

# BROWN ARMSTRONG

*Certified Public Accountants*

***Fresno County Employees' Retirement Association  
Board of Retirement Presentation  
of the June 30, 2017 audit results  
By: Rosalva Flores, CPA, and Brooke Decuir-Baird, CPA  
Brown Armstrong Accountancy Corporation  
December 13, 2017***

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1. Met on December 6, 2017, with Audit Committee and Discussed:
  - a. Scope of audit work
  - b. The audit process
  - c. Significant risk and audit areas
  - d. Draft audit reports
  - e. Draft Comprehensive Annual Financial Report
2. Audit Reports
  - a. Independent Auditor's Report (opinion) on financial statements – unmodified (“clean”) opinion
  - b. Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With *Government Auditing Standards*
  - c. Required Communication to the Audit Committee and Board of Retirement in Accordance with Professional Standards (SAS 114)
  - d. Agreed Upon Conditions Report Designed to Increase Efficiency, Internal Controls, and/or Financial Reporting (Management Letter)
3. Questions and/or Comments?

**FRESNO COUNTY EMPLOYEES'  
RETIREMENT ASSOCIATION**

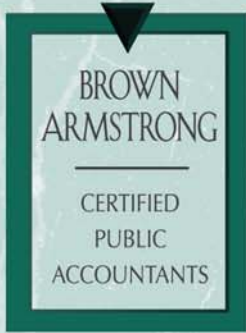
**REPORT TO THE AUDIT COMMITTEE  
AND BOARD OF RETIREMENT**

**FOR THE FISCAL YEAR  
ENDED JUNE 30, 2017**

**FRESNO COUNTY EMPLOYEES'  
RETIREMENT ASSOCIATION**

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# BROWN ARMSTRONG

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## **INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

To the Audit Committee and Board of Retirement of  
Fresno County Employees' Retirement Association  
Fresno, California

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We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Fresno County Employees' Retirement Association (FCERA), as of and for the fiscal year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise FCERA's basic financial statements, and have issued our report thereon dated December 6, 2017.

### **Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered FCERA's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of FCERA's internal control. Accordingly, we do not express an opinion on the effectiveness of FCERA's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. *A material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of FCERA's financial statements will not be prevented, or detected and corrected on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

## **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether FCERA's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, and contracts, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

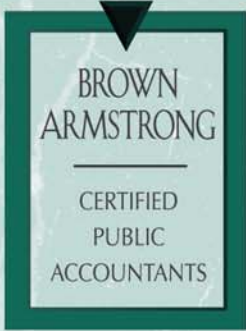
## **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of FCERA's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering FCERA's internal control and compliance. Accordingly, this report is not suitable for any other purpose.

BROWN ARMSTRONG  
ACCOUNTANCY CORPORATION

*Brown Armstrong  
Accountancy Corporation*

Bakersfield, California  
December 6, 2017



# BROWN ARMSTRONG

*Certified Public Accountants*

## **REQUIRED COMMUNICATION TO THE AUDIT COMMITTEE AND BOARD OF RETIREMENT IN ACCORDANCE WITH PROFESSIONAL STANDARDS (SAS 114)**

To the Audit Committee and Board of Retirement of  
Fresno County Employees' Retirement Association  
Fresno, California

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We have audited the financial statements of the Fresno County Employees' Retirement Association (FCERA) for the fiscal year ended June 30, 2017, and have issued our report thereon dated December 6, 2017. Professional standards require that we provide you with information about our responsibilities under auditing standards generally accepted in the United States of America and *Government Auditing Standards*, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our engagement letter to you dated May 24, 2017. Professional standards also require that we communicate to you the following information related to our audit.

### **Significant Audit Findings**

#### *Qualitative Aspects of Accounting Practices*

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by FCERA are described in Note 2 to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the year. We noted no transactions entered into by FCERA during the fiscal year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the financial statements were:

- Management's estimate of the fair value of investments is derived by various methods as detailed in the notes to the financial statements. We evaluated the key factors and assumptions used to develop the estimate of the fair value of investments in determining that it is reasonable in relation to the financial statements taken as a whole.
- The contribution amounts and net pension liability which are based on the actuarially-presumed interest rate and assumptions. We evaluated the key factors and assumptions used to develop the estimates of the contribution amounts and net pension liability in determining that they are reasonable in relation to the financial statements taken as a whole.

Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. The most sensitive disclosures affecting the financial statements were:

- The disclosures for deposits and investments in Notes 2 and 3 to the financial statements, Summary of Significant Accounting Policies and Deposits and Investments, respectively, were derived from FCERA's investment policy. Management's estimate of the fair value of investments was derived by various methods as detailed in the notes to the basic financial statements.
- Additionally, the disclosures related to the funding policies, net pension liability, and actuarial methods and assumptions in Note 2, Summary of Significant Accounting Policies; Note 6, Contributions and Reserves; and Note 7, Actuarial Valuations, were derived from the actuarial valuations, which involved estimates of the value of reported amounts and probabilities about the occurrence of events far into the future.

The financial statement disclosures are neutral, consistent, and clear.

#### *Difficulties Encountered in Performing the Audit*

We encountered no significant difficulties in dealing with management in performing and completing our audit.

#### *Corrected and Uncorrected Misstatements*

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. We did not identify any misstatements as a result of our audit procedures.

#### *Disagreements with Management*

For purposes of this letter, professional standards define a disagreement with management as a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

#### *Management Representations*

We have requested certain representations from management that are included in the Management Representation Letter dated December 6, 2017.

#### *Management Consultations with Other Independent Accountants*

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to FCERA's basic financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

#### *Other Audit Findings or Issues*

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as FCERA's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

#### *Other Matters*

We applied certain limited procedures to the Management's Discussion and Analysis, Schedule of Employer Contributions, Schedule of Investment Returns, Actuarial Valuation Methods and Assumptions, and Schedule of Changes in Net Pension Liability and Related Ratios, which are required supplementary information (RSI) that supplement the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during the audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were engaged to report on the Schedule of Administrative Expenses, Administrative Budget Analysis, Schedule of Information Technology Expenses, Schedule of Investment Expenses, and Schedule of Payments to Consultants, which accompany the financial statements but are not RSI. With respect to this other supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

We were not engagement to report on the introductory, investment, actuarial, and statistical sections, which accompany the financial statements but are not RSI. We did not audit or perform other procedures on this other information and we do not express an opinion or provide any assurance on it.

**Restricted on Use**

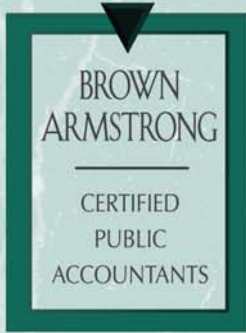
This report is intended solely for the information and use of the Audit Committee, Board of Retirement, and management of FCERA, and is not intended to be, and should not be, used by anyone other than these specified parties.

BROWN ARMSTRONG  
ACCOUNTANCY CORPORATION

*Brown Armstrong*  
*Accountancy Corporation*

Bakersfield, California  
December 6, 2017





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*Certified Public Accountants*

## **AGREED UPON CONDITIONS REPORT DESIGNED TO INCREASE EFFICIENCY, INTERNAL CONTROLS, AND/OR FINANCIAL REPORTING (MANAGEMENT LETTER)**

To the Audit Committee and Board of Retirement of  
Fresno County Employees' Retirement Association  
Fresno, California

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In planning and performing our audit of the financial statements of the Fresno County Employees' Retirement Association (FCERA) as of and for the fiscal year ended June 30, 2017, in accordance with auditing standards generally accepted in the United States of America, we considered FCERA's internal control structure over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of FCERA's internal control. Accordingly, we do not express an opinion on the effectiveness of FCERA's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph and was not designed to identify all deficiencies in internal control that might be significant deficiencies or material weaknesses and, therefore, there can be no assurance that all such deficiencies have been identified. In addition, because of inherent limitations in internal control, including the possibility of management override of controls, misstatements due to error or fraud may occur and not be detected by such controls. We did not identify any deficiencies in internal control that we considered to be material weaknesses or significant deficiencies.

