

## APPENDIX B

### INFORMATION ON ACTUARIAL ASSUMPTIONS AND METHODS

#### Part 1 - Actuarial assumptions and methods used for cash flow projections

##### 1. Investment returns (deterministic only)

<u>Period</u>	<u>Return</u>
4/1/2017-3/31/2022	5.25%
4/1/2022-3/31/2027	6.00%
4/1/2027-3/31/2032	7.00%
4/1/2032 and later	7.25%

##### Rationale:

The current asset allocation is very conservative since the Plan is projected to go insolvent by the Plan Year ending 3/31/2022, and is attempting to conserve capital. The cash flow analysis accompanying this application assumes the suspension and partition are approved and as a result the Trustees will change the asset allocation over time as the cash flows improve, allowing the Trustees to invest more aggressively, moving money from fixed income to stocks and alternative investments. See Part 2, Section 1 of this appendix for details regarding future asset allocations.

Using the proposed asset allocations for the above described time periods we applied the return expectations from the *Horizon Survey of Capital Market Assumptions 2016 Edition* to determine a reasonable rate of return over the years by using the weighted average of the forward looking expected arithmetic return for each of the asset classes and adjusted such determination to reflect the variance of the entire portfolio to determine the forward looking expected geometric return as described in Section 3.8.3j of ASOP 27.

##### 2. Mortality assumption

Mortality Healthy	RP-2014 healthy mortality with blue collar adjustment, separate for male and female participants, adjusted with mortality improvement Scale MP-2016 from 2015.
Disabled	RP-2014 disabled mortality, separate for male and female participants, adjusted with mortality improvement Scale MP-2016 from 2015.

##### Rationale:

We recently took over as actuary and completed our first valuation as of 4/1/2015. We updated the mortality table at that time. The Plan population is not large enough to provide a credible mortality study. And, in our professional judgment, we believe that this group will exhibit standard mortality experience. Consequently, we are using the most current standard tables.

##### 3. Termination assumption

Sarason T-8 Table (less 51GAT M)

Rationale:

We are using a standard table, as the Plan population is not large enough to provide a credible termination study. We have compared the recent Plan experience to the Standard Table used and in our professional judgment, future experience is not expected to deviate from these tables.

#### 4. Disability assumption

Pre-55            None  
55 and later    1987 CGDT

Rationale:

There is no Disability benefit prior to age 55 and we consider the termination assumption captures any disability experience prior to age 55. In our professional judgment, the Plan provisions are such that the disability benefit is not expected to impact cash flows or liabilities in an appreciable way. Consequently, we are using a standard table to estimate disability experience on or after age 55.

#### 5. Retirement assumption

<u>Age</u>	<u>Percent Retiring</u>	
	<u>Active</u>	<u>Terminated Vested</u>
55	20%	20%
56	5%	25%
57	5%	25%
58	5%	25%
59	5%	25%
60	5%	25%
61	5%	25%
62	25%	25%
63	5%	25%
64	5%	25%
65	70%	100%
66	50%	100%
67+	100%	100%

If the participant had at least 20 years of Credited Service as of April 1, 2009, there is a one-time additional retirement incidence of 60% when the participant reaches age 55 and at least 25 years of Credited Service. This additional incidence applies immediately for participants who are already age 55 with 25 years of Credited Service.

For active participants who terminate prior to retirement, it is assumed they will retire at age 58 (the weighted average age of terminated vested retirement).

Rationale:

It is expected that a certain number of participants will retire early, and it is reasonable to assume anyone eligible for a subsidized early benefit would be more inclined to take it. Our assumption is based on our professional judgment and the historical information provided in Part 2, Sections 2.01 and 2.02.

**6. Missing data**

Actives missing dates of birth are assume to be age 45. Terminated vesteds missing dates of birth are assumed to be age 50. Retirees and beneficiaries missing dates of birth are assumed to be age 70.

Rationale:

The assumption for actives and retirees assumes that missing dates of birth would only be an issue for newly active and retired participants. As a result, our assumption is slightly younger than the average participant in those categories. The terminated vested participants are assumed to be very near the average age of that category.

