Metropolitan Water Reclamation District Retirement Fund
Request for Proposal (RFP) July 2017
Actuarial Services

I. RFP Summary

The Metropolitan Water Reclamation District Retirement Fund (Fund) requests proposals from qualified actuarial consulting firms to provide a range of actuarial services to the Fund while functioning as actuarial consultant to the Fund Board of Trustees and the Executive Director of the Fund.

The goal of this RFP is to evaluate and select an actuarial firm that will serve as consulting actuary to the MWRD Retirement Fund Board of Trustees and Executive Director of the Fund for a five year period, January 1, 2018 through December 31, 2022.

II. Background

The Fund is the administrator of a single employer defined benefit plan, established by the Illinois General Assembly in 1931 to provide retirement annuities, death and disability benefits to eligible employees and elected officials of the Metropolitan Water Reclamation District of Greater Chicago (District) as well as Fund employees.

The Fund is governed by a seven member Board of Trustees (Board) and administered under the direction of an Executive Director appointed by the Board. The Fund employs 10 employees.

A total 4,372 active, inactive and annuitant members of the Fund were included in the 2016 actuarial valuation. The total membership consists of 1,843 active employees, 135 inactive members, and 2,394 retirees and beneficiaries. As of December 31, 2016, the Fund's net invested assets at market value amounted to approximately $1.2 billion.

Pension benefits are provided in accordance with Chapter 40, Act 5, Article 13 of the Illinois Compiled Statutes, as well as additional Articles. A summary plan description is included in this RFP as Addendum C. Further information about the Fund can be found in the Fund's Comprehensive Annual Financial Report available online at www.mwrdrf.org.

III. Scope of Work

The consulting actuary shall perform tasks which include, but shall not be limited to preparation of an actuarial valuation as of December 31, 2017 and for each of the following four valuation periods, and to provide consulting services over that same five year period. The actuarial valuation shall be performed in accordance with generally accepted actuarial principles, and shall meet the parameters set for financial statement disclosures by the Governmental Accounting Standards Board (GASB) Statements 67 & 68 as well as any subsequent applicable Statements.

IV. Detailed Proposal Requirements

Additional specifications of the scope of work, minimum firm qualifications, proposal content requirements, and additional items of information are attached as Addendum A, B, C and D and are to be considered a part of this request for proposal.

V. Potential Responders Inquiry Process

Qualified actuarial consulting firms potentially interested in submitting a proposal in response to this request are invited to submit questions regarding this request for proposal to the Executive Director of the Fund at BoutinS@mwrd.org through July 28, 2017. Answers to questions from potential responders about the request for proposal, without identifying the questioner, will be posted by the Fund staff at www.mwrdrf.org.

VI. Proposal Evaluation

Full and complete proposals submitted in a timely fashion subsequently will be summarized into a consistent format and evaluated by the Fund staff as per the schedule below.

VII. Proposal Schedule

The following schedule may be changed if necessary. If the following schedule changes, affected responders will be notified by email. In no event will the dates listed below be changed to earlier dates.

RFP issuance on:	July 13, 2017
Written questions from potential responders must be received by:	July 28, 2017
Answers to written questions will be disseminated on:	August 4, 2017
Proposals due:	August 11, 2017
Finalist(s) notified:	August 23, 2017
Finalists' presentations:	TBD
Expected date of Board approval *(tentative)*	September 27, 2017
Selected firm notified *(tentative)*	September 28, 2017

VIII. Proposal Submission

An electronic copy of your proposals must be received by 4:30 CST on Friday August 11, 2017. Proposals received or postmarked after that time on that date will not be considered. Only proposals covering the entire scope of actuarial services to be provided as detailed in the addenda to this request will be accepted.

An email confirmation will be sent confirming receipt of the proposal. Proposals will be confidential during the selection process. This RFP is posted on our website at: www.mwrdrf.org

