

Form 5500-SF Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Short Form Annual Return/Report of Small Employee Benefit Plan This form is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA), and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). ▶ Complete all entries in accordance with the instructions to the Form 5500-SF.	OMB Nos. 1210-0110 1210-0089 2017 This Form is Open to Public Inspection
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Part I Annual Report Identification Information		
For calendar plan year 2017 or fiscal plan year beginning <u>01/01/2017</u> and ending <u>12/31/2017</u>		
A This return/report is for:	☒ a single-employer plan	☐ a multiple-employer plan (not multiemployer) (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)
	☐ a one-participant plan	☐ a foreign plan
B This return/report is	☐ the first return/report	☐ the final return/report
	☐ an amended return/report	☐ a short plan year return/report (less than 12 months)
C Check box if filing under:	☒ Form 5558	☐ automatic extension
	☐ special extension (enter description)	☐ DFVC program

Part II Basic Plan Information —enter all requested information			
1a Name of plan <u>ZIRCOA, INC. SALARIED EMPLOYEES PENSION PLAN</u>	1b Three-digit plan number (PN) ▶	<u>002</u>	
	1c Effective date of plan	<u>03/01/1988</u>	
2a Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) <u>ZIRCOA, INC.</u> <u>31501 SOLON ROAD</u> <u>SOLON, OH 44139-3526</u>	2b Employer Identification Number (EIN) <u>34-1570175</u>		
	2c Sponsor's telephone number	<u>440-248-0500</u>	
	2d Business code (see instructions)	<u>327100</u>	
3a Plan administrator's name and address ☒ Same as Plan Sponsor.	3b Administrator's EIN		
	3c Administrator's telephone number		
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report. a Sponsor's name c Plan Name	4b EIN		
	4d PN		
5a Total number of participants at the beginning of the plan year	5a	<u>75</u>	
b Total number of participants at the end of the plan year.....	5b	<u>75</u>	
c Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item).....	5c		
d(1) Total number of active participants at the beginning of the plan year.....	5d(1)	<u>17</u>	
d(2) Total number of active participants at the end of the plan year	5d(2)	<u>17</u>	
e Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	5e	<u>0</u>	
Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established. Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including, if applicable, a Schedule SB or Schedule MB completed and signed by an enrolled actuary, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.			
SIGN HERE	Filed with authorized/valid electronic signature.	10/09/2018	RONNE PROCH
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor

- 6a** Were all of the plan's assets during the plan year invested in eligible assets? (See instructions.) ☒ Yes ☐ No
- b** Are you claiming a waiver of the annual examination and report of an independent qualified public accountant (IQPA) under 29 CFR 2520.104-46? (See instructions on waiver eligibility and conditions.) ☒ Yes ☐ No
- If you answered "No" to either line 6a or line 6b, the plan cannot use Form 5500-SF and must instead use Form 5500.**
- c** If the plan is a defined benefit plan, is it covered under the PBGC insurance program (see ERISA section 4021)? ☒ Yes ☐ No ☐ Not determined
- If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 4078049. (See instructions.)

Part III Financial Information

7 Plan Assets and Liabilities		(a) Beginning of Year	(b) End of Year
a Total plan assets	7a	9900654	11500758
b Total plan liabilities	7b		
c Net plan assets (subtract line 7b from line 7a)	7c	9900654	11500758
8 Income, Expenses, and Transfers for this Plan Year		(a) Amount	(b) Total
a Contributions received or receivable from:			
(1) Employers	8a(1)	1164000	
(2) Participants	8a(2)		
(3) Others (including rollovers)	8a(3)		
b Other income (loss)	8b	988002	
c Total income (add lines 8a(1), 8a(2), 8a(3), and 8b)	8c		2152002
d Benefits paid (including direct rollovers and insurance premiums to provide benefits)	8d	538854	
e Certain deemed and/or corrective distributions (see instructions)	8e		
f Administrative service providers (salaries, fees, commissions)	8f		
g Other expenses	8g	13044	
h Total expenses (add lines 8d, 8e, 8f, and 8g)	8h		551898
i Net income (loss) (subtract line 8h from line 8c)	8i		1600104
j Transfers to (from) the plan (see instructions)	8j	0	