**7. Married percentage**

50% of the active and terminated vested population

Rationale:

Approximately 50% of the non-retired population for whom the marital status is known are married.

**8. Assumed form of benefit**

All unmarried participants take a life annuity. Married participants are assumed to take their benefits as shown below:

<u>Form</u>	<u>Percent</u>
100% J&S	60%
75% J&S	10%
50% J&S	<u>30%</u>
Total	100%

Rationale:

Part 2, Section 2.05 provides the Plan’s recent experience regarding the selection of optional forms. In our professional judgment, future married participants will be more likely to choose the most generous joint & survivor form available under the implicit subsidy in the PBGC benefit guarantee.

**9. New entrant profile**

Entry	<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
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25	42%	3%	45%
35	14%	4%	18%
45	20%	3%	23%
55	<u>10%</u>	<u>4%</u>	<u>14%</u>
Total	86%	14%	100%

Rationale:

Part 2, Section 4 provides the Plan’s recent experience regarding the age and gender of new entrants. In our professional judgment, we have no reason to believe future new entrants will significantly deviate from this experience.

**10. Projected average contribution rates**

The following assumed contributions are assuming the Plan’s application for a benefit suspension and partition is approved.

The average contribution rates for the Plan Years ending 3/31/2018 and 3/31/2019 are based upon the current Rehabilitation Plan (RP) update. The average contribution rates for the Plan Years ending 3/31/2020 and later assume 3% annual increases, which would be put in place by the contingent RP update as described in Section 2.e.2 of the current RP.

<u>Plan Year ending 3/31</u>	<u>Monthly Contribution</u>	<u>Plan Year ending 3/31</u>	<u>Monthly Contribution</u>	<u>Plan Year ending 3/31</u>	<u>Monthly Contribution</u>
2018	\$315.78	2024	\$375.32	2030	\$448.15
2019	323.75	2025	386.58	2031	461.59
2020	333.47	2026	398.17	2032	475.44
2021	343.47	2027	410.12	2033	489.70
2022	353.77	2028	422.42	2034	504.40
2023	\$364.39	2029	\$435.10	2035	\$519.53

Contribution Rates after 2035 are assumed to increase 3% per year.

If the Plan’s application for Benefit Suspension and Partition is denied we are assuming the contribution rates will remain at their current level for all future years.

Rationale:

We assume 3% increases into the future if the suspension/partition application is approved because this is what the Trustees and bargaining parties have agreed to. We also find it reasonable for an employer to step up contributions in an effort to save part of the pension. It is notable that the pension contribution rate is roughly 10% to 15% of the total wage package. While 3% might out pace general inflation it does not out pace historic wage inflation by much. So, the 3% only operates on a small portion of the total wage package and an even smaller portion of the total operational costs of the employers. We do not find this unreasonable and note how long medical inflation has out-paced general inflation with no apparent stop in sight..

**11. Projected contribution base units (months)**

<u>Plan Year ending 3/31</u>	<u>Expected Months</u>		<u>Plan Year ending 3/31</u>	<u>Expected Months</u>
2018	4,779		2024	4,610
2019	4,750		2025	4,582
2020	4,722		2026	4,555
2021	4,694		2027	4,528
2022	4,666		2028	4,501
2023	4,638			

Months worked is assumed to remain at the 2028 level thereafter.

**Rationale:**

As indicated in Part 2, Section 5, the months projection assumes the smaller employers will drop out of the Fund over time, and that the two largest employers will be the only remaining ones.

**12. Withdrawal liability payments**

It is expected that YRC Worldwide, Center Candy, and Teamsters Local 810 will continue to pay their withdrawal liability assessments. We are assuming all other employers who leave in the future (i.e., everyone but HLA and Panasonic) will not pay their assessments, as described in Part 2 of this Appendix B.

**Rationale:**

As indicated in Part 2, Section 5, we anticipate future withdrawals will be due to employer bankruptcies and we do not anticipate any future withdrawn employers to pay their assessments.

**13. Administrative expenses**

We are assuming increased Plan expenses of \$584,094 for the Plan Year ending 3/31/2018 due to the additional cost of the suspension and partition applications. Thereafter, expenses are assumed to be \$448,800 for the Plan Year ending 3/31/2019, increasing 2% per year for an ongoing Plan limited to 20% of the prior year's benefit payments.

