Industry & Local 338 Pension Plan
Funding Improvement Plan Design

December 7, 2016

Mary Ann Dunleavy, ASA
Stan Goldfarb, FSA
Tony Ghabour, EA

Today's Discussion

- **PPA Status Recap**
- **Remediation Plan Requirements & Design Considerations**
- **Appendix**
  - Timelines
  - Contribution Rate Summaries
  - Historical Investment Experience
  - Historical Weeks Worked
  - Projection Assumptions and Methods
  - Summary of Assumptions and Methods
  - Summary of Plan Provisions

PPA Status Recap

PPA Certification Zone Statuses

Critical *In general, a projected funding deficiency in the next 4 or 5 years (other factors may apply)*	**Critical and Declining (NEW)** *In critical status, and projected to go insolvent within the 20 years (15 years in some cases)*
Endangered *Under 80% funded or a projected funding deficiency in the next 7 years*	**Seriously Endangered** *Under 80% funded and a projected funding deficiency in the next 7 years*

"Green Zone"

(none of the above)

New special rules, effective after 12/31/2014:

- A plan newly in endangered status that would require no corrective action under a funding improvement plan is considered in the "Green Zone".
- A plan projected to enter Critical Status in the next 5 plan years may elect to be in Critical Status immediately.

2016 Status Certification: Recap

- **Filed September 28, 2016**
- **Part 1: Status = Endangered, projected to be Critical within 5 years**
  - 1st year in endangered status
  - Projected to be Critical for plan year beginning July 1, 2018
  - Plan is projected to remain solvent for next 20 years
- **Part 2: Scheduled progress toward Funding Improvement Plan (FIP)**
  - Not required to certify scheduled progress until Funding Improvement Period begins
  - Funding Plan Adoption Period
    - September 28, 2016 – June 30, 2019 (day before the Funding Improvement Period)
    - Date certification of endangered status through day before the Funding Improvement Period begins
  - Funding Improvement Period
    - First of the plan year after expiration of contracts covering at least 75% of active participants, not later than first of plan year following second anniversary of adoption of FIP
    - Expected to begin July 1, 2019

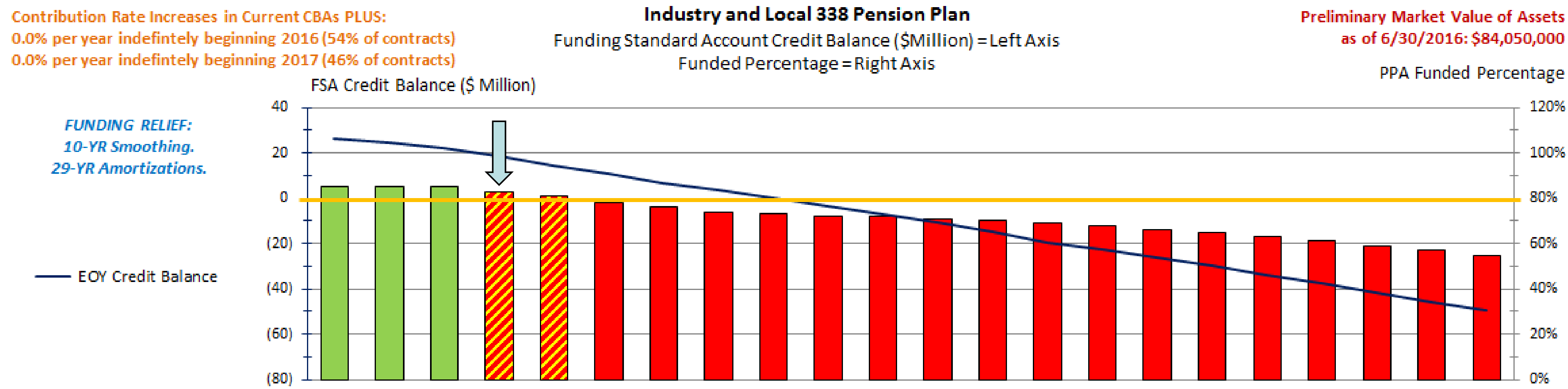
2016 PPA Certification: Recap

- **Certification Basis:**
  - Preliminary Assets
    - -0.79% return on investments for the plan year ending June 30, 2016
  - Projected liabilities
    - Based on results of the July 1, 2015 actuarial valuation
    - Reflects Plan amendment effective July 1, 2016
      - Formula for Benefit Accruals beginning July 1, 2016
        - 0.9% times contributions
        - Total contribution rate is benefit-bearing
      - Formula for Benefit Accruals through June 30, 2016
        - $37 per $1 of benefit-bearing, hourly contribution rate (per benefit credit)
        - 8 months of work = one benefit credit
  - Projected Contributions
    - Industry Activity Assumption
      - Provided by the Trustees at the August 19, 2016 Board Meeting
      - 250 active participants working 1,900 hours or 47.5 weeks per year

July 1, 2016 PPA Certification Basis

0.9% of Contributions Formula

-0.79% Asset Return in PYB 2015 | 11.9 Thousand Weeks Worked beginning PYB 2016 | Current CBA Contribution Increases[1]



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
(1) Plan Year beginning 7/1	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
(2) Asset Return during Year (%)	15.86	3.10	(0.79)	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
(3) Weekly Contribution Rate	203	223	232	246	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248
(4) Weeks Worked (Thousands)	15.7	13.9	12.6	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
(5) Contributions in Plan Year ($M)	3.37	3.28	2.93	2.92	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94
(6) PYE Credit Balance ($M)	26	25	22	18	14	11	7	3	0	(3)	(7)	(11)	(15)	(19)	(22)	(26)	(30)	(34)	(38)	(42)	(46)	(50)
(7) Actuarial Value of Assets ($M)	87	91	94	92	91	88	86	85	84	84	84	83	82	81	79	78	76	74	72	69	66	63
(8) Unit Credit Accd. Liability ($M)	102	107	110	111	112	112	113	114	115	115	116	116	116	117	117	117	117	116	116	115	115	114
(9) PPA Funded Percentage at 7/1	85%	85%	85%	83%	81%	78%	76%	74%	73%	72%	72%	71%	70%	69%	68%	66%	65%	63%	61%	59%	57%	55%

Notes

1) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing.