Part IV Plan Characteristics

- 9a** If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristic Codes in the instructions:
1A 3H
- b** If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristic Codes in the instructions:

Part V Compliance Questions

10 During the plan year:		Yes	No	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? (See instructions and DOL's Voluntary Fiduciary Correction Program)	10a		☒	
b Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 10a.)	10b		☒	
c Was the plan covered by a fidelity bond?	10c	☒		500000
d Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	10d		☒	
e Were any fees or commissions paid to any brokers, agents, or other persons by an insurance carrier, insurance service, or other organization that provides some or all of the benefits under the plan? (See instructions.)	10e		☒	
f Has the plan failed to provide any benefit when due under the plan?	10f		☒	
g Did the plan have any participant loans? (If "Yes," enter amount as of year-end.)	10g		☒	
h If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	10h			
i If 10h was answered "Yes," check the box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3	10i			

Part VI Pension Funding Compliance

11 Is this a defined benefit plan subject to minimum funding requirements? (If "Yes," see instructions and complete Schedule SB (Form 5500) and line 11a below) ☒ Yes ☐ No

11a Enter the unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 **11a** 0

12 Is this a defined contribution plan subject to the minimum funding requirements of section 412 of the Code or section 302 of ERISA? ☐ Yes ☒ No
(If "Yes," complete line 12a or lines 12b, 12c, 12d, and 12e below, as applicable.)

a If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions, and enter the date of the letter ruling granting the waiver. Month Day Year

If you completed line 12a, complete lines 3, 9, and 10 of Schedule MB (Form 5500), and skip to line 13.

b Enter the minimum required contribution for this plan year **12b**

c Enter the amount contributed by the employer to the plan for this plan year **12c**

d Subtract the amount in line 12c from the amount in line 12b. Enter the result (enter a minus sign to the left of a negative amount) **12d**

e Will the minimum funding amount reported on line 12d be met by the funding deadline? ☐ Yes ☐ No ☐ N/A

Part VII Plan Terminations and Transfers of Assets

13a Has a resolution to terminate the plan been adopted in any plan year? ☐ Yes ☒ No

If "Yes," enter the amount of any plan assets that reverted to the employer this year **13a**

b Were all the plan assets distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC? ☐ Yes ☒ No

c If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

13c(1) Name of plan(s):	13c(2) EIN(s)	13c(3) PN(s)

SCHEDULE SB (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500 or 5500-SF.	OMB No. 1210-0110 2017 This Form is Open to Public Inspection
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For calendar plan year 2017 or fiscal plan year beginning <u>01/01/2017</u> and ending <u>12/31/2017</u>	
▶ Round off amounts to nearest dollar.	
▶ Caution: A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.	
A Name of plan <u>ZIRCOA, INC. SALARIED EMPLOYEES PENSION PLAN</u>	B Three-digit plan number (PN) ▶ <u>002</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>ZIRCOA, INC.</u>	D Employer Identification Number (EIN) <u>34-1570175</u>
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☒ 100 or fewer ☐ 101-500 ☐ More than 500

Part I	Basic Information
1 Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2017</u>	
2 Assets:	
a Market value	2a <u>9900654</u>
b Actuarial value	2b <u>10110006</u>
3 Funding target/participant count breakdown	(1) Number of participants (2) Vested Funding Target (3) Total Funding Target
a For retired participants and beneficiaries receiving payment	<u>37</u> <u>5269533</u> <u>5269533</u>
b For terminated vested participants	<u>21</u> <u>906528</u> <u>906528</u>
c For active participants	<u>17</u> <u>3714133</u> <u>3719944</u>
d Total	<u>75</u> <u>9890194</u> <u>9896005</u>
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... ☐	
a Funding target disregarding prescribed at-risk assumptions	4a
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b
5 Effective interest rate	5 <u>5.86 %</u>
6 Target normal cost	6 <u>18512</u>

