

***OUTSTATE MICHIGAN TROWEL TRADES
PENSION PLAN
LANSING, MICHIGAN***

*Actuarial Valuation Report
For Plan Year Commencing
January 1, 2018*

May 15, 2018

Board of Trustees
Outstate Michigan Trowel Trades Pension Plan
Lansing, Michigan

Dear Trustees:

We have been retained by the Board of Trustees of the Outstate Michigan Trowel Trades Pension Plan to perform annual actuarial valuations of the pension plan. This report presents the results of our actuarial valuation for the plan year beginning January 1, 2018. The valuation results contained herein are based on current plan provisions summarized in Appendix A, the actuarial assumptions and methods listed in Appendix B and on financial statements audited by Benda, Grace, Stulz & Company, P.C. Participant data was provided by TIC International. While we have reviewed the data for reasonableness in accordance with Actuarial Standards of Practice No. 23, we have not audited it. The data was relied on as being both accurate and comprehensive.

This report has been prepared in order to (1) assist the Trustees in evaluating the current actuarial position of the plan, (2) determine the minimum required and maximum deductible contribution amounts under Internal Revenue Code §431 and §404, (3) provide the fund's auditor with information necessary to comply with Accounting Standards Codification 960, and (4) document the plan's certified status under Internal Revenue Code §432 for the current year and provide the basis to certify such status for the subsequent year. In addition, information contained in this report will be used to prepare Schedule MB of Form 5500 that is filed annually with the IRS and could be used to calculate employer withdrawal liability. We are not responsible for the use of, or reliance upon, this report for any other purpose.

We have prepared this report in accordance with generally accepted actuarial principles and practices and have performed such tests as we considered necessary to assure the accuracy of the results. The results have been determined on the basis of actuarial assumptions that, in my opinion, are appropriate for the purposes of this report, are individually reasonable and in combination represent my best estimate of anticipated experience under the plan. Actuarial assumptions may be changed from previous valuations due to changes in mandated requirements, plan experience resulting in changes in expectations about the future, and/or other factors. An assumption change does not indicate that prior assumptions were unreasonable when made. For purposes of current liability calculations, assumptions are prescribed by regulation or statute. By relying on this valuation report, the Trustees confirm they have accepted the assumptions contained in the report.

The results are based on my best interpretation of existing laws and regulations and are subject to revision based on future regulatory or other guidance.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an

amortization period or additional cost or contribution requirements based on the plan's funded status), and changes in plan provisions or applicable law.

United Actuarial Services, Inc. does not provide, nor charge for, investment, tax or legal advice. None of the comments made herein should be construed as constituting such advice. We are not aware of any direct or material indirect financial interest or relationship that could create a conflict of interest that would impair the objectivity of our work.

The undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

We are available to respond to any questions you may have about this report.

UNITED ACTUARIAL SERVICES, INC.

Enrolled Actuary



Paul Wedding, ASA, EA, MAAA
Consulting Actuary

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PART I: SUMMARY OF RESULTS

5 - YEAR SUMMARY OF VALUATION RESULTS

Actuarial Study as of January 1,	2018	2017	2016	2015	2014
PPA funded status	Safe	Safe	Critical	Safe	Safe
Improvements restricted*	Yes	Yes	Yes	Yes	Yes
Funded ratio					
PPA certification	90.1%	90.7%	87.4%	91.2%	95.0%
Valuation report (AVA)	88.9%	90.7%	90.7%	91.1%	95.3%
Valuation report (MVA)	90.9%	84.8%	80.5%	83.1%	85.2%
Credit Balance (\$ 000)	14,526	13,161	11,689	10,543	9,707
Date of first projected funding deficiency					
PPA certification	None	None	12/31/25	12/31/26	None
Valuation report	None	None	None	12/31/27	None
Net investment return					
On market value	14.86%	8.98%	-1.16%	6.23%	10.52%
On actuarial value	4.86%	3.17%	1.40%	3.74%	5.32%
Asset values (\$ 000)					
Market	68,969	61,272	57,422	59,709	58,338
Actuarial	67,378	65,534	64,749	65,445	65,246
Accum. ben. (\$ 000)	75,833	72,258	71,364	71,840	68,448

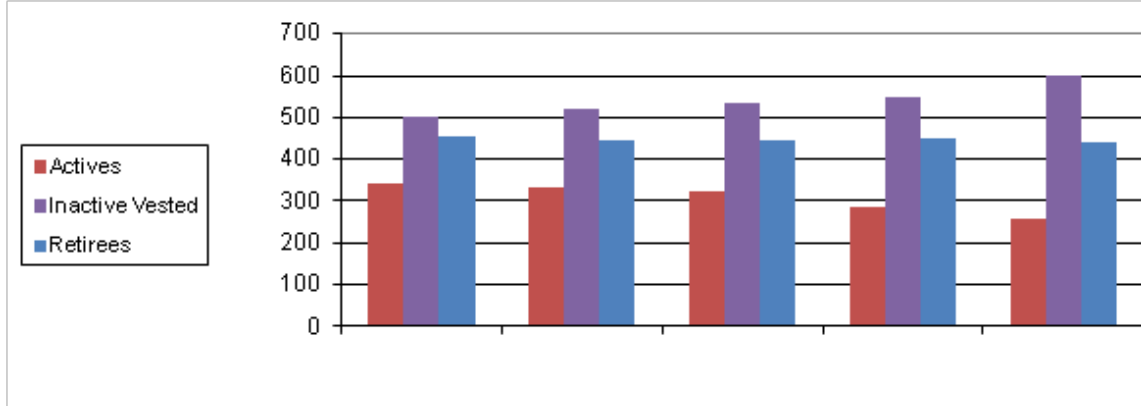
Year	Assets (Actuarial)	Assets (Market)	Accumulated Benefits
2014	65,246	58,338	68,448
2015	65,445	59,709	71,840
2016	64,749	57,422	71,364
2017	65,534	61,272	72,258
2018	67,378	68,969	75,833

* Benefit improvement restrictions due to fund having amortization extension. Restrictions in place until 1/1/2038 when bases with amortization extension have been fully amortized

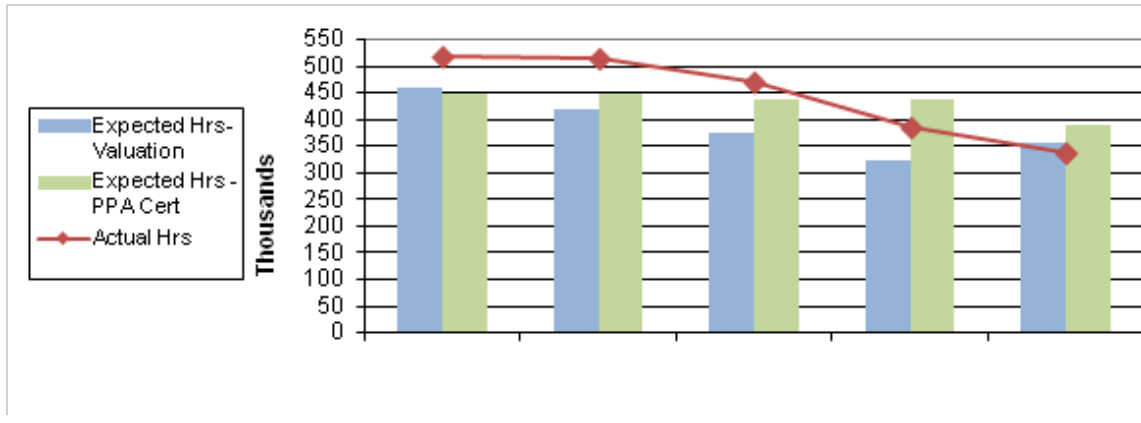
5 - YEAR SUMMARY OF DEMOGRAPHICS

<i>Actuarial Study as of January 1,</i>	<i>2018</i>	<i>2017</i>	<i>2016</i>	<i>2015</i>	<i>2014</i>
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Participant counts					
<i>Active</i>	343	333	323	286	256
<i>Inactive vested</i>	502	520	533	550	598
<i>Receiving benefits</i>	456	447	445	451	440
<i>Total</i>	1,301	1,300	1,301	1,287	1,294
<i>Average entry age</i>	33.1	32.8	32.7	31.4	31.0
<i>Average attained age</i>	45.2	45.4	45.0	44.6	44.2



Hours worked in prior plan years (thousands)					
<i>Expected hours valuation</i>	458	417	376	325	357
<i>Expected hours PPA cert</i>	450	450	438	438	390
<i>Actual hours worked</i>	518	517	471	385	337



CHANGES FROM PRIOR STUDY

Changes in Plan Provisions

The plan provisions underlying this valuation are the same as those valued last year.

Changes in Actuarial Assumptions and Methods

The actuarial assumptions and methods used in this valuation differ from those used in the prior valuation in the following respects:

- The assumed credited hourly contribution rate was increased \$0.09 to reflect a pro-rated portion of the negotiated increase effective June 1, 2017.
- The assumed operational expenses were decreased from \$260,000 to \$240,000 to reflect our best estimate of future expenses based on recent plan experience.
- The mortality projection scale was updated from MP-2016 to MP-2017 and the mortality rate multiplier was changed from 115% to 105%. These changes were made in order to reflect the latest mortality improvement data available and to better match the standard tables to specific plan experience.
- The current liability interest rate was changed from 3.05% to 2.98%. The new rate is within established statutory guidelines.

HISTORY OF MAJOR ASSUMPTIONS

<i>Assumption</i>	<i>Actuarial Study as of January 1,</i>				
	<i>2018</i>	<i>2017</i>	<i>2016</i>	<i>2015</i>	<i>2014</i>
Future rate of net investment return	7.75%	7.75%	7.75%	7.75%	7.75%
Mortality table	RP-2014	RP-2014	RP-2014	RP-2014	RP-2000
<i>Adjustment</i>	105%	115%	3 yr. sf.	3 yr. sf.	2 yr. sf.
<i>Projection scale</i>	MP-2017	MP-2016	MP-2014	MP-2014	AA
Future expenses	\$240,000	\$260,000	\$260,000	\$260,000	\$260,000
Average future hourly contribution rate*					
<i>Credited</i>	\$4.20	\$3.95	\$3.75	\$3.80	\$3.86
<i>Non-credited</i>	<u>2.22</u>	<u>2.22</u>	<u>2.07</u>	<u>1.82</u>	<u>1.82</u>
<i>Total</i>	\$6.42	\$6.17	\$5.82	\$5.62	\$5.68
Average future annual hours					
<i>Vested</i>	1,450	1,450	1,350	1,350	1,300
<i>Non-vested</i>	1,150	1,150	1,150	1,150	1,100

* Actual average derived from application of assumptions specified in Appendix B.

EXPERIENCE VS. ASSUMPTIONS

Comparing the prior year's experience to assumptions provides indications as to why overall results may differ from those expected

Actuarial assumptions are used to project certain future events related to the pension plan (e.g. deaths, withdrawals, investment income, expenses, etc.). While actual results for a single plan year will rarely match expected experience, it is intended that the assumptions will provide a reasonable long term estimate of developing experience.

The following table provides a comparison of expected outcomes for the prior plan year with the actual experience observed during the same period. This display may provide insight as to why the plan's overall actuarial position may be different from expected.

<i>Plan Year Ending December 31, 2017</i>	<i>Expected</i>	<i>Actual</i>
Decrements		
<i>Terminations</i>		53
<i>less: Rehires</i>		19
<i>Terminations (net of rehires)</i>	26.4	34
<i>Retirements</i>	8.0	7
<i>Disabilities</i>	1.7	1
<i>Deaths - pre-retirement</i>	4.5	4
<i>Deaths - post-retirement</i>	18.4	15
<i>Monthly benefits of deceased retirees</i>	\$ 10,420	\$ 6,155
Financial assumptions		
<i>Rate of net investment return on actuarial value</i>	7.75%	4.86%
<i>Administrative expenses</i>	\$ 260,000	\$ 233,848
Other demographic assumptions		
<i>Average retirement age from active (new retirees)</i>	60.6	59.6
<i>Average retirement age from inactive (new retirees)*</i>	61.5	66.2
<i>Average entry age (new entrants)</i>	32.8	37.1
<i>Hours worked per vested active</i>	1,450	1,567
<i>Hours worked per non-vested active</i>	1,150	1,229
<i>Total hours worked (valuation assumption)</i>	458,300	517,737
<i>Total hours worked (PPA certification assumption)</i>	450,000	517,737
Unfunded liability (gain)/loss		
<i>(Gain)/loss due to asset experience</i>		\$ 1,873,900
<i>(Gain)/loss due to liability experience</i>		398,347
<i>Total (gain)/loss</i>		\$ 2,272,247

* Expected average based on the average for the total group of participants.

PLAN MATURITY

Measures of plan maturity can play a part in understanding risk and a plan's ability to recover from adverse experience

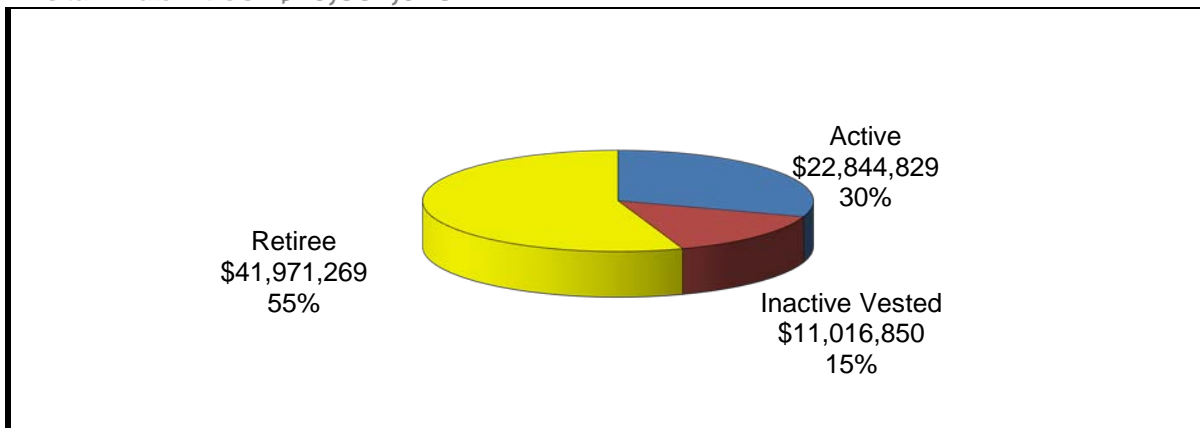
When a new pension plan is first established, its liabilities are typically limited to active plan participants. However, as people become vested and retire, a plan begins to develop liabilities attributable to nonactive participants (retirees and inactive vested participants). The process of adding nonactive liabilities (often referred to as “maturing”) is a natural outgrowth of the operation of the plan. As a plan matures, its liabilities tend to balloon in relation to its contribution base, making it more difficult to correct for adverse outcomes by increasing contribution rates or reducing future benefit accruals.