Remediation Plan
Requirements & Design Considerations

Endangered Status: Funding Improvement Plan (FIP)

- **Funding Improvement Plan**
  - Must be adopted by Trustees within 240 days after due date of certification
  - Trustees present the bargaining parties with one or more schedules of contribution increases and cuts in future benefit accruals, as needed to achieve the FIP goals
    - FIP Goal:
      - The Plan’s underfunding improves by one-third by the end of the 10-year Funding Improvement Period
        - Roughly 83% + (100% - 83%) / 3 = 89% by June 30, 2029
      - Credit Balance may not be negative in the last year of the Funding Improvement Period
        - Excise taxes may be imposed if there is a negative credit balance during the Funding Improvement Period
    - Schedules include:
      - One schedule with reductions in the amount of future benefit accruals before contribution increases are required (Default Schedule)
      - One schedule with contribution increases without reduction in future benefit accruals
      - Alternative schedule with other benefit and contribution changes

Endangered Status: Funding Improvement Plan

- **Funding Improvement Plan**
  - Imposition of Default Schedule
    - For a contract in effect with the plan entered endangered status, Trustees can impose the Default Schedule if a FIP schedule is not adopted within 180 days of the expiration of the contract.
  - Other Restrictions:
    - During the Funding Plan adoption period, the Trustees cannot:
      - Accept a contract that calls for a reduction in the level of contributions for any participants, suspension of contributions for any period of service, or a new exclusion of a group of participants. or
      - Amend the Plan to increase benefits or change the rate at which benefits vest unless required by law.
    - Contribution increases required by a FIP that are effective for plan years beginning after December 31, 2014 are not included for purposes of determining withdrawal liability or withdrawal liability payment amounts.

Critical Status: Requirements

- **Benefit Restrictions**
  - The Plan may not pay lump sums or other accelerated payment forms
- **Surcharges**
  - Automatic Employer Contribution Surcharges are effective 30 days after Notice of Surcharges sent to bargaining parties
  - Surcharges equal 5% for the initial plan year of Critical Status, and 10% for the second and later plan years
  - Surcharges are NOT benefit bearing
  - Surcharges cease to apply upon adoption of RP schedule

Critical Status: Rehabilitation Plan (RP)

- **Rehabilitation Plan**
  - Must be adopted by Trustees within 240 days after due date of certification
  - Trustees present the bargaining parties with one or more schedules of contribution increases and cuts in future benefit accruals, as needed to achieve the RP goals
    - RP Goals:
      - Benefit changes and contribution increases such that the Plan is expected to emerge from Critical Status by the end of the 10-year Rehabilitation Period
      - Positive Credit Balance projected for current and 9 additional years
        - Credit Balance may be negative during the Rehabilitation Period
        - Protection from excise tax as long as the Plan is making progress under the terms of the RP
      - Alternatively, declare "All Reasonable Measures"
    - Schedules include:
      - One schedule with reductions in the adjustable benefits before contribution increases are required. Future benefit accruals can be reduced to the lower of 1% of contributions or the current accrual rate (Default Schedule)
      - Alternative schedules with other benefit and contribution changes

Critical Status: Rehabilitation Plan

- **Rehabilitation Plan**
  - Imposition of Default Schedule
    - For a contract in effect with the plan entered Critical Status, Trustees can impose the Default Schedule if a RP schedule is not adopted within 180 days of the expiration of the contract.
  - Other Restrictions:
    - During the Rehabilitation Plan adoption period, the Trustees cannot:
      - Accept a contract that calls for a reduction in the level of contributions for any participants, suspension of contributions for any period of service, or a new exclusion of a group of participants. or
      - Amend the Plan to increase benefits or change the rate at which benefits vest unless required by law.
    - Contribution increases required by a RP that are effective for plan years beginning after December 31, 2014 are not included for purposes of determining withdrawal liability or withdrawal liability payment amounts.

Critical and Endangered Status: RP and FIP

- **Annual Updates**
  - Each year, the Trustees must review (and may need to update) the Funding Improvement or Rehabilitation Plan
  - Once the Funding Improvement or Rehabilitation Period begins, the actuary must certify whether the Plan is making "scheduled progress"
    - Form 5500: Progress as of the end of the plan year is reported
    - Annual Certification: the actuary certifies progress as of the beginning of the plan year
    - Consequences of no progress: Excise tax on accumulated funding deficiency if certified as not making progress for three years in a row

Contribution Policy Projection

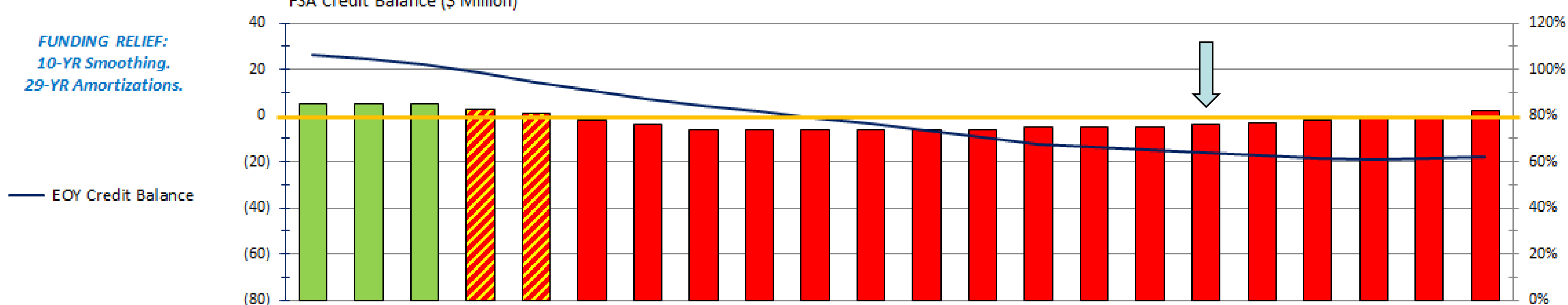
0.9% of Contributions Formula & Revised Contribution Policy

-0.79% Asset Return in PYB 2015 | 11.9 Thousand Weeks Worked beginning PYB 2016 | Current CBA Contribution Increases PLUS Perpetual 5.0% Annual Contribution Rate Increases[1]

Contribution Rate Increases in Current CBAs PLUS:
5.0% per year indefintely beginning 2016 (54% of contracts)
5.0% per year indefintely beginning 2017 (46% of contracts)