However, during our audit we became aware of matters that are opportunities for strengthening internal controls and operating efficiency. These recommendations that are listed in this report summarize our comments and suggestions regarding these matters.

We will review the status of these comments during our next audit engagement. We have already discussed the comments and suggestions with various FCERA personnel, and we will be pleased to discuss them in further detail at your convenience, to perform any additional study of these matters, or to assist you in implementing the recommendations.

## I. CURRENT YEAR CONDITIONS AND RECOMMENDATIONS

### A. Information Technology (IT) Financial Systems Observations

#### **Condition Number 2017-1 - User Access Removal for Terminated Users and Creation of New Accounts**

User administration procedures, such as those used when requesting and documenting the creation and removal of user account access, are not consistently followed (2017). During our inquiries, we noted that FCERA must submit a request to the Fresno County Information Technology (IT) department in order to request the creation and disabling/deletion of Active Directory user accounts because FCERA does not have administrative access to its own Active Directory domain. During our tests of these procedures, we noted that the email sent to Fresno County IT to request the removal of access to Active Directory for a sampled individual we identified as having left FCERA within the audit period, the former Assistant Retirement Administrator, was not submitted for nearly two weeks following the individual's final day of work. Failure to notify Fresno County IT of employee terminations in a timely manner increases the risk that the terminated employee's Active Directory user account remains active beyond the employee's final day of work. Such accounts represent a security risk as they could allow unauthorized access to FCERA systems in the event that the account is compromised or somehow utilized by the terminated employee or other staff members.

Additionally, although FCERA's established procedures dictate that FCERA IT staff are to inform a terminated employee's supervisor via email once they have disabled the terminated employee's access to the Arrivos system to provide confirmation that the procedure has been completed, no such emails were available for the disabling of the individual's Arrivos user account. Failure to document the user access removal procedures utilized at the time of an employee's termination increases the risk that the appropriate procedures are not adequately and consistently followed, and prevents management from verifying that these procedures take place within an appropriate timeframe and with proper authorization.

We also noted during our testing procedures that, while FCERA's established procedures dictate that requests for the creation of new Arrivos user accounts are to be submitted to FCERA IT staff via email by the supervisor of the employee requiring the account, no such email was sent to request the creation of the new Assistant Retirement Administrator's Arrivos user account when the individual was hired. This request was submitted in person/verbally. Failure to follow established procedures during the user account creation request and documentation processes prevents management from confirming that these processes take place with appropriate authorization and that appropriate roles are assigned within the Arrivos system according to employees' job requirements.

#### **Recommendation**

It is recommended that FCERA reinforce its termination procedures to ensure that Fresno County IT department is informed immediately when an employee is terminated or a termination date is set, so that the associated Active Directory user account can be promptly disabled within 24-48 hours of the employee's final day of work.

It is further recommended that all user access termination processes, including the request process and the actual procedures performed by individuals responsible for user administration, are documented in order to allow management to verify that such procedures are taking place within an appropriate timeframe. Such documentation should include (at a minimum): the requestor's name (e.g., an email sent from the requestor) and/or management approval, the date of the original request, the name of the individual completing the termination procedures, and the date on which the procedures were performed.

It is also recommended that FCERA reinforce its user account creation processes to ensure that established procedures are followed whenever new user accounts are created. In particular, FCERA should ensure that user accounts are created only following established request procedures and only when such requests originate from staff members authorized to request the creation of user accounts.

### Views of Responsible Officials and Planned Corrective Action

We have reminded all supervisory, management and IT staff of the termination procedures and are establishing an Access Log for IT to maintain/track all authorization and termination of access requests, including the requestor's name and method (e.g., an email sent from the requestor) and/or management approval, the date of the original request, the name of the individual completing the procedures, procedure performed and the date on which the procedures were processed and documentation of authorization and need for account creation.