Headcount ratios show the number of retiree or inactive participants supported by each active participant. While there is no hard and fast rule, we generally consider a plan to be mature if each active is supporting more than 1 retiree or more than 2 nonactives. A negative net cash flow (benefits payments and expenses greater than contributions) can also be an indicator of a mature plan. A negative cash flow, when expressed as a percentage of assets, in excess of the assumed rate of return on fund assets is not sustainable in the long term.

<i>Actuarial Study as of January 1,</i>	<i>2018</i>	<i>2017</i>	<i>2016</i>	<i>2015</i>	<i>2014</i>
Retiree/active headcount ratio	1.33	1.34	1.38	1.58	1.72
Nonactive/active headcount ratio	2.79	2.90	3.03	3.50	4.05
Cash flow					
<i>Contr.-ben.-exp. (\$000)</i>	(1,314)	(1,249)	(1,601)	(2,206)	(2,411)
<i>Percent of assets</i>	-1.91%	-2.04%	-2.79%	-3.69%	-4.13%

Liabilities of Actives, Retirees, and Inactive Vesteds

Total Liabilities: \$75,832,948



UNFUNDED VESTED BENEFITS/EMPLOYER WITHDRAWAL LIABILITY

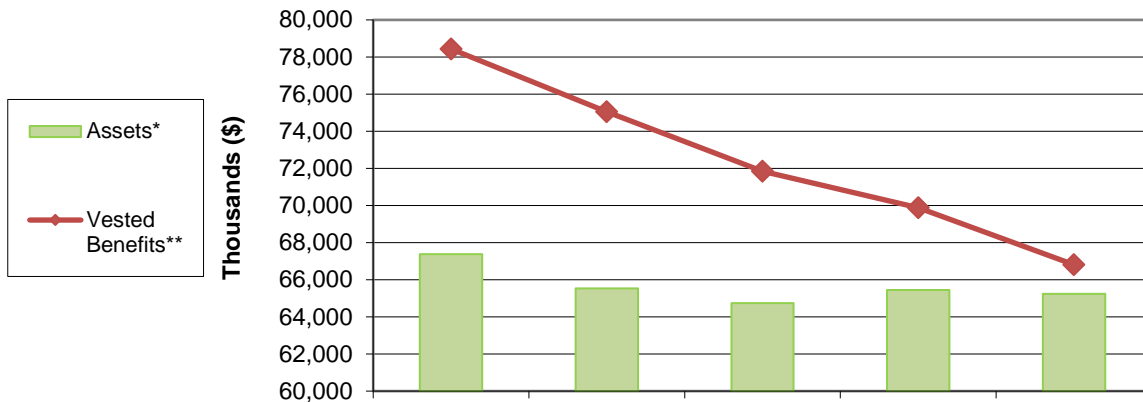
An employer withdrawing during the coming year may have withdrawal liability

The following table shows a history of the plan's unfunded vested benefits (UVB) required to compute a specific employer withdrawal liability under the presumptive method. If all unfunded vested benefits since the inception of the Multiemployer Pension Plan Amendments Act of 1980 (MPPAA) are zero (\$0) or less, there will be no withdrawal liability assessed to a withdrawing employer. Otherwise, an employer may be assessed withdrawal liability payments pursuant to MPPAA. The display does not reflect adjustments for prior employer withdrawals.

In accordance with IRC Section 432(e)(9)(A) and PBGC Technical Update 10-3, the impact of reducing adjustable benefits is reflected by adding the unamortized portion of the value of affected benefits (VAB) to the most recent year's unfunded vested benefits pool. An employer who is assessed withdrawal liability will be assessed a portion of the UVB and the VAB.

Presumptive Method (\$ 000)

December 31,	2017	2016	2015	2014	2013
Vested benefits interest	7.75%	7.75%	7.75%	7.75%	7.75%
Vested benefits	74,263	70,726	71,847	69,884	66,810
less: Asset value*	67,378	65,534	64,749	65,445	65,246
UVB	6,885	5,192	7,098	4,439	1,564
Unamortized VAB	4,171	4,334			
UVB + VAB	11,056	9,526	7,098	4,439	1,564



* Actuarial value

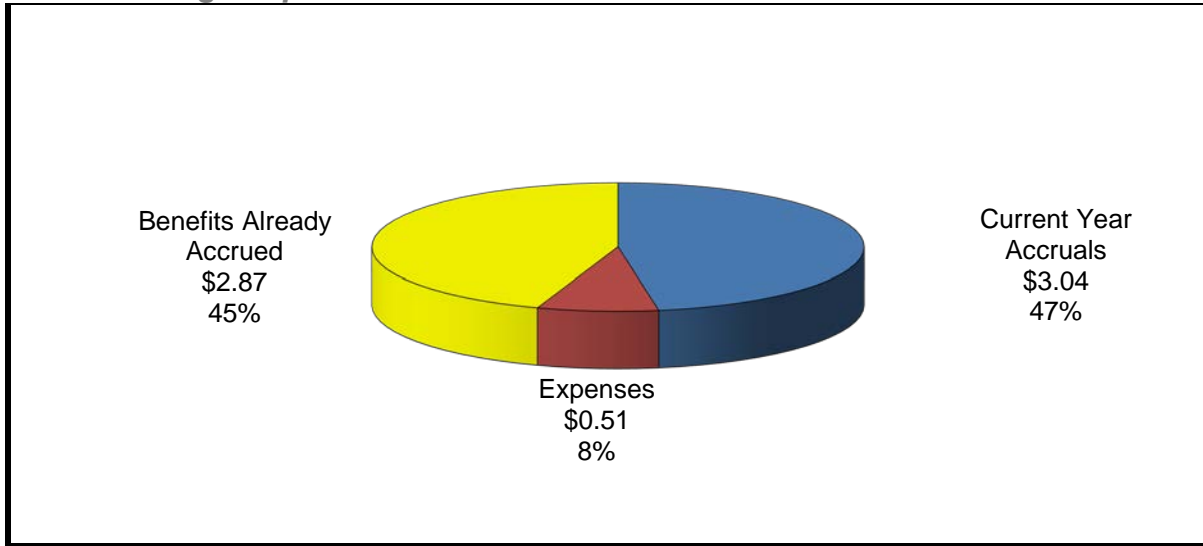
** Includes VAB

CONTRIBUTION ALLOCATION

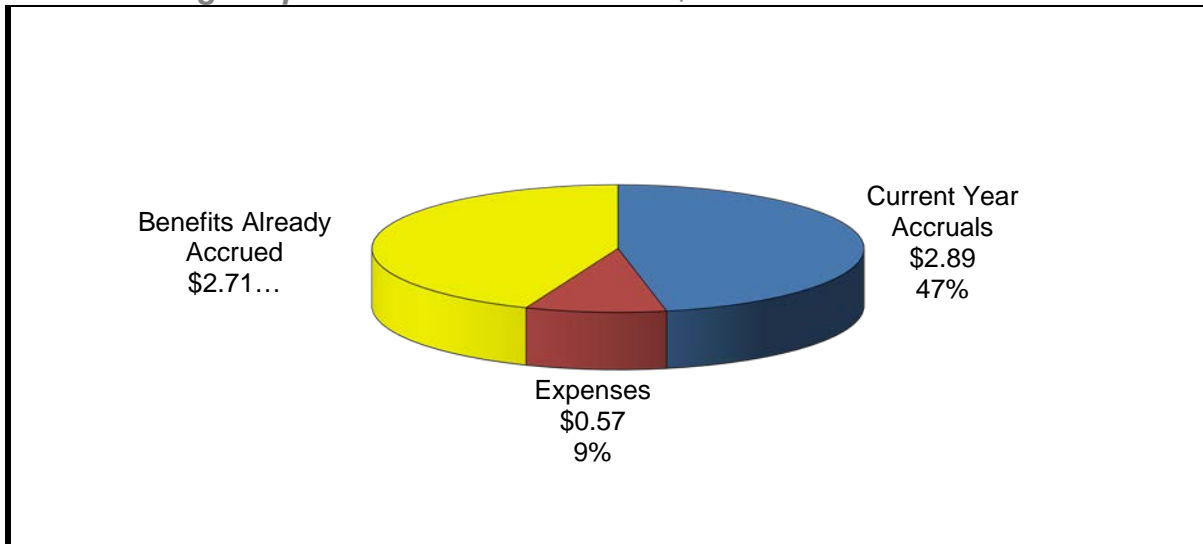
These graphs show how the contributions are being spent

The following allocation charts illustrate how the expected contribution rate for the coming plan year will be “spent” to pay for benefits being earned in the current year, plan expenses, and funding of past unfunded liabilities.

*Contribution Allocation as of January 1, 2018
Total Average Expected Contribution Rate \$6.42*



*Contribution Allocation as of January 1, 2017
Total Average Expected Contribution Rate \$6.17*



FUNDING STANDARD ACCOUNT PROJECTION

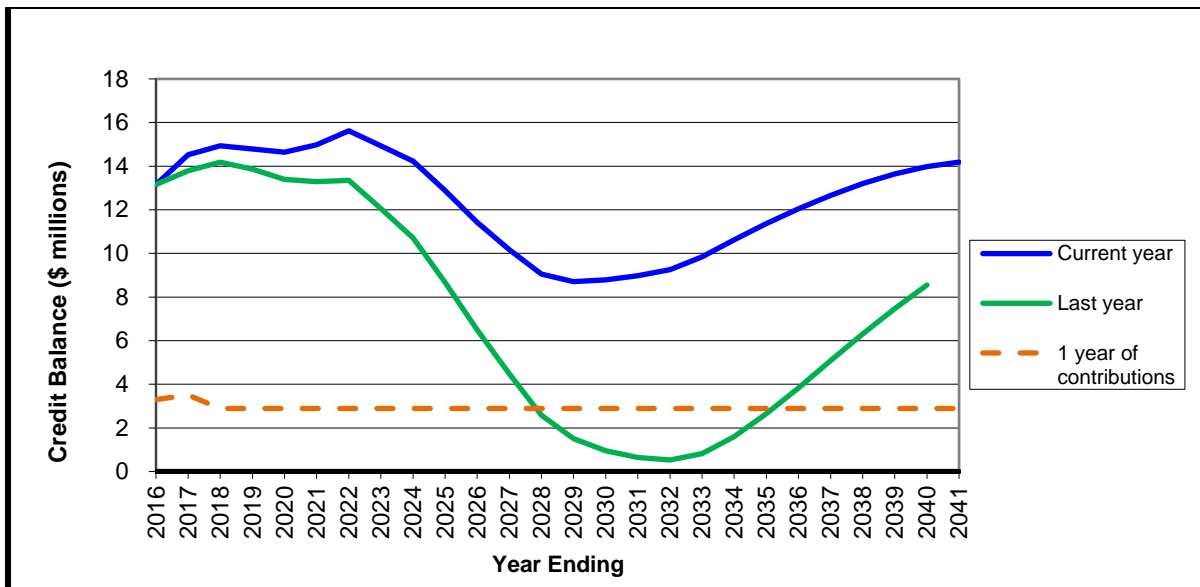
The funding standard account projection is a major driver of PPA status

The funding standard account (FSA) was established by ERISA as a means of determining compliance with minimum funding standards. The FSA is hypothetical in the sense that it does not represent actual assets held by a custodian.

Rather, a positive FSA balance (called a “credit balance”) means that the plan has exceeded minimum funding standards on a cumulative basis, while a negative balance (called a “funding deficiency”) means that the plan has fallen short of such standards.

Actuaries must project the plan’s credit balance each year in order to determine PPA status. If the credit balance is projected to be negative in a future year, the plan could be forced into yellow (endangered) or red (critical) status depending how far into the future the projected funding deficiency is. The plan’s credit balance projection appears below. These projections are based on the assumptions summarized in the “Actuarial Assumptions used for Projections” section of Appendix B.

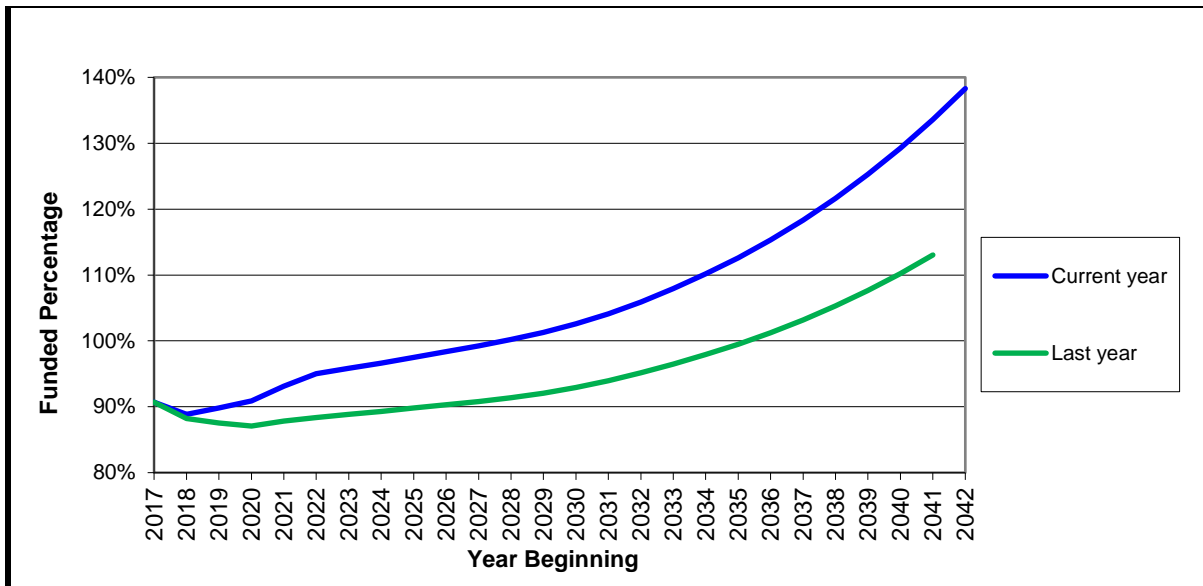
As a rule of thumb, UAS recommends that non-Critical status plans maintain a projected credit balance of at least one year’s contributions (shown as an orange dotted line in the graph below) in each future year. Maintaining a “cushion” in the Funding Standard Account helps minimize the risk of a surprise funding deficiency at the end of a non-Critical status plan year. Such a deficiency could trigger an excise tax payable directly by employers. If the Plan is in Critical status at the start of plan year, it is protected from these excise taxes so long as scheduled progress has been satisfied in at least one of the past three plan years.