Under a partition the expenses are allocated between the Original Plan and Successor Plan based on projected headcounts with PBGC premiums paid by the Original Plan for the first ten years after the partition.

Under an insolvency, we assume there will be a reduction in expenses of approximately 20% due to the cessation of PBGC premiums and a reduction in professional fees, increasing 1.5% per year thereafter.

**Rationale:**

Our rationale for future expenses for an ongoing is based upon the expectation that the Plan and the PBGC will strive to limit the cost of expenses to not more than inflation. Under an insolvency, we assume the Plan's need for professional fees will be reduced as a result of needing fewer professional services.

**Part 2 - Supporting documentation for selection of certain assumptions.**

**1. Investment returns**

The Plan's investment policy is expected to change over time to reflect its need to grow its assets, rather than to solely preserve capital. The expected asset returns, standard deviations, and variance information in the tables shown in this Appendix B are based upon the information provided in the 2016 Horizon Survey of Capital Market Assumptions.

Expected Portfolio, 2019-2022

<u>Asset Class</u>	<u>Portfolio Weight</u>	<u>10-Year Geometric</u>	<u>10-Year Arithmetic</u>	<u>Standard Deviation</u>
US Equity- Large Cap	45.0%	6.64%	7.98%	16.92%
US Equity- Small/Mid Cap	0.0%	7.00%	9.07%	21.01%
Non-US Equity- Developed	0.0%	7.12%	8.90%	19.50%
Non-US Equity- Emerging	0.0%	8.48%	11.68%	26.35%
US Corporate Bonds- Core	42.0%	3.41%	3.59%	5.96%
US Corporate Bonds- Long Duration	0.0%	3.82%	4.37%	10.49%
US Corporate Bonds- High Yield	3.0%	5.90%	6.49%	11.01%
Non-US Debt- Developed	0.0%	2.43%	2.74%	7.58%
Non-US Debt- Emerging	0.0%	5.77%	6.42%	11.58%
US Treasuries (Cash equivalents)	0.0%	2.14%	2.22%	2.79%
TIPS (Inflation Protected)	0.0%	2.80%	3.03%	6.51%
Real Estate	10.0%	6.36%	7.48%	14.74%
Hedge Funds	0.0%	5.41%	5.77%	8.39%
Commodities	0.0%	3.98%	5.62%	18.50%
Infrastructure	0.0%	6.59%	7.52%	13.78%
Private Equity	0.0%	<u>9.22%</u>	<u>11.77%</u>	23.12%
Total Portfolio	100.0%	5.64%	6.04%	9.22%

Expected Portfolio, 2023-2027

<u>Asset Class</u>	<u>Portfolio Weight</u>	<u>10-Year Geometric</u>	<u>10-Year Arithmetic</u>	<u>Standard Deviation</u>
US Equity- Large Cap	46.0%	6.64%	7.98%	16.92%
US Equity- Small/Mid Cap	5.0%	7.00%	9.07%	21.01%
Non-US Equity- Developed	6.0%	7.12%	8.90%	19.50%
Non-US Equity- Emerging	1.0%	8.48%	11.68%	26.35%
US Corporate Bonds- Core	17.0%	3.41%	3.59%	5.96%
US Corporate Bonds- Long Duration	0.0%	3.82%	4.37%	10.49%
US Corporate Bonds- High Yield	5.0%	5.90%	6.49%	11.01%
Non-US Debt- Developed	0.0%	2.43%	2.74%	7.58%
Non-US Debt- Emerging	0.0%	5.77%	6.42%	11.58%
US Treasuries (Cash equivalents)	0.0%	2.14%	2.22%	2.79%
TIPS (Inflation Protected)	0.0%	2.80%	3.03%	6.51%
Real Estate	16.0%	6.36%	7.48%	14.74%
Hedge Funds	4.0%	5.41%	5.77%	8.39%
Commodities	0.0%	3.98%	5.62%	18.50%
Infrastructure	0.0%	6.59%	7.52%	13.78%
Private Equity	0.0%	<u>9.22%</u>	<u>11.77%</u>	23.12%
Total Portfolio	100.0%	6.48%	7.14%	11.87%