ADDENDUM A

Detailed Scope of Work to be Performed

I. Comprehensive actuarial services

The selected consultant will be expected to provide various and ongoing consulting services including but not limited to the following:

a. Provide actuarial consultation and advisory services; services may be delivered in meetings and routine telephone calls and written correspondence. Consulting actuary should be readily accessible to the Fund's Executive Director and be available for meetings within five working days of a request
b. Attendance of a minimum of two Board of Trustees meetings per contract year, including one meeting to review the annual actuarial valuation and the annual gain/loss experience analysis
c. Appear at informal meetings for educational discussions with the Board or Fund staff as necessary
d. Review actuarial methods and assumptions and make recommendations to the Board annually
e. Assist Fund staff in the preparation and review of proposed changes to the governing pension statutes; assist in resolving any policy and administrative problems of implementing new legislation
f. Prepare timely actuarial cost estimates of proposed legislation (up to five proposal valuations per year to be included in base fee)
g. Prepare funding projections or any special actuarial study requested by the Board (the fee for which shall be separately negotiated)
h. Prepare experience studies every 3-5 years (the fee for which shall be separately negotiated).
i. Recommend possible improvements in the financing and benefit structure of the Fund and inform the Fund of new developments in the retirement industry and their effect on the financing and benefit structure of a retirement system; keep the Board apprised of current trends and advancements within the actuarial profession
j. Appear at selected meetings and hearings for discussion of actuarial standards and/or the principles used in the determination of the funding requirement and in the fiscal impact of legislation
k. Assist in establishing specifications for system data files. Periodically review the form and content of data files maintained by the Fund and make recommendations for modification, additions or deletions that will insure the maintenance of the full range of data needed for legislative fiscal impact, actuarial studies, experience analysis and valuations
l. Keep the Fund advised on developments in federal legislation and/or regulations regarding financing, benefits, vesting, fiduciary responsibility, disclosure, etc.
m. Provide actuarial data annually to District for each District bond sale and for District's annual bond continuing disclosure requirement
n. Provide annually a table of annual benefit limitations pursuant to Section 415 of the Internal Revenue Code based on the current IRS notice; Life annuity factors for the coming year based on the mortality table and interest rate prescribed by the IRS and identification of the applicable interest rate for accumulating employee contributions for the purposes of the Section 415 limit calculations.

II. Valuation Services

The primary task is to complete the actuarial calculations needed for the annual valuation and reporting of the Fund as of December 31st, in accordance with generally accepted actuarial principles and meeting the parameters set for financial statement disclosures by Governmental Accounting Standards Board (GASB) Statements 67 & 68 and any subsequent applicable statements. In connection with the preparation of the annual actuarial valuation, the consulting actuary shall:

a. Review the form and content of data files maintained by the Fund and make recommendations for modification, additions or deletions to insure an accurate valuation.
b. Review current actuarial methods and assumptions and make recommendations to the Board.
c. Develop and provide various tables and factors needed for the preparation of the Annual Actuarial Valuation Report which includes, but are not limited to, mortality tables, present value factors and survivor benefit factors.
d. Attend meetings for discussion of actuarial standards and the principles used in the determination of the funding requirement for the Annual Actuarial Valuation Report.
e. Provide responses to auditor information requests as required.
f. Prepare/update the necessary material for the Fund's Comprehensive Annual Financial Reports (CAFRs) to comply with GASB and GFOA reporting requirements, including Actuarial Certification, Summary of Plan Provisions, Glossary of Terms and update of selected historical schedules.

III. Resources Available During the Assignment:

The consultant will have access to the Fund's historical actuarial reports and work products. The Fund will furnish the consultant with such data or statistical information as may be determined to be necessary for the performance of the work described herein and which is available in the records and files of the Fund. The data is from the Fund's proprietary benefits management system (PBMS) and will be provided to consultant in Excel workbook format. The consultant will be expected to treat all information as confidential.

IV. Timing of Delivery of Actuarial Services

The contract for actuarial services is expected to begin on January 1, 2018. The December 31, 2017 Actuarial Valuation report must be issued by April 13, 2018, with a draft available for delivery to the District no later than Friday March 31, 2018. Similar deadlines are expected for the 2018, 2019, 2020 and 2021 valuations.

ADDENDUM B

Detailed Proposal Requirements

I. Minimum Qualifications Standards and Important Qualification Factors

The Fund requires that the Supervising Actuary should hold the qualification of Fellow or Associate of the Society of Actuaries and/or Fellow of the Conference of Actuaries in Public Practice and/or Member of the American Academy of Actuaries and/or meet standards of a qualified actuary under the provisions of the Employee Retirement Income Security Act of 1974.