### **Condition Number 2017-2 - Active Directory Review of User Accounts**

Reviews of Active Directory user accounts for appropriate group memberships and permission assignments are not regularly performed; reviews of Arrivos user accounts are not performed (2017). Although reviews of FCERA's Active Directory user accounts are performed on a monthly basis using a report provided by Fresno County IT to determine whether any user accounts should be disabled/removed, there are no regular, formal processes in place to review Active Directory user accounts to determine whether their assigned permissions/group memberships are appropriate. Failure to review Active Directory user accounts and their assigned permissions/group memberships increases the risk that valid user accounts (e.g., those belonging to current employees) may have access to system functions or shared files that are not commensurate with current job responsibilities, if assigned to an employee, or current functional requirements, if a shared, system, or service account.

Additionally, FCERA does not currently have a process in place to regularly review user accounts and their assigned roles within the Arrivos system. As noted above, this increases the risk that valid user accounts may have access to system functions or shared files that are not commensurate with current job responsibilities. Failure to perform such reviews also increases the risk that unneeded or unauthorized user accounts are not identified and removed or disabled in a timely manner. Examples of accounts that may need disabling/removing might include temporary accounts utilized for projects that have concluded or those that remained active/within the system at the time of an employee's termination for a business-use scenario (e.g., review of the work completed by the terminated employee or duplication of roles to a new user account).

### Recommendation

It is recommended that FCERA implement (on an annual basis, at a minimum) reviews of user accounts within its Active Directory system and their assigned group memberships and permissions to ensure that the group memberships and permissions are appropriate for the individual's job responsibilities. If necessary, management may wish to initially include an examination of existing groups (e.g., "Finance") and their memberships and determine which folders such groups are given access to.

It is also recommended that FCERA implement (on an annual basis, at a minimum) reviews of user accounts within its Arrivos system and their associated role assignments to ensure that no unneeded or unauthorized user accounts, such as those belonging to terminated employees, are active, and to ensure that the roles assigned within the system are appropriate for the individual's job responsibilities. If reviews are performed by FCERA IT staff, they may wish to work with individual departments during this process to ensure that they are aware of current employee positions and job duties, if deemed necessary.

All generic, shared, system, and/or service accounts (as applicable within each system) should be included in these reviews.

### Views of Responsible Officials and Planned Corrective Action

FCERA will establish a policy and methodology for tracking and periodic review of user accounts within its Active Directory, Arrivos and shared systems, and their assigned group memberships and permissions to ensure that the group memberships and permissions are appropriate for the individual's job responsibilities.

### Condition Number 2017-3 - Password Requirements

Password requirements for FCERA's Arrivos system are not configured to match the requirements specified by Fresno County's ITSD Security Standards and Preferred Practices (2017). During our examination of the password requirement settings within FCERA's Arrivos system, it was noted that the requirements are not configured to match the requirements specified by Fresno County's "ITSD Security Standards and Preferred Practices" policies, which have been adopted by FCERA. Additionally, no minimum password age has been configured. The following discrepancies and weak requirements were noted:

Requirement Description	Fresno County's "ITSD Security Standards and Preferred Practices" Requirement	Arrivos Setting
Minimum Password Length	6 characters	6 characters
Password expires (aging)	30 days	Not configured
Minimum password age	Not specified	Not configured
Complex passwords	Not specified	At least one number or non-letter character required
Password History (# of passwords that cannot be reused)	10 passwords	Last password cannot be re-used
Account lockout after X number of failed attempts	Not specified	25 invalid logon attempts
Duration of account lockout	Not specified	Until manually unlocked

*Weak requirements are noted by blue text. Inconsistencies with Policy are noted by red text.*

#### Recommendation

It is recommended that FCERA examine and revise where appropriate the password requirement settings within Arrivos to ensure that strong password requirements have been implemented. It is also specifically recommended that the minimum password age is set to greater than zero days so as to ensure that the password history requirement cannot be easily circumvented, and that account lockout be set to no more than 5 invalid logon attempts. FCERA may alternatively wish to consider implementing requirements based on currently-emerging NIST-recommended password requirements, as deemed appropriate by management.