Industry and Local 338 Pension Plan
Funding Standard Account Credit Balance ($Million) = Left Axis
Funded Percentage = Right Axis

Preliminary Market Value of Assets
as of 6/30/2016: $84,050,000



(1) Plan Year beginning 7/1	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
(2) Asset Return during Year (%)	15.86	3.10	(0.79)	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
(3) Weekly Contribution Rate	203	223	232	249	261	275	288	303	318	334	350	368	386	406	426	447	470	493	518	544	571	599
(4) Weeks Worked (Thousands)	15.7	13.9	12.6	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
(5) Contributions in Plan Year ($M)	3.37	3.28	2.93	2.96	3.11	3.26	3.43	3.60	3.78	3.97	4.16	4.37	4.59	4.82	5.06	5.32	5.58	5.86	6.15	6.46	6.78	7.12
(6) PYE Credit Balance ($M)	26	25	22	18	15	11	8	4	2	(1)	(4)	(6)	(9)	(12)	(14)	(15)	(16)	(17)	(18)	(19)	(19)	(18)
(7) Actuarial Value of Assets ($M)	87	91	94	92	91	88	87	86	86	87	88	89	90	91	92	94	96	98	100	103	106	110
(8) Unit Credit Accd. Liability ($M)	102	107	110	111	112	113	114	115	116	117	118	119	120	121	122	124	125	126	128	130	132	134
(9) PPA Funded Percentage at 7/1	85%	85%	85%	83%	81%	78%	76%	74%	74%	74%	74%	74%	74%	75%	75%	75%	76%	77%	78%	79%	80%	82%

Notes

1) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing. See graph for detail regarding assumed rate increases.

Remediation Plan Operation

- **If the Plan is Critical, once notification is provided, the employer must pay surcharges until a schedule of an RP is adopted.**
- **Contracts that expire after the adoption of the FIP/RP must include a schedule of the FIP/RP**
  - Restrictions on contracts settled during the Adoption Period (see Slides 9 & 12)
  - Obligation to impose default schedule if bargaining continues beyond 180 days
- **Contracts that have not yet expired**
  - May continue to operate under the terms last negotiated
  - May re-open and adopt a schedule of a FIP/RP

Remediation Plan Operation (cont.)

- **Adjustable benefit changes – Critical Status Only**
  - These include:
    - Post-retirement death benefits,
    - 60 or 120-month guarantees and other subsidized optional payment forms,
    - Disability benefits not yet in pay status,
    - Early retirement benefits or retirement subsidies, and
    - Benefit increases adopted less than 60 months before the plan went into the Rred Zone
  - Can be imposed on any participant who was not in payment status 30 days following notification that benefits might be reduced (generally 30 days following the issuance of the Critical Status Notice)
  - Effective once they are included in a contract
    - Terminated vested participants are not covered by contracts, so benefit changes can be made effective at any time.
    - Active participants experience changes at various times, as contracts are renegotiated.

Remediation Plan Design Considerations

- **Benefit changes**
  - Apply uniformly across all contributing employers versus adjust by employer
  - Will grandfathering apply?
- **Contribution increases**
  - Apply uniformly across all contributing employers versus adjust by employer
  - Increases required during improvement period only versus fixed number of increases required for each contract
  - Uniform rate of increase versus adjustment for timing of the adoption of the increases
- **Administration and operation of the Plan**
  - Simple versus complex
- **Coordination of Funding Improvement Plan with possible future Rehabilitation Plan**
- **Cushion for adverse experience**

Including the FIP / RP in Contracts

Contributing Employer	6/30/2016 Active Count	6/30/2015 Term Vested Count	Next Contract Start Date	Will FIP Schedules Be Part of Bargaining?	Date FIP Default Imposed	Possible Surcharges in 2017-2018 Plan Year?	Will RP Schedules Be Part of Bargaining?	Adjustable Benefit Changes Might Apply
College New Rochelle	22	1	9/1/2013					
Crowley LaFargeville	104	43	11/1/2017					
Culinart	18	1	1/1/2017					
Freisland	55	22	1/1/2019					
LP Transport	25	10	8/16/2019					
Montefiore New Rochelle	17	5	2/26/2017					
Paraco Gas	8	3	2/1/2018					
Westchester L860	1	1	10/1/2013					
All Other	N/A	148	N/A					
	250	234						

Assumptions

7/1/2016 - 6/30/2017 Plan Year	
Endangered Status Certification	9/28/2016
Notice of Endangered Status	10/28/2016
Adopt FIP	5/25/2017
FIP to Bargaining Parties	6/24/2017
Funding Improvement Period Begins	7/1/2019
Effective Date of Benefit Changes	*TBD*

7/1/2017 - 6/30/2018 Plan Year	
Endangered/Critical Status Certification	9/28/2017
Election of Critical Status	*10/28/2017*
Notice of Critical Status	*10/28/2017*
Imposition of Surcharges	*11/28/2017*
Adopt RP	*10/28/2017*
RP to Bargaining Parties	*11/28/2017*
Rehabilitation Period Begins	*7/1/2020*
Effective Date of Benefit Changes	*TBD*

Summary of Plan Provisions & Participant Eligibility

Plan Provision	Description		7/1/2015 Actives	7/1/2015 Inactives
Valuation Population			265	234
Vesting Service	4 months worked during a Plan year	Non-vested	54	0
		Vested, less than 15 Credits	128	194
		Vested, at least 15 Credits	83	40
Accrual Rate	0.9% of total contributions			
Early Retirement	Age 55 with 15 Pension Credits:		36	28
	2% per year, prior to age 65 (accrued prior to July 1, 2010)			
	6% per year, prior to age 65 (accrued on and after July 1, 2010)			
Service Pension	20 Pension Credits: benefit reduced by 50%		10	11
	25 Pension Credits: benefit reduced by 10%		20	0
	30 Pension Credits: benefit reduced by 5%		9	1
	35 Pension Credits: unreduced benefit		8	0
Disability Retirement	10 Pension Credits & Totally and Permanently Disabled:		139	115
	Actuarially reduced benefit, not less than $400			
Death Benefit for Unmarried Participants	A 120-Month Certain Benefit	Married	158	139
		Single / Unknown	107	95
Normal Form	For unmarried participants, a Life Annuity with a 120-month certain period.		158	139
	For married participants, a 75% Joint and Survivor Annuity.		107	95