FUNDED RATIO PROJECTION

The plan's funded ratio is a major driver of PPA status

The funded ratio is defined as the actuarial value of plan assets divided by the plan's liabilities for accrued benefits. Along with the funding standard account projection, funded ratio is one of the two major drivers of PPA funded status. In order for a plan to enter the green zone (also called "safe" or "not endangered or critical") the funded ratio must be at least 80%. The projection of the funded ratio appears below. These projections are based on the assumptions summarized in the "Actuarial Assumptions used for Projections" section of Appendix B.



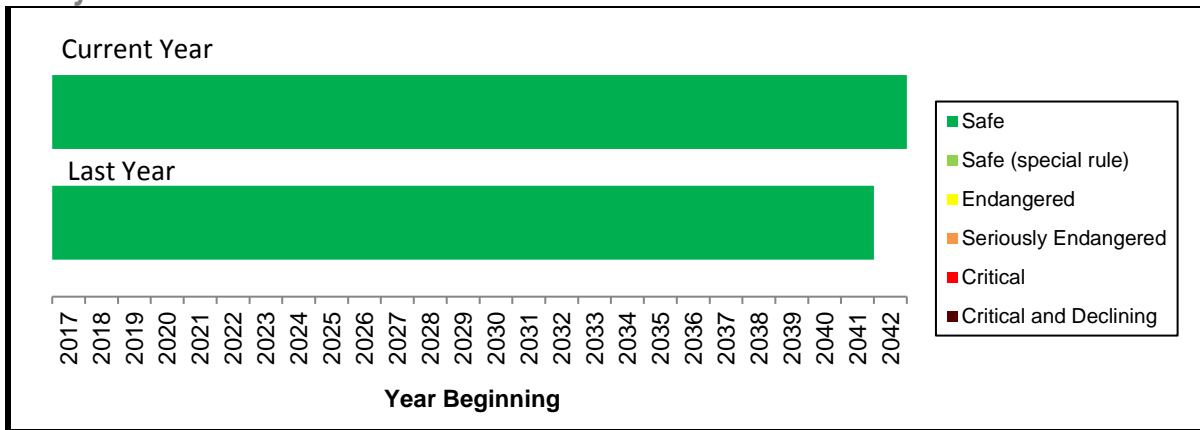
PPA FUNDING STATUS REPORT

The plan is in Safe status for 2018

The Pension Protection Act of 2006 (PPA), as amended by the Multiemployer Pension Reform Act of 2014 (“MPRA”), requires all multiemployer pension plans to obtain an annual status certification. The possible statuses are: “Safe”, “Endangered”, “Seriously Endangered”, “Critical” or “Critical and Declining”. As the plan’s actuary, we must complete the status certification within 90 days of the beginning of the plan year, and we must also certify whether or not the plan has made scheduled progress if its funding improvement or rehabilitation period has begun. The criteria for these determinations are outlined in Appendix D. Due to the timing requirement affecting PPA certifications, they are performed based on data and assumptions different from that used in this report (see certification letter for additional details). These projections are based on the assumptions summarized in the “Actuarial Assumptions used for Projections” section of Appendix B. The results are summarized below.

<i>Description</i>	<i>Values Used for PPA Certification</i>	
	<i>2018</i>	<i>2017</i>
Funded ratio	90.1%	90.7%
Date of first projected funding deficiency		
<i>With extensions</i>	None	None
<i>Without extensions</i>	None	12/31/2028
Year of projected insolvency (PYB)	None	None
Certified PPA status	Safe	Safe

Projected PPA Status

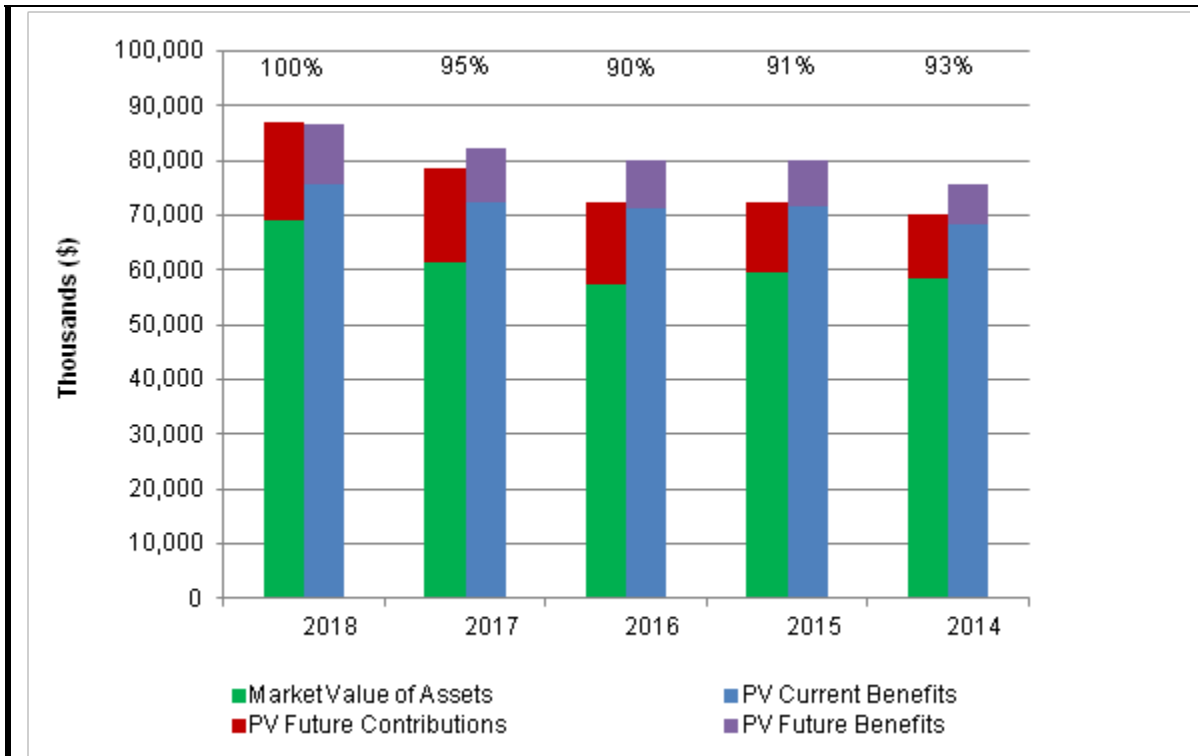


ULTIMATE FUNDED STATUS

Ultimate funded status is a snapshot measure of contribution sufficiency

An actuarial valuation deals primarily with the ability of the plan to meet Internal Revenue Code requirements now and in the near future. As such, it is heavily focused on current plan assets and liabilities. But it is also important to keep in mind the true purpose of the plan funding—that is, to accumulate sufficient assets to pay the benefits that the plan has promised to its participants. The chart below looks at this long-term funding adequacy. To the current plan assets we add the present value of all future contributions expected to be made for the current plan participants. To the value of the plan’s liabilities for benefits that have been previously earned we add the present value of all the future benefits the current plan participants are expected to earn through their future service. Ideally these ultimate asset and liability values will be approximately equal.

Neither of these amounts reflect the effect of future new participants or future contribution rate increases to the plan. Generally new entrants generate greater future contributions than benefits, so they represent a net positive to the actual future funding shown here.



STRESS AND SENSITIVITY ANALYSIS

The table below illustrates the impact on the plan when experience varies from key assumptions

Currently the plan is projected to be 100% funded by 2028, is projected to have no unfunded vested benefits in 2028, and projects no funding deficiencies. Considering that experience rarely matches our assumptions exactly, we developed the table below to demonstrate the impact that variations in certain key assumptions would have

on these projections. We also showed what rate increases would be needed in 2018 and 2019 to project no funding deficiencies. We examined future hours assumptions equal to the baseline, 5% lower, and 5% higher. We examined asset returns for the 2018 plan year of 10.00%, 7.75%, 4.00%, or 0.00%. We also examined the impact of a lower asset return of 6.50% for the next 10 years at the baseline hours. Stochastic modeling is also available for a more detailed analysis of sensitivity to asset returns.

Key Funding Statistics (without rate increases) and Rate Increases Needed to Project No Funding Deficiencies

<i>Hours Assumption</i>	<i>Funding Stats</i>	<i>Return for 2018 PY (7.25% for 2019-27 PY and 7.75% Thereafter)</i>			
		<i>10.00%</i>	<i>Assumed Return*</i>	<i>4.00%</i>	<i>0.00%</i>
<u>5% Lower</u> 427,500 in 2018 and thereafter	100% Funded: No UVB: Proj. Deficiency: Increase:	2026 2026 None None needed	2030 2029 None None needed	2034 2032 None None needed	2041 2039 2030 10¢ cr + 13¢ nc 2018-2019 (\$0.46 total)
<u>Baseline</u> 450,000 in 2018 and thereafter	100% Funded: No UVB: Proj. Deficiency: Increase:	2025 2026 None None needed	2028 2028 None None needed	2033 2031 None None needed	2038 2037 2031 10¢ cr + 3¢ nc 2018-2019 (\$0.26 total)
<u>5% Higher</u> 472,500 in 2018 and thereafter	100% Funded: No UVB: Proj. Deficiency: Increase:	2024 2025 None None needed	2027 2027 None None needed	2031 2030 None None needed	2036 2035 None None needed
<u>Lower short-term</u> 6.50% return for 10 yrs Baseline hours	100% Funded: No UVB: Proj. Deficiency: Increase:	2032 2031 None None needed	2036 2035 None None needed	2041 2039 2033 10¢ cr + 1¢ nc 2018-19 (\$0.22 total)	2053 2051 2029 10¢ cr + 31¢ nc 2018-19 (\$0.82 total)

* The assumed return for the 2018 plan year is 7.25% in the first three rows and 6.50% in the last row.

STRESS AND SENSITIVITY ANALYSIS (CONT.)

More action can be taken in any funding result to provide an even bigger “cushion” against future losses. There are other possible solutions besides the provided contribution rate increase schedule shown above, including different lengths of contribution rate increases. Benefit reductions could also be added to lower or eliminate the necessary contribution rate increases.

All actions taken to eliminate projected funding deficiencies need to be in place until the credit balance projection is past its low point. This is about 12 years out. Asset gains or strong hours could speed up this timeframe.

PART II: SUPPLEMENTAL STATISTICS

PARTICIPANT DATA RECONCILIATION

The participant data reconciliation table below provides information as to how the plan's covered population changed since the prior actuarial study. Such factors as the number of participants retiring, withdrawing and returning to work have an impact on the actuarial position of the pension fund.

<i>Participants Valued As</i>	<i>Active</i>	<i>Inactive Vested</i>	<i>Receiving Benefits</i>	<i>Total Valued</i>
January 1, 2017	333	520	447	1,300
Change due to:				
<i>New hire</i>	54	-	-	54
<i>Rehire</i>	19	(12)	-	7
<i>Termination</i>	(53)	29	-	(24)
<i>Disablement</i>	(1)	(1)	2	-
<i>Retirement</i>	(7)	(11)	18	-
<i>Death</i>	(2)	(2)	(15)	(19)
<i>Cash out</i>	-	(6)	-	(6)
<i>New beneficiary</i>	-	1	3	4
<i>Certain pd. expired</i>	-	-	-	-
<i>Data adjustment*</i>	-	(16)	1	(15)
Net change	10	(18)	9	1
January 1, 2018	343	502	456	1,301

* Includes 17 previously considered inactive vested who were determined to be non-vested and one previously non-vested determined to be inactive vested due to historical corrections, 2 new inactive vesteds due to pro-rata vesting, two deferred beneficiaries who were eliminated due to participant never being vested, and one inactive vested previously assumed deceased who has retired.

HOURS WORKED DURING PLAN YEAR

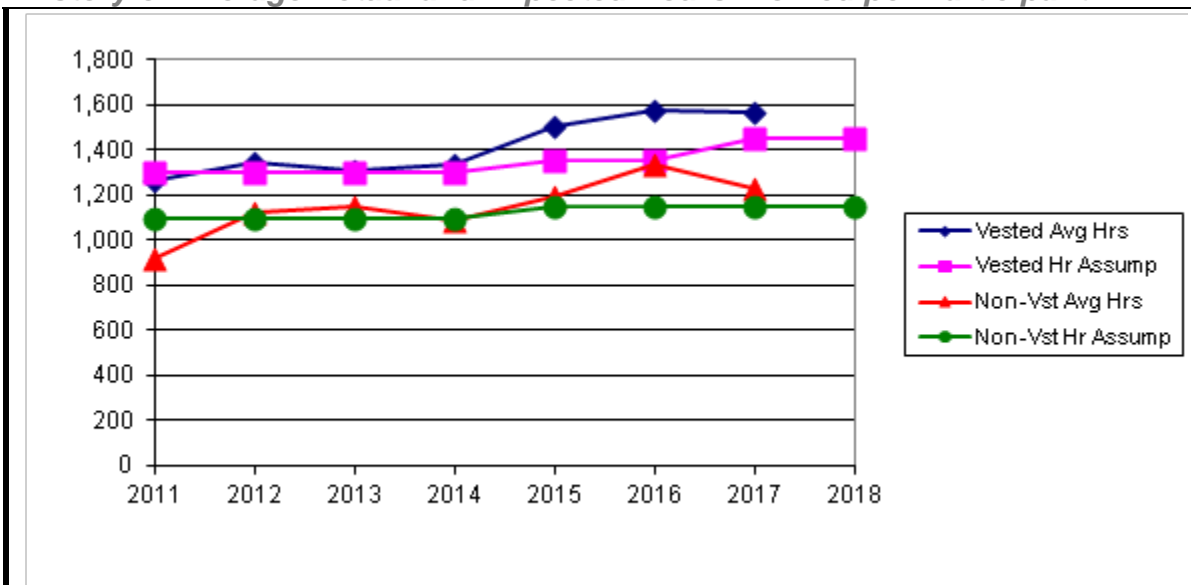
Hours Worked Per Participant

<i>Plan Year Ending December 31, 2017</i>	<i>Number</i>	<i>Hours Worked</i>	<i>Average Hours Worked</i>
Actives			
<i>Vested</i>	249	390,149	1,567
<i>Non-vested, continuing</i>	57	79,307	1,391
<i>Non-vested, new entrant</i>	37	36,173	978
Total active	343	505,629	1,474
Others	72	12,108	168
Total for plan year	415	517,737	1,248