#### Views of Responsible Officials and Planned Corrective Action

We are confirming the County's current standards. The County policy does not specify standards for several of the categories listed. However, to improve security, we will reduce the number of invalid login attempts to Arrivos to 5 attempts before lock-out. Additionally, industry standards now recognize that requiring users to change passwords every 30 days results in less secure passwords ([www.ftc.org](http://www.ftc.org)). The trend now is to require more secure passwords (longer, mix of letters, numbers, and special characters) and not require frequent changing. We will review our current password requirements and determine how many past passwords Arrivos can track to increase the number of past passwords that cannot be used, and increase the number of past passwords that can be used.

## **B. IT Business Process Improvement Observations**

### **Condition Number 2017-4 - Formal IT Risk Assessment**

Formalized IT risk assessments are not conducted on an annual basis (2017). Although many IT-related risks are assessed on an ongoing, individual basis, such assessments are not performed using a comprehensive or formal methodology, and the identified risks, their associated remediation plans, and progress towards remediation of identified risks are not documented; a complete and formal risk assessment of IT-related risk has not been conducted. This increases the possibility that FCERA management is unaware of potential IT-related risks that may prevent the organization from fulfilling its financial reporting requirements and/or performing its day-to-day business processes effectively.

#### Recommendation

It is recommended that FCERA perform a full IT risk assessment, including an evaluation of its control activities as they relate to significant applications that support FCERA's financial reporting procedures. These assessments should include all areas of IT risk, including those not pertaining to cybersecurity. The IT risk assessment should result in a comprehensive IT risk matrix that lists all known IT risks and the actions and/or activities that FCERA performs to mitigate the risks. If feasible, FCERA should conduct the process of evaluating IT-related risks on an annual basis to ensure that any new IT-related risks associated with changes to the IT environment and IT staffing, as well as any that may have been missed in prior year assessments, are identified and addressed. Audit staff acknowledge, however, that FCERA may need additional time to make significant progress towards implementing mitigating controls following their initial assessment, such that a follow-up risk assessment may or may not be feasible the following year. If considered appropriate, given the size of the organization, FCERA may want to consider outsourcing the risk assessment to a third-party with knowledge of similar organizations and who can assist FCERA in identifying and evaluating significant risks and developing cost-effective solutions to address these areas.

#### Views of Responsible Officials and Planned Corrective Action

FCERA will research and solicit bids for a comprehensive IT Risk Assessment, and development of a risk matrix, and will consider whether to undertake future annual reviews in-house or maintain an external vendor for this process.

### **Condition Number 2017-5 - Service Organization Control (SOC) Report Reviews for IT Third-Party Service Providers**

FCERA management does not currently have a formal process in place to review on an annual basis the results of audits completed by its third-party service providers and associated subservice providers, such as INetU/ViaWest, the subservice organization utilized by Tegrity Group to provide physical co-location facilities in which FCERA's production and disaster recovery Arrivos environments are hosted. Failure to establish a clear and an annual procedure for detailed reviews of SOC audit reports for its IT service providers and associated subservice providers, as noted above, prevents FCERA from confirming that financial data held by the vendors is secure. Additionally, failure to review such reports prevents FCERA from determining whether any follow-up, such as discussion of identified exceptions or failures of vendors' controls with relevant parties, or in-depth investigation of the implementation status of any required applicable complementary user entity controls, is necessary.

## Recommendation

It is recommended that FCERA formalize its SOC report review process to ensure that reports issued by INetU/ViaWest, as well as any other IT service providers that undergo audit processes, are continually obtained in a timely manner on an annual basis and that these reports are reviewed in a timely manner. Additionally, while we noted that FCERA has obtained a SOC 3 report from ViaWest, which is an examination of controls at a service organization relevant to security, availability, processing, integrity, confidentiality, and privacy resulting in general use report, FCERA may wish to explore the possibility of obtaining a SOC 1 or SOC 2 report from ViaWest (if such SOC audits have been completed), as these reports can provide further clarification as to which controls have been tested, as well as the results of such tests. Key aspects for management to note during their review is whether the service auditor provided an unqualified or qualified opinion; any exceptions noted for individual controls tested should be reviewed to determine if additional risks are noted that will affect management's procedures, data accuracy and integrity, and/or use of the related application(s) (if applicable) and if such risks need to be addressed.

