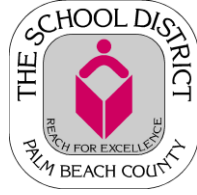


**Special Review of
Technology System Acquisition (ITN 19C-035W)**

May 15, 2020

Report #2020-04



MISSION STATEMENT

The School Board of Palm Beach County is committed to providing a world class education with excellence and equity to empower each student to reach his or her highest potential with the most effective staff to foster the knowledge, skills, and ethics required for responsible citizenship and productive careers.

Donald E. Fennoy II, Ed.D.
Superintendent of Schools

School Board Members

Frank A. Barbieri, Jr., Esq., Chair
Chuck Shaw, Vice Chair
Marcia Andrews
Karen M. Brill
Barbara McQuinn
Debra L. Robinson, M.D.
Erica Whitfield

Audit Committee Members

David H. Talley, Chair
Tammy McDonald, Vice Chair
Mark Bymaster, CPA, CFE
Michael Dixon, CPA/PFS
Deborah Manzo
Kathleen Weigel, Ed.D.
Chandler Williamson

Audit Committee Representatives

Frank A. Barbieri, Jr., Esq., School Board Chair
Donald E. Fennoy II, Ed.D., Superintendent of Schools
Mike Burke, Chief Financial Officer
JulieAnn Rico, Esq., General Counsel
Maria Lloyd, Principal Representative
James Campbell, Principal, Seminole Ridge High School
Justin Katz, CTA President

**Special Review of
Technology System Acquisition (ITN 19C-035W)**

Table of Contents

	Page
EXECUTIVE SUMMARY	i
PURPOSE AND AUTHORITY	1
SCOPE AND METHODOLOGY	1
BACKGROUND	2
CONCLUSIONS	
1. No Documented Feasibility Study or Business Case Performed Prior to ITN	2
2. Crucial Information for Decision Making Not Available	5
EXHIBITS	
A. <i>Form PBSD 2567 - Technology End of Life (EOL) Analysis and Request to Retire Obsolete Technology</i>	9
B. <i>Form PBSD 2566 - Business Case for Technology or Maintenance Expenditure</i>	11
C. Purchasing Department's <i>Business Case for Technology Purchase</i> form	13
APPENDIX	
Management's Response	16

This page intentionally left blank.

**Special Review of
Technology System Acquisition (ITN 19C-035W)**

EXECUTIVE SUMMARY

In response to a potential issue raised within anonymous complaints received by the Office of Inspector General (OIG), we have initiated a review of the Invitation to Negotiate (ITN) for Integrated Workplace Management System (ITN 19C-035W). Our review of this technology procurement produced the following conclusions:

1. No Documented Feasibility Study or Business Case Performed Prior to ITN

Our review of ITN 19C-035W revealed that the District had not conducted a documented feasibility study, business case, or justification for a new system prior to the initiation of ITN 19C-035W. Moreover, there was no documented analysis to determine if the replacement of TRIRIGA with a new system is needed, economically justifiable, or worth the additional investment.

Management's Response: Management does not concur that the process utilized is not appropriate.

Operations, Purchasing and Information Technology exercised due diligence, in alignment with the Institute of Internal Auditors and the U.S. Department of Justice's Systems Development Life Cycle Guidance Document, (as cited in the Special Review Report), completing the first two phases of (1) Initiation and (2) Systems Concept Development. (Please see page 16 for full management response.)

OIG Rebuttal: The OIG reiterates that there was no documented justification that demonstrated the specific reasons why TRIRIGA, which had a cumulative cost of more than \$8,000,000 as of December 31, 2019, was not serving the needs of the District and why a new system is needed.

2. Crucial Information Not Available for Decision Making

Critical forms such as *Technology End of Life (EOL) Analysis and Request to Retire Obsolete Technology (Form PBSD 2567)*, and the *Business Case for Technology or Maintenance Expenditure (Form PBSD 2566)* were not completed prior to the ITN 19C-035W. These forms contain crucial information for making business decisions and are required by either the Standard Operating Procedures of the Information Technology Division or the Purchasing Department. As a result, crucial information was not available for informed decision making.