Benefit Example – 30 Year Service

Early Retirement and Form of Payment Subsidy

		Partic Age	Spouse Age
DOB	10/22/1955		
Last Day Wkd	8/23/2016	60.83	58.92
Annuity Start Date	11/1/2016	61.00	59.08
Spouse DOB	9/2/1957		

Accrued Benefit	Pre 7/1/1997	338.110		
	Post 6/30/1997	2,361.57	1,656.98	to 7/1/2010
			704.59	after 7/1/2010
	Total	**2,699.68**		

30 year Service Pension

4 **Years Early**

	Current Plan			Full Actuarial Equivalent			Change	
		Table Factor			Actuarial Equivalent		Increase / (Decrease)	% Increase / (Decrease)
Early Retirement Factor		0.95			0.647			
Pre 7/1/2010		N/A			N/A			
Post 6/30/2010		N/A			N/A			
Early Retirement Benefit		**2,564.70**	**120 mo guar**		**1,746.69**	**Single life**	N/A	N/A
Form of Payment:	Factor	Member Benefit	Spouse Benefit	Factor	Member Benefit	Spouse Benefit	$ Increase (Decrease)	% Increase (Decrease)
120 Months Guaranteed	**1.000**	**2,564.70**	**N/A**	**0.943**	**1,647.53**	**N/A**	**(917.17)**	**36%**
50% J&S	0.930	2,385.17	1,192.59	0.918	1,602.91	801.46	(782.26)	33%
75% J&S	1.000	2,564.70	1,923.53	0.901	1,573.09	1,179.82	(991.61)	39%
100% J&S	0.934	2,395.43	2,395.43	0.884	1,544.36	1,544.36	(851.07)	36%
Single Life Annuity	N/A	N/A	N/A	1.000	1,746.69	N/A	N/A	N/A

Benefit Example – Age 55 & 15 Pension Credits

Early Retirement and Form of Payment Subsidy

		Partic Age	Spouse Age	
DOB	10/22/1955			
Last Day Wkd	8/23/2016	60.83	58.92	
Annuity Start Date	11/1/2016	61.00	59.08	
Spouse DOB	9/2/1957			
Accrued Benefit	Pre 7/1/1997	338.110		
	Post 6/30/1997	2,361.57	1,656.98	to 7/1/2010
			704.59	after 7/1/2010
	Total	**2,699.68**		

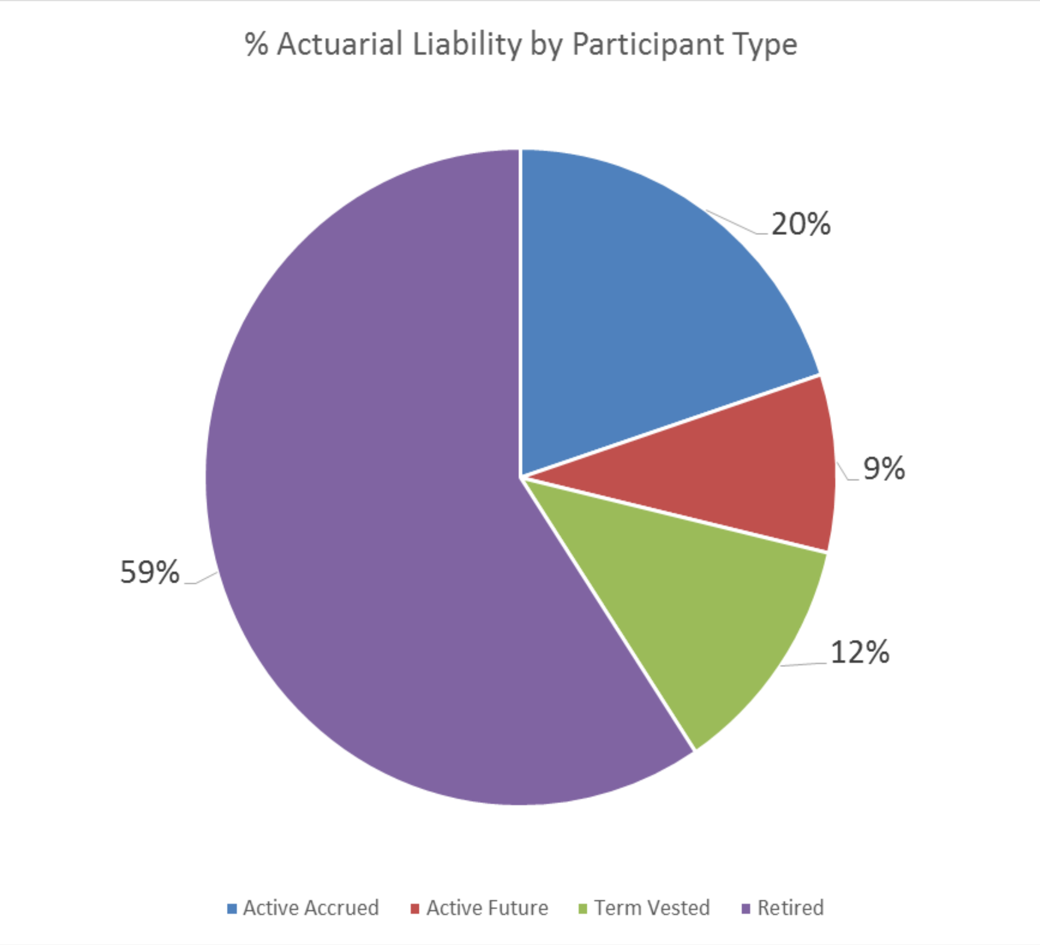
Early Retirement Pension (Age 55 & 15 Pension Credits)