It is also specifically recommended that FCERA confirm the locations in which their Arrivos systems are hosted and verify that key controls in place at the locations, including but not limited to cybersecurity infrastructure and physical and logical security controls, are covered by the SOC reports obtained from INetU/ViaWest. Finally, FCERA should also formally evaluate whether any complementary user entity controls noted within SOC reports are properly implemented at FCERA as applicable. (Note: Because Tegrity Group is the direct "user entity" of INetU's/ViaWest's services, complementary user entity controls may pertain to Tegrity Group rather than FCERA, though FCERA should review any complementary user entity controls noted in the reports and make this determination for each report.) FCERA should develop strategies for implementing any complementary user entity controls that are not already in place.

While FCERA management should determine the best methods by which to document its reviews and any required follow-up procedures, all documentation should include the following at a minimum: the dates on which the report(s) was obtained and reviewed, the name of the individual(s) conducting the review, the results of the review (e.g., whether any exceptions were noted), and a determination as to the status of any required complementary user entity controls (if any such controls are identified as not yet implemented, the documentation should also include details as to the proposed implementation steps and include updates on this process). If any additional follow-up is required as a result of the review, such as communication of noted exceptions to relevant departmental management or additional inquiry with the service provider, FCERA should also include the details (e.g., copies of email chains) and results of these procedures in their documentation.

## Views of Responsible Officials and Planned Corrective Action

FCERA will establish a formal, annual SOC review process for IT service providers. Additionally, FCERA will confirm annually the hosting locations of the Arrivos system along with verifying that key controls are in place at the locations, including but not limited to cybersecurity infrastructure, physical and logical security controls, and complementary user entity controls. FCERA will maintain the following minimum documentation: the dates on which the reports were obtained and reviewed, the name of the individual(s) conducting the review, the results of the review (e.g., whether any exceptions were noted), and a determination as to the status of any required complementary user entity controls (if any such controls are identified as not yet implemented, the documentation should also include details as to the proposed implementation steps and include updates on this process). If any additional follow-up is required as a result of the review, such as communication of noted exceptions to relevant departmental management or additional inquiry with the service provider, FCERA will maintain the details (e.g., copies of email chains) and results of these procedures in their documentation.

## **C. IT Pension Administration System (PAS)**

### **Condition Number 2017-6 - New PAS Manual Calculations**

On January 1, 2013, Tier V was mandated by the State and implemented by FCERA in April 2013 retroactively to January 2013. FCERA was in the process of implementing a new pension administration system and elected not to update the existing pension administration system to accommodate the Tier V requirements. As a result, FCERA's posting of payroll transmittal imports into the pension system that tracks participant's salary and contributions was delayed since December 31, 2012. It was determined the new pension system, Arrivos, would be programmed, tested, and used to implement Tier V. During the 2013 fiscal year, FCERA implemented manual procedures for processing withdrawals and retirements which will need to be recorded and verified once the new pension system's programming and implementation is finished.

We noted that the Arrivos system went live during the 2015-16 fiscal year. FCERA utilized the system for all active participant data; however, the benefit payments module was not finalized until June 2016. Thus, the plan continued to rely on manual calculations until the benefit payments module in Arrivos was finalized. Since the information recorded in the pension system is used as the source for updating the member data to be used by FCERA staff for calculation of retirement and withdrawal of contributions, failure to keep accurate member data might result in over (under) payments of benefits.

#### **Recommendations**

Once programming and implementation for the new pension system is completed and member information can be imported into the system, we recommend FCERA re-calculate all withdrawal of contributions, new retirements, and new pension rates implemented since January 1, 2013.