The Fund will also consider the following elements in retaining a consulting actuarial firm:

a. Prior Public Pension Experience by Actuarial Firm. The experience of the actuarial firm in valuation assignments, experience analysis, and consulting services for defined benefit public pension retirement systems is an important factor. Relative scope and complexity of the prior experience will be considered.

b. Prior Public Pension Experience by Assigned Firm Personnel. Because continuity is very important in establishing sound public policy in the pension area, the prior public pension plan experience of the firm personnel primarily assigned to the Fund's work and the potential for a long-term relationship with the Fund and continuity is an important factor.

c. Experience in testifying before legislative and administrative bodies. The experience of the Supervising Actuary in testifying in support of actuarial positions and/or the principles used in evaluating the Fund's financial position or defending the financial impact of legislation is an important factor.

d. Sufficient Firm Size. The extent to which the consulting actuarial firm has the capability to meet the Fund's needs as well as the needs of any other firm clients is an important factor.

e. Ability to discuss actuarial matters in laymen's terms. The ability and interest of the Supervising Actuary to discuss actuarial theory, basis for assumptions, and other actuarial matters in a manner that is understandable to the Trustees and staff is an important factor.

f. Accessibility. The availability of the firm personnel assigned to the Fund's work to meet with or speak to the Board or staff, often on short notice, especially during the financial reports preparation season between January and June, annually, is an important factor.

g. Absence of Contractual Liability Limits and Contractual Third-Party Reliance Disclaimers. The extent to which the consulting actuarial firm seeks to limit its liability with respect to errors in its actuarial work or to disallow reliance on actuarial results by third parties is an important factor.

II. Specific Proposal Contents

A. Firm Information

The actuarial firm should indicate how it meets the minimum conditions described in section I, and other pertinent qualifications through a narrative discussion of the following topics:

1. General Firm Description. Provide the firm's name, home office address, address of the office providing the services under the contract, and telephone number. Provide a general description of the firm, including history, size, number of employees, primary business (consulting, pension planning, insurance, etc.), other business or services, type of organization (franchise, corporation, partnership, etc.) and other descriptive material.

2. Firm's Structure, Operational Method, and Communication Capability. Describe the structure of the actuarial firm and its operational method. Include in the description an indication of how the actuarial firm communicates pension fundamentals in an understandable manner to audiences of diverse and non-technical backgrounds.

3. Firm's Prior Public Pension Experience. Provide a description of any major public employee pension plan actuarial valuation and related experience by the actuarial firm rendered during the last five years and the degree of any consulting or other involvement by the actuarial firm with public employment retirement systems.

4. Function of Assigned Firm Personnel and Prior Experience. For each non-clerical employee of the actuarial firm proposed to be assigned to Fund work, provide name and title, work location and the person's prior public employee pension plan experience. Provide brief biographical sketches of each, including professional and experience qualifications of all actuaries who shall perform work under this contract.

5. References. Provide a list of the public employment retirement systems or corporations with defined benefit pension plans by which the actuarial firm is currently retained, complete with the name and telephone number of principal client contact, as references who can be contacted about the prior performance of the actuarial firm in providing actuarial services. Indicate scope of work, date, and supervising actuaries. Provide two sample annual actuarial valuation reports from public employment retirement systems.

6. Client Additions and Subtractions. Provide a list of all new clients added by the actuarial firm and all former clients lost by the actuarial firm during the most recent five-year period. Regarding former clients, please state the reason for the termination.

7. Litigations. Provide details of any past or pending litigation relating to your firm, its affiliate, or individual personnel.

8. Firm's Valuation System. Describe the valuation system of the actuarial firm, indicate whether the software proposed to be used has been obtained from an outside vendor or is proprietary software developed by the actuarial firm, and indicate the capabilities and procedures of the actuarial firm to retain prior actuarial valuations and related data. Include information about the ownership and location of computer equipment, and disaster recovery plan.

9. Firm's Potential Conflicts of Interest. Provide an affirmative statement that the actuary firm is independent of the Fund and the District and that it is unaware of any potential conflicts of interest if it were selected to perform the requested work.

10. Firm’s Ethics Policy. Provide a written code of conduct or standards for professional behavior.

11. Most Recent Audited Annual Financial Report. If the actuarial firm is publicly held, provide a copy of the firm’s most recent audited annual financial report.

B. Approach and Work Plan

The actuarial firm must specify how it will provide the required and requested actuarial services within the specified time frames and must indicate how its staff will be organized to carry out the required tasks. The proposal must:

1. State the overall approach the firm would follow to conduct an actuarial valuation of the Fund, including objectives, scope of work to be performed and methodologies to be used; describe the approach to the transition from our current actuary.

2. Describe the implementation procedures, which must specify:
    a. the person who will be assigned overall responsibility for the work and indicate the business office location of that person
    b. how the work of the firm under the contract will be coordinated with the Fund staff; listing of all data that the consultant will require from the Fund in order for the consultant to perform the work set forth in this RFP, indicating the format in which it will be required
    c. the personnel who will be responsible for presenting reports and results to the Board of Trustees and
    d. the personnel who will be assigned as replacements in the event of the subsequent employment termination by or the non-availability of the primary assigned personnel
    e.