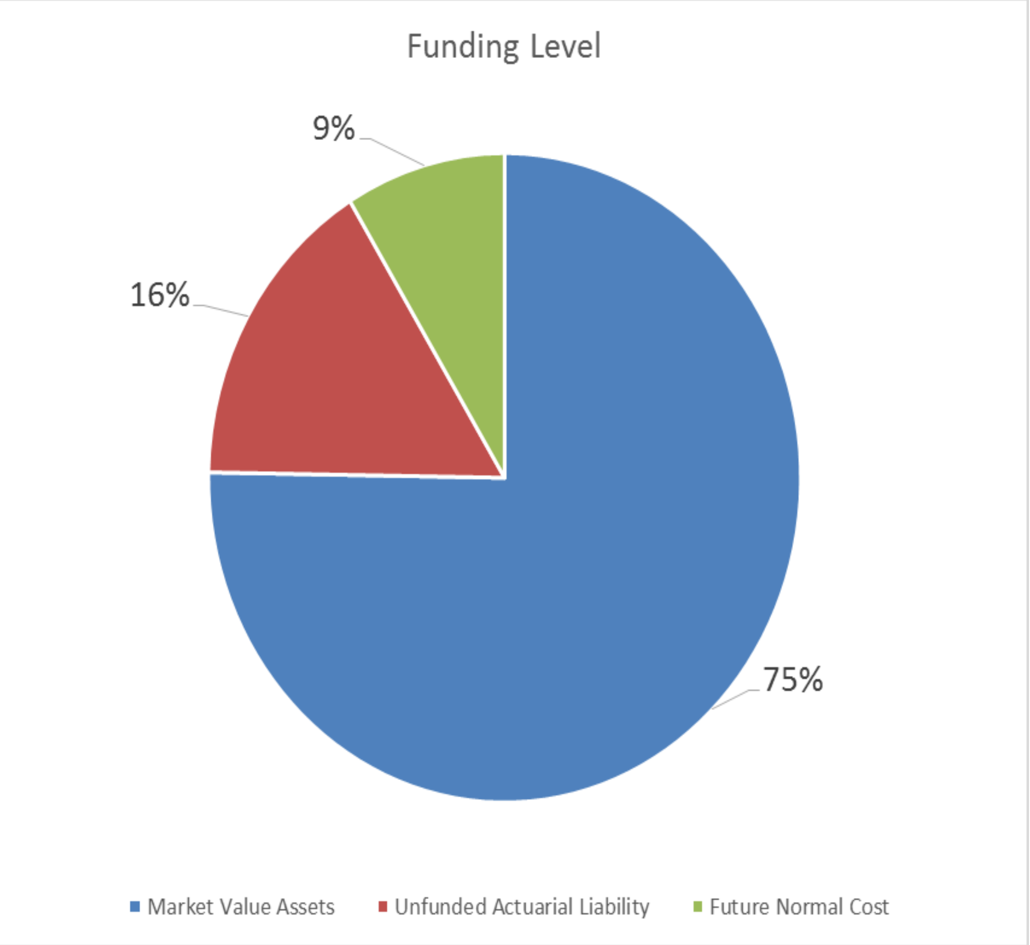
4 Years Early

	Current Plan				Full Actuarial Equivalent				Change	
		Table Factor				Actuarial Equivalent			Increase / (Decrease)	% Increase / (Decrease)
Early Retirement Factor		N/A				0.647				
	Pre 7/1/2010	0.920				N/A				
	Post 6/30/2010	0.760				N/A				
Early Retirement Benefit		**2,370.97**	**120 mo guar**			**1,746.69**	**Single life**		N/A	N/A

Form of Payment:	Factor	Member Benefit	Spouse Benefit	Factor	Member Benefit	Spouse Benefit	$ Increase (Decrease)	% Increase (Decrease)
120 Months Guaranteed	**1.000**	**2,370.97**	**N/A**	**0.943**	**1,647.53**	**N/A**	**(723.44)**	**31%**
50% J&S	0.930	2,205.00	1,102.50	0.918	1,602.91	801.46	(602.09)	27%
75% J&S	1.000	2,370.97	1,778.23	0.901	1,573.09	1,179.82	(797.88)	34%
100% J&S	0.934	2,214.49	2,214.49	0.884	1,544.36	1,544.36	(670.13)	30%
Single Life Annuity	N/A	N/A	N/A	1.000	1,746.69	N/A	N/A	N/A

Plan Liabilities





Notes

1) July 1, 2015 valuation results.

Contributions Needed

Compound Annual Increases Required to Meet Goal in 10 Years[1] (Endangered & Critical Status)			
Date Contribution Rate Increase Begins[2]	*7.50% Investment Return 11,900 weeks worked (beginning 7/1/2016)*	*0.00% Return for PYB 2016 7.50% Return for PYB 2017+ 11,900 weeks worked*	*7.50% Investment Return 10,700 weeks worked (10% decrease beginning 7/1/2017)*
July 1, 2017	10.0%	13.0%	12.0%
July 1, 2018	12.0%	15.0%	13.5%
July 1, 2019	14.0%	17.0%	16.0%

Notes

1) Annual increases assumed to continue in perpetuity. All contribution rate increases are benefit-bearing.
2) Effective date of contribution rate increase for all contracts without regard to current CBA expiration dates.

FIP/RP Design: Additional Information

- **All contribution rate increase scenarios shown (on previous slide) for illustration purposes only and assume:**
  - Assets return 7.50% for the plan year beginning July 1, 2016 and each year thereafter.
  - Contribution rate increases begin effective July 1, 2017, 2018, or 2019 for all employers without regard to current CBA expiration dates.
  - All contribution rate increases are benefit-bearing.
- **Actual FIP/RP design, costs, and savings may differ.**
  - Adopted FIP/RP will reflect preliminary results of July 1, 2016 actuarial valuation and more up-to-date asset information.
  - Contribution rate increases and benefit changes may vary by employer.
  - Timing of RP changes need not be effective July 1, 2017, 2018, 2019.

Next Steps

- **July 1, 2016 Actuarial Valuation**
  - Reflect July 1, 2016 valuation results in design projections
    - Audited Assets
    - Liabilities based on participant data collected as of July 1, 2016
- **Continue analysis to determine appropriate levels and combinations of plan changes and contribution rate increases**
  - Requires input from Trustees
  - Key assumptions for projections
    - Future investment returns
    - Future work levels
    - Future contribution rate increases
  - Consideration of current CBA expiration dates
  - Consideration of alternative goals

Appendix

2016 – 2017 Plan Year Timeline

Requirement	Description	Deadline
2016 PPA Certification	90 days into plan year (Endangered); Critical Status is projected within 5 years	9/28/2016
2016 Notice of Endangered Status	30 days after actuarial certification of zone status	10/28/2016
Imposition of Surcharges (Critical Status only)	30 days after notice of surcharge is sent to employers (may be later than certification notice)	N/A
Adoption of Funding Improvement (FIP)	240 days after due date for actuarial certification	5/25/2017
Send FIP Schedules to Bargaining Parties	30 days after adoption of FIP	6/24/2017
Funding Improvement Period Begins	After expiration of contracts covering at least 75% of active participants, not later than first of plan year following second anniversary of adoption of FIP	7/1/2019
Effective Date of Benefit Changes	Only non-411(d)(6) protected benefit changes can be made: Future benefit accruals and ancillary benefits	TBD