History of Total Actual and Expected Hours Worked (Thousands)

<i>Plan Year Ending December 31,</i>	<i>2018</i>	<i>2017</i>	<i>2016</i>	<i>2015</i>	<i>2014</i>
Expected hours valuation	467	458	417	376	325
Expected hours PPA cert	450	450	450	438	438
Actual hours worked	n/a	518	517	471	385

History of Average Actual and Expected Hours Worked per Participant



CONTRIBUTIONS MADE DURING PLAN YEAR

Employer Credited Contributions Reported in Employee Data

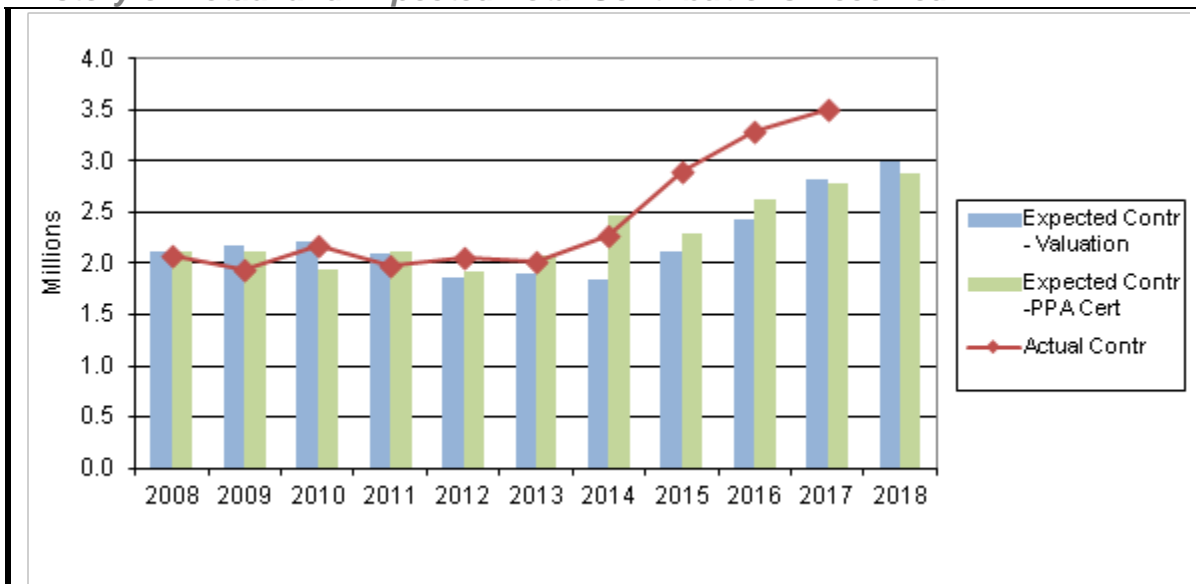
<i>Plan Year Ending December 31, 2017</i>	<i>Number</i>	<i>Credited Contributions Reported</i>
Actives		
Vested	249	\$ 1,622,479
Non-vested, continuing	57	325,226
Non-vested, new entrant	37	149,856
Total valued as active	343	2,097,561
Others	72	51,149
Total for plan year	415	\$ 2,148,710
Average credited hourly contribution rate		\$ 4.15

Comparison with Audited Employer Contributions

Employer credited contributions reported in data	\$ 2,148,710
Adjusted total employer contributions reported*	\$ 3,298,086
Total audited employer contributions	\$ 3,507,621
Percent reported	94%

* Adjusted to reflect the non-credited contributions of \$2.22 per hour worked.

History of Actual and Expected Total Contributions Received



*Supplemental Statistics
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation*

ACTIVE INFORMATION

Active Participants by Age and Service as of January 1, 2018

Age	Years of Service										Total	
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+		
< 25	-	7	1	-	-	-	-	-	-	-	-	8
25-29	-	12	4	-	-	-	-	-	-	-	-	16
30-34	-	13	4	5	-	-	-	-	-	-	-	22
35-39	-	26	4	9	14	2	-	-	-	-	-	55
40-44	-	10	7	12	20	10	-	-	-	-	-	59
45-49	-	11	8	12	19	9	4	-	-	-	-	63
50-54	-	5	4	8	10	13	12	7	-	-	-	59
55-59	-	4	4	4	11	7	4	6	2	-	-	42
60-64	-	1	1	4	-	3	2	2	-	-	-	13
65-69	-	1	-	-	-	-	-	-	-	-	-	1
70+	-	-	1	-	-	-	-	-	-	-	-	1
Totals	-	90	38	54	74	44	22	15	2	-	-	339
Unrecorded DOB	-	4	-	-	-	-	-	-	-	-	-	4
Total Active Lives	-	94	38	54	74	44	22	15	2	-	-	343

INACTIVE VESTED INFORMATION

Inactive Vested Participants by Age as of January 1, 2018

<i>Age Group</i>	<i>Number</i>	<i>Estimated Monthly Deferred Vested Benefits*</i>
< 30	1	\$ 266
30-34	7	1,471
35-39	28	8,978
40-44	58	18,366
45-49	87	37,383
50-54	115	41,686
55-59	97	26,754
60-64	85	21,481
65-69	17	1,223
70+	7	1,048
Totals	502	158,656
Unrecorded birth date	-	-
Total inactive vested lives	502	\$ 158,656

* Amount payable at assumed retirement age as used in the valuation process.

RETIREE INFORMATION

Benefits Being Paid by Form of Payment as of January 1, 2018

Form of Payment	Number	Monthly Benefits Being Paid			
		Total	Average	Smallest	Largest
Life only*	156	\$ 112,530	\$ 721	\$ 33	\$ 4,305
Joint & survivor	177	191,278	1,081	26	3,717
Disability	29	38,423	1,325	88	3,245
Beneficiaries	94	31,935	340	17	2,229
Totals	456	\$ 374,166	\$ 821	\$ 17	\$ 4,305

Retirees by Age and Form of Payment as of January 1, 2018

Age Group	Form of Benefits Being Paid				
	Life Only*	Joint & Survivor	Disability	Beneficiaries	Total
< 40	-	-	-	-	-
40-44	-	-	1	-	1
45-49	-	-	1	-	1
50-54	-	-	4	-	4
55-59	8	7	14	2	31
60-64	25	35	9	5	74
65-69	32	38	-	12	82
70-74	31	37	-	12	80
75-79	25	21	-	23	69
80-84	22	22	-	27	71
85-89	11	11	-	9	31
90-94	1	4	-	4	9
95+	1	2	-	-	3
Totals	156	177	29	94	456

* Includes retirees receiving life and certain benefits.

RETIREE INFORMATION (CONT.)

Age of Participants Retired During Last 5 Plan Years
 (excludes beneficiaries and disability retirements)

Age at Retirement	Plan Year Ending December 31,				
	2017	2016	2015	2014	2013
< 55	-	-	-	-	-
55	1	3	1	4	1
56	1	-	-	1	-
57	-	-	-	3	2
58	2	2	2	4	5
59	1	2	-	-	2
60	-	-	-	-	1
61	1	1	1	-	-
62	4	1	2	4	2
63	1	1	-	1	-
64	3	-	-	-	1
65	2	1	-	2	1
66+	2	1	3	-	-
Totals	18	12	9	19	15
Average retirement age	63.6	60.7	62.4	59.2	59.8

PART III: ASSET INFORMATION

MARKET AND ACTUARIAL FUND VALUES

Asset information extracted from the fund's financial statements audited by Benda, Grace, Stulz & Company, P.C.

***Market/Actuarial Value
of Fund Investments
as of December 31,***

	<i>2017</i>	<i>2016</i>	<i>2015</i>
Invested assets			
<i>Common stock</i>	\$ 17,072,051	\$ 15,594,405	\$ 13,115,300
<i>Common collective trusts</i>	4,804,662	3,963,119	6,670,445
<i>Hedge fund of funds</i>	6,969,949	6,505,048	6,015,007
<i>Mutual funds</i>	29,505,936	24,637,716	24,984,563
<i>Real estate funds</i>	4,763,168	4,517,581	4,183,501
<i>Limited partnership</i>	4,843,476	5,349,186	3,881,233
<i>Cash</i>	812,924	622,118	827,223
<i>Other</i>	19,938	22,252	21,479
	68,792,104	61,211,425	59,698,751
Net receivables*	176,776	61,001	(2,276,540)
Market value	\$ 68,968,880	\$ 61,272,426	\$ 57,422,211
Fund assets - Actuarial value			
<i>Market value</i>	\$ 68,968,880	\$ 61,272,426	\$ 57,422,211
<i>less: Deferred investment gains and (losses)</i>	1,590,557	(4,261,707)	(7,327,190)
Actuarial value	\$ 67,378,323	\$ 65,534,133	\$ 64,749,401
Actuarial value as a percentage of market value	97.69%	106.96%	112.76%

* Equals receivables, less any liabilities

Asset Information
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation

FLOW OF FUNDS

Asset information extracted from the fund's financial statements audited by Benda, Grace, Stulz & Company, P.C.

<i>Plan Year Ending</i> <i>December 31,</i>	<i>2017</i>	<i>2016</i>	<i>2015</i>
Market value at beginning of plan year	\$ 61,272,426	\$ 57,422,211	\$ 59,709,411
Additions			
<i>Employer contributions</i>	3,507,621	3,301,405	2,903,803
<i>Net investment income*</i>	9,006,495	5,098,121	(686,105)
<i>Other income</i>	3,884	807	399
	12,518,000	8,400,333	2,218,097
Deductions			
<i>Benefits paid</i>	4,587,698	4,307,702	4,266,403
<i>Net expenses*</i>	233,848	242,416	238,894
	4,821,546	4,550,118	4,505,297
Net increase (decrease)	7,696,454	3,850,215	(2,287,200)
Adjustment	-	-	-
Market value at end of plan year	\$ 68,968,880	\$ 61,272,426	\$ 57,422,211
Cash flow			
<i>Contr.-ben.-exp.</i>	(1,313,925)	(1,248,713)	(1,601,494)
<i>Percent of assets</i>	-1.91%	-2.04%	-2.79%
Estimated net investment return			
<i>On market value</i>	14.86%	8.98%	-1.16%
<i>On actuarial value</i>	4.86%	3.17%	1.40%

* Investment expenses have been offset against gross investment income.

INVESTMENT GAIN AND LOSS

Investment Gain or Loss
Plan Year Ending December 31, 2017

Expected market value at end of plan year			
Market value at beginning of plan year	\$		61,272,426
Employer contributions and non-investment income			3,511,505
Benefits and expenses paid			(4,821,546)
Expected investment income (at 7.75% rate of return)			4,697,849
			64,660,234
Actual market value at end of plan year			68,968,880
less: Expected market value			64,660,234
			4,308,646
Investment gain or (loss)	\$		4,308,646

History of Gains and (Losses)

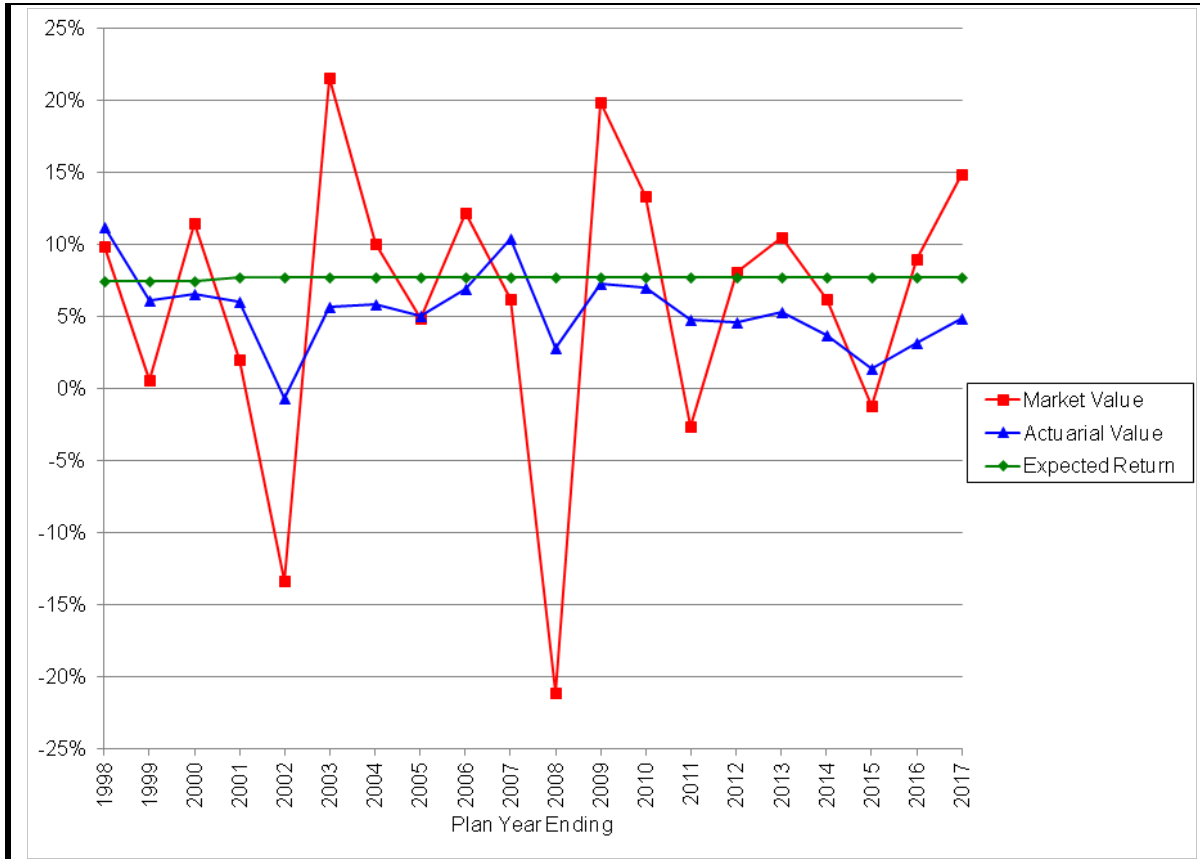
<i>Plan Year Ending December 31,</i>		<i>Investment Gain or (Loss)</i>
2017	\$	4,308,646
2016		696,256
2015		(5,251,542)
2014		(867,487)
2013		1,494,887

Deferred Investment Gains and (Losses)