Expected Portfolio, 2028-2032

<u>Asset Class</u>	<u>Portfolio Weight</u>	<u>20-Year Geometric</u>	<u>20-Year Arithmetic</u>	<u>Standard Deviation</u>
US Equity- Large Cap	50.0%	7.89%	9.25%	16.92%
US Equity- Small/Mid Cap	5.0%	8.23%	10.40%	21.01%
Non-US Equity- Developed	5.0%	8.02%	9.77%	19.50%
Non-US Equity- Emerging	1.0%	9.11%	12.46%	26.35%
US Corporate Bonds- Core	15.0%	4.58%	4.75%	5.96%
US Corporate Bonds- Long Duration	0.0%	4.87%	5.58%	10.49%
US Corporate Bonds- High Yield	5.0%	6.81%	7.40%	11.01%
Non-US Debt- Developed	0.0%	3.70%	4.01%	7.58%
Non-US Debt- Emerging	0.0%	6.43%	7.20%	11.58%
US Treasuries (Cash equivalents)	0.0%	3.15%	3.18%	2.79%
TIPS (Inflation Protected)	0.0%	3.94%	4.27%	6.51%
Real Estate	15.0%	6.75%	7.75%	14.74%
Hedge Funds	4.0%	6.16%	6.59%	8.39%
Commodities	0.0%	4.84%	6.47%	18.50%
Infrastructure	0.0%	7.12%	8.26%	13.78%
Private Equity	0.0%	10.33%	12.94%	23.12%
Total Portfolio	100.0%	7.57%	8.27%	12.25%

Expected Portfolio, 2033 and beyond

<u>Asset Class</u>	<u>Portfolio Weight</u>	<u>20-Year Geometric</u>	<u>20-Year Arithmetic</u>	<u>Standard Deviation</u>
US Equity- Large Cap	50.0%	7.89%	9.25%	16.92%
US Equity- Small/Mid Cap	5.0%	8.23%	10.40%	21.01%
Non-US Equity- Developed	9.0%	8.02%	9.77%	19.50%
Non-US Equity- Emerging	2.0%	9.11%	12.46%	26.35%
US Corporate Bonds- Core	15.0%	4.58%	4.75%	5.96%
US Corporate Bonds- Long Duration	0.0%	4.87%	5.58%	10.49%
US Corporate Bonds- High Yield	5.0%	6.81%	7.40%	11.01%
Non-US Debt- Developed	0.0%	3.70%	4.01%	7.58%
Non-US Debt- Emerging	0.0%	6.43%	7.20%	11.58%
US Treasuries (Cash equivalents)	0.0%	3.15%	3.18%	2.79%
TIPS (Inflation Protected)	0.0%	3.94%	4.27%	6.51%
Real Estate	10.0%	6.75%	7.75%	14.74%
Hedge Funds	4.0%	6.16%	6.59%	8.39%
Commodities	0.0%	4.84%	6.47%	18.50%
Infrastructure	0.0%	7.12%	8.26%	13.78%
Private Equity	0.0%	10.33%	12.94%	23.12%
Total Portfolio	100.0%	7.64%	8.39%	12.73%

The inflation inherent in the above portfolios is 2.2% over 10 years and 2.3% over 20 years (2016 survey).

The correlation of the above-cited asset classes are attached at the end of this Appendix B.

The portfolio investment expenses, expressed as a percentage of assets under management, have been between 0.38% and 0.44% per annum for the four years ending 3/31/2017.

As of the date of this application, the asset mix is as follows:

<u>Asset Class</u>	<u>Portfolio Weight</u>
US Equity- Large Cap	52.1%
US Equity- Small/Mid Cap	0.0%
Non-US Equity- Developed	0.0%
<u>Non-US Equity- Emerging</u>	<u>0.0%</u>
US Corporate Bonds- Core	34.1%
US Corporate Bonds- Long Duration	0.0%
US Corporate Bonds- High Yield	0.0%
Non-US Debt- Developed	0.0%
Non-US Debt- Emerging	0.0%
US Treasuries (Cash equivalents)	0.0%
<u>TIPS (Inflation Protected)</u>	<u>0.0%</u>
Real Estate	9.2%
Hedge Funds	4.6%
Commodities	0.0%
Infrastructure	0.0%
Private Equity	0.0%
 Total Portfolio	 100.0%

Our rationale for the changes in future asset allocations is based upon our discussions with the Trustees and their investment professionals who anticipate a shift to more risky, higher returning, asset classes as cash flow improves.