Statement by Enrolled Actuary
To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE	
Signature of actuary <u>JAMES W. BUDAI, FSA, EA, MAAA</u>	<u>10/09/2018</u> Date
Type or print name of actuary <u>CBIZ RETIREMENT PLAN SERVICES</u>	<u>17-07634</u> Most recent enrollment number
Firm name <u>5450 FRANTZ ROAD SUITE 300 DUBLIN, OH 43016</u>	<u>614-793-2577</u> Telephone number (including area code)
Address of the firm	

Part II Beginning of Year Carryover and Prefunding Balances

	(a) Carryover balance	(b) Prefunding balance
7 Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	62464
8 Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9 Amount remaining (line 7 minus line 8)	0	62464
10 Interest on line 9 using prior year's actual return of <u>7.19</u> %	0	4491
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year)		462247
b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>6.06</u> %		28012
b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
c Total available at beginning of current plan year to add to prefunding balance		490259
d Portion of (c) to be added to prefunding balance		
12 Other reductions in balances due to elections or deemed elections		
13 Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	66955

Part III Funding Percentages

14 Funding target attainment percentage	14	101.48%
15 Adjusted funding target attainment percentage	15	102.16%
16 Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	101.72%
17 If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls**18** Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
01/27/2017	41000	0			
02/27/2017	41000	0			
03/30/2017	41000	0			
03/31/2017	41000	0			
12/06/2017	1000000	0			
Totals ▶			18(b)	1164000	18(c) 0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

a Contributions allocated toward unpaid minimum required contributions from prior years.	19a	0
b Contributions made to avoid restrictions adjusted to valuation date	19b	0
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	1110831

20 Quarterly contributions and liquidity shortfalls:

- a** Did the plan have a "funding shortfall" for the prior year? ☐ Yes ☒ No
- b** If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☐ Yes ☐ No
- c** If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity shortfall as of end of quarter of this plan year			
(1) 1st	(2) 2nd	(3) 3rd	(4) 4th

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:				
a Segment rates:	1st segment: 4.16 %	2nd segment: 5.72 %	3rd segment: 6.48 %	☐ N/A, full yield curve used
b Applicable month (enter code)				21b 0
22 Weighted average retirement age				22 63
23 Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute				

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment	☐ Yes ☒ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment	☐ Yes ☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment	☒ Yes ☐ No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	27

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	28	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	29	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):			
a Target normal cost (line 6)	31a	18512	
b Excess assets, if applicable, but not greater than line 31a	31b	18512	
32 Amortization installments:	Outstanding Balance	Installment	
a Net shortfall amortization installment	0	0	
b Waiver amortization installment		0	
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33		
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)	34	0	
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	0	0
36 Additional cash requirement (line 34 minus line 35)	36	0	
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	37	1110831	
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36)	38a	1110831	
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b		
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	39	0	
40 Unpaid minimum required contributions for all years	40	0	

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:			
a Schedule elected	☐ 2 plus 7 years ☐ 15 years		
b Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011		
42 Amount of acceleration adjustment	42		
43 Excess installment acceleration amount to be carried over to future plan years	43		

SCHEDULE SB ATTACHMENT

Line 26 - Schedule of Active Participant Data

Plan Name: Zircoa, Inc. Salaried Employees' Pension Plan

EIN/PN: 34-1570175/002

Valuation Date: January 1, 2017

Compensation is shown below only for cells where the counts are greater than 20.

Att. Age:	Years of Credited Service													
	Under					5 to	10 to	15 to	20 to	25 to	30 to	35 to	40 &	Total
	1	1	2	3	4	9	14	19	24	29	34	39	Up	
Under	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25 to	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30 to	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35 to	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40 to	-	-	1	-	-	-	-	-	-	-	-	-	-	1
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45 to	-	-	-	-	1	-	-	1	-	-	-	-	-	2
49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50 to	-	-	-	1	1	-	-	-	-	-	-	-	-	2
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55 to	-	-	-	-	-	1	1	-	1	2	2	-	-	7
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60 to	-	-	-	-	-	-	1	-	1	2	-	-	-	4
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65 to	-	-	-	-	-	-	-	-	-	1	-	-	-	1
69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 &	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Up	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	1	1	2	1	2	1	2	5	2	-	-	17
	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Section XII

ACTUARIAL ASSUMPTIONS

Funding Discount Rates IRS-Prescribed Three-Segment Rates, for the month that includes the valuation date (Jan).