<i>Plan Year Ending December 31,</i>	<i>Amount of Gain or (Loss) Deferred as of December 31,</i>			
	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>
2017	\$ 3,446,917	\$ 2,585,188	\$ 1,723,458	\$ 861,729
2016	417,754	278,502	139,251	-
2015	(2,100,617)	(1,050,308)	-	-
2014	(173,497)	-	-	-
Totals	\$ 1,590,557	\$ 1,813,382	\$ 1,862,709	\$ 861,729

RATE OF RETURN ON FUND ASSETS

Historical Rates of Net Investment Return



Average Rates of Net Investment Return (dollar weighted)

<i>Period</i>	<i>Return on Market Value</i>		<i>Return on Actuarial Value</i>	
	<i>Period Ending December 31,</i>		<i>Period Ending December 31,</i>	
	<i>2017</i>	<i>2016</i>	<i>2017</i>	<i>2016</i>
One year	14.86%	8.98%	4.86%	3.17%
5 years	7.72%	6.54%	3.70%	3.69%
10 years	4.72%	4.07%	4.58%	5.19%
15 years	6.97%	4.92%	5.38%	4.95%
20 years	5.51%	5.74%	5.43%	5.72%

PART IV: ENROLLED ACTUARY'S REPORT

*Enrolled Actuary's Report
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation*

NORMAL COST/ACTUARIAL LIABILITY

<i>Normal Cost as of January 1,</i>	<i>2018</i>		<i>2017</i>	
Active participants	\$	1,363,627	\$	1,273,021
Anticipated administrative expenses (beg. of year)		231,047		250,301
Total normal cost	\$	1,594,674	\$	1,523,322

<i>Unfunded Actuarial Liability as of January 1,</i>	<i>2018</i>		<i>2017</i>	
Actuarial liability				
<i>Participants currently receiving benefits</i>	\$	41,971,269	\$	40,124,125
<i>Inactive vested participants</i>		11,016,850		10,097,481
<i>Active participants</i>		22,844,829		22,035,943
		75,832,948		72,257,549
<i>less: Fund assets (actuarial value)</i>		67,378,323		65,534,133
Unfunded actuarial liability (not less than 0)	\$	8,454,625	\$	6,723,416

ACTUARIAL LIABILITY RECONCILIATION/PROJECTION

Reconciliation of Unfunded Actuarial Liability

Expected unfunded actuarial liability as of December 31, 2017			
<i>Unfunded actuarial liability as of January 1, 2017</i>	\$		6,723,416
<i>Normal cost (including expenses)</i>			1,523,322
<i>Actual contributions</i>			(3,507,621)
<i>Interest to end of plan year</i>			503,200
			5,242,317
Increase (decrease) due to:			
<i>Experience (gain) or loss</i>			2,272,247
<i>Plan amendment</i>			-
<i>Change in actuarial assumptions</i>			940,061
<i>Change in actuarial method</i>			-
			3,212,308
Net increase (decrease)			
			3,212,308
Unfunded actuarial liability as of January 1, 2018	\$		8,454,625

Projection of Actuarial Liability to Year End

Actuarial liability as of January 1, 2018			
	\$		75,832,948
Expected increase (decrease) due to:			
<i>Normal cost (excluding expenses)</i>			1,363,627
<i>Benefits paid</i>			(4,983,392)
<i>Interest on above</i>			(87,425)
<i>Interest on actuarial liability</i>			5,877,053
			2,169,863
Net expected increase (decrease)			
			2,169,863
Expected actuarial liability as of December 31, 2018	\$		78,002,811

*Enrolled Actuary's Report
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation*

FUNDED RATIOS

<i>Present Value of Accumulated Benefits/ Funded Ratios Actuarial Study as of January 1,</i>	<i>2018</i>	<i>2017</i>
Present value of vested accumulated benefits		
<i>Participants currently receiving benefits</i>	\$ 41,971,269	\$ 40,124,125
<i>Inactive vested participants</i>	10,872,317	9,969,394
<i>Active participants</i>	21,419,850	20,632,286
Total	74,263,436	70,725,805
Nonvested accumulated benefits	1,569,512	1,531,744
Present value of all accumulated benefits	\$ 75,832,948	\$ 72,257,549
Market value of assets	\$ 68,968,880	\$ 61,272,426
Funded ratios (Market value)		
<i>Vested benefits</i>	92.9%	86.6%
<i>All accumulated benefits</i>	90.9%	84.8%
Actuarial value of assets	\$ 67,378,323	\$ 65,534,133
Funded ratios (Actuarial value used for PPA)		
<i>Vested benefits</i>	90.7%	92.7%
<i>All accumulated benefits</i>	88.9%	90.7%
Interest rate used to value benefits	7.75%	7.75%

FUNDING PERIOD

The funding period is the approximate number of years that would be required to completely fund the unfunded entry age normal actuarial liability if future plan experience occurs according to the assumptions. The funding period is an indicator of the long term financial soundness of the plan. Historically, funds often targeted a maximum funding period of up to 20 years. Today, asset losses are being paid off over a maximum of 15 years and are the primary driver for ERISA minimum funding. An ultimate target of no more than 10 years is recommended. A lower, more conservative funding period target can be chosen. As the funding period drops, the risk of having future funding issues also diminishes.

Funding Period Calculation

<i>Actuarial Study as of January 1,</i>	<i>2018</i>	<i>2017</i>
Unfunded actuarial liability		
<i>Actuarial liability</i>	\$ 82,960,840	\$ 78,875,378
<i>less: Fund assets (actuarial value)</i>	67,378,323	65,534,133
	15,582,517	13,341,245
 Funds available to amortize unfunded		
<i>Anticipated contributions (beg. of yr.)</i>	2,885,244	2,721,414
<i>less: Normal cost (including expenses)</i>	886,676	862,312
	\$ 1,998,568	\$ 1,859,102
 Funding period (years)	 12	 10

*Enrolled Actuary's Report
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation*

CURRENT LIABILITY

Current Liability as of January 1, 2018

Vested current liability		
<i>Participants currently receiving benefits</i>	\$	66,324,329
<i>Inactive vested participants</i>		23,926,917
<i>Active participants</i>		50,212,321
		140,463,567
Nonvested current liability		
<i>Inactive vested participants</i>		213,464
<i>Active participants</i>		2,614,077
		2,827,541
Total current liability	\$	143,291,108

Projection of Current Liability to Year End

Current liability as of January 1, 2018	\$	143,291,108
Expected increase (decrease) due to:		
<i>Benefits accruing</i>		3,506,881
<i>Benefits paid</i>		(4,983,392)
<i>Interest on above</i>		30,253
<i>Interest on current liability</i>		4,270,075
Net expected increase (decrease)		2,823,817
Expected current liability as of December 31, 2018	\$	146,114,925

*Enrolled Actuary's Report
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation*

FUNDING STANDARD ACCOUNT

Funding Standard Account Plan Year Ending December 31,	2018 (Projected)	2017 (Final)
Charges		
<i>Prior year funding deficiency</i>	\$ -	\$ -
<i>Normal cost (including expenses)</i>	1,594,674	1,523,322
<i>Amortization charges (see Appendix C)</i>	5,891,722	5,566,656
<i>Interest on above</i>	580,196	549,475
Total charges	8,066,592	7,639,453
Credits		
<i>Prior year credit balance</i>	14,525,816	13,161,453
<i>Employer contributions</i>	2,890,732	3,507,621
<i>Amortization credits (see Appendix C)</i>	4,028,089	4,028,085
<i>Interest on above</i>	1,549,945	1,468,110
<i>ERISA full funding credit</i>	-	-
Total credits	22,994,582	22,165,269
Credit balance (credits less charges)	\$ 14,927,990	\$ 14,525,816

FUNDING STANDARD ACCOUNT WITHOUT AMORTIZATION EXTENSION

The Funding Standard Account on the previous page has been developed using an amortization extension approved by the IRS under §412(e) or §431(d) of the Code. We are required to report the dollar difference between the minimum required contribution with extension and without extension on the Schedule MB.

<i>Funding Standard Account Plan Year Ending December 31,</i>	<i>2018 (Projected)</i>	<i>2017 (Final)</i>
Charges		
<i>Prior year funding deficiency</i>	\$ -	\$ -
<i>Normal cost (including expenses)</i>	1,594,674	1,523,322
<i>Amortization charges (see Appendix C)</i>	4,957,638	5,602,507
<i>Interest on above</i>	507,802	552,249
Total charges	7,060,114	7,678,078
Credits		
<i>Prior year credit balance</i>	5,289,528	4,625,339
<i>Employer contributions</i>	2,890,732	3,507,621
<i>Amortization credits (see Appendix C)</i>	4,028,089	4,028,085
<i>Interest on above</i>	834,132	806,561
<i>ERISA full funding credit</i>	-	-
Total credits	13,042,481	12,967,606
Credit balance (credits less charges)	\$ 5,982,367	\$ 5,289,528

*Enrolled Actuary's Report
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation*

FULL FUNDING LIMIT

<i>Projection of Assets for Full Funding Limit</i>	<i>Market Value</i>	<i>Actuarial Value</i>
Asset value as of January 1, 2018	\$ 68,968,880	\$ 67,378,323
Expected increase (decrease) due to:		
<i>Investment income</i>	5,142,682	5,019,414
<i>Benefits paid</i>	(4,983,392)	(4,983,392)
<i>Expenses</i>	(240,000)	(240,000)
Net expected increase (decrease)	(80,710)	(203,978)
Expected value as of December 31, 2018*	\$ 68,888,170	\$ 67,174,345

* Ignoring expected employer contributions (as required by regulation).

<i>Full Funding Limit as of December 31, 2018</i>	<i>For Minimum Required</i>	<i>For Maximum Deductible</i>
ERISA full funding limit (not less than 0)		
<i>Actuarial liability</i>	\$ 78,002,811	\$ 78,002,811
less: <i>Assets (lesser of market or actuarial)</i>	67,174,345	67,174,345
plus: <i>Credit balance (w/interest to year end)</i>	15,651,567	n/a
	26,480,033	10,828,466
ERISA full funding limit without extension (not less than 0)		
<i>Actuarial liability</i>	78,002,811	n/a
less: <i>Assets (lesser of market or actuarial)</i>	67,174,345	n/a
plus: <i>Credit bal. w/o ext. (w/int. to year end)</i>	5,699,466	n/a
	16,527,932	n/a
Full funding limit override (not less than 0)		
<i>90% of current liability</i>	131,503,433	131,503,433
less: <i>Assets (actuarial value)</i>	67,174,345	67,174,345
	64,329,088	64,329,088
Full funding limit (greater of ERISA limit and full funding override)		
<i>With amortization extension</i>	\$ 64,329,088	\$ 64,329,088
<i>Without amortization extension</i>	\$ 64,329,088	n/a

*Enrolled Actuary's Report
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation*

MINIMUM REQUIRED CONTRIBUTION AND FULL FUNDING CREDIT

<i>Minimum Required Contribution Plan Year Beginning January 1, 2018</i>	<i>Without Extension</i>	<i>With Extension</i>
Minimum funding cost		
<i>Normal cost (including expenses)</i>	\$ 1,594,674	\$ 1,594,674
<i>Net amortization of unfunded liabilities</i>	929,549	1,863,633
<i>Interest to end of plan year</i>	195,624	268,018
	2,719,847	3,726,325
Full funding limit	64,329,088	64,329,088
Net charge to funding std. acct. (lesser of above)	2,719,847	3,726,325
less: <i>Credit balance with interest to year end</i>	5,699,466	15,651,567
Minimum Required Contribution (not less than 0)	\$ -	\$ -
Effect of extension		\$ -

<i>Full Funding Credit to Funding Standard Account Plan Year Ending December 31, 2018</i>	<i>Without Extension</i>	<i>With Extension</i>
Full funding credit (not less than 0)		
<i>Minimum funding cost (n.c., amort., int.)</i>	\$ 2,719,847	\$ 3,726,325
<i>less: full funding limit</i>	64,329,088	64,329,088
	\$ -	\$ -

MAXIMUM DEDUCTIBLE CONTRIBUTION

The maximum amount of tax-deductible employer contributions made to a pension plan is determined in accordance with Section 404(a) of the Internal Revenue Code. For a multiemployer pension plan, Section 413(b)(7) of the Internal Revenue Code and IRS Announcement 98-1 provide that, if anticipated employer contributions are less than the deductible limit for a plan year, then all employer contributions paid during the year are guaranteed to be deductible. If anticipated employer contributions exceed the deductible limit, the Trustees have two years from the close of the plan year in question to retroactively improve benefits to alleviate the problem.

***Maximum Deductible Contribution
Plan Year Beginning January 1, 2018***

Preliminary deductible limit			
<i>Normal cost (including expenses)</i>	\$		1,594,674
<i>10-year limit adjustment (using "fresh start" alternative)</i>			1,156,211
<i>Interest to end of plan year</i>			213,193
			2,964,078
 Full funding limit			 64,329,088
 Maximum deductible contribution override			
<i>140% of vested current liability projected to December 31, 2018</i>			200,524,327
<i>less: Actuarial value of assets projected to December 31, 2018</i>			67,174,345
			133,349,982
 Maximum deductible contribution*	\$		 133,349,982
 Anticipated employer contributions	\$		 2,997,047

* Equals the lesser of the preliminary deductible limit and the full funding limit, but not less than the maximum deductible contribution override.

HISTORY OF UNFUNDED VESTED BENEFITS

Presumptive Method

<i>December 31,</i>	<i>Vested Benefits Interest Rate</i>	<i>Value of Vested Benefits</i>	<i>Asset Value*</i>	<i>Unfunded Vested Benefits</i>	<i>Unamortized Portion of VAB</i>
1998	7.50%	25,348,921	33,913,177	(8,564,256)	
1999	7.50%	26,263,536	36,517,234	(10,253,698)	
2000	7.75%	30,412,402	39,264,310	(8,851,908)	
2001	7.75%	35,711,260	42,043,457	(6,332,197)	
2002	7.75%	41,469,062	42,019,063	(550,001)	
2003	7.75%	44,155,894	44,222,751	(66,857)	
2004	7.75%	46,823,836	46,750,441	73,395	
2005	7.75%	49,771,921	48,751,674	1,020,247	
2006	7.75%	52,458,661	51,652,635	806,026	
2007	7.75%	54,442,221	56,252,948	(1,810,727)	
2008	7.75%	55,965,916	52,505,644	3,460,272	
2009	7.75%	58,437,048	59,619,259	(1,182,211)	
2010	7.75%	60,298,308	62,314,914	(2,016,606)	
2011	7.75%	62,119,705	63,493,973	(1,374,268)	
2012	7.75%	64,442,727	64,296,033	146,694	
2013	7.75%	66,810,445	65,246,057	1,564,388	
2014	7.75%	69,883,900	65,444,610	4,439,290	
2015	7.75%	71,846,693	64,749,401	7,097,292	
2016	7.75%	70,725,805	65,534,133	5,191,672	4,333,777
2017	7.75%	74,263,436	67,378,323	6,885,113	4,171,034

* Actuarial value

TERMINATION BY MASS WITHDRAWAL

If all employers were to cease to have an obligation to contribute to the plan, the plan would be considered "terminated due to mass withdrawal." In this event, the Trustees would have the option of distributing plan assets in satisfaction of all plan liabilities through the purchase of annuities from insurance carriers or payment of lump sums. If assets are insufficient to cover liabilities, a special actuarial valuation pursuant to Section 4281 of ERISA would be performed as of the end of the plan year in which the mass withdrawal occurred. If the Section 4281 valuation indicates the value of nonforfeitable benefits exceeds the value of plan assets, employer withdrawal liability would be assessed.