The attached Exhibit B-1 provides the correlation of the above-listed asset classes.

## 2. Demographic experience

The following is the aggregate gain/loss experience

<u>Plan Year Ended 3/31</u>	<u>Assets</u>	<u>Expense</u>	<u>Demographic</u>	<u>Total</u>
2013	(2,264,932)	19,058	\$(970,540)	(3,216,414)
2014	477,351	(8,979)	(1,034,657)	(566,285)
2015	771,764	(118,898)	(205,180)	447,686
2016	(2,631,820)	3,267	(2,846,548)	(5,475,101)
2017	(3,531,066)	(178,760)	<u>(1,942,980)</u>	(5,652,806)
Average			\$(1,400,000)	

We first became the Plan's actuary in 2015 with the 3/31/2015 being our first valuation. Our review of the assumptions and the aggregate demographic experience has led us to the strengthening of

assumptions described below. We note that the average demographic loss for the last five years is modestly below 1% of the total liabilities. We also believe that the losses were generated by outdated mortality and retirement assumptions that have both since been updated as noted below. The strengthening of these assumptions has increased the liability by over 10%. Additionally, we believe some of the demographic loss in the last two years is generated by fear of both the Plan and PBGC going insolvent and would subside if this application is approved.

Valuation

3/31	Assumption Changes
2015	The interest rate was changed from 7.50% to 6.75%.

The mortality table was changed from 1983 Group Annuity Table, blended 50% male and female with no provision for future mortality improvement, to the following:

- Healthy: RP-2014 with blue collar adjustment with mortality improvement scale MP-2014
- Disabled: RP-2014 for disableds with mortality improvement scale MP-2014

The expected expenses were increased from \$410,000 per year to \$440,000 per year.

The liabilities were grossed up to include the defined contribution plan for certain YRCW participants.

2016	The retirement assumption was change from: <ul style="list-style-type: none"> <li>• Participants with 20 years of Credited Service as of April 1, 2009 are assumed to retire 3.25 years following 25 years of Credited Service for those credits accrued through March 31, 2005. The remaining credits accrued after April 1, 2005 are assumed to be payable at age 55.</li> <li>• Participants with fewer than 20 years of Credited Service as of April 1, 2009 are assumed to retire upon age 65 and 5 Years of Participation.</li> </ul>
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To the following table:

<u>Age</u>	<u>Percent Retiring</u>
55	20%
56-61	5%
62	25%
63-64	5%
65	70%
66	50%
67+	100%

If the participant had at least 20 years of Credited Service as of April 1, 2009, there is a one-time additional retirement incidence of 60% when the participant reaches age 55 and at least 25 years of Credited Service. This additional incidence applies immediately for participants who are already age 55 with 25 years of Credited Service.

The future service assumption was reduced from 5,910 months per year to 4,997 months, due to an employer withdrawal.

The assumed interest rate was changed from 6.75% per year to 6.50%

2017 Changed the mortality improvement scale from Scale MP-2014 to MP-2016.

The retirement age for actives who terminate prior to retirement was changed from age 65 to age 58.

The retirement assumption for terminated vested participants was changed from age 65 to the following table:

	Percent
<u>Age</u>	<u>Retiring</u>
55	20%
56-65	25%
65+	100%
63-64	5%

If the participant had at least 20 years of Credited Service as of April 1, 2009, there is a one-time additional retirement incidence of 60% when the participant reaches age 55 and at least 25 years of Credited Service. This additional incidence applies immediately for participants who are already age 55 with 25 years of Credited Service.

The future employment assumption was reduced from 4,997 units per year to 4,779 units per year, tapering down to 4,501 units per year over the next ten years

Changed from 80% of actives and terminated vested participants to 50%.