3. Describe the firm's capabilities to perform special projects and provide ancillary services such as:

    a. Data cleanup, Section 415 limit testing, discrimination testing, plan design asset/liability modeling, contributions estimation and projections, sensitivity analysis regarding actuarial assumption factors
    b. Fiscal impact studies of proposed legislation, complete with actuarial certificate showing assumptions, pricing base, actuarial implications on total program, cost and alternative funding techniques
    c. Experience in preparing analysis and/or testimony for the governing or regulatory bodies such as the Illinois State Legislature
    d. Involvement in legislative and regulatory activities in Illinois and research capabilities, including actions taken to keep clients informed regarding legislative and regulatory developments

C. Cost Proposal

Each proposal shall indicate the following:

1. The fee for all Valuation Services outlined in Addendum A, Item II. This fee should be all-inclusive and contain all direct and indirect costs including all out-of-pocket expenses,
2. The annual charge for the first year (January 1, 2017 through December 31, 2017) for Comprehensive Pension Actuarial Services. Fee to be invoiced and paid on a quarterly basis;
3. Hourly rates for each member of staff assigned to this account and computer service charges for special projects agreed to above and beyond the scope of the services covered in this RFP.
4. Fee for an Experience Study expected to be performed every 3-4 years;
5. Fee for a 30-year funding projection;
6. If the actuarial firm proposes additional services beyond those described in this RFP, a separate fee for such services; and
7. Indicate the cost of the work for all subsequent years.

III. Insurance Requirements

Describe the levels of coverage for errors and omissions, fiduciary and professional liability, and fidelity insurance, and list the insurance carriers. State whether the coverage is on a per client or on a total firm basis.

IV. Proposal Document

A. Proposal Format
The actuarial firm must provide a written proposal in PDF format and should contain all information as listed in Addendum B, section B (Specific Proposal Contents) with sufficient detail to permit evaluation by the Executive Director and the Board.

B. Proposal Submission
An electronic copy of your proposal should be sent to Susan Boutin at BoutinS@mwrd.org by 4:30 P.M. CST on August 11, 2017. Emails received after that time on that date will not be considered. Only proposals covering the entire scope of actuarial services to be provided as detailed in the addenda to this request will be accepted.

An email confirmation will be sent confirming receipt of the proposal. Proposals will be confidential during the selection process. This RFP is posted on our Website at: www.mwrdrf.org.

Failure to meet the terms and conditions of this request for proposal may result in disqualification of the proposal.

V. Contract Duration

A five-year contract is contemplated, subject to an annual review, a satisfactory negotiation of terms (including a price acceptable to the MWRDRF and the selected firm) and the concurrence of the Board of Trustees.

VI. Evaluation and Selection Process

Selection of the firm to provide the work will be based on the following criteria:

1. Qualification and experience of the firm and the key personnel assigned to the project as a consulting actuary to organizations that offer public employer/employee benefit systems. Preference will be given to those consultants who are already familiar with the Illinois Compiled Statutes that govern the Illinois Public Retirement Systems;

2. Soundness of methodology and work plan;

3. Reasonableness of costs to services;

In evaluating the proposals, the Fund may consider any factors it deems necessary and proper for best value. The Fund reserves the right to reject any and all proposals received.

ADDENDUM C
Summary of Plan Provisions

Tier I Participant

An employee of the District who first became a member before January 1, 2011 under any reciprocal retirement system or pension fund established under Chapter 40 of the Illinois Compiled Statutes other than a retirement system or pension fund established under Article 2, 3, 4, 5, 6, or 18 of Chapter 40 of the Illinois Compiled Statutes. This includes any Commissioner who fits the criteria above who elects to participate in the Fund within 90 days after becoming a Commissioner.

Tier II Participant

An employee of the District who first became a member on or after January 1, 2011 except for those who were members of any reciprocal retirement system or pension fund established under Articles 7, 8, 9, 10, 11, 12, 14, 15, 16, or 17 of Chapter 40 of the Illinois Compiled Statutes prior to January 1, 2011. This includes any Commissioner who fits the criteria above who elects to participate in the Fund within 90 days after becoming a Commissioner.