The ERISA Section 4281 valuation described above uses required actuarial assumptions that are typically more conservative than those used for valuing an on-going plan. In order to illustrate the impact of the mass withdrawal assumptions, we performed an illustrative Section 4281 valuation as if mass withdrawal had occurred during the prior plan year. The value of assets used below is market value without any adjustments for outstanding employer withdrawal liability claims.

As required by regulation, interest rates of 2.34% for the first 20 years and 2.63% for each year thereafter and the GAM 94 Basic Mortality Table projected to 2027 were used.

***Illustrative Section 4281 Valuation
as of December 31, 2017***

Value of nonforfeitable benefits			
<i>Participants currently receiving benefits</i>	\$		68,678,028
<i>Inactive vested participants</i>			26,058,126
<i>Active participants</i>			58,687,554
<i>Expenses (per Section 4281 of ERISA)</i>			993,203
			154,416,911
<i>less: Fund assets (market value)</i>			68,968,880
Value of nonforfeitable benefits in excess of (less than) fund assets	\$		85,448,031

ASC 960 INFORMATION

The following displays are intended to assist the fund's auditor in complying with Accounting Standards Codification 960. The results shown are not necessarily indicative of the plan's potential liability upon termination.

***Present Value of Accumulated Benefits
Actuarial Study as of January 1,***

	2018	2017*
Present value of vested accumulated benefits		
<i>Participants currently receiving benefits</i>	\$ 41,971,269	\$ 40,124,125
<i>Expenses on parts. currently rec. benefits</i>	2,308,420	2,307,137
<i>Other participants</i>	32,292,167	30,601,680
<i>Expenses on other participants</i>	1,776,069	1,759,597
	78,347,925	74,792,539
Present value of nonvested accumulated benefits		
<i>Nonvested accumulated benefits</i>	1,569,512	1,531,744
<i>Expenses on nonvested benefits</i>	86,323	88,075
	1,655,835	1,619,819
Present value of all accumulated benefits	\$ 80,003,760	\$ 76,412,358
Market value of plan assets	\$ 68,968,880	\$ 61,272,426
Interest rate used to value benefits	7.75%	7.75%

Changes in Present Value of Accumulated Benefits

Present value of accumulated benefits as of January 1, 2017*	\$ 76,412,358
Increase (decrease) due to:	
<i>Plan amendment</i>	-
<i>Change in actuarial assumptions</i>	991,764
<i>Benefits accumulated and experience gain or loss</i>	1,499,226
<i>Interest due to decrease in discount period</i>	5,921,958
<i>Benefits paid</i>	(4,587,698)
<i>Operational expenses paid</i>	(233,848)
Net increase (decrease)	3,591,402
Present value of accumulated benefits as of January 1, 2018	\$ 80,003,760

* The 2017 present value of accumulated benefits (PVAB) column has been restated from the 2017 valuation to include an operational expense load of 5.75%. This change resulted in an increase of \$4,154,809 to the 2017 PVAB.

APPENDICES

PLAN HISTORY

Origins/Purpose

The Outstate Michigan Trowel Trades Pension Plan was established January 1, 1972 as a result of a merger between the Pension Plans of the Outstate O.P.C.M.I.A. (which was established May 1, 1963) and the Michigan Highway Construction Industry Cement Masons' Pension Plan (which was established September 1, 1965).

The Pension Plan is managed under the provisions of the Labor Management Relations Act by a Board of Trustees consisting of an equal number of representatives from Labor and from Management.

The purpose of the Pension Plan is to provide Normal and Early Retirement Benefits, Joint and Survivor Benefits, Total and Permanent Disability Benefits, Vested Benefits and Death Benefits.

Employer Contributions

The Pension Plan is financed entirely by contributions from the employers as specified in the applicable Collective Bargaining Agreements. Following is a history of recent hourly contribution rates in effect for each local and craft.

<i>Local</i>	<i>Craft</i>	<i>Hourly Contribution Rate*</i>	<i>Effective Date</i>
Benton Harbor/St. Joe	D0	\$ 7.17	June 1, 2017
Big Rapids	E0	\$ 6.67	June 1, 2017
Flint	F0	\$ 7.17	June 1, 2017
Grand Rapids/Muskegon	H1	\$ 7.07	June 1, 2017
Highway Construction Zone 1	H0	\$ 6.00	June 1, 2017
Highway Construction Zone 2	H0	\$ 6.00	June 1, 2017
Kalamazoo/Battle Creek	I0	\$ 7.12	June 1, 2017
Lansing/Jackson	J0	\$ 7.17	June 1, 2017
Lapeer	K0	\$ 7.17	June 1, 2017
Saginaw	M0	\$ 6.67	June 1, 2017
Traverse City	N0	\$ 6.67	June 1, 2017
Upper Peninsula	OO/P0	\$ 4.42/\$ 6.92	June 1, 2017
Southwest	P0	\$ 6.47	June 1, 2016
Lansing/Jackson	P0	\$ 6.57	June 1, 2016
Flint	P0	\$ 6.92	June 1, 2016
Saginaw/Bay City	P0	\$ 6.92	June 1, 2016

* These rates include \$2.22 of non-credited contribution.

Reciprocity

The Trustees have entered into Money Follows the Man Reciprocity Agreements with the Trustees of several other Pension Plans. The Trustees have also entered into a Pro-Rata Reciprocity Agreement with the Operative Plasterers' and Cement Masons International Association of the United States and Canada, the Michigan BAC Pension Plan, and the Michigan Laborers' Pension Plan.

SUMMARY OF PLAN PROVISIONS

Plan year	The 12-month period beginning January 1 and ending the following December 31.
Participation	12 consecutive month period with 500 hours.
Year of service	Plan Year with at least 500 hours.
Break in service	Plan Year with less than 500 hours.
Active participant	A participant who has not become a retired, deceased or disabled participant and who has not suffered a permanent break in service and who <i>has</i> accrued at least one year of service in either the current plan year at the time of reference or in either of the two preceding plan years.
Inactive participant	A participant who has not become a retired, deceased or disabled participant and who has not suffered a permanent break in service and who has <i>not</i> accrued at least one year of service in either the current plan year at the time of reference or in either of the two preceding plan years.
Normal retirement benefit	
<i>Eligibility</i>	Age 65 or 5 th anniversary of participation, if later.
<i>Monthly amount</i>	Accrued benefit as of January 1, 1976; plus 3.60% of contributions for the period January 1, 1976 through December 31, 2003; plus 1.70% of contributions for the period January 1, 2004 through May 31, 2008; plus 1.70% of credited contributions thereafter. Payable for life. No future service credit is given for less than 300 hours of work in plan years 1976-2010. No future service credit is given for less than 500 hours of work in plan years 2011 and after. This requirement does not apply during participant's initial or last year of participation before retirement.
Early retirement benefit	
<i>Eligibility</i>	Age 55 and 10 years of service. Retired from active status
<i>Monthly amount</i>	Normal, reduced by ½ of 1% for each month under age 62 (reduction is calculated from age 58 if participant has 25 or more years of service). Payable for life.

SUMMARY OF PLAN PROVISIONS (CONT.)

Total and permanent disability benefit	
<i>Eligibility</i>	Disabled while active.
<i>Monthly amount</i>	10 + years of service: 75% of normal payable until the earlier of age 65, recovery or death. Normal at age 65.
<i>or</i>	
<i>Single sum amount</i>	Less than 10 years of service: Greater of 75% of contributions for which participant received any special or future service credit or the single sum actuarial equivalent of the basic vested benefit.
Vested benefit	
<i>Eligibility</i>	Terminated. 5 years of service.
<i>Monthly amount</i>	Deferred normal or early, if eligible. Payable for life.
Vested early benefit	
<i>Eligibility</i>	Terminated. 10 years of service.
<i>Monthly amount</i>	Normal reduced by an actuarial equivalent factor for each month under age 65.
Optional forms of payment	<ul style="list-style-type: none"> • Joint and 50% survivor (with popup)* • Joint and 75% survivor (with popup)* • Joint and 100% survivor (with popup)* • Life with 10 years guaranteed
	* Effective June 1, 2016, inactive vested participants who retire will no longer receive the "pop up" feature.
Pre-retirement single sum death benefit	
<i>Eligibility</i>	Death of active or disabled participant who is ineligible for surviving spouse benefit and who has not yet received any retirement benefits.
<i>Single sum amount</i>	75% of contributions payable to beneficiary.

SUMMARY OF PLAN PROVISIONS (CONT.)

Pre-retirement surviving spouse benefit

Eligibility

Death of vested participant with eligible spouse.

Monthly amount

75% of participant's joint and 75% survivor. Payable to spouse for life beginning at earliest retirement age of participant. Spouse may elect single sum death benefit. Effective June 1, 2016, the monthly amount for surviving spouses of inactive vested participants who die will be 50% of the participants joint and 50% benefit.

Post-retirement death benefit

Eligibility

Death of participant receiving normal, early or vested benefits. Not eligible if receiving joint and survivor.

Single sum amount

Pre-retirement single sum death less benefits paid to participant. Payable to beneficiary.

HISTORICAL PLAN MODIFICATIONS

Special and future service credit/Retiree increase	
<i>Effective date</i>	January 1, 1998
<i>Adoption date</i>	August 18, 1997
<i>Provisions</i>	The special and future service credit was increased from 3.30% to 3.45% and the lives receiving benefits received a 4½% increase.
Vesting eligibility	
<i>Effective date</i>	January 1, 1998
<i>Adoption date</i>	August 18, 1997
<i>Provisions</i>	Eligibility for vesting changed from a 5/10 year graded scale to 100% after 5 years of vesting service for active participants who earn at least one hour of service on or after January 1, 1998.
Special and future service credit/Retiree increase	
<i>Effective date</i>	January 1, 1999
<i>Adoption date</i>	May 6, 1998
<i>Provisions</i>	The special and future service credit was increased from 3.45% to 3.55% and the lives receiving benefits received a 3% increase.
Special and future service credit/Retiree increase	
<i>Effective date</i>	January 1, 2000
<i>Adoption date</i>	January 20, 2000
<i>Provisions</i>	The special and future service credit was increased from 3.55% to 3.60% and the lives receiving benefits received a 2% increase.

HISTORICAL PLAN MODIFICATIONS (CONT.)

Early retirement benefit	
<i>Effective date</i>	January 1, 2000
<i>Adoption date</i>	January 20, 2000
<i>Provisions</i>	The early retirement benefit was improved by changing the plan so that the early retirement reduction factor is calculated from age 60 if the participant has 25 or more years of service. If the participant does not meet the 25-year requirement, the reduction factor is calculated from age 62.
New optional forms	
<i>Effective date</i>	January 1, 2000
<i>Adoption date</i>	January 20, 2000
<i>Provisions</i>	Joint and 75% survivor, joint and 100% survivor and life with 10-years certain annuities were added as optional forms of payment under the plan.
Early retirement benefit	
<i>Effective date</i>	January 1, 2001
<i>Adoption date</i>	January 23, 2001
<i>Provisions</i>	The early retirement benefit was improved by changing the plan so that the early retirement reduction factor is calculated from age 58 if the participant has 25 or more years of service. If the participant does not meet the 25-year requirement, the reduction factor is calculated from age 62.
Special and future service credit/Retiree increase	
<i>Effective date</i>	January 1, 2004
<i>Adoption date</i>	December 20, 2002
<i>Provisions</i>	The special and future service credit was changed from 3.60% to 1.70% for accruals on and after January 1, 2004.

HISTORICAL PLAN MODIFICATIONS (CONT.)

Pre-retirement surviving spouse benefit	
<i>Effective date</i>	January 1, 2007
<i>Adoption date</i>	June 12, 2008
<i>Provisions</i>	The Plan's Qualified Pre-Retirement Survivor Annuity Benefit (QPSA) was increased from 50% to 75%. Further, the age reduction has been eliminated.
Disability benefit	
<i>Effective date</i>	January 1, 2011
<i>Adoption date</i>	October 27, 2010
<i>Provisions</i>	Disability benefits retroactive to the date of disablement have been eliminated. The disability benefit has also been lowered from 100% to 75% of the participant's accrued benefit, for disabilities beginning on or after January 1, 2011.
Benefit accrual and service year	
<i>Effective date</i>	January 1, 2011
<i>Adoption date</i>	October 27, 2010
<i>Provisions</i>	The hours requirement for a year of service and benefit accrual was increased from 300 to 500 hours.
Early Retirement Reduction Factor	
<i>Effective date</i>	June 1, 2016
<i>Adoption date</i>	April 18, 2016
<i>Provisions</i>	For inactive participants retiring on or after June 1, 2016, the early retirement factor was changed from ½ of 1% for each month before age 62 to an actuarial equivalent factor for each month before age 65.

HISTORICAL PLAN MODIFICATIONS (CONT.)

Pre-Retirement Survivor Annuity

<i>Effective date</i>	June 1, 2016
<i>Adoption date</i>	April 18, 2016
<i>Provisions</i>	The 75% Pre-Retirement Survivor Annuity for surviving spouses was replaced with a 50% Pre-Retirement survivor annuity for inactive vested participants.

Single sum death benefit

<i>Effective date</i>	June 1, 2016
<i>Adoption date</i>	April 18, 2016
<i>Provisions</i>	The pre-retirement single sum death benefit payable following the death of an inactive participant was eliminated for inactive vested participants.

“Pop-Up” on Joint and Survivor

<i>Effective date</i>	June 1, 2016
<i>Adoption date</i>	April 18, 2016
<i>Provisions</i>	The “Pop-Up” feature on Joint and Survivor Benefits was eliminated for inactive vested participants.