2017 – 2018 Plan Year Timeline

Requirement	Description	Deadline
2017 PPA Certification	Certification 90 days into plan year; Projected to be certified as Endangered; with Critical Status is projected within 5 years	9/28/2017
Election to be in Critical Status (Early)	If projected Critical within 5 years: Election to be made no later than 30 days after the Certification Date	10/28/2017 (Optional)
Notice of Critical Status Election or Projection	30 days after actuarial certification of zone status	10/28/2017
2016 Notice of Endangered/Critical Status	30 days after actuarial certification of zone status	10/28/2017
Imposition of Surcharges (Critical Status only)	30 days after notice of surcharge is sent to employers (may be later than certification notice)	TBD
Adoption of Funding Improvement (FIP) or Rehabilitation Plan (RP)	240 days after due date for actuarial certification	5/25/2018
Send FIP/RP Schedules to Bargaining Parties	30 days after adoption of FIP/RP	6/24/2018
Funding Improvement or Rehabilitation Period Begins	After expiration of contracts covering at least 75% of active participants, not later than first of plan year following second anniversary of adoption of FIP/RP	If 2016 FIP, 7/1/2019 If RP, 7/1/2020
Effective Date of Benefit Changes	Adjustable benefits may be eliminated for eligible participants	TBD

Contribution Rate Summary

Employer	Contract Expiration Date	As of 7/1/2015 Active Count (Valuation Data)	As of 7/1/2015 Total Weekly Contribution Rate	As of 7/1/2016 Active Count (Administrator)	As of 7/1/2016 Total Weekly Contribution Rate
College of New Rochelle	8/31/2013	19	$ 174.00	22	$ 174.00
Crowley LaFargeville	10/31/2017	115	272.79	104	286.43
Culinart	12/31/2016	18	206.28	18	226.91
Freisland Campina	12/31/2018	61	195.09	55	205.09
LP Transport	8/15/2019	30	276.80	25	290.80
Montefiore New Rochelle	2/25/2017	13	234.06	17	234.06
Paraco Gas	12/31/2018	8	188.00	8	227.60
Westchester L860	9/30/2013	1	205.21	1	205.21
Total		265		250	

Notes

1. All contributions are benefit-bearing, effective beginning July 1, 2016.
2. Contribution rates shown above are as reported by Plan Administrator.

Historical Contribution Rates by Contract

Employer	Base Rate	2009	2010	2011	2012	2013	2014	2015	2016	2016 ÷ Base
		As of Plan Year Ending								
College of New Rochelle	$ 110.44	$ 118.44	$ 130.40	$ 143.60	$ 158.00	$ 174.00	$ 174.00	$ 174.00	$ 174.00	158%
Crowley LaFargeville	130.00	140.00	154.00	169.00	186.34	204.97	225.47	248.00	272.79	210%
Culinart	108.44	116.44	128.08	141.08	154.98	170.48	187.53	206.28	226.91	209%
Freisland Campina	100.12	110.12	121.13	133.25	146.57	161.23	177.35	195.09	205.09	205%
LP Transport	160.00	160.00	160.00	176.00	192.00	208.00	228.80	251.60	276.80	173%
Montefiore New Rochelle	120.12	132.12	145.33	159.86	175.85	193.44	212.78	234.06	234.06	195%
Paraco Gas	124.00	132.00	140.00	148.00	156.00	172.00	188.00	206.80	227.60	184%
Westchester L860	130.15	140.15	154.17	169.59	186.55	205.21	205.21	205.21	205.21	158%

Notes

1. Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing.

Historical Investment Experience

Exhibit 7.2 - Historical Investment Experience

		Net Investment Returns	
Plan Year Ended June 30	Assumed Return	Actuarial Value	Market Value
2015	7.50%	8.10%	3.10%
2014	7.50%	9.56%	15.84%
2013	7.50%	7.67%	13.64%
2012	7.50%	5.05%	1.61%
2011	7.50%	6.79%	21.15%
2010	7.50%	13.37%	14.15%
2009	7.50%	-7.63%	-17.26%
2008	7.50%	6.19%	-1.57%
2007	7.50%	6.72%	12.52%
2006	7.50%	2.93%	1.73%
5-Year Annualized Return		7.42%	10.81%
10-Year Annualized Return		5.74%	5.92%

Source: July 1, 2015 Actuarial Valuation Report

Historical Weeks Worked

Exhibit 7.3 - Historical Weeks

Plan Year Ended June 30	TOTAL Weeks for ALL Participants Total	% Change	AVERAGE Weeks for ACTIVE Participants Total	% Change
2015	13,316	-15.2%	47.55	-7.4%
2014	15,708	-3.5%	51.33	2.8%
2013	16,274	-16.7%	49.92	-2.4%
2012	19,537	-6.3%	51.15	1.1%
2011	20,842	-7.8%	50.59	-3.5%
2010	22,602	-3.9%	52.44	-1.7%
2009	23,519	1.9%	53.33	1.2%
2008	23,076	0.4%	52.68	0.2%
2007	22,982	3.5%	52.59	3.9%
2006	22,212	-	50.60	-
5-Year Average	17,136		50.11	
10-Year Average	20,007		51.22	

Source: July 1, 2015 Actuarial Valuation Report

Projection Assumptions and Methods

- **Unless otherwise stated, the projection assumptions, methods, data and plan provisions used are the same as those used for the July 1, 2015 actuarial valuation and assume no future liability gains or losses.**
- **PPA continues in its current form, as amended by MPRA**
- **Investment Returns**
  - 7.50% per year beginning 7/1/2016, net of investment-related expenses, unless otherwise noted
- **Level Covered Employment in All Future Years**
  - 250 active participants (1,900 hours or 47.5 weeks per active participant), unless otherwise noted
- **Operating Expenses**
  - $375,000 for the plan year beginning July 1, 2015, increasing 3.0% per year
  - Includes additional $13/participant increase in PBGC premiums, effective 7/1/2015
- **Contribution Rate Increases**
  - As required by current Collective Bargaining Agreements, unless otherwise noted:
    - 46% of hours worked under 3-year contracts beginning in 2017 (Paraco & LaFargeville)
    - 54% of hours worked under 3-year contracts beginning in 2016 (All Other Employers)
- **Plan changes**
  - None, unless otherwise noted
- **Other assumptions could produce different results.**

