the manager’s conformance with those guidelines will be reviewed by the Investment Staff as part of their ongoing monitoring process.

The manager's objectives will include specific investment performance targets and benchmarks, both in terms of return as well as standard deviation.

In order to enforce its rights and to better communicate its expectations, each manager with responsibility for the management of Fund assets shall have a current management contract with the Fund. In addition to standard language required for contracts and by the Philadelphia Code, the following investment specific information shall be included:

1. The manager specific objectives, guidelines, and restrictions developed for that manager.

2. A statement that the objectives, guidelines, and restrictions are fully binding on the manager and investments beyond those guidelines and restrictions including securities not defined as being with the asset class are at the risk of the manager and that the Fund can and will pursue recovery for losses, both actual and opportunity.

Rationale:

In order to provide information as to the permitted boundaries of its activities, each Investment Manager must receive specific objectives, guidelines, and restrictions and understand that it is being held to them.

Procedure:

1. Prior to inception of management responsibility, a manager specific contract shall be agreed, approved, and processed as required, incorporating the objectives, guidelines, and restrictions appropriate for that manager to assume its role in the management process of the Fund.

2. Prior to inception of responsibility for a manager, the CIO shall cause to be developed manager specific objectives, guidelines, and restrictions. These are incorporated into the manager contracts and retained by the Investment Staff for incorporation in the periodic manager review process.

3. Annually on the anniversary of the inception of responsibility of each manager, the CIO shall review the established objectives, guidelines, and restrictions for appropriateness and make adjustments as required. These adjustments are binding on the manager as a condition for continuing as a manager for the Fund.

Policy 8.4 - Manager Monitoring

It is the policy of the Investment Committee that each manager, at minimum, be monitored monthly for performance in conformance with its benchmarks and events impacting the management organization with a potential for detrimental impact on the Fund's assets. In the event that concerns about a manager's performance arise, additional analysis may be required, including potential inclusion of the manager on the Watch-list, as described in Policy 8.5.

Rationale:

In order to objectively evaluate managers who add value to the Fund and merit retention, ongoing evaluation is required.

Procedure:

1. On a monthly basis, a monthly Flash Report will be presented to the Investment Committee detailing the performance of the manager relative to established benckmarks.

2. On an annual basis, each manager shall be evaluated comprehensively and a one page summary provided to the Investment Committee detailing the strengths, development areas and outlook for each manager.

3. The Investment Staff, CIO, Consultant or a Board Member may make a recommendation for any action including Watch-list designation or termination at any monthly Investment Committee meeting.

Policy 8.5 – Watch-List

The CIO and Investment Staff will maintain a "Watch-list" as a means to enhance the standard manager monitoring procedures for any Investment Manager by:

1. Reporting chronic underperformance against its benchmarks or peer universe, or

2. Experiencing adverse firm changes, a failure to comply with guidelines or other issues that would be considered detrimental to the investment process

Either of which in the opinion of the CIO, Investment Staff or Consultant could make the manager a possible candidate for future termination. The Watch-list is an intermediate step toward either resolving the manager problem or terminating the manager.

The Investment Committee, CIO and Investment Staff recognize that manager termination can be costly to the Fund and that even the most skilled investment managers will invariably exhibit periods of performance below absolute or relative targets, index benchmarks and peers, and that specific investment strategies could potentially underperform for longer than anticipated periods of time.

Board Authority and Watch-list Policy

The Board of Pensions and Retirement holds the authority to terminate the Investment Management Agreement for any reason and at any time regardless of whether an investment manager is on the Watch-list. There is no minimum time requirement for an investment manager to be on the Watch-list prior to termination; however, in general, an investment manager should be able to take corrective action within a six month timeframe.

Although the Watch-list incorporates longer-term, one, three, and five year time horizons for evaluating manager performance relative to benchmarks and peers, the investment managers are monitored by the CIO and Investment staff through a daily P&L report. Based on this daily report, any significant unexpected underperformance by a manager, as determined by the CIO and Investment Staff, will result in the manager being contacted and asked to provide an explanation. If the CIO and Investment Staff believe that the manager has failed to adequately provide a reasonable rationale for underperformance, then the investment manager will be recommended for inclusion on next month's Watch-list.