	24-Month Segment Rates	
	Unadjusted	Limited to 25 Year Corridor
Segment I:	1.57%	4.16%
Segment II:	3.77%	5.72%
Segment III:	4.73%	6.48%

The "Limited to 25 Year Corridor" rates are adjusted by the applicable maximum and applicable minimum percentages of the 25-year average segment rates, as set forth in the Highway and Transportation Funding Act of 2014 ('HATFA-14') for use in Minimum Required Contribution calculations. The IRS Maximum Deductible Limit Calculations use the rates from the "Unadjusted" column above.

Effective Interest Rate The Effective Interest Rate (EIR) for the 2017 Plan Year was 5.86%. For the prior Plan year, the EIR was 6.06%.

The EIR is the single rate of interest which, if used to determine the Funding Target, would equal the Funding Target determined using the plan sponsor's above elected discount rates. The EIR is used to discount contributions for minimum funding requirements and to accumulate excess contributions to the end of the year.

PBGC Variable Premium Discount Rates The segment rates used to calculate the PBGC vested liabilities are as follows:

	<u>General Rule</u>	<u>Alternative Rule</u>
	(month prior to valuation)	(Unadjusted funding rates)
Segment I:	2.04%	1.57%
Segment II:	4.03%	3.77%
Segment III:	4.82%	4.73%

Healthy Participant Mortality IRS Section 1.430(h)(3)-1 prescribed separate annuitant and non-annuitant mortality tables for the current Plan Year. These tables are based on the RP-2000 mortality tables projected with mortality improvements to the valuation year, plus 7 years for annuitants and plus 15 years for non-annuitants, using Projection Scale AA.

Section XII

ACTUARIAL ASSUMPTIONS (cont)

Disabled Participant Mortality

Not applicable. There are no disabled participants and no Disability Incidence is assumed.

Expected Return on Assets

The expected return on assets (EROA) used in the calculation of the Actuarial Value of Assets (AVA) is the lesser of a) or b), below.

a) The plan sponsor's expected long-term rate of return on assets based on actual trust allocations; or

b) The third segment rate in the IRS-Prescribed Three-Segment Rates the plan sponsor chose for minimum funding purposes.

The results are as follows:

Plan Year	(a)	(b)	EROA
2016	7.50%	6.65%	6.65%
2015	7.50%	6.81%	6.81%

Expenses

Administrative expenses were assumed to equal actual expenses in the prior year. Under this assumption, expenses of \$18,512 were included in the Normal Cost.

Salary Scale

None. Plan accruals are frozen.

Inflation

3.00%

Taxable Wage Base Increases

None.

Section XII

ACTUARIAL ASSUMPTIONS (cont)

Withdrawal Rates

Rates are based on age. Below is a table of representative rates.

Age	Rates
20	17.50%
25	17.50%
30	8.50%
35	8.50%
40	5.80%
45	4.00%
50	1.00%
55	1.00%
60	1.00%

Benefit Commencement Age

Future deferred vested participants are assumed to commence benefits at the Plan's Normal Retirement Age, or valuation age, if later.

Disability Incidence

None assumed.

Retirement Rates

Rates are based on age. Below is a table of representative rates.

Age	Rates
55	1.00%
56	1.00%
57	1.00%
58	5.00%
59	5.00%
60	5.00%
61	5.00%
62	30.00%
63	30.00%
64	30.00%
65	100.00%

Benefit Commencement Age

Active retirements are assumed to commence benefits at these ages according to the rates shown.

Spousal Assumptions

85% of females and 65% of males are assumed to be married. Females are assumed to be 3 years younger than males.