Retirement Annuity

Retirement Annuity Eligibility for Tier I Participants. Tier I participants who withdraw from service after 30 years of service, or attainment of age 60 with at least 5 years of service, are eligible for an unreduced retirement annuity. Employees who withdraw from service at age 55 (50 if hired before June 13, 1997) or later with at least 10 years of service are entitled to receive a reduced retirement annuity. An employee who withdraws from service at age 55 (50 if hired before June 13, 1997) or after with 5 but less than 10 years of service is eligible for a unreduced retirement annuity upon attainment of age 62.

Employees who withdraw from service prior to age 55 (50 if hired before June 13, 1997) with at least 10 years of service are eligible for a retirement annuity upon attainment of age 55(50 if hired before June 13, 1997).

An employee who has at least 5 years of service (exclusive of service for periods of ordinary disability and duty disability if the employee entered service on or after August 18, 2005) and who has received an ordinary disability benefit for the maximum period of time and continues to be disabled and withdraws from service is eligible for a retirement annuity. The regular age and service requirements for eligibility are waived for such an employee, but age discount factors are applicable.

Retirement Annuity Eligibility for Tier II Participants. Tier II participants who withdraw from service after attainment of age 67 with at least 10 years of service, are eligible for an unreduced retirement annuity. Employees who withdraw from service who are at least age 62 with a minimum of 10 years of service are entitled to receive a reduced retirement annuity.

An employee who has at least 5 years of service (exclusive of service for periods of ordinary disability and duty disability) and who has received an ordinary disability benefit for the maximum period of time and continues to be disabled and withdraws from service is eligible for a retirement annuity. The regular age and service requirements for eligibility are waived for such an employee, but age discount factors are applicable.

Retirement Annuity Amount for Tier I Participants. A Tier I participant who withdraws on or after November 19, 1991 and who has met the requirements for a retirement annuity is entitled to an annuity equal to 2.2% of final average salary (FAS) for each of the first 20 years of service, and 2.4% of final average salary for each year of service in excess of 20. The annuity shall not exceed 80% of FAS. FAS equals the highest average annual earnable salary for any 52 consecutive pay periods within the last 10 years of service immediately preceding the date of retirement.

If an employee withdraws from service prior to the attainment of age 60, the benefit computed shall be reduced by .5% for each full month of service less than 30 years or age less than 60 years, whichever is less.

Retirement Annuity Amount for Tier II Participants A Tier II participant who has met the requirements for a retirement annuity is entitled to an annuity equal to 2.2% of final average salary (FAS) for each of the first 20 years of service, and 2.4% of final average salary for each year of service in excess of 20. The annuity shall not exceed 80% of FAS.

FAS equals the average monthly salary obtained by dividing the participant's total salary during the 96 consecutive months of service within the last 120 months of service in which the total compensation was the highest, by the number or months in that period. Salary for annuity and all other calculation purposes is limited to the Social Security wage base of $106,800 in 2011 and then adjusted for future years by the lesser of 3% or one-half of the percentage change in the Consumer Price Index-U for the 12 month period ending in September.

If a Tier II participant withdraws from service prior to the attainment of age 67, the benefit computed shall be reduced by .5% for each full month that the participant is below age 67.

Automatic Increase in Retirement Annuity for Tier I Participants. Annual increases shall be calculated at 3% of the monthly annuity payable at the time of the increase, except for a term annuity. The retirement annuity shall be increased on the first day of the month in which the first anniversary of the date of retirement occurs, and on the same date each year thereafter.

Automatic Increase in Retirement Annuity for Tier II Participants. Annual increases shall be calculated at the lesser of 3% or one-half the annual change in the Consumer Price Index-U, whichever is less, based on the originally granted retirement annuity. The retirement annuity shall be increased on the later of January 1st occurring on or after the attainment of age 67 or the first anniversary of the date of retirement occurs, and each January 1st thereafter.

Minimum Retirement Annuity. For an annuitant with at least 10 years of service, the minimum retirement annuity shall be $500 per month plus $25 per month for each year of service in excess of 10 years, to a maximum of $750. The maximum annuity is $250 per month for annuitants with less than 10 years of service.

Reversionary Annuity. An employee, prior to retirement, may elect a lesser amount of annuity and provide a reversionary annuity for a wife, husband, parents, children, brothers or sisters by filing a written designation with the board. An employee shall not reduce his annuity by more than 25% nor elect to provide a reversionary annuity of less than $100 per month. No reversionary annuity shall be paid if the employee dies before the expiration of 730 days from the date his written designation was filed with the board.