ACTUARIAL ASSUMPTIONS

The following assumptions are used throughout this report except as specifically noted herein.

Valuation date	January 1, 2018
Interest rates	
<i>ERISA rate of return used to value liabilities</i>	7.75% per year net of investment expenses
<i>Current liability</i>	2.98% (in accordance with Section 431(c)(6) of the Internal Revenue Code)
Operational expenses	\$240,000 per year excluding investment expenses. For the present value of expenses for ASC 960, a 5.50% load was applied to the ASC 960 liabilities. This load was calculated by taking 3 years of actual expenses divided by 3 years of actual benefit payments.
Loading for pop-up feature	Liabilities for non-retired active participants' benefits to be paid after retirement increased 0.5%; liabilities for retired participants receiving a joint and survivor form of benefit increased by 1.8%.
Mortality	
<i>Assumed plan mortality</i>	105% of the RP-2014 Blue Collar Mortality Tables for employees and healthy annuitants adjusted backward to 2006 with the MP-2014 projection scale and projected forward using the MP-2017 projection scale.
<i>Current liability</i>	Separate annuitant and non-annuitant rates based on the RP-2000 Mortality Tables Report developed for males and females as prescribed by Section 431(c)(6) of the Internal Revenue Code.

ACTUARIAL ASSUMPTIONS (CONT.)

Withdrawal

T-3 Turnover Table from The Actuary's Pension Handbook (less GAM 51 mortality) – specimen rates shown below. Assumed rate during second year of employment is 25%* and 25% for the next two years.

<u>Age</u>	Withdrawal <u>Rate</u>
25	.0527
30	.0483
35	.0447
40	.0384
45	.0321
50	.0152
55	.0033

* All newly reported participants are considered to have already worked their first year of employment.

Disability

1964 OASDI Disability Table for males. Specimen rates shown below:

<u>Age</u>	Disability <u>Rate</u>
25	.0009
30	.0011
35	.0015
40	.0022
45	.0036
50	.0061
55	.0101
60	.0163

ACTUARIAL ASSUMPTIONS (CONT.)

**Future retirement rates
Active lives**

According to the following schedule:

<u>Age</u>	<u>Retirement Rates:</u>	
	<u><25 yrs svc</u>	<u>25+ yrs svc</u>
55-56	.02	.15
57	.10	.40
58	.10	.70
59-61	.10	.25
62-64	.40	.25
65	1.00	1.00

Resulting in an average expected retirement age of 59.9.

Inactive vested lives

Age 55, or the earliest eligible retirement age if later.

Disabled lives

Disability benefit assumed payable until the earlier of age 65, recovery or death. Then normal retirement benefit commences.

Future hours worked

Vested lives

1,450 hours per year, 0 after assumed retirement age

Non-vested lives

1,150 hours per year, 0 after assumed retirement age

Future hourly contribution rate

Individual's average credited rate contributed for the most recent plan year adjusted for any rate changes in the past year and for non-credited contributions. The credited rate cannot be lower than the lowest negotiated rate or higher than the highest negotiated rate.

Age of participants with unrecorded birth dates

Based on average entry age of participants with recorded birth dates and same vesting status.

Marriage assumptions

80% assumed married with the male spouse 3 years older than his wife

Optional form assumption

All non-retired participants assumed to elect the life annuity with 2 years certain form of benefit.

Inactive vested lives over age 70

Continuing inactive vested participants over age 70 are assumed deceased and are not valued.

QDRO benefits

Benefits to alternate payee included with participant's benefit until payment commences

ACTUARIAL ASSUMPTIONS (CONT.)

Section 415 limit assumptions	
<i>Dollar limit</i>	\$220,000 per year
<i>Assumed form of payment for those limited by Section 415</i>	Qualified joint and 100% survivor annuity
Benefits not valued	None

RATIONALE FOR SELECTION OF ACTUARIAL ASSUMPTIONS

The non prescribed actuarial assumptions were selected to provide a reasonable long term estimate of developing experience. The assumptions are reviewed annually, including a comparison to actual experience. The following describes our rationale for the selection of each non-prescribed assumption that has a significant effect on the valuation results.

ERISA rate of return used to value liabilities	<p>Future rates of return were modeled based on the Plan's current investment policy asset allocation and composite, long-term capital market assumptions taken from Horizon Actuarial's 2017 survey of investment consultants.</p> <p>Based on this analysis, we selected a final assumed rate of 7.75%, which we feel is reasonable. This rate may not be appropriate for other purposes such as settlement of liabilities.</p>
Mortality	<p>The RP-2014 Blue Collar Mortality Tables for employees and healthy annuitants adjusted backward to 2006 with the MP-2014 projection scale and projected forward using the MP-2017 projection scale was chosen as the base table for this population.</p> <p>The blue collar table was chosen based on the industry of plan participants.</p> <p>Finally, a 105% multiplier was applied in order to more closely match projected deaths to actual post-retirement death experience. The period of actual data studied to develop this multiplier was from January 1, 2013 to December 31, 2017 for this plan, blended with a study of deaths for larger plans in similar industries.</p>
Retirement	<p>Actual rates of retirement by age were last studied for this plan for the period January 1, 2012 to December 31, 2016. The assumed future rates of retirement were selected based on the results of this study. No further adjustments were deemed necessary at this time.</p>
Withdrawal	<p>Actual rates of withdrawal by age were last studied for this plan for the period January 1, 2011 to December 31, 2015. The assumed future rates of withdrawal were selected based on the results of this study. No further adjustments were deemed necessary at this time.</p>
Future hours worked	<p>Based on review of recent plan experience.</p>

ACTUARIAL ASSUMPTIONS USED FOR PROJECTIONS

The assumptions used for the credit balance, funding ratio and PPA Zone projections are the same as used throughout the report with the following exceptions.

Assumed return on fund assets	
<i>Current year projections</i>	7.25% for the first 10 years (1/1/2018-12/31/2027) 7.75% thereafter
<i>Prior year projections</i>	7.25% for the first 10 years (1/1/2017-12/31/2026) 7.75% thereafter
Future total hours worked	
<i>Current year projections</i>	450,000 for the plan year ending 2018 and thereafter
<i>Prior year projections</i>	450,000 for the plan year ending 2017 and thereafter
Contribution rate increases	
<i>Current year projections</i>	None
<i>Prior year projections</i>	25¢ credited effective June 1, 2017
Plan changes since prior year	None
Open Group Projections	
<i>Current year projections</i>	Stable population assumed with new entrants replacing active participants as they withdraw, retire or die. New entrants are based upon entry age of actual new entrants over the last 5 years.
<i>Prior year projections</i>	Stable population assumed with new entrants replacing active participants as they withdraw, retire or die. New entrants are based upon entry age of actual new entrants over the last 5 years.

ACTUARIAL METHODS

Funding method <i>ERISA Funding</i>	Traditional unit credit cost method, effective January 1, 2015.
<i>Funding period</i>	Individual entry age normal with costs spread as a level dollar amount over service
Population valued <i>Actives</i>	Participants in the plan who accrued a year of service during the preceding plan year and who had non-reciprocity hours during the preceding plan year
<i>Inactive vested</i>	Vested participants with no non-reciprocity hours during the preceding plan year or vested participants who had reciprocity hours during the preceding plan year
<i>Retirees</i>	Participants and beneficiaries in pay status as of the valuation date.
Asset valuation method <i>Actuarial value</i>	Smoothed market value with phase-in effective January 1, 1999. Each year's gain (or loss) is spread over a period of 5 years. The actuarial value is limited to not less than 80% and not more than 120% of the actual market value of assets in any plan year.
<i>Unfunded vested benefits</i>	For the presumptive method, actuarial value, as described above, is used
Pension Relief Act of 2010	<ul style="list-style-type: none"> • 10-year smoothing was elected with respect to the loss incurred during the plan year ended in 2008. • The 130% cap on actuarial value of assets was elected for the plan year beginning in 2009.
Effective date of amortization extension	January 1, 2010

Appendix C - Minimum Funding Amortization Bases
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation
Bases Shown: With Extension

Date Established	Source of Change in Unfunded Liability	Original Amount	Original Period	Remaining Period		1/1/2018 Outstanding Balance	1/1/2018 Amortization Payment
				Years	Months		
Charges							
1/1/1978	Initial Unfunded		45	5	0	228,297	52,716
1/1/1979	Amendment		45	6	0	144,919	28,874
1/1/1980	Amendment		45	7	0	124,232	21,956
1/1/1984	Amendment		35	1	0	23,085	23,085
1/1/1985	Amendment		35	2	0	36,501	18,929
1/1/1986	Amendment		35	3	0	10,070	3,610
1/1/1986	Assumption		35	3	0	98,351	35,259
1/1/1987	Amendment		35	4	0	238,404	66,433
1/1/1988	Amendment		35	5	0	106,248	24,536
1/1/1989	Amendment		35	6	0	105,064	20,932
1/1/1989	Method		34	5	0	107,294	24,777
1/1/1990	Amendment		35	7	0	487,156	86,100
1/1/1991	Assumption		35	8	0	307,517	49,192
1/1/1993	Amendment		35	10	0	312,033	42,672
1/1/1993	Assumption		35	10	0	121,598	16,630
1/1/1995	Assumption	535,520	35	12	0	307,243	37,349
1/1/1996	Assumption	1,210,310	35	13	0	739,244	85,614
1/1/1997	Amendment	318,428	35	14	0	205,572	22,808
1/1/1997	Assumption	83,931	35	14	0	54,181	6,011
1/1/1998	Amendment	892,619	35	15	0	605,486	64,651
1/1/1999	Amendment	807,784	35	16	0	572,696	59,090
1/1/1999	Assumption	2,846,312	35	16	0	2,017,899	208,208
1/1/1999	Experience Loss	177,892	20	1	0	10,000	10,000
1/1/2000	Assumption	763,910	35	17	0	563,491	56,379
1/1/2001	Amendment	1,524,278	35	18	0	1,165,264	113,399
1/1/2001	Assumption	55,139	35	18	0	42,146	4,102
1/1/2001	Experience Loss	4,740,024	20	3	0	910,050	326,250
1/1/2002	Assumptions	1,518,437	35	19	0	1,198,382	113,734
1/1/2002	Experience Loss	1,645,461	20	4	0	433,678	120,846
1/1/2003	Assumptions	299,355	35	20	0	243,169	22,559
1/1/2003	Experience Loss	7,932,235	20	5	0	2,655,466	613,183
1/1/2005	Experience Loss	1,612,524	20	7	0	760,660	134,437
1/1/2006	Experience Loss	2,125,905	20	8	0	1,140,044	182,372
1/1/2007	Experience Loss	1,832,215	20	9	0	1,095,228	161,026
1/1/2008	Assumptions	34,081	20	10	0	22,358	3,058

Appendix C - Minimum Funding Amortization Bases
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation
Bases Shown: With Extension

Date Established	Source of Change in Unfunded Liability	Original Amount	Original Period	Remaining Period		1/1/2018 Outstanding Balance	1/1/2018 Amortization Payment
				Years	Months		
1/1/2009	Amendment	146,878	20	11	0	104,466	13,416
1/1/2009	Experience Loss	7,556,829	20	11	0	5,374,662	690,262
1/1/2012	Experience Loss	1,912,754	15	9	0	1,389,144	204,238
1/1/2013	Experience Loss	2,106,787	15	10	0	1,644,965	224,956
1/1/2014	Experience Loss	2,056,465	15	11	0	1,709,764	219,583
1/1/2015	Assumptions	1,449,529	15	12	0	1,273,248	154,776
1/1/2015	Experience Loss	3,402,303	15	12	0	2,988,537	363,288
1/1/2016	Experience Loss	4,002,646	15	13	0	3,690,379	427,391
1/1/2017	Assumptions	236,918	15	14	0	228,021	25,297
1/1/2017	Experience Loss	3,415,873	15	14	0	3,287,599	364,737
1/1/2018	Assumptions	940,061	15	15	0	940,061	100,377
1/1/2018	Experience Loss	2,272,247	15	15	0	2,272,247	242,624
Total Charges:						42,096,119	5,891,722

Credits

1/1/2009	Combined Credits	17,613,296	14	5	0	8,462,401	1,954,075
1/1/2009	Method Relief	4,375,470	10	1	0	598,371	598,371
1/1/2010	Experience Gain	598,728	15	7	0	361,726	63,930
1/1/2011	Amendment	976,701	15	8	0	651,936	104,289
1/1/2011	Assumptions	197,776	15	8	0	132,010	21,118
1/1/2011	Experience Gain	602,507	15	8	0	402,161	64,334
1/1/2012	Assumptions	339,642	15	9	0	246,662	36,266
1/1/2015	Method	5,058,551	10	7	0	3,914,205	691,781
1/1/2016	Amendment	2,611,164	15	13	0	2,407,455	278,812
1/1/2016	Assumptions	4,940	15	13	0	4,556	527
1/1/2017	Amendment	2,009,662	15	14	0	1,934,195	214,586
Total Credits:						19,115,678	4,028,089

Appendix C - Minimum Funding Amortization Bases
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation
Bases Shown: With Extension

Date Established	Source of Change in Unfunded Liability	Original Amount	Original Period	Remaining Period		1/1/2018 Outstanding Balance	1/1/2018 Amortization Payment
				Years	Months		
Net Charges:						22,980,441	1,863,633
Less Credit Balance:						14,525,816	
Less Reconciliation Balance:						0	
Unfunded Actuarial Liability:						8,454,625	

Appendix C - Minimum Funding Amortization Bases
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation
Bases Shown: Without Extension