Summary of Assumptions and Methods

Assumption or Method	Description of Assumption or Method
Interest Rate	7.50% per annum.
Plan Year	The twelve-month period beginning July 1 and ending June 30.
Mortality	Non-Disabled: Non-annuitant: 125% of the sex-distinct RP-2014 Blue Collar Employee Mortality Table Annuitant: 125% of the sex-distinct RP-2014 Blue Collar Annuitant Mortality Table Disabled: 125% of the sex-distinct RP-2014 Disabled Mortality Tables All mortality tables are adjusted to future years using generational projection under Scale MP-2014 to anticipate future mortality improvement.
Active Participant	Active participants are defined as those with at least two months of employment in the most recent plan year and who have accumulated at least one pension credit, excluding those who have retired as of the valuation date and those who work for an employer that has withdrawn from the Plan on or before the valuation date.
Exclusion of Inactive Vested Participants	Inactive participants over age 70 are excluded from the valuation.
Operating Expenses	Operating expenses were assumed to be $375,000 for the plan year beginning July 1, 2015 (equivalent to $360,672 payable at the beginning of the year).

Summary of Assumptions and Methods

<table>
<tr><th>Assumption or Method</th><th colspan="3">Description of Assumption or Method</th></tr>
<tr><td rowspan="7">Retirement Rates</td><td>Age
(if eligible for retirement)</td><td colspan="2">Retirement Rate</td></tr>
<tr><td>55-59</td><td colspan="2">10%</td></tr>
<tr><td>60-61</td><td colspan="2">20%</td></tr>
<tr><td>62</td><td colspan="2">75%</td></tr>
<tr><td>63-65</td><td colspan="2">50%</td></tr>
<tr><td>66-69</td><td colspan="2">25%</td></tr>
<tr><td>70</td><td colspan="2">100%</td></tr>
<tr><td>Inactive Vested Commencement</td><td colspan="3">Retirement is assumed to occur at age 65 for participants with fewer than 15 pension credits, and at age 55 for participants with at least 15 pension credits.</td></tr>
<tr><td rowspan="10">Sample Rates (before Retirement)</td><td>Age</td><td>Disability Rate (%)</td><td>Withdrawal Rate (%)
(until earliest eligibility for a pension)</td></tr>
<tr><td>20</td><td>0.05</td><td>6.58</td></tr>
<tr><td>25</td><td>0.05</td><td>5.27</td></tr>
<tr><td>30</td><td>0.05</td><td>4.83</td></tr>
<tr><td>35</td><td>0.06</td><td>4.47</td></tr>
<tr><td>40</td><td>0.09</td><td>3.84</td></tr>
<tr><td>45</td><td>0.18</td><td>3.21</td></tr>
<tr><td>50</td><td>0.40</td><td>1.52</td></tr>
<tr><td>55</td><td>0.85</td><td>0.33</td></tr>
<tr><td>60</td><td>1.74</td><td>0.00</td></tr>
</table>

Summary of Assumptions and Methods

Assumption or Method	Description of Assumption or Method
Hours Worked	Average of hours worked in the preceding plan year. For the plan year beginning July 1, 2015, each active participant is assumed to work 1,900. For the plan year beginning July 1, 2014 the assumption was 2,000 hours per active participant.
Future Benefit Accruals	One pension credit per plan year.
Contribution Income	For the purpose of projecting future contribution income, it is assumed contributions are earned based on the total number of hours worked for participants during the plan year preceding the valuation date. Participants are assumed to continue to work for the employer reported in the data and at the rate required by that employer's contract.
Asset Method	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the projected market return, and is recognized over a five-year period (10-year period for the plan year investment loss in the year ended June 30, 2009). The actuarial value is further adjusted, if necessary, to be within 20% of the market value.
Actuarial Cost Method	Unit Credit Cost Method.

Summary of Assumptions and Methods

Assumption or Method	Description of Assumption or Method
Form of payment	Unmarried participants are assumed to elect a Life Annuity with a 120-month guarantee. Married participants are assumed to elect an unreduced 75% Joint and Survivor Annuity.
Marriage	75% of participants are assumed married.
Spouse Age	Wives are assumed to be three years younger than their husbands, if actual age is unknown.
Missing or Incomplete Participant Data	Assumed to be the same as those exhibited by participants with similar known characteristics. For those with unknown gender, gender was assumed to be male.
Unfunded Vested Benefits for Employer Withdrawals	Interest: • For liabilities up to the market value of assets, liabilities are valued using interest rates used by PBGC for plan terminations. For the July 1, 2015 valuation these are 2.71% and 2.78% (for 20 years and thereafter, respectively). Operating expenses as prescribed by PBGC formula (29CFR Part 4044, Appendix C) are included for liabilities determined using PBGC termination interest rates. • For liabilities in excess of the market value of assets, valued using 7.50% for all years. All other assumptions are the same as those used for the funding valuation.

Summary of Plan Provisions

Plan Provision	Description of Plan Provision
Plan Year	The twelve-month period beginning July 1 and ending June 30.
Participants	An Employee becomes a participant in the Plan on January 1 or July 1 after completing four months of covered employment in any consecutive 12-month period.
Contribution Rates	Various basic (benefit-bearing) rates ranging from \$100.12 to \$160.00 per week plus Supplemental Contributions that range from \$63.56 to \$142.79 per week effective in the 7/1/2015 – 6/30/2016 plan year (in which Supplemental Contributions were not applicable for benefit accrual purposes). Effective July 1, 2016, total contribution rates ranging from \$174.00 to \$300.07 per week are benefit-bearing under the newly adopted benefit formula (0.9% x Total Contributions).
Normal Form of Payment	For unmarried participants, a Life Annuity with a 120-month certain period. For married participants, a 75% Joint and Survivor Annuity.
Cost of Living Increases	None.
Benefit Service	¼ Pension Credit for each two months of covered employment, with a maximum of one pension credit after eight months. The maximum total pension credits for benefit purposes is 35.