Money Purchase. Employees who first entered service before January 1, 1992, would be eligible with the following ages and service: age 60 or more with 5 years of service; age 50 or more with 10 years of service; for employees under age 50 with 10 or more years of service, annuity is payable upon attainment of age 50 and proper application. Annuity is based on Money Purchase, which is the sums accumulated from salary deductions plus District contributions, combined to purchase an annuity.

Survivor's Annuity

Surviving Spouse Annuity Eligibility. A surviving spouse of an employee or retiree is eligible for an annuity for life provided that the employee was in service for more than 36 months if the employee entered service on or after July 13, 1997. There is no service requirement for eligibility for a spouse annuity if the employee entered service prior to July 13, 1997. Dissolution of marriage after retirement shall not divest the retiree's former spouse of the entitlement if the marriage had been in effect at least 10 years on the date of retirement.

Surviving Spouse Annuity Amount for the Spouse of a Tier I Participant. The amount of the annuity for the surviving spouse of a Tier I participant is the product of the employee's earned annuity multiplied by a factor equal to 60% plus 1% for each year of total service up to a maximum of 85%.

For employees hired on or after January 1, 1992, the surviving spouse's annuities are discounted by 0.25% for each full month that the spouse is younger than the employee, to a maximum discount of 60%. The discount is reduced by 10% for each full year the marriage has been in effect.

If the employee's death is duty related, the minimum surviving spouse annuity is equal to 50% of the employee's earnable monthly salary on the date of death.

Surviving Spouse Annuity Amount for the Spouse of a Tier II Participant. The amount of the annuity for the surviving spouse of a Tier II participant is the product of 66 2/3% and the annuity that the employee would have been eligible to receive or the annuity the employee annuitant had been receiving at the time of death.

Automatic Increase in Surviving Spouse Annuity for the Spouse of a Tier I Participant. On each anniversary of the employee date of retirement or date of death, whichever occurs first, the widow(er)'s or surviving spouse allowance or annuity shall be increased by 3% of monthly annuity payable at the time of increase.

Automatic Increase in Surviving Spouse Annuity for the Spouse of a Tier II Participant. The spouse annuity will be increased by the lesser of 3% or one-half of the increase in the Consumer Price Index-U for the 12 months ending in September, based on the originally granted survivor's annuity. This increase will occur each January 1^{st} on or after the commencement of the annuity if the deceased member died after retirement or January 1^{st} occurring after the first anniversary of the commencement of annuity. Increases will occur each January 1^{st} thereafter.

Minimum Surviving Spouse Annuity. Beginning August 1, 2001, the minimum monthly surviving spouse annuity shall be the greater of:

a) $500 per month for the surviving spouse of an employee with at least 10 years of District service, plus $25 per month for each year of service in excess of 10 years, to a maximum of $750 per month; or

b) 50% of retirement annuity of the deceased spouse at the time of death.

The minimum annuity shall be $250 per month for the surviving spouse of an employee with less than 10 years of District service other than for a term or reciprocal annuity.

Surviving Spouse Money Purchase. This annuity is based on the amount of accumulated credits for spouse's annuity purposes at the time the annuity is computed, which is then used to purchase an annuity based on the period of service, salary, and age of spouse.

If the annuity provided by Money Purchase gives a greater annuity than the spouse's annuity based on average final salary, the spouse is entitled to the greater amount. The Money Purchase annuity applies to spouses of employees who entered service prior to 1992.

Child's Annuity. A child's annuity is provided for each unmarried child under the age of 18 (under the age of 23 years in the case of a full-time student) whose employee parent dies while in service or whose deceased parent is an annuitant or former employee with at least 10 years of service. The amount of the annuity is:

a) $500 per month for each child if one parent is living; or

b) If neither parent is living, $1,000 per month for each child

In either case, the maximum benefit is $5,000 per month for all children of the employee, to be divided equally among the children.

Family Maximum for Duty & Non-Duty Death Benefits.
85% of annuity earned, plus annuity for children.

Duty Disability

Duty Disability is payable, if an injury or sickness arises out of employment, at the rate of 75% of the salary earned on date of disability less the amount paid by Workers' Compensation. Duty Disability benefits are payable during the period of disability but not beyond attainment of age 65, unless the employee became disabled at age 60 or later, in which case the benefits may be extended for a period of not more than 5 years after disablement.

For Tier II Participants the salary for duty disability benefit calculation purposes is limited to the Social Security wage base of $106,800 in 2011 and then adjusted for future years by the lesser of 3% or one-half of the percentage change in the Consumer Price Index-U for the 12 month period ending in September.