Section XII

ACTUARIAL ASSUMPTIONS (cont)

Benefit Commencement Age	Active retirements - Based on retirement rates Current deferred vested - Age 65, or valuation age, if later Future deaths, Age 65, or valuation age, if later Future deferred vested - Age 65, or valuation age, if later Future disabilities - N/A
Form of Payment	Active retirements - Single Life Annuity with 6 Years Certain Current deferred vested - Single Life Annuity with 6 Years Certain Future deaths - 50% Joint & Survivor Annuity Future deferred vested - Single Life Annuity with 6 Years Certain Future disabilities - N/A
Changes in non-required assumptions since the prior valuation	None.

Section XIII

ACTUARIAL METHODS

Minimum Funding Cost Method

The actuarial cost method used to determine the liabilities for minimum funding calculations is the Traditional Unit Credit method. The objective under this method is to fund each participant's benefits under the plan as they accrue. Under this cost method, the actuarial accrued liability is the sum of the individual accrued liabilities for all participants and the normal cost is the sum of the individual normal costs for each participant. The individual accrued liability for a participant is the present value of the accrued benefit as of the valuation date taking into account service and/or pay as of the valuation date. The individual normal cost for a participant is the present value of the benefit expected to accrue in the plan year being valued.

If a plan is frozen, there is no normal cost attributable to benefit accruals.

Asset Method

We used financial data submitted by the trustee as of the valuation date without further audit. This information was not be verified by a plan's actuary. We have reviewed the information for internal consistency, and we have no reason to doubt is substantial accuracy.

The Actuarial Value of Assets is determined by averaging the market value of assets, plus discounted receivable contributions, over the current and prior two years using three annual determination dates, adjusted for contributions, benefit payments, administrative expenses, and expected earnings. The resulting value is held to a minimum of 90% and a maximum of 110% of the fair market value. This method is in accordance with IRS Notice 2009-22.

Changes in methods since the prior valuation

None.

**SCHEDULE SB
(Form 5500)**Department of the Treasury
Internal Revenue ServiceDepartment of Labor
Employee Benefits Security Administration
Pension Benefit Guaranty Corporation**Single-Employer Defined Benefit Plan
Actuarial Information**

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500 or 5500-SF.**

OMB No. 1210-0110

2017**This Form is Open to Public
Inspection**

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

▶ **Round off amounts to nearest dollar.**▶ **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.**A Name of plan**

ZIRCOA, INC. SALARIED EMPLOYEES PENSION PLAN

B Three-digit

plan number (PN) ▶

002

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF

ZIRCOA, INC.

D Employer Identification Number (EIN)

34-1570175

E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B**F Prior year plan size:** ☒ 100 or fewer ☐ 101-500 ☐ More than 500**Part I Basic Information****1** Enter the valuation date: Month 01 Day 01 Year 2017**2 Assets:****a** Market value..... **2a** 9,900,654**b** Actuarial value..... **2b** 10,110,006**3 Funding target/participant count breakdown****a** For retired participants and beneficiaries receiving payment..... (1) Number of participants 37 (2) Vested Funding Target 5,269,533 (3) Total Funding Target 5,269,533**b** For terminated vested participants..... 21 906,528 906,528**c** For active participants..... 17 3,714,133 3,719,944**d** Total..... 75 9,890,194 9,896,005**4 If the plan is in at-risk status, check the box and complete lines (a) and (b).....** ☐**a** Funding target disregarding prescribed at-risk assumptions..... **4a****b** Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor..... **4b****5** Effective interest rate..... **5** 5.86%**6** Target normal cost..... **6** 18,512**Statement by Enrolled Actuary**

To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

**SIGN
HERE**

James W. Budai

Signature of actuary

JAMES W. BUDAI, FSA, EA, MAAA

Type or print name of actuary

CBIZ RETIREMENT PLAN SERVICES

Firm name

5450 FRANTZ ROAD
SUITE 300
DUBLIN

OH 43016

Address of the firm

10/09/2018

Date

1707634

Most recent enrollment number

614-793-2577

Telephone number (including area code)

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

For Paperwork Reduction Act Notice, see the Instructions for Form 5500 or 5500-SF.

