1 NEW YORK CITY TEACHERS' RETIREMENT SYSTEM 2 REGULAR BOARD MEETING Held on Thursday, December 17, 2015 3 at 55 Water Street 4 New York, New York 5 б ATTENDEES: 7 JOHN ADLER, Chairperson, Trustee, Finance PATRICIA REILLY, Executive Director, TRS 8 THADDEUS MCTIGUE, Deputy Executive Director, TRS SANDRA MARCH, Trustee 9 THOMAS BROWN, Trustee DAVID KAZANSKY, Trustee 10 SUSANNAH VICKERS, Trustee RAYMOND ORLANDO, Trustee MICHAEL SOHN, Alternate Trustee 11 SHERRY CHAN, Chief Actuary 12 ROBERT BETHELMY, TRS ANDREW BRADFORD, TRS VALERIE BUDZIK, TRS 13 CARMELA CRIVELLI, TRS 14 ELLEN DeLEO, TRS ANNETTE HANRAHAN, TRS ANTHONY MEZZACAPPA, TRS 15 SUSAN STANG, TRS RENEE PEARCE, TRS 16 INGA VAN EYSDEN, Corporation Counsel 17 KEITH SNOW, Corporation Counsel KATE CHEN, TRS 18 MITCHELL FRUCHTER, TRS LIZ SANCHEZ, TRS 19 MELVYN AARONSON CHRISTOPHER GANDOLFO, Deloitte 20 MICHAEL MALLOY, Deloitte 21 22 23 24 25

1	PROCEEDINGS
2	(Time noted: 3:45 p.m.)
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4	CHAIRPERSON ADLER: Welcome to the Teachers'
5	Retirement System Board Meeting of December 17, 2015.
б	Patricia, will you call the roll?
7	MS. REILLY: John Adler?
8	CHAIRPERSON ADLER: Here.
9	MS. REILLY: Sandra March?
10	MS. MARCH: Present.
11	MS. REILLY: David Kazansky?
12	MR. KAZANSKY: Here.
13	MS. REILLY: Thomas Brown?
14	MR. BROWN: Here.
15	MS. REILLY: Susannah Vickers?
16	MS. VICKERS: Here.
17	MS. REILLY: Raymond Orlando?
18	MR. ORLANDO: Here.
19	MS. REILLY: We do have a quorum.
20	The next item on the agenda is a presentation by
21	Deloitte and Touche.
22	MR. MALLOY: Good afternoon, everyone. Before
23	you should be we also sent electronically the draft
24	financial statements, and then the letter says
25	"Deloitte." I will walk through the letter, which

touches upon what's required communication from us as your auditors to you guys on the Board, which is charged with governance.

4 CHAIRPERSON ADLER: Can you identify yourself 5 for the record?

6 MR. MALLOY: I'm Michael Malloy, an auditor at 7 Deloitte, I oversee the pension audit for the Teachers' 8 Retirement System, as well as each of the pension 9 systems for the City.

10 So we have completed our audit of the combined 11 financial statements of the Teachers' Retirement System 12 of the City of New York qualified pension plan, and the 13 Teachers' Retirement System of the City of New York tax 14 deferred annuity program for the systems, as of year end 15 June 30, 2015.

We conducted our audit and the scope of our work was laid out in the engagement letter of April 21, 2015. And in that letter we discussed that we were going to conduct our audit in accordance with generally accepted auditing standards, which includes auditing standards specified by the government accounting standards as well.

As part of doing an audit you need to have an understanding of the internal controls. We did review the internal controls and we looked at it from the

standpoint of planning the nature, timing and extent of
 our testing, the detailed testing that we do, the
 vouching and so forth.

We did not look at internal controls from the standpoint of rendering a separate opinion. That's something we see in today's world for public companies under PCOB standards. The retirement system is not required to follow those standards, and therefore we don't issue such opinion on controls.

10 As part of preparing the financial statements, 11 as with all financial statements, there is an element of 12 estimation that goes into financial statements, user 13 areas of management estimation and judgment. The 14 financial statements for the Teachers' Retirement System certainly has estimates in it as well. More significant 15 ones are the determination of the fair market value of 16 17 investments, the actuarial asset value, the actuarial accrued liability, any actuarially determined net 18 19 pension liability.

Now, there were not any changes with any of these judgments or estimates that went into the calculations used for the financials this year. We did have quite a big discussion with the Office of the Actuary, Sherry and her group, regarding one assumption, particularly mortality.