The CIO and Investment Staff, in conjunction with the Fund's consultant, will ask each manager on the Watch-list to meet face-to-face to review the manager's process, rationale for underperformance, and plan for corrective action. A report will be produced by Investment Staff and/or the Fund's consultant detailing the meeting and will provide a recommendation to the Board for action.

It is the policy of the Investment Committee that if an event occurs within a manager's organization or is likely to impact the manager's organization, the CIO shall make a determination whether such event compromises the investment process or in any other manner might negatively impact the management of the Fund's assets.

Such events would include but are not limited to:

Firm Structure:

g) Change in ownership or control.

h) Sale, offer for sale, or offer to purchase the manager's business to/by another entity.

i) Significant alteration of the investment manager team responsibilities.

j) Loss of any significant investment professional directly involved with the management of Fund assets or of such significance to the manager's overall investment process as to call into question the future efficacy of that process.

k) Significant financial difficulty or loss of a sizable portion of the manager's assets under management.

l) Criminal indictments of a member of the manager's team

Compliance:

l) Violations of investment guidelines or non-compliance with the other stated terms of the investment management agreement.

m) Deviation from stated investment style and/or philosophy.

n) Filing or announcement of regulatory action of non-trivial nature, particularly that involving violations of the Investment Advisers Act of 1940, the Securities Act of 1933, or the Securities Exchange Act of 1934, or any state Blue Sky Law to which the manager is subject.

o) Material litigation involving the Investment Manager.

Performance:

k) Manager unexpectedly underperforms in the short-term, defined as a period of less than one-year, and does not adequately provide the CIO and Investment Staff with a reasonable explanation for their underperformance.

l) One, Three, and Five-year performance net of fees below specified benchmark

m) One, Three, and Five-year performance net of fees below the median performance of the manager's peer universe

n) Performance is incongruent with the manager's style and/or risk profile

Other:

o) Failure of the manager to respond to reasonable requests for information or providing unsatisfactory client service

p) Any other event which in the discretion of CIO appears to put the Fund's assets at risk of loss, either actual or opportunity.

The CIO or Investment Staff will communicate with any investment manager that is added to the Watch-list, including the reason the manager was added to the Watch-list, the requirements for removal from the Watch-list and the time frame for corrective action. If the CIO and Investment Staff are satisfied that the manager has taken corrective action and has resolved the issues that cause them to be placed on the Watch-list, then Investment Staff and/or the consultant will prepare a report detailing the progress made and provide a recommendation to have the manager taken off the list.

The CIO or Investment Staff will maintain the Watch-list, and report to the Investment Committee monthly on any notable updates to managers on the Watch-list. After presentation of the formal review of a manager and upon the recommendation of Investment Staff, the Consultant or a member of Investment Committee, the manager may be added to or removed from the Watch-list. A majority vote of the Board will determine whether such manager is added or removed.

For private market and private real estate managers, the Investment Committee, the CIO and Investment Staff acknowledge that the long-term nature of private market and private real estate investments reduces the level of flexibility with regard to investment management relationships, allocation and termination processes. For these investments, the CIO, Investment Staff and/or Consultant will monitor performance on an on-going basis. This monitoring could result in a recommendation for the Investment Committee to place the manager on the Watch-list.

Rationale:

The use of a Watch-list establishes a robust reporting framework for the evaluation of underperforming managers and managers experiencing adverse developments, and provides an effective framework for Investment Manager notification of the Investment Committee's heightened concerns regarding the manager, including a timeline for manager corrective action before possible termination.

Procedure:

1. The CIO or Investment Staff will maintain the Watch-list, and report to the Investment Committee monthly on managers being recommended for addition to or removal from the Watch-list, and any notable updates to managers on the Watch-list.

2. The CIO or Investment Staff will communicate with any Investment Manager that is added to the Watch-list, including the reason the manager was added to the Watch-list, the requirements for removal from the Watch-list and the time frame for corrective action.

Policy 8.6 – Manager Termination

Managers will be terminated in a manner to minimize the costs to the Fund if in the opinion of the Investment Committee, based on recommendation of the CIO, Investment Staff, or Consultant their retention does not serve the prudent management of the Fund's assets.