#### **View of Responsible Officials and Planned Corrective Action**

The Payroll Unit has re-calculated the withdrawal of contributions from June 30, 2012, to November 2014. The re-calculation of new retirements has been started by the Benefits Unit. The Specialists have prioritized the adjustments, processing the adjustments that have a large dollar amount or hour amount first. This prioritization will change each month, moving the next highest dollar amount or hour amount up. The last adjustments will be for the reserve funding, as these do not impact the retirees' benefit payment. The Accounting Unit is reviewing and will be testing the accuracy of the reserve data outputs from Arrivos. FCERA is still advancing this project and expects to be completed in Fiscal Year 2018. The tables for all pension rates have been reviewed.

The re-calculation of new retirements is in progress; with the addition of the Benefit Adjustment workflow in Arrivos, in July 2016, staff began the re-calculation (adjustment) of new retirements from June 30, 2012, to November 2014. This past year saw significant process on this project and FCERA is on target to complete this review in Fiscal Year 2018. Also, review and testing of the reserve data outputs from Arrivos to the General Ledger system is in progress. FCERA is on target to complete in Fiscal Year 2018 barring any unforeseen delays.

## **II. DISPOSITION OF PRIOR YEAR CONDITIONS AND RECOMMENDATIONS**

### **Condition Number 2016-1 - Pension System**

On January 1, 2013, Tier V was mandated by the State and implemented by FCERA in April 2013 retroactively to January 2013. FCERA was in the process of implementing a new pension administration system and elected to not update the existing pension administration system to accommodate the Tier V requirements. As a result, FCERA's posting of payroll transmittal imports into the pension system that tracks participant's salary and contributions were delayed since December 31, 2012. It was determined the new pension system, Arrivos, would be programmed, tested, and used to implement Tier V. During the 2013 fiscal year, FCERA implemented manual procedures for processing withdrawals and retirements which will need to be recorded and verified once the new pension system's programming and implementation is finished.

We noted that the Arrivos system went live during the 2015-16 fiscal year. FCERA utilized the system for all active participant data; however, the benefit payments module was not finalized until June 2016. Thus, the plan continued to rely on manual calculations until the benefit payments module in Arrivos was finalized. Since the information recorded in the pension system is used as the source for updating the member data to be used by FCERA staff for calculation of retirement and withdrawal of contributions, failure to keep accurate member data might result in over (under) payments of benefits.

#### Recommendations

Once programming and implementation for the new pension system is completed and member information can be imported into the system, we recommend FCERA re-calculate all withdrawal of contributions, new retirements, and new pension rates implemented since January 1, 2013.

#### Views of Responsible Officials and Planned Corrective Action

The Payroll Unit has recalculated the withdrawal of contributions from June 30, 2012, to November 2014. The recalculation of new retirements has been started by the Benefits Unit. The Specialists have prioritized the adjustments, processing the adjustments that have a large dollar or hour amount first. This prioritization will change each month, moving the next highest dollar or hour amount up. The last adjustments will be for the reserve funding, as these do not impact the retirees benefit payment. The Accounting Unit is reviewing and will be testing the accuracy of the reserve data outputs from Arrivos. FCERA is still advancing this project and expects to be completed in Fiscal Year 2018. The tables for all pension rates have been reviewed.

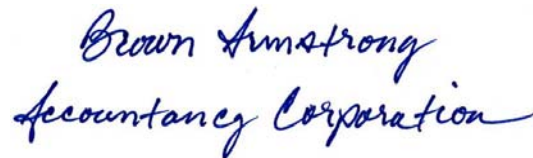
#### Current Year Status

Refer to the current year Conditions 2017-6 - New PAS Manual Calculations for the current year status.

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This information is intended solely for the use of the Audit Committee, Board of Retirement, and management of FCERA and is not intended to be, and should not be, used by anyone other than these specified parties.

BROWN ARMSTRONG  
ACCOUNTANCY CORPORATION

A handwritten signature in blue ink that reads "Brown Armstrong Accountancy Corporation". The signature is written in a cursive, flowing style.

Bakersfield, California  
December 6, 2017