1 The Society of Actuaries last year had come out 2 with new tables. Basically the tables are reflective of 3 people living longer, better life experience results. 4 They go through these studies from time to time and 5 update these tables. With people living longer, 6 obviously they're going to get pension benefits longer, 7 meaning greater costs.

8 So, the tables that did come out, there had not 9 been when they did the survey, no government entities 10 that participated in it. So really they looked at them 11 and said, well, this is like life experience for the 12 commercial world. They have gone back and looked at 13 government type life expectancies and so forth and have 14 come out with revisions and such.

15 The Office of the Actuary I understand is 16 looking at this, and I would expect there probably will 17 be some change or adoption of this estimation for next 18 year's calculation, which is what I would expect. But 19 the estimates that they use for mortality this year 20 we're comfortable are appropriate for purposes of the 21 June 30, 2015 financials.

So that's kind of a prospective change we wouldsee coming.

24 With regard to uncorrected misstatements, there 25 were no materially corrected misstatements, there were

none. The significant accounting policies are laid out
 in Footnote 2 to the financial statements. There were
 no changes really to them.

The only thing I would highlight is, in the financials you will see there was an adoption of the new accounting standard, GASBI 72, which basically relates to investments, which the pronouncement that focuses on identifying the risks related to investments. An it's getting the government world caught up with the commercial world with this type of disclosure.

11 So they have things in the footnotes that show 12 levels, level 1, 2 and 3. A level 1 type security, 13 think of it like IBM stock, a liquid market, it's traded 14 daily, you can go get a price.

15 A level 2 security, think of it like a bond, 16 where you may have a bond that you hold, but it may not 17 be a liquid market, it may not have a daily price, so 18 you look to another bond, the issuer or what have you as 19 a basis for determining the fair market value of the 20 bond. That's a level 2 type security.

Level 3 securities are securities that generally are things like private equity, hedge funds, where the valuations of the investments are derived by models that are developed, which are based on discounting cash flows, multiple earnings, additional approaches that are 1 acceptable for evaluation purposes.

2 So there's much more judgment and estimation 3 that you would see in evaluation of a level 3 versus a 4 level 1, and all the disclosure is, is getting you an 5 idea of how much risk from a judgment estimation goes 6 into the evaluation.

Going back to the letter, disagreements with
management, we had no disagreements with management.
I'd say, the audit went very well as it has in the past,
full cooperation, full access to information.

11 With regard to the management representation 12 letter, we have a draft attached. However, we did see a 13 signed letter from management, so they already approved 14 the representation letter, so we have that.

The only other thing to point out is, in our opinion, there is an additional paragraph that deals with the supplemental schedules, which these are required schedules that is similar to what they had in the past, that under the GASBI rules are required to report on. So we have a paragraph in this that relates to those schedules.

22 That's about it as far as my prepared remarks.23 Any questions?

24 CHAIRPERSON ADLER: Questions for Mr. Malloy?25 (No response.)

1 MR. MALLOY: I will just say, this is my last 2 time appearing before you guys. The City has decided to change auditors, so you will have someone else coming 3 4 here next year. I wish you well, the very best of holidays and happy New Year's, and hopefully we'll get 5 to see you guys again soon. б 7 CHAIRPERSON ADLER: Thank you very much. 8 MS. REILLY: Next on the agenda is an update on TRS operations. Each of you received the latest 9 10 calendar of events. A few updates from Ellen DeLeo. MS. DELEO: TRS, working with FISA, completes 11 the generation of 1099s. It is expected that FISA will 12 generate 1099s on behalf of TRS for non-periodic 13 distribution. 14 In addition, TRS will be mailing an 15 informational brochure in early January to just over 16 17 2,640 new retirees to explain the 1099 they will be receiving for the first time in tax year 2015. 18 19 TRS is completing the processing of required 20 minimal distributions for the tax year 2015 due to retirees that have deferred annuitization of their TDA 21 22 balances and are mandated to receive an RMD. Roughly 58 23 percent, or 12,800 retirees have opted to receive their distribution in December of this year. 24 25 Approximately 300 additional beneficiaries who

participate in our TDAB program will receive RMDs this
 month.

3 TRS recently conducted a TBA fall/winter 4 promotional campaign for Tier 6 members who currently 5 don't participate in the TDA program. The campaign was 6 comprised of an e-mail blast to 14,000 members, a TDA 7 promotional message on the TRS website home page, and an 8 online article titled "Build Retirement Security on \$100 9 a Month."

10 MS. REILLY: Thank you, Ellen.

I will change the order of the agenda and ask
 for the Actuary to give her report.