This finding can be the result of an Extraordinary Review of the manager as described in Policy 6.6, Watch-list designation or ongoing manager monitoring. The assets of terminated managers are generally transferred to the other manager in the manager style category pending the engagement of a replacement manager.

Rationale:

Managers which can adversely impact the Fund's assets in a material way require termination. This policy provides examples of the rationale and identification of an interim management process during the search for a new manager.

Procedure:

1. The Investment Staff, CIO, Consultant or a Board Member may make a recommendation for any action including Watch-list designation or termination at any monthly Investment Committee meeting.

Investment Goals

The Fund seeks an annual total rate of return of not less than 7.76% over a full market cycle with a standard deviation of not greater than 10.13% It is anticipated that this return standard should enable the Fund to meet its actuarially assumed earnings projections (currently 7.70%) over a market cycle. Accordingly, the Fund's investment program will pursue its aforestated total rate of return by a combination of income and appreciation, relying upon neither exclusively in evaluating a prospective investment for the Fund. Any exceptions, an investment made solely for income with no prospect of appreciation or an investment made solely for appreciation prospects with no income contribution, will be made only upon recommendation of the Fund's Investment Committee and approval by a majority of the Pension Fund Board.

Approved Asset Allocation

As of September 26, 2016, the approved target portfolio composition is:

Broad Fixed Income	10.00%
Global Fixed Income	2.00%
Emerging Market Debt	2.00%
U.S. Large-Cap Core	22.00%
U.S. Mid-Cap Core	3.00%
U.S. Small-Cap Core	5.00%
ACWI ex-U.S.	15.00%
Non-U.S. Small Cap	6.00%
Emerging Markets	4.00%
Public REITs	1.00%
Real Estate Core	11.00%
Real Estate - Mezzanine	1.00%
Real Estate - Opportunistic	1.00%
Infrastructure	5.00%
Private Equity	10.00%
Private Debt	2.00%
Expected Return	7.76%
Expected Risk (Std. dev.)	10.13%

Asset Classes Approved for Use

As of September 26, 2016, the Board has approved for investment the following asset classes:

1. Cash
2. Domestic Equity
3. International Equity
4. Emerging Markets
5. Investment Grade and Opportunistic Fixed Income
6. Private Equity and Debt
7. Real Estate Equity and Debt
8. Hedge Funds
9. Real Assets
10. Infrastructure

Asset Class Assumptions

Marquette's Expected (7-10 year) Returns for Major Asset Classes (as of September 26, 2016)		
	Average 10 Year Annualized Return	Benchmark Index
Fixed Income		
Broad Fixed Income	2.80%	Bloomberg Barclays US Aggregate TR
Int Govt	2.20%	Bloomberg Barclays US Govt Int TR
High Yield	4.50%	Bloomberg Barclays US High Yield TR
Global Aggregate	1.70%	Bloomberg Barclays Global Aggregate TR
Bank Loans	4.90%	Credit Suisse Leveraged Loans
Emerging Market Debt	6.30%	JP Morgan EMBI Global TR
Equities		
Broad U.S. Equity	7.30%	Russell 3000
Global Equity	7.40%	MSCI ACWI
Broad Non-US Equity	7.60%	MSCI EAFE
Emerging Market	8.60%	MSCI Emerging Markets
Hedge Fund		
Hedge Funds	5.00%	HFRI Fund of Funds Composite Index
Real Estate		
Real Estate - Core	7.60%	NCREIF Fund Index
Public REITs	7.10%	NAREIT
Opportunistic Real Estate	11.70%	NCREIF Property Index
Real Asset		
MLPs	7.60%	Alerian MLP Index
Global Infrastructure	7.50%	Dow Jones Brookfield Global Infrastructure Index
Private Equity		
Private Equity	11.10%	Cambridge Associates
Private Debt	10.00%	Cambridge Associates
Cash		
TIPS	3.80%	Bloomberg Barclays US TIPS TR
91 Day T-Bills	1.20%	

Asset Class Definitions

Domestic Equity
Domestic Equity securities include common and preferred stocks of U.S. corporations or investment company shares (closed-end or open-end) holding by investment policy only or nearly only common and preferred stocks of U.S. corporations and cash equivalent securities.