The tables below provide a summary of Plan experience regarding retirement and the selection of optional forms over the last five years.

## 2.01 Retirement Experience

### Active

<u>Age</u>	All Retirements			Only Those Eligible for Subsidized Early		
	(a) Retirement <u>Eligible</u>	(b) <u>Retired</u>	Ratio b/a	(a) Retirement <u>Eligible</u>	(b) <u>Retired</u>	Ratio b/a
47	2	0	0%	2	0	0%
48	3	0	0%	3	0	0%
49	6	0	0%	6	0	0%
50	11	1	9%	11	1	10%
51	14	2	14%	14	1	7%
52	10	1	20%	10	1	10%
53	16	3	6%	16	3	20%
54	11	0	9%	11	0	0%

<u>Age</u>	(a)	(b)	Ratio		(a)	(b)	Ratio
	<u>Retirement Eligible</u>	<u>Retired</u>	<u>b/a</u>		<u>Retirement Eligible</u>	<u>Retired</u>	<u>b/a</u>
55	47	3	4%		12	1	8%
56	42	0	2%		9	0	0%
57	47	4	6%		10	1	10%
58	37	1	5%		6	0	0%
59	30	1	3%		6	0	0%
60	28	1	4%		7	0	0%
61	24	1	4%		8	0	0%
62	26	2	4%		8	0	0%
63	25	4	20%		8	0	0%
64	27	6	19%		8	0	0%
65	34	4	21%				
66	29	13	38%				
67	17	6	35%				
68	10	2	20%				
69	6	2	17%				
70	2	0	0%				
71	1	1	100%				
72	0	0					
73	0	0					
74	2	0	0%				
75	1	0	0%				
76	1	0	0%				
77	1	1	100%				
Total							

**Terminated Vested**

All Retirements

Only Those Eligible for  
Subsidized Early

Age	All Retirements			Only Those Eligible for Subsidized Early		
	(a) Retirement Eligible	(b) Retired	Ratio b/a	(a) Retirement Eligible	(b) Retired	Ratio b/a
50	2	0	0%	2	0	0%
51	2	0	0%	2	0	0%
52	4	2	40%	4	2	0%
53	1	1	20%	1	1	33%
54	3	1	33%	3	1	0%
55	27	11	41%	0	0	
56	24	8	33%	1	1	100%
57	17	5	29%	0	0	
58	15	2	13%	2	0	0%
59	19	4	21%	3	0	0%
60	24	9	38%	7	1	14%
61	20	4	20%	7	0	0%
62	23	3	13%	7	0	0%
63	21	4	19%	5	0	0%
64	20	5	25%	5	0	0%
65	51	14	27%			
66	33	13	39%			
67	18	4	22%			
68	18	2	11%			
69	15	0	0%			
70	18	2	11%			
71	17	1	6%			
72	19	2	11%			
73	18	0	0%			
74	15	1	7%			
75	13	0	0%			
76	17	0	0%			

## 2.02 Termination

<u>Age</u>	<u>Count</u>	<u>Terminated</u>	<u>Ratio b/a</u>		<u>Age</u>	<u>Count</u>	<u>Terminated</u>	<u>Ratio b/a</u>
18-19	0	0			48-49	83	12	14.458%
19-20	4	3	75.000%		49-50	88	6	6.818%
20-21	15	2	13.333%		50-51	78	7	8.974%
21-22	10	4	40.000%		51-52	85	7	8.235%
22-23	24	10	41.667%		52-53	76	4	5.263%
23-24	22	8	36.364%		53-54	97	10	10.309%
24-25	55	8	14.545%		54-55	84	11	13.095%
25-26	38	9	23.684%		55-56	82	8	9.756%
26-27	44	23	52.273%		56-57	83	4	4.819%
27-28	39	8	20.513%		57-58	78	7	8.974%
28-29	43	9	20.930%		58-59	62	8	12.903%
29-30	49	9	18.367%		59-60	50	5	10.000%
30-31	47	12	25.532%		60-61	54	2	3.704%
31-32	54	11	20.370%		61-62	40	3	7.500%
32-33	50	9	18.000%		62-63	46	5	10.870%
33-34	46	7	15.217%		63-64	36	3	8.333%
34-35	53	10	18.868%		64-65	41	1	2.439%
35-36	64	12	18.750%		65-66	35	2	5.714%
36-37	41	5	12.195%		66-67	24	1	4.167%
37-38	47	2	4.255%		67-68	16	0	0.000%
38-39	63	14	22.222%		68-69	9	0	0.000%
39-40	55	7	12.727%		69-70	8	0	0.000%
40-41	44	6	13.636%		70-71	3	0	0.000%
41-42	61	7	11.475%		71-72			
42-43	69	9	13.043%		72-73			
43-44	66	6	9.091%		73-74			
44-45	78	14	17.949%		74-75	2	0	0.000%
45-46	74	10	13.514%		75-76	2	0	0.000%
46-47	75	10	13.333%		76-77	1	0	0.000%
47-48	85	4	4.706%		77-78	1	0	0.000%