Ordinary Disability

Ordinary Disability is payable, if an employee is injured or sick not as a result of the performance of assigned duties, at the rate of 50% of the employee's earnable salary at date of disability. Ordinary disability benefits are limited to 25% of employee's actual service prior to the date of disability up to a maximum of 5 years where the employee has 20 or more years of service. Benefits are not payable beyond attainment of age 65, unless the employee became disabled at age 60 or later, in which case the benefits may be extended for a period of not more than 5 years after disablement.

For employees hired after June 13, 1997, there is no benefit for the first three days of disability that would otherwise be payable under this section, unless the disability continues for at least 11 additional days; however, an employee who has used sick leave for at least 31 consecutive calendar days may be paid benefits for the first three days upon exhaustion of all sick.

For Tier II Participants the salary for ordinary disability benefit calculation purposes is limited to the Social Security wage base of $106,800 in 2011 and then adjusted for future years by the lesser of 3% or one-half of the percentage change in the Consumer Price Index-U for the 12 month period ending in September.

Refunds

To Tier I Participant. Upon separation from service, if the employee is under age 50 (age 55 if hired after June 13, 1997), or is between ages 50 (age 55 if hired after June 13, 1997) and 60 with less than 20 years service, or is age 60 or over with less than 5 years of service and upon application for such refund, the employee would be entitled to all amounts contributed from salary, without interest. Upon receipt of such refund, the employee forfeits all rights in the Fund.

To Tier II Participant. Upon separation from service, if the employee is under age 62 regardless of length of service, or who withdraws with less than 10 years of service regardless of age, is entitled to a refund of all amounts contributed from salary, without interest. Upon receipt of such refund, the employee forfeits all rights in the Fund.

To Employee for Spouse Annuity Contributions. If an employee is unmarried at the time of retirement, all amounts contributed for spouse's annuity would be refunded. Effective January 1, 1993 refunds of spouse annuity contributions include interest.

To Spouse. If an annuity is temporary rather than for life, the spouse may elect a refund in lieu of an annuity.

Forfeiture of Rights. An employee or surviving spouse who receives a refund forfeits the right to receive an annuity or any other benefit payable by this Fund except that if the refund is to a surviving spouse, any child or children of the employee shall not be deprived of the right to receive a child's annuity as provided above, and the payment of a child's annuity shall not reduce the amount refundable to the surviving spouse.

Remaining Amounts. In the event the employee dies in service without a spouse, a refund of the total sums contributed by employee, together with applicable interest, would be paid first to a spouse, then to beneficiary as designated by the employee, and if there is no beneficiary form, then to the late employee's children in equal parts. If there is no spouse, then payment is made to the designated beneficiary.

If there is no spouse or designated beneficiary, then payment is made to any children of the deceased employee. If there is no spouse, designated beneficiary, or child then distribution is made to the heirs in accordance with the laws of descent and distribution in the State of Illinois.

Deductions and Contributions

The District levies taxes per state statutes (40 ILCS 5), which dictate that the District shall annually levy a tax upon all the taxable real property within the District at a rate which, when extended, will produce a sum that

(1) when added to the amounts deducted from the salaries of employees, interest income and other income will be sufficient to meet the Fund's actuarially determined contribution requirement, but

(2) shall not exceed an amount equal to the total employee contributions 2 years prior to the year for which the tax is levied, multiplied by 4.19 (the tax multiple). The actuarially determined contribution requirement is equal to the employer's normal cost plus the annual amount needed to amortize the unfunded liability by the year 2050 as a level percent of payroll. The funding goal is to attain a funded ratio of at least 100% by the year 2050, with the funded ratio being the ratio of the actuarial value of assets to the total actuarial liability.

Tier I employees (hired prior to January 1, 2011) are required to contribute 12% of their salary to the Fund since 2015; this contribution rate will remain in effect until such time as the Fund reaches a funding level of 90%. Tier II employees (hired on or after January 1, 2011) are required to contribute 9%.

Tax Shelter of Employee Salary Deductions

Beginning January 1, 1982, the required 9% employee salary deductions were designated, for income tax purposes, to be made by the employer. Beginning with the July 3, 2003 payroll and through the end of 2007, the optional 4% employee salary deductions were also designated, for income tax purposes, to be made by the employer. The W-2 salary is therefore reduced by the amount of those designated contributions. For pension purposes the salary remains unchanged. Income tax will be paid when a refund or annuity is granted. For the purposes of benefits, refunds, or financing, these contributions are treated as employee contributions.