Schedule SB (Form 5500) 2017

	(a) Carryover balance	(b) Prefunding balance
7 Balance at beginning of prior year after applicable adjustments (line 13 from prior year).....	0	62,464
8 Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9 Amount remaining (line 7 minus line 8).....	0	62,464
10 Interest on line 9 using prior year's actual return of <u>7.19%</u>	0	4,491
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year).....		462,247
b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>6.06%</u>		
b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return.....		28,012
c Total available at beginning of current plan year to add to prefunding balance.....		0
d Portion of (c) to be added to prefunding balance.....		490,259
12 Other reductions in balances due to elections or deemed elections		
13 Balance at beginning of current year (line 9 + line 10 + line 11d – line 12).....	0	66,955

14	Funding target attainment percentage	14	101.48%
15	Adjusted funding target attainment percentage	15	102.16%
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	101.72%
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

18 Contributions made to the plan for the plan year by employer(s) and employees:						
(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	
01/27/2017	41,000	0				
02/27/2017	41,000	0				
03/30/2017	41,000	0				
03/31/2017	41,000	0				
12/06/2017	1,000,000	0				
			Totals ►	18(b)	1,164,000	18(c) 0

a	Contributions allocated toward unpaid minimum required contributions from prior years.....	19a	0
b	Contributions made to avoid restrictions adjusted to valuation date	19b	0
c	Contributions allocated toward minimum required contribution for current year adjusted to valuation date.....	19c	1,110,831

C If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity Shortfall as of end of quarter of this plan year			
(1) 1st	(2) 2nd	(3) 3rd	(4) 4th

Part V Assumptions Used to Determine Funding Target and Target Normal Cost**21** Discount rate:**a** Segment rates:1st segment:
4.16 %2nd segment:
5.72 %3rd segment:
6.48 %☐ N/A, full yield curve used**b** Applicable month (enter code).....**21b**

0

22 Weighted average retirement age**22**

63

23 Mortality table(s) (see instructions)☐

Prescribed - combined

☒

Prescribed - separate

☐

Substitute

Part VI Miscellaneous Items**24** Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment☐

Yes

☒

No

25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment☐

Yes

☒

No

26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment☒

Yes

☐

No

27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment**27****Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years****28** Unpaid minimum required contributions for all prior years **28** 0**29** Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a) **29** 0**30** Remaining amount of unpaid minimum required contributions (line 28 minus line 29) **30** 0**Part VIII Minimum Required Contribution For Current Year****31** Target normal cost and excess assets (see instructions):**a** Target normal cost (line 6) **31a** 18,512**b** Excess assets, if applicable, but not greater than line 31a **31b** 18,512**32** Amortization installments:

Outstanding Balance

Installment

a Net shortfall amortization installment 0 0**b** Waiver amortization installment 0**33** If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount **33****34** Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33) **34** 0

Carryover balance

Prefunding balance

Total balance

35 Balances elected for use to offset funding requirement 0 0 0**36** Additional cash requirement (line 34 minus line 35) **36** 0**37** Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c) **37** 1,110,831**38** Present value of excess contributions for current year (see instructions)**a** Total (excess, if any, of line 37 over line 36) **38a** 1,110,831**b** Portion included in line 38a attributable to use of prefunding and funding standard carryover balances **38b****39** Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37) **39** 0**40** Unpaid minimum required contributions for all years **40** 0**Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)****41** If an election was made to use PRA 2010 funding relief for this plan:**a** Schedule elected ☐ 2 plus 7 years ☐ 15 years**b** Eligible plan year(s) for which the election in line 41a was made ☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011**42** Amount of acceleration adjustment **42****43** Excess installment acceleration amount to be carried over to future plan years **43**

SCHEDULE SB ATTACHMENT

Line 19 - Discounted Employer Contributions

Plan Name: Zircoa, Inc. Salaried Employees' Pension Plan
 EIN/PN: 34-1570175/002
 Valuation Date: January 1, 2017

Total Contributed: \$1,164,000.00 Total Discounted to Valuation Date: \$1,110,831.00