Date Established	Source of Change in Unfunded Liability	Original Amount	Original Period	Remaining Period		1/1/2018 Outstanding Balance	1/1/2018 Amortization Payment
				Years	Months		
Charges							
1/1/1979	Amendment		40	1	0	38,286	38,286
1/1/1980	Amendment		40	2	0	54,217	28,121
1/1/1989	Amendment		30	1	0	27,726	27,726
1/1/1990	Amendment		30	2	0	212,615	110,272
1/1/1991	Assumption		30	3	0	170,801	61,229
1/1/1993	Amendment		30	5	0	219,906	50,783
1/1/1993	Assumption		30	5	0	85,704	19,790
1/1/1995	Assumption	535,520	30	7	0	243,237	42,985
1/1/1996	Assumption	1,210,310	30	8	0	607,627	97,202
1/1/1997	Amendment	318,428	30	9	0	174,012	25,587
1/1/1997	Assumption	83,931	30	9	0	45,854	6,744
1/1/1998	Amendment	892,619	30	10	0	524,741	71,760
1/1/1999	Amendment	807,784	30	11	0	505,909	64,970
1/1/1999	Assumption	2,846,312	30	11	0	1,782,540	228,930
1/1/2000	Assumption	763,910	30	12	0	505,671	61,469
1/1/2001	Amendment	1,524,278	30	13	0	1,059,536	122,707
1/1/2001	Assumption	55,139	30	13	0	38,320	4,439
1/1/2002	Assumptions	1,518,437	30	14	0	1,101,804	122,237
1/1/2003	Assumptions	299,355	30	15	0	225,672	24,099
1/1/2005	Experience Loss	1,612,524	15	2	0	331,968	172,181
1/1/2006	Experience Loss	2,125,905	15	3	0	633,189	226,998
1/1/2007	Experience Loss	1,832,215	15	4	0	702,109	195,638
1/1/2008	Assumptions	34,081	15	5	0	15,760	3,639
1/1/2009	Amendment	146,878	15	6	0	78,724	15,683
1/1/2009	Experience Loss	7,556,829	15	6	0	4,049,939	806,896
1/1/2012	Experience Loss	1,912,754	15	9	0	1,389,144	204,238
1/1/2013	Experience Loss	2,106,787	15	10	0	1,644,965	224,956
1/1/2014	Experience Loss	2,056,465	15	11	0	1,709,764	219,583
1/1/2015	Assumptions	1,449,529	15	12	0	1,273,248	154,776
1/1/2015	Experience Loss	3,402,303	15	12	0	2,988,537	363,288
1/1/2016	Experience Loss	4,002,646	15	13	0	3,690,379	427,391
1/1/2017	Assumptions	236,918	15	14	0	228,021	25,297
1/1/2017	Experience Loss	3,415,873	15	14	0	3,287,599	364,737
1/1/2018	Assumptions	940,061	15	15	0	940,061	100,377
1/1/2018	Experience Loss	2,272,246	15	15	0	2,272,246	242,624

Appendix C - Minimum Funding Amortization Bases
Outstate Michigan Trowel Trades Pension Plan
January 1, 2018 Actuarial Valuation
Bases Shown: Without Extension

Date Established	Source of Change in Unfunded Liability	Original Amount	Original Period	Remaining Period		1/1/2018 Outstanding Balance	1/1/2018 Amortization Payment
				Years	Months		
				Total Charges:		32,859,831	4,957,638
Credits							
1/1/2009	Combined Credits	17,613,296	14	5	0	8,462,401	1,954,075
1/1/2009	Method Relief	4,375,470	10	1	0	598,371	598,371
1/1/2010	Experience Gain	598,728	15	7	0	361,726	63,930
1/1/2011	Amendment	976,701	15	8	0	651,936	104,289
1/1/2011	Assumptions	197,776	15	8	0	132,010	21,118
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1/1/2015	Method	5,058,551	10	7	0	3,914,205	691,781
1/1/2016	Amendment	2,611,164	15	13	0	2,407,455	278,812
1/1/2016	Assumptions	4,940	15	13	0	4,556	527
1/1/2017	Amendment	2,009,662	15	14	0	1,934,195	214,586
				Total Credits:		19,115,678	4,028,089
				Net Charges:		13,744,153	929,549
				Less Credit Balance:		5,289,528	
				Less Reconciliation Balance:		0	
				Unfunded Actuarial Liability:		8,454,625	

RULES FOR ENDANGERED AND CRITICAL STATUS

Background

The Pension Protection Act of 2006 (“PPA”), enacted in August 2006, established special rules for plans in “Endangered” or “Critical” status. These rules become effective with the plan year beginning in 2008 and were originally scheduled to “sunset” in 2015.

The Multiemployer Pension Reform Act of 2014 (“MPRA”), enacted in December 2014, made the provisions contained in the PPA permanent. MPRA also made numerous changes to the PPA rules, including adding a new status for deeply troubled plans: Critical and Declining.

Informally, Critical Status is often referred to as “red zone” and Endangered Status as “yellow zone.” A plan that is neither Critical nor Endangered is said to be “green zone.”

Criteria for Endangered and Critical

The table below summarizes the criteria for these categorizations. Projected deficiencies are calculated as of the last day of each plan year and are based on contribution rates codified in bargaining agreements and, if applicable, wage allocations.

<i>Critical Status (“Red Zone”)</i>	<i>Endangered Status (“Yellow Zone”)</i>
GETTING IN:	
<p>Plan is Critical if it is described in one or more of the following:</p> <ul style="list-style-type: none"> • Funded percentage is less than 65%, <u>and</u>, inability to pay nonforfeitable benefits and expenses for next 7 years, or • Projected funding deficiency (<u>not</u> recognizing extensions) in the current year or next 3 years (next 4 years if funded at less than 65%), or • (1) Contributions are less than current year costs (i.e. “normal cost”) plus interest on any unfunded past liabilities, <u>and</u>, (2) value of vested benefits for non-actives is greater than for actives, <u>and</u>, (3) projected funding deficiency (<u>not</u> recognizing extensions) in the current year or next 4 years, or • Inability to pay all benefits and expenses for next 5 years. 	<p>Plan is Endangered if it is <u>not</u> Critical <u>and</u> it is described in one of the following:</p> <ul style="list-style-type: none"> • Funded percentage is less than 80%, or • Projected funding deficiency in the current year or next 6 years. <p>A non-critical plan that meets both of the preceding criteria is considered “<u>Seriously Endangered</u>”</p> <p>A plan that meets one of the two Endangered Status criteria above, but was not in Critical or Endangered for the preceding year, will remain not Critical or Endangered (i.e. it will be in “green zone”) provided it is not projected to meet either of the two Endangered Status criteria as of the end of the 10th plan year following the certification year</p>

RULES FOR ENDANGERED AND CRITICAL STATUS (CONT.)

<i>Critical Status (“Red Zone”)</i>	<i>Endangered Status (“Yellow Zone”)</i>
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<i>GETTING IN (cont.):</i>	
<p>A plan with a 5-year amortization extension under IRC Section 431(d) that previously emerged from Critical Status in PYB 2015 or later will re-enter Critical Status <u>only</u> if it is described in one of the following:</p> <ul style="list-style-type: none"> • Projected funding deficiency in the current year or next 9 years (<u>including</u> amortization extensions), or, • Projected insolvency within the next 30 years 	

<i>GETTING OUT:</i>	
<p>Plan emerges from Critical Status when it meets all of the following:</p> <ul style="list-style-type: none"> • No longer meets any of the Critical Status tests, <u>and</u>, • No projected funding deficiencies in the current year or next 9 years (<u>including</u> amortization extensions), <u>and</u>, • No projected insolvencies in the next 30 years <p>A plan with a 5-year amortization extension under IRC Section 431(d) emerges from Critical Status when it meets all the following:</p> <ul style="list-style-type: none"> • No projected funding deficiencies in the current year or next 9 years (<u>including</u> amortization extensions), <u>and</u>, • No projected insolvencies in the next 30 years 	<p>Plan emerges from Endangered Status when it no longer meets the requirements to be classified as Endangered or when it enters Critical Status</p>

RULES FOR ENDANGERED AND CRITICAL STATUS (CONT.)

Restrictions for Endangered and Critical Plans

The Trustees of a plan that is in Endangered or Critical status face a number of restrictions in plan improvements that can be adopted and bargaining agreements that can be accepted.

<i>Period</i>	<i>Endangered/Critical Restrictions</i>
Date of first certification through adoption of funding improvement/rehabilitation plan (“plan adoption period”)	<ul style="list-style-type: none"> • No reduction in level of contributions for any participants • No suspension of contributions • No exclusion of new or younger employees • No amendment that increases the <u>liabilities</u> of the plan by reason of any increase in benefits, change in accrual, or change in vesting unless required by law
After adoption of a funding improvement/rehabilitation plan until end of funding improvement/rehabilitation period	<ul style="list-style-type: none"> • Cannot be amended so as to be inconsistent with funding improvement/rehabilitation plan • No amendment that increases benefits, including future accruals, unless actuary certifies as being paid for with contributions not contemplated in funding improvement/rehabilitation plan and still expected to meet applicable benchmark after considering the amendment

Additionally, Critical status plans cannot pay benefits greater than the single life annuity once the initial red zone notice is sent unless the benefit is eligible for automatic cash-out.

Critical and Declining Plans

Beginning in 2015, plans that are in Critical Status and are projecting insolvency within the next 15 years (20 years in some circumstances) are certified by the actuary as being in “Critical and Declining.” These plans may have access to new tools that will allow them to reduce many previously-untouchable benefits, including benefits for participants in pay status. However, these expanded benefit reductions require government approval, must not be rejected by a majority of all participants through a vote, and are subject to a number of other requirements and limitations.

Selected Other MPRA Changes (effective with 2015 plan years)

- Plans projected to be Critical within the next 5 years can elect to be in Critical Status immediately
- New contribution rate increases required by a funding improvement or rehabilitation plan are not considered in calculating an employer’s withdrawal liability or payment schedule
- If, upon the expiration of a collective bargaining agreement under a funding improvement or rehabilitation plan, bargaining parties do not adopt a new agreement consistent with an updated schedule, the Trustees must implement the update to the schedule previously adopted.

GLOSSARY OF COMMON PENSION TERMS

Benefits

Accrued Benefit: A benefit that an employee has earned (or accrued) through past participation in the plan. It is the amount payable at normal retirement age.

Why it matters: Under the law, Accrued Benefits generally may not be reduced by plan amendment (note that special rules allowing for limited reduction and/or suspension of accrued benefits apply to critical status, critical and declining status and insolvent plans).

Actuarial Equivalence: Given a set of actuarial assumptions, when two different sets of payment scenarios have an equal present value.

Early Retirement Reduction Factor: A retirement benefit that begins before normal retirement age may be reduced. The plan document defines the amount of the reduction by formula or a table of factors. This reduction may or may not be actuarially equivalent, but its present value can be no less than actuarially equivalent to the benefit payable at normal retirement age.

Benefit Crediting (Accrual) Rate: A general reference to the calculation of the amount of monthly retirement benefit earned per dollar contributed or per year or hour worked.

Assets

Market Value of Assets: This is the fair value of all assets in the fund on an accrued, not cash basis. The market value of assets matches the value in the plan audit.

Actuarial Value of Assets: The amount of assets recognized for actuarial valuation purposes. Recent changes in market value may be partially recognized (there are variations allowed on the exact recognition). Generally the actuarial value is limited to not be less than 80% or more than 120% of the market value.

Why it matters: Many funding calculations use this “smoothed” asset value method to lessen the impact of volatility in the market value of plan assets.

Assumed Rate of Return: Long term assumption of the rate of return on assets based upon the diversification mix of invested assets.

Why it matters: This assumption is used in calculating the present values discussed in the Liabilities section below. The Assumed Rate of Return has an inverse relationship with plan liabilities. In other words, a lower Assumed Rate of Return increases liabilities, while a higher Assumed Rate of Return decreases plan Liabilities.

GLOSSARY OF COMMON PENSION TERMS (CONT.)

Liabilities

Present Value of Accrued Benefits: The discounted value of benefit payments due in the future but based only on the current Accrued Benefits of each participant. The value is based on actuarial assumptions including an assumed rate of investment return.

Why it matters: This liability is one of the primary factors in determining a plan's annual PPA funded status (see Funded Ratio).

Present Value of Vested Benefits: The discounted value of Accrued Benefits that are considered vested (non-forfeitable). Benefits that are not vested include those of participants who have not satisfied the plan vesting requirement (usually five years of service). In addition under the law some death and temporary disability benefits are also considered non-vested regardless of service because they are not considered protected benefits.

Why it matters: This liability is the primary driver of a plan's Employer Withdrawal Liability.

Actuarial (Accrued) Liability: For inactive members this is the same as the Present Value of Accrued Benefits above. For active members this depends on the cost method selected by the actuary. Under the accrued benefit or traditional unit credit cost method this is also the same as the Present Value of Accrued Benefits. Under other cost methods (including most commonly entry age normal) this represents an alternate allocation of projected benefit cost over the working lifetime of active members. Under the entry age normal cost method, the active Actuarial Liability is larger than the Present Value of Accrued Benefits.

Unfunded Actuarial Liability: The Actuarial Liability less the Actuarial Value of Assets.

Current Liability: This is similar to the Present Value of Accrued Benefits, but uses a statutory, significantly lower, interest rate (equivalent to an expected rate of return on a bond only-type portfolio) and statutory mortality tables. The lower interest rate means that Current Liability tends to be significantly higher than the Present Value of Accrued Benefits. This number has very little impact on multiemployer plans.

Normal Cost: The present value of all benefits that are expected to accrue or to be earned under the plan during the plan year. The way in which a benefit is considered to be earned varies with the actuarial cost method.

Risk: The potential of future deviation of actual results from expectations derived from actuarial assumptions.

GLOSSARY OF COMMON PENSION TERMS (CONT.)

Funding

Funded Ratio (Funded Percentage): Actuarial Value of Assets divided by the Present Value of Accrued Benefits. This is one of two key measures used to determine a plan's annual PPA funded status. This may also be referred to as PPA Funded Ratio. This must be greater than 80% to avoid endangered status.

Credit Balance: The accumulated excess of actual contributions over legally required minimum contributions as maintained in the funding standard account. The funding standard account is maintained by the actuary in the valuation process and reported annually in schedule MB to the Form 5500 filing. A negative credit balance is known as an accumulated funding deficiency. Prior to PPA, an accumulated funding deficiency caused an immediate excise tax (waiver under PPA if certain conditions are met). After PPA, a current or projected funding deficiency is one of the key measures used in determining the annual PPA status. It can eventually trigger an excise tax levied on contributing employers.

Withdrawal Liability

Unfunded Vested Benefits (UVB): Present Value of Vested Benefits less the value of plan assets determined on either an actuarial or market value basis. The selection of asset measurement is part of the withdrawal liability method of the Plan.

Employer Withdrawal Liability (EWL): An employer that withdraws from a multiemployer plan is liable for its proportionate share of Unfunded Vested Benefits, determined as of the date of withdrawal.

Why it matters: If a contributing employer leaves the plan while it has Unfunded Vested Benefits liability, that employer's allocated share of Employer Withdrawal Liability is either assessed, as applicable, or reallocated among the plan's remaining active employers if the presumptive method is used. A construction employer withdrawing from a construction industry plan will not be assessed unless they continue performing work within the jurisdiction of the CBA or restart such work within a period of 5 years. Small amounts (under \$150,000) are generally reduced or eliminated pursuant to the "de minimis rule."