Summary of Plan Provisions

Plan Provision	Description of Plan Provision
Vesting Service	One year of vesting service for four months of covered employment.
Break-in-Service	A break in service occurs in any plan year in which the participant fails to complete at least two months of work. In determining whether a break in service has been incurred, work in non-covered employment that is credited as vesting service will be considered covered employment.
Regular Pension (Eligibility)	An Employee is eligible for a Regular Pension if the Employee has attained age 65 and has earned 15 pension credits.
Regular Pension (Amount of Benefit)	Upon retirement on his Regular Retirement Date, a Participant will be entitled to receive a monthly benefit equal to: • For work after on or after July 1, 2016, monthly benefit accruals are equal to 0.9% of total contributions made for the participant's work. • For pension credit earned on or after July 1, 2010 and before July 1, 2016, \$37.00 for each \$1.00 of hourly (benefit-bearing) employer contribution rate. • For pension credits earned on or after July 1, 1997 and before July 1, 2010, the accrual rate is \$49.00 for each \$1.00 of hourly employer contribution rate. • For pension credits prior to July 1, 1997, the accrued benefit based on prior plan formula increased by 20.75%.

Summary of Plan Provisions

Plan Provision	Description of Plan Provision
Contribution Rates	For the period beginning September 28, 2006 and ending June 30, 2016, in the event a contributing employer is obligated to make a special Supplemental Contribution to the Fund solely for the purpose of improving the funding status of the Plan, such Supplemental Contributions shall not be included in the calculation of a Participant's pension benefit. Effective July 1, 2016, all contributions are benefit-bearing under the newly adopted benefit formula (0.9% x Total Contributions).
Service Pension (Eligibility)	20, 25, 30 or 35 pension credits
Service Pension (Amount of Benefit)	20 Year Service Pension = 50% of the Regular Pension 25 Year Service Pension = 90% of the Regular Pension 30 Year Service Pension = 95% of the Regular Pension 35 Year Service Pension = 100% of the Regular Pension
Early Pension (Eligibility)	An Employee is eligible for an Early Pension if the Employee has attained age 55 and has earned 15 pension credits.

Summary of Plan Provisions

Plan Provision	Description of Plan Provision
Early Pension (Amount of Benefit)	Upon the Early Retirement Date, a Participant will be entitled to receive a monthly benefit equal to his Normal Retirement Benefit earned reduced by: 2% for each year of age less than 65 to age 55 for benefits accrued before July 1, 2010. 6% for each year of age less than 65 to age 55 for benefits accrued on or after July 1, 2010.
Disability Pension (Eligibility)	An Employee is eligible for a Disability Pension if total and permanent disability prevents engagement in regular employment, and the Employee has earned at least 10 Pension Credits.
Disability Pension (Amount of Benefit)	If the participant retires on a Disability Pension on or after July 1, 1997, the Disability Pension is the greater of (a) $400, or (b) the actuarial equivalent of the accrued benefit earned as of the last date worked. If the participant retires on a Disability Pension before July 1, 1997, the Disability Pension is determined under the Plan rules in effect at that time.
Vested Benefit (Eligibility)	Five or more years of service.
Vested Benefit (Amount of Benefit)	Regular Pension Payable at Normal Retirement Age.

Summary of Plan Provisions

Plan Provision	Description of Plan Provision
Death Benefits (Married)	If a participant is married and dies after earning the right to a Statutory Pension (5 years of service), the spouse will be entitled to a survivor benefit, as long as they were married for at least one year at the time of death. The spouse's monthly benefit is 75% of the benefit earned as of the day before death, subject to any reduction that would have applied for payments before 65. If the participant had not yet reached age 55, the benefit will be calculated as if they had reached age 55 and applied for an Early Retirement Pension immediately before death. If the participant had at least 20 Pension Credits, the spouse's benefit will be based on the greater of a Service Pension or an Early Retirement Pension. If the participant had fewer than 15 Pension Credits, the spouse's benefit will be calculated according to the Early Retirement Pension reduction factors.
Death Benefits (Unmarried)	A 120-Month Certain Benefit is paid to the beneficiary of an unmarried participant who dies in active service after qualifying for a Statutory Pension (5 years of service). The beneficiary will receive the monthly amount the participant would have received had they retired on the date of death for a total of 120 months. If the participant has not yet reached age 55, then the benefit will be calculated as if he had reached age 55 and applied for an Early Retirement Pension immediately before death.
Special Death Benefit	If the lump sum value of a survivor benefit is less than $10,000, payment will automatically be made in one lump sum.

Actuarial Certification

We have prepared this actuarial report for use by the **Industry & Local 338 Pension Plan** (the "Plan"). This report has been prepared solely for the benefit of the Plan, and it is not complete without the accompanying discussion with a representative of Horizon Actuarial Services, LLC. This report should not be distributed to others not affiliated with the Plan or relied upon by any other person without prior written consent from Horizon Actuarial Services, LLC.

In preparing this report, we have relied on all the information and data provided by the Plan, including plan provisions and asset information, as being complete and accurate. We have not independently verified the accuracy or completeness of the data or information provided, but we have reviewed the data for reasonableness to the extent that we believe appropriate based on the purpose for which it has been used.

The analysis contained in this report may involve actuarial calculations. Actuarial calculations require that we make assumptions about future events. We have used assumptions that we believe are reasonable and appropriate for the purpose for which they have been used. Other assumptions may also be reasonable and could result in substantially different results. Because it is not possible or practical to model all aspects of a situation, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events. We may also exclude factors or data that are immaterial in our judgment.

Future events and actual experience will vary from any assumptions we have used, and calculations prepared with actual data will vary from estimates or summaries used for modeling purposes. Actual future results will differ from our projections. As these differences arise, contributions and/or benefits may need to be adjusted to take these changes into account.

In our opinion, any methods, assumptions, and calculations are in accordance with the applicable provisions of the Internal Revenue Code and ERISA, and the procedures followed and presentation of results conform with generally accepted actuarial principles and practices. The undersigned consultants of Horizon Actuarial Services, LLC with actuarial credentials meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. There is no relationship between the Plan and Horizon Actuarial Services, LLC that affects our objectivity.

Stanley I. Goldfarb, FSA, EA, MAAA
Actuary and Managing Consultant

Mary Ann Dunleavy, ASA, EA, MAAA
Consulting Actuary

Anthony M. Ghabour, EA, MAAA
Consulting Actuary