MS. CHAN: Thank you. The agenda item that I 13 14 have is in regards to mortality assumptions post retirement. As your actuary, your technical advisor to 15 16 the Board, I want to inform you there are changes to the 17 mortality affecting the members of your pension system. In a nutshell, people are living longer. Mike 18 alluded to that earlier. It's been demonstrated not 19 20 only by industry studies, but also your own data. 21 And the improvement scales that you guys have 22 right now are out of date. The mortality improvement 23 scale that was in published 1995, twenty years ago. And there's been three generations of mortality improvement 24

25 scale that's been published and released since then.

1 This opinion is also shared by, not just the 2 City auditor, but also by TRS, the actual auditors that 3 published the report a couple months ago and suggested 4 we look into mortality assumptions.

5 Also Buck Consulting, the Office of the 6 Actuary's retained consultant, has told us that if we're 7 using the current assumptions they won't sign off on the 8 results.

9 So, I've done my own study, looked at various 10 tables. And the one that I am proposing is MP 2015, 11 it's contained in the memo. And I urge you to adopt 12 these tables because people are living longer and I 13 think you guys have a responsibility to make sure the 14 money is there and the plan is properly funded, so we 15 don't turn into New Jersey or Puerto Rico or Illinois or

16 other systems of the like. We need to operate and make 17 sure the system is in good financial health.

18 MS. REILLY: Thank you.

19 Next is the executive director's report. The 20 first item there is the next meeting, which has been 21 suggested to be January 21, 2016. Mark your calendar. 22 Next is a resolution for the authorization to 23 the Comptroller of the City of New York to invest 24 certain funds.

25 MS. MARCH: Waive the reading.

1 MS. REILLY: Okay. CHAIRPERSON ADLER: Is there a motion in favor 2 of the authorization to the Comptroller of the City of 3 New York to invest certain funds? 4 5 MR. KAZANSKY: So moved. б CHAIRPERSON ADLER: Is there a second? MS. HANRAHAN: Second. 7 8 CHAIRPERSON ADLER: All in favor of the resolution say "Aye." 9 10 (A chorus of "Ayes.") 11 Any opposed? 12 Abstentions? 13 (No response.) 14 Motion carries. MS. REILLY: The next resolution is the 15 16 authorization to the Comptroller of the City of New York 17 to invest certain tax deferred annuity funds. MS. MARCH: Waive the reading of the resolution, 18 19 please. 20 CHAIRPERSON ADLER: Is there a motion in favor 21 of this resolution to authorize the Comptroller to 22 invest certain tax deferred annuity funds? 23 MR. KAZANSKY: So moved. 24 CHAIRPERSON ADLER: Is there a second? 25 MR. BETHELMY: Second.

1 CHAIRPERSON ADLER: Discussion? 2 (No response.) All in favor of this resolution say "Aye." 3 (A chorus of "Ayes.") 4 5 Any opposed? б Abstentions? 7 (No response.) 8 Motion carries. 9 MS. REILLY: The next resolution is the proposed 10 changes in actuarial assumptions and methods, adoption 11 of replacement post retirement mortality tables. 12 MS. MARCH: Move to the resolves. 13 MS. REILLY: "Resolved, that the retirement 14 board hereby adopts the replacement tables of 15 probabilities of post retirement mortality as presented 16 in a December 4, 2015 memorandum from the Actuary." 17 CHAIRPERSON ADLER: Is there a motion to adopt the proposed changes in actuarial assumptions and 18 19 methods for replacement of post-retirement mortality 20 tables? MR. KAZANSKY: Moved. 21 22 CHAIRPERSON ADLER: Is there a second? 23 MS. VICKERS: Second. 24 CHAIRPERSON ADLER: Any discussion? 25 MR. ORLANDO: Question. Sherry was referencing

1 other plans we do not choose to be associated with. 2 Were the problems that they faced in part due to not --3 the mortality table as part of the miasma -- one of the 4 pieces --5 MS. CHAN: The details of what went into the б underfunding. But based on what I have read, it is 7 because they are not putting in the money that the 8 actual consultants tell them, this is the amount you 9 need. My guess would be that mortality assumptions --10 MR. ORLANDO: That particular -- thanks. 11 CHAIRPERSON ADLER: Any other questions or 12 discussion? 13 It's been moved and seconded. 14 All in favor of the motion say "Aye." 15 (A chorus of "Ayes.") 16 Any opposed? 17 Abstentions? (No response.) 18 19 Motion carries. 20 MS. REILLY: The next resolution is the renewal of investment agency agreements for the first five 21 22 equity funds. 23 MS. MARCH: Move to the resolves. 24 MS. REILLY: "Resolved, that the Board hereby 25 renews the investment agency contract for Sprucegrove

investment management LTD for a new term to expire June
 30, 2018.