Domestic equity specifically excludes American Depository Receipts (ADRs) and other U.S. traded instruments whose prices are derived directly or indirectly from the prices or price changes of non-U.S. common stocks except:

a) For managers which have a designated benchmark containing ADRs, ADRs are permitted up to the percentage represented in the benchmark, and

b) If ADRs are permitted by (a) above, such usage of ADRs is limited strictly to those issues which have characteristics similar to the type of securities that would normally occur in the portfolio given the managers stated management style.

Also specifically excluded are market-basket securities such as index futures, index options, or options on index futures.

The domestic equity asset class contains stocks of all capitalization ranges and style-based selection parameters. Only issues which are fully registered and tradable are permitted.

International Equity
International Equity securities include common and preferred stocks of non-U.S. corporations or investment company shares (closed-end or open-end) holding by investment policy only or nearly only common and preferred stocks of non-U.S. corporations and cash equivalent securities.

International Equity can include American Depository Receipts (ADRs), Global Depository Receipts (GDRs), or direct ownership of non-U.S. shares. Specifically excluded are market-basket securities such as index futures, index options, or options on index futures.

As these securities are priced in and pay dividends in foreign currencies, there is a decision required as to whether or not or to what degree to hedge the foreign currency exchange risk.

Emerging Markets
Emerging Market securities include common and preferred stocks of non-U.S. corporations domiciled in countries not considered established markets or investment company shares (closed-end or open-end) holding by investment policy only or nearly only common and preferred stocks of non-U.S. corporations domiciled in countries not considered established markets, and cash equivalent securities.

Emerging Market securities can include American Depository Receipts (ADRs), Global Depository Receipts (GDRs), or direct ownership of non-U.S. shares. Specifically excluded are market-basket securities such as index futures, index options, or options on index futures.

As these securities are priced in and pay dividends in foreign currencies, there is a decision required as to whether or not or to what degree to hedge the foreign currency exchange risk.

Fixed Income
Fixed income includes debt-based fixed income securities. Included in fixed income securities are mortgage-backed, asset-backed, and other pass-through securities. All fixed income securities have a time to maturity of at least one year at time of purchase.

Fixed income includes domestic government and corporate debt securities and further includes bonds and other interest-paying debt securities issued by entities domiciled outside the United States. These entities can include states (sovereign debt), political subdivisions of states such as provinces or municipalities, public authorities, and various corporate-like entities whether private sector, quasi-private, or public.

Private Equity
Private Equity consists of assets which do not fit into other, more standard classifications and do not trade on public markets. They include venture capital, tangible assets, and other non-traditional investments.

Real Estate
Real Estate consists of collective funds, partnerships, and investment companies invested entirely in domestic real estate as well as separate account domestic real estate interests. These investments may from time to time also hold substantial cash positions awaiting property acquisitions, property improvements, and distributions to holders.

This asset class includes all types of improved real estate generally used by institutional investors including office, commercial, industrial, and multi-family residential. Raw land held as a long term speculative investment is specifically excluded from the definition of new real estate. Land held as part of a planned improvement program is permitted.

Real Assets
The Real Assets Asset Class may take the form of passive, active or alternative strategies where returns are derived from exposure energy, infrastructure, industrial and precious metals, agriculture, livestock, inflation-linked securities and commodity indices. Managers for this asset class may include index funds, enhanced index funds, commodity equity managers, commodity hedge funds, commodity trading advisors and private real asset partnerships.

Hedge Funds
Hedge fund strategies generate returns by exploiting mis-pricings and inefficiencies in global capital markets, while reducing exposure to primary market factors/risks (e.g. equity and credit), through various hedging techniques. These strategies have historically delivered returns that are less correlated to equity and fixed income markets than traditional investment strategies. The addition of hedge funds presents an opportunity for the Fund to enhance returns and reduce portfolio volatility.

The long-term objectives of the hedge fund Program are as follows:

a. Enhance the Fund’s long-term risk-adjusted returns;
b. Preserve capital and lower the Fund’s overall volatility;
c. Provide diversification benefits to the Fund.

Hedge Funds may employ leverage, and enter into long, short and/or derivative positions, with the goal of performing well, providing positive absolute returns, in all market conditions.

Independence Fund shall have the asset make-up, investment properties and strategic latitude of a Hedge Fund, but without the liquidity encumbrances typical of a Hedge Fund