### 2.03 Marital Assumption

The administrator has informed us that approximately 50% of the population, where marital status is known, are married.

### 2.04 Selection of Optional Forms of Benefit

	<u>J&amp;S</u>				<u>Life</u>	
	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>Total</u>	<u>Only</u>	<u>Total</u>
Count	12	7	43	62	74	136
Percentage	8.8%	5.1%	31.6%	45.6%	54.4%	100.0%

We have not published a formal gain or loss study for this Plan. However, the pattern of gains and losses have led us to make certain assumption changes as detailed in our most recent actuarial report.

### 3. Mortality assumptions

We are using the blue collar RP-2014 table, published by the Society of Actuaries in the RP-2014 Mortality Tables Report, available at:

<https://www.soa.org/Research/Experience-Study/pension/research-2014-rp.aspx>.

This table is being adjusted by Mortality Improvement Scale MP-2016, as detailed at

<https://www.soa.org/experience-studies/2016/mortality-improvement-scale-mp-2016/>.

### 4. New entrant profile

For the past five years, new entrants have been distributed as follows:

	<u>Male</u>	<u>Female</u>
Under 20	1.8%	1.1%
20-24	17.4%	2.5%
25-29	15.2%	2.9%
30-34	8.7%	4.0%
35-39	5.4%	2.2%
40-44	8.3%	3.3%
45-49	11.2%	2.2%
50-54	5.8%	1.4%
55-59	4.3%	0.7%
60+	1.1%	0.4%

There haven't been any new entrants in the past five years with any significant prior service. Exhibit B-2 provides additional detail regarding this experience.

**5. Contribution base units and employer withdrawals**

The following tables provide Contribution Base Units, Average Contribution Rate, and Total Contributions for employers that contributed at least 5% of the total contributions made for the Plan Years since 2009.

Rose Trucking Co.			
Plan Year	Contribution	Average Contribution	Total
<u>Ending 3/31</u>	<u>Base Units</u>	<u>Rate</u>	<u>Contributions</u>
2009	403	\$ 166.67	\$ 67,168
2010	402	166.67	67,001
2011	400	\$ 166.92	\$ 66,768

Rose Trucking Co. did not contribute to the Fund for Plan Years ending 3/31/2012 and after.

White Rose Trucking			
Plan Year	Contribution	Average Contribution	Total
<u>Ending 3/31</u>	<u>Base Units</u>	<u>Rate</u>	<u>Contributions</u>
2009	920	\$ 164.31	\$ 151,166
2010	919	166.67	153,166
2011	919	171.87	157,945
2012	783	200.22	156,769
2013	850	207.27	176,178
2014	740	284.66	210,648
2015	449	\$ 335.19	\$ 150,500

White Rose Trucking did not contribute to the Fund for Plan Years ending 3/31/2016 and after.

YRCW			
Plan Year	Contribution	Average Contribution	Total
<u>Ending 3/31</u>	<u>Base Units</u>	<u>Rate</u>	<u>Contributions</u>
2009	760	\$ 134.69	\$ 102,364

YRCW did not contribute to the Fund for Plan Years ending 3/31/2010 and after.