		Effective		Penalty		Additional	Present
Date	Amount	Plan Year Beginning	Rate of Interest	Amount Discounted	Rate of Interest	Amount Discounted	Value on Date of Valuation
01/27/2017	41,000	01/2017	5.86%	166			40,834
02/27/2017	41,000	01/2017	5.86%	363			40,637
03/30/2017	41,000	01/2017	5.86%	559			40,441
03/31/2017	41,000	01/2017	5.86%	565			40,435
12/06/2017	1,000,000	01/2017	5.86%	51,516			948,484

Section XIV

SUMMARY of PLAN BENEFITS

The following is a summary of what we understand to be the most relevant plan provisions for purposes of actuarial valuations. This summary should not be used for purposes of determining plan benefits.

Plan Sponsor	Zircoa, Inc.
Plan Name	Zircoa, Inc. Salaried Employees' Pension Plan
Plan Effective Date	March 1, 1988. Most recently amended and restated January 1, 2009. Last amended July 31, 2014.
Plan Year	January 1 through December 31
Status of Plan	The plan was frozen as of December 31, 2010 and no further entrants and no further benefit accruals are granted.
Vesting	100% vesting upon earning 5 Years of Vesting Service.
Accrued Benefit Formula	Each Participant's monthly Accrued Benefit will be an amount equal to the Accrued Benefit as of December 31, 2010 based on the terms of Plan in effect prior to this amendment. No additional benefits will accrue after December 31, 2010.
Average Compensation	The average of the pensionable earnings during all years of service of the participant. In no event shall pensionable earnings exceed the limitation specified in Section 401(a)(17) of the Internal Revenue Code.
Normal Retirement Age	Upon attainment of 65 and five Years of Service.
Early Retirement	<p><u>Eligibility:</u> Upon attainment of age 55 and completion of 5 Years of Service.</p> <p><u>Benefit:</u> The accrued benefit is reduced $1/180^{\text{th}}$ for each of the first 60 complete calendar months and $1/360^{\text{th}}$ for each additional month that commencement precedes age 65.</p> <p><u>Eligibility:</u> Upon attainment of age 55 and 30 Years of Benefit Service.</p> <p><u>Benefit:</u> Unreduced Normal Retirement Benefit.</p>

Section XIV

SUMMARY of PLAN BENEFITS (cont)

Disability Retirement

Eligibility: Upon completion of 10 Years of Benefit Service and eligible to receive disability benefits under the Federal Social Security Act.

Benefit: Accrued Normal Retirement Benefit as of date of Disability.

Pre-Retirement Death

Eligibility: Upon completion of vesting eligibility

Benefit: The spouse is eligible for 50% of the benefit that would have been payable, if the Participant had lived to Early Retirement Eligibility and elected a 50% Qualified Joint and Survivor Annuity. The benefit is payable upon the Participant's Early Retirement Eligibility date.

Normal Form of Payment

Unless otherwise elected, the benefit payable for a married participant is an actuarially equivalent 50% Joint and Survivor benefit with the first 6 years guaranteed. For unmarried participants, the Normal Form is a single life annuity with the first 6 years guaranteed.

Optional Forms

Benefits may be elected from:

- 50%, 75% and 100% Joint and Survivor with the first 6 years guaranteed
- Social Security Level Income
- Single Life Annuity with the first 6 years guaranteed

Optional Form Conversion Factors

Optional forms of benefit are calculated as actuarially equivalent to the Single Life Annuity using the following assumptions:

Lump Sum Distributions –

- Interest – IRC Section 417(e) Applicable Interest Rates in effect for the first month prior to the first day of the plan year in which the distribution begins;
- Mortality – IRC Section 417(e)(3) Applicable Mortality Table for the Plan Year in which the distribution occurs.

Annuities –

- Interest – 6.00%;
- Mortality – Based on the factors defined in the plan document, with an age set back of 1 year for pensioners and an age set forward 1 year for beneficiaries.

Section XIV
SUMMARY of PLAN BENEFITS (cont)

**Changes in Plan
Provisions since the
last valuation**

None.