3 "And be it further resolved that the Chair, or 4 in his or her absence, the executive director is hereby 5 authorized and directed to execute renewal and/or 6 restate the investment agency agreement and other 7 documents or instruments as may be necessary to 8 implement the resolution.

9 "And be it further resolved that the Chair, or 10 in his or her absence, the executive director, or in her 11 absence, the director of investment administration, is 12 hereby authorized and directed to issue instructions and 13 take any other action as may be necessary to implement 14 this resolution."

15 CHAIRPERSON ADLER: Is there a motion to approve 16 this resolution regarding renewal of the investment 17 agency agreement with Sprucegrove?

18 MR. KAZANSKY: So moved.

19 MS. VICKERS: Second.

20 CHAIRPERSON ADLER: The motion has been moved 21 and seconded.

22 Any discussion regarding this motion?

23 (No response.)

24 All in favor of the resolution say "Aye."

25 (A chorus of "Ayes.")

1 Any opposed? 2 Abstentions? (No response.) 3 Motion carries. 4 5 MS. REILLY: The next item is the adoption of a б bylaw change. 7 MS. MARCH: Move to the resolves. 8 MS. REILLY: "Resolved, that the Board hereby 9 adopts the attached amendment to its bylaws, and also 10 authorizes or directs the executive director to amend 11 and or restate the bylaws and circulate the amended 12 bylaws to the trustees." 13 CHAIRPERSON ADLER: Is there a motion to approve 14 the adoption of the bylaw change? MR. KAZANSKY: So moved. 15 16 CHAIRPERSON ADLER: Second? 17 MS. VICKERS: Second. CHAIRPERSON ADLER: Any discussion or questions 18 19 regarding the bylaw change? 20 (No response.) 21 All in favor of the resolution say "Aye." (A chorus of "Ayes.") 22 23 Any opposed? 24 Abstentions? 25 (No response.)

Motion carries.

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2 MS. REILLY: The next item is attendance at training. The following resolution is presented for 3 4 consideration and possible adoption: 5 "Resolved, that the trustees of the Teachers' б Retirement Board hereby approve the attendance and 7 participation of the executive director and/or her 8 designee and any interested trustee at the International 9 Foundation of Employee Benefit Plans, IFEDP, pension 10 trustee training, from January 11 through January 12, 11 2016." 12 CHAIRPERSON ADLER: Is there a motion to approve 13 the resolution of attending the IFEDP training in 14 January? 15 MR. KAZANSKY: So moved. 16 CHAIRPERSON ADLER: A second? 17 MR. BARTHELMY: Second. CHAIRPERSON ADLER: Discussion? 18 19 All in favor of the motion say "Aye." 20 (A chorus of "Ayes.") Any opposed? 21 22 Abstentions? 23 (No response.) 24 Motion carries.

25 MS. REILLY: That concludes the executive

1 director's report.

2 The next item on the agenda is the calendar. Each trustee has a full calendar. And the first matter 3 4 on the calendar is the approval of the minutes from the 5 regular Board meeting held on November 19, 2015. б CHAIRPERSON ADLER: Is there a motion to approve 7 the minutes from the regular Board meeting of November 8 19, 2015? MS. MARCH: So moved. 9 10 CHAIRPERSON ADLER: Is there a second? 11 MS. VICKERS: Second. 12 CHAIRPERSON ADLER: Any discussion? 13 (No response.) 14 All in favor of approval of the minutes of November 19, 2015, please say "Aye." 15 16 (A chorus of "Ayes.") 17 Any opposed? Abstentions? 18 19 (No response.) 20 Motion carries. 21 MS. REILLY: Then there's the adoption of the 22 following items: 23 Pages 1 through 14 inclusive of the monthly periodic payroll of TDA excess and loan payments. 24 25 Page 15 is payroll summary, accounts payable,

1 new retirees and TDA accounts.