Harold Levinson Associates			
Plan Year	Contribution	Average Contribution	Total
<u>Ending 3/31</u>	<u>Base Units</u>	<u>Rate</u>	<u>Contributions</u>
2009	3,839	\$ 135.03	\$ 518,387
2010	3,876	135.02	523,328
2011	3,508	159.65	560,036
2012	3,508	221.31	776,347
2013	3,333	291.63	971,994
2014	3,494	299.77	1,047,392
2015	4,115	291.61	1,199,976
2016	4,075	294.69	1,200,862

2017                      4,105                      \$ 302.30                      \$ 1,240,942

Panasonic			
Plan Year <u>Ending 3/31</u>	Contribution <u>Base Units</u>	Average Contribution <u>Rate</u>	Total <u>Contributions</u>
2009	761	\$ 285.82	\$ 217,507
2010	488	292.83	142,899
2011	386	319.98	123,513
2012	360	351.88	126,677
2013	351	351.99	123,550
2014	321	350.00	112,350
2015	361	353.32	127,550
2016	357	380.56	135,860
2017	363	\$ 381.98	\$ 138,659

As shown in exhibit 6.04 of the application, the Plan has experienced a decline in contribution base units, generally as a result of employer bankruptcies or other withdrawals. In an attempt to right the Plan's funding, contribution rates have increased during that period.

Future contribution base units are assumed to decline over the next 10 years as the smaller employers drop out. Our rationale is that this is due to the conditions described in Section 5 of the application. It is anticipated that after 10 years, only the two largest employers will remain. Further, our rationale for not anticipating receiving any withdrawal liability payments from these smaller employers is for those same business reasons as listed in Section 5.

Future contribution rates are based on the provisions of the Rehabilitation Plan.

The Plan had six employer withdrawals in the past five years. Of those, YRCW, Center Candy, and Teamsters Local 810 are currently making their payments and are expected to continue to do so. The remaining three, Rose Trucking, White Rose, and Gutlove and Shirvint are bankrupt and no recovery is currently expected.

**6. Take-up rate with respect to selection of benefit/contribution schedules**

All employers are contributing under the Preferred Schedule of the Rehabilitation Plan.

**7. Projection methodology**

All the projections were generated by our valuation software with no modification.

**Part 3 – Additional disclosures relating to use of different assumptions**

The assumptions for the purposes of the cash flow projections provided under Revenue Procedure 2017-43, Section 4.02(1) differ from those provided under Revenue Procedure 2017-43, Section 3.01 (the assumptions used to determine the certification of Zone status under IRC §432(b)(3)(A)) as shown below. The rationale for these changes are that while we believe for the purpose of liability measurements for determination of the Plan Zone Status the assumptions used in Section 3.01 are reasonable however for the purpose of cash flow measurement we believe the refined assumptions used in Section 4.02(1) are more appropriate and reasonable.

	Section 3.01 (Zone Certification)	Section 4.02(1) (Cash Flow Projections)			
<b>Market Asset Returns</b>	6.50%	<u>Period</u>		<u>Return</u>	
		4/1/2017-3/31/2022		5.25%	
		4/1/2022-3/31/2027		6.00%	
		4/1/2027-3/31/2032		7.00%	
		4/1/2032 and later		7.25%	
<b>Terminated Vested Retirement Age</b>	65		<u>Age</u>	<u>Percent Retiring</u>	
			55	20%	
			56-64	25%	
			65+	100%	
<b>Mortality Scale</b>	Scale MP-2014		Scale MP-2016		
<b>Employment</b>	4,997 months annually	<u>Plan Year ending 3/31</u>	<u>Expected Months</u>	<u>Plan Year ending 3/31</u>	<u>Expected Months</u>
		2018	4,750	2023	4,610
		2109	4,722	2024	4,582
		2020	4,694	2025	4,555
		2021	4,666	2026	4,528
		2022	4,638	2027+	4,501
<b>Married Percentage</b>	80%		50%		
<b>Optional Form Selection</b>	All married participants elect a 50% joint & survivor	Married participants elect a form of benefit as follows:			
			<u>Form</u>	<u>Percent</u>	
			100% J&S	60%	
			75% J&S	10%	
			50% J&S	<u>30%</u>	
			Total	100%	