Alternative Plan of Contributions and Benefits for Commissioners

Alternative Plan of Additional Benefits and Contributions for District Commissioners allows an additional contribution of 3% of salary. Alternative benefits are payable if the Commissioner is age 55 (age 62 for Tier II) with at least 6 years of service. Annuities would be computed on the following basis:

1. 3% of average final salary for each of the first 8 years of service credit under the Alternative Plan;

2. 4% of average final salary for each of the next 4 years of service credit under the Alternative Plan; and

3. 5% of average final salary for each additional year thereafter subject to a maximum of 80% of average final salary.

Alternative Annuity for Survivors of Commissioners

Annuity is equal to the greater of 66-2/3%, or 60% plus 1% for each year of the Commissioner's total service, to a maximum of 85% of the amount of retirement annuity earned by the Commissioner on the date of death.

A more detailed description of plan provisions can be obtained from the Fund Administration's office. Complete provisions are set forth in the Illinois Compiled Statutes, Chapter 40, Act 5, Article 13.

ADDENDUM D
Summary of Actuarial Assumptions and Methods

Actuarial Assumptions

Below is a summary of the actuarial assumptions for the December 31, 2016 valuation. An experience study was performed in September of 2014 based on data for the period December 31, 2008 through December 31, 2013. The assumptions below are based on the experience study and were recommended by Foster & Foster Actuaries, and adopted by the Board of Trustees effective December 31, 2014.

Interest Rate 7.50%

Salary Increases

Service	Salary Increase Rate
0	7.00%
1	6.25%
2	5.75%
3	5.50%
4	5.25%
5	5.00%
6	4.75%
7	4.50%
8	4.50%
9+	4.25%

Cost-of-Living Adjustment - Annuitants

Members Hired On Or After January 1, 2011 1.25%

Members Hired Before January 1, 2011 3.00%

Payroll Growth 3.70%

Retirement Rates

Age	Retirement Rate
50 - 59	6%
60 - 64	13%
65	15%
66 - 67	19%
68 - 69	20%
70 - 74	25%
75	100%

Mortality Rates – Healthy Lives

RP-2000 Combined Healthy Mortality Table with Generational Mortality Improvements (Scale AA).

Mortality Rates – Disabled Lives

RP-2000 Disabled Retiree Mortality Table

Termination Rates

Service	Male Rate	Female Rate
0	4.000%	5.733%
1	3.480%	4.973%
2	3.089%	5.064%
3	2.604%	4.759%
4	2.245%	4.518%
5	1.780%	4.490%
6	1.561%	4.193%
7	1.500%	3.945%
8	1.500%	3.646%
9	1.500%	2.342%
10	1.502%	2.054%
11	1.391%	1.946%
12	1.343%	1.898%
13	1.244%	1.859%
14	1.189%	1.772%
15	1.111%	1.772%
16	0.985%	1.772%
17+	0.500%	1.772%

Disability Rates Sample rates

Age	Disability Rates
20	0.002%
25	0.003%
30	0.006%
35	0.014%
40	0.033%
45	0.065%
50	0.120%
55	0.225%
60	0.490%
65	0.000%

Load for Reciprocal Benefits

1.5% of active member costs and liabilities.

Percent Married

76%

Spousal Age Difference	Spouse of male member assumed to be 4 years younger than member; Spouse of female member assumed to be 4 years older than member.
Asset Valuation Method	5-year Smoothing Method
Actuarial Cost Method	Entry Age Normal, with costs allocated on basis of earnings. Actuarial gains and losses are reflected in the unfunded actuarial liability.
Actuarially Determined Contribution Requirement	Section 13-503. Employer's normal cost plus the annual amount needed to amortize the unfunded liability by the year 2050 as a level percent of payroll. The funding goal is to attain a funded ratio of at least 100% by the year 2050.
Source of Data	Data and audited financial information is provided by the Plan.
Valuation Date	December 31, 2016

ACTUARIAL METHODS

Actuarial Cost Method
The actuarial cost method is the procedure by which the total present value of pension plan benefits is allocated to past service and future service. The entry age actuarial cost method was used, with costs allocated on the basis of earnings. Under this cost method, the present value of the projected benefits of each individual included in the actuarial valuation is allocated as a level percent of the individual's earnings between entry age and assumed exit age. Actuarial gains and losses (differences between expected experience and actual experience) are recognized immediately in the unfunded actuarial liability.

Actuarial Value of Assets
The actuarial value of assets was determined by using the market related method of smoothing unexpected gains or losses from investment return over a period of 5 years. This method was adopted as of December 31, 1997.