2 Pages 16 through 42 inclusive are the transfer 3 of active TDA deferrals to annuity payments. 4 Pages 43 through 76 inclusive are fractional 5 payments. б Pages 77 through 93 inclusive are uncollected checks for deceased members. 7 8 Pages 94 through 109 inclusive are 9 beneficiaries' continuing option payments. 10 Pages 110 through 114 inclusive are the 11 conversion to pop-up payments. 12 Pages 115 through 220 inclusive are 13 beneficiaries who receive one-time payments from their 14 QPP and TDA accounts. 15 Pages 221 through 223 inclusive are return net 16 accumulated salary deductions. 17 Page 224 is transfers between banks. Pages 225 through 229 inclusive are the purchase 18 19 and sales of securities transacted from the Passport 20 Fund program. Pages 230 through 232 are installment payments. 21 22 Page 233 through 237 are outstanding checks. 23 Pages 238 through 1,478 inclusive are revisions 24 under class coverage. 25 Page 1,479 is the restoration of health leave of

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      absence.
 2
              Pages 1,480 through 1,482 is the payment for
      service credit.
 3
              Page 1,483 is denied accident disability
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 5
      benefits.
              Page 1,484 are denied ordinary disability
 б
7
      payments.
8
              Page 1,485 are the minimum accumulations.
              Page 1,486 are extensions of rules and
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10
      regulations.
11
              Page 1,487 are new service retirement payments.
              That concludes the calendar.
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13
              You need to vote.
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              CHAIRPERSON ADLER: So, is there a motion to
      approve the calendar?
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              MR. KAZANSKY: So moved.
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              CHAIRPERSON ADLER: Second?
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              MR. BARTHELMY: Second.
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              CHAIRPERSON ADLER: Any discussion?
20
              (No response.)
21
              Move to the vote.
22
              All in favor of approving the calendar items
23
      please say "Aye."
24
              (A chorus of "Ayes.")
25
              Any opposed?
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1 Any Abstentions? 2 (No response.) Motion carries. 3 4 MS. REILLY: The next item on the agenda is 5 other business before the Board. б MS. MARCH: It is the end of another year. I 7 wish everybody, and I'm sure all Board members do, I 8 wish the staff and all the employees of the Teachers' 9 Retirement System a happy, healthy and most of all, safe 10 2016. 11 MS. REILLY: Thank you. Same for you. 12 CHAIRPERSON ADLER: Any other business? 13 MR. ORLANDO: If you are interested, we at the the Board of Education retirement system meeting last 14 15 night formally appointed Sanford Rich to be the new head 16 of the Board of Education retirement system. 17 Some of you may know him from his work at the Pension Benefit Guarantee Corporation down in DC. He's 18 19 going to be a great asset -- he may be reaching out to 20 some of you to chat. MS. MARCH: The Teacher trustees would like you 21 22 to facilitate an appointment with the Teacher trustees 23 and the new executive director, because we do have members in the system and we would like to establish a 24 25 relationship with him.

1 MR. ORLANDO: He would be delighted to. He starts, I believe, the 18th of January. We'll put you 2 on for the 19th. 3 4 (Laughter.) 5 MS. MARCH: I would have to fly up from where I б am, I'm out of town that week. We'll work out an 7 appointment, and thank you so very much. 8 MR. ORLANDO: Absolutely. 9 CHAIRPERSON ADLER: Any other business? 10 MS. REILLY: Questions or comments from the 11 public? 12 MR. AARONSON: I wanted to add to Sandy's 13 remarks about the marvelous staff, the marvelous former 14 colleagues of mine, trustees -- and to wish you all well 15 in 2016. Thank you for everything you do. 16 MS. REILLY: Thank you. 17 CHAIRPERSON ADLER: This concludes our agenda. A motion to adjourn would be in order. 18 19 MS. MARCH: So moved. 20 CHAIRPERSON ADLER: Is there a second? MR. KAZANSKY: Second. 21 22 CHAIRPERSON ADLER: Discussion? 23 (No response.) All in favor of the resolution say "Aye." 24 25 (A chorus of "Ayes.")

1	Any opposed?
2	Abstentions?
3	(No response.)
4	We're adjourned.
5	Happy holidays, everybody.
б	(Time noted: 4:04 p.m.)
7	(Matter concluded.)
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2	CERTIFICATION
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4	I, Jeffrey Shapiro, a Shorthand Reporter and
5	Notary Public, within and for the State of New York, do
6	hereby certify that I reported the proceedings in the
7	within-entitled matter, on Thursday, December 17, 2015,
8	at the offices of the NEW YORK CITY TEACHERS RETIREMENT
9	SYSTEM, 55 Water Street, New York, New York, and that
10	this is an accurate transcription of these proceedings.
11	IN WITNESS WHEREOF, I have hereunto set my
12	hand this day of, 2015.
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18	JEFFREY SHAPIRO
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