Management's Response: Management does not concur. A final decision has not been made. As evidenced by the process described above, Management exercised appropriate procedures to determine that there is another system, which can better serve the functional needs of the

District. Until negotiations are completed, it is inappropriate to bring a proposal to the Technology Clearinghouse Committee or the Technology Advisory Committee for approval, as the business case would not include the financial cost, which is an essential component in the final decision to purchase a new service to replace Tririga. The Operations Division is very cognizant of the importance of being a good steward of taxpayer dollars. That said, it is important to be clear that the present functionality provided by the in-house Tririga software application is not serving the maintenance and operational needs of District facilities, which in itself is a huge investment of taxpayer dollars. (Please see page 16 for full management response.)

OIG Rebuttal: The OIG reiterates that crucial information was not available for decision making, such as the specific reasons why TRIRIGA was not serving the needs of the District. Although the Management Response asserts that “*Tririga software is not serving the maintenance and operational needs of District facilities*”, there was no documented justification that supports Management’s assertion, as explained in Conclusion #1 of this report. Without a documented feasibility study or business case, Management would not have the crucial information necessary to justify why a new system is needed.



THE SCHOOL DISTRICT OF
PALM BEACH COUNTY, FLORIDA

OFFICE OF INSPECTOR GENERAL
3318 FOREST HILL BLVD., C-306.
WEST PALM BEACH, FL 33406
(561) 434-7335 FAX: (561) 434-8652
www.palmbeachschools.org
Hotline: (855) 561-1010

LUNG CHIU, CIG, CPA
INSPECTOR GENERAL

SCHOOL BOARD
FRANK A. BARBIERI, JR, ESQ, CHAIR
CHUCK SHAW, VICE CHAIR
MARCIA ANDREWS
KAREN M. BRILL
BARBARA McQUINN
DEBRA L. ROBINSON, M.D.
ERICA WHITFIELD

DONALD E. FENNOY II, Ed.D., SUPERINTENDENT

MEMORANDUM

TO: Honorable Chair and Members of the School Board
Donald E. Fennoy II, Ed.D., Superintendent of Schools
Chair and Members of the Audit Committee

FROM: Lung Chiu, CPA, Inspector General

DATE: May 15, 2020

SUBJECT: Special Review of Technology System Acquisition (ITN 19C-035W)

PURPOSE AND AUTHORITY

In response to a potential issue raised within anonymous complaints received by the Office of Inspector General (OIG), we have initiated a review of the Invitation to Negotiate (ITN) for an Integrated Workplace Management System (ITN 19C-035W). The primary objective of this review was to assess the adequacy of the process used to initiate the procurement of an Integrated Workplace Management System to replace the current IWMS – IBM TRIRIGA.

SCOPE AND METHODOLOGY

We reviewed applicable *School Board Policies* and District procedures related to purchases of new technology including:

- ***School Board Policies:***
 - ***1.09 Advisory Committees to the Board***
 - ***1.096 Technology Committee***
 - ***6.14 Purchasing Department***
- Information Technology (IT) Division's ***Standard Operating Procedure*** (SOP) entitled ***Purchasing Technology***
- Form ***PBSD 2567 - Technology End of Life (EOL) Analysis and Request to Retire Obsolete Technology***
- Form ***PBSD 2566 - Business Case for Technology or Maintenance Expenditure***
- Purchasing Department's ***Purchasing Manual***
- Purchasing Department's ***Standard Operating Procedures No. 2: Required Information on Purchase Orders and Change Orders***
- Industry Best Practices for Information Technology Management:

- *IT Standards, Guidelines, and Tools and Techniques for Audit and Assurance and Control Professionals* (Information Systems Audit and Control Association)
- *Control Objectives for Information and Related Technologies* (COBIT 4.1)
- *Auditing Systems in Development* (2018), Institute of Internal Auditors
- *Systems Development Life Cycle Guidance Document* (January 2003), United States Department of Justice

Draft findings were sent to the Chief Operating Officer and Chief Financial Officer for review and comments. Management responses are included in the Appendix. We appreciate the courtesy and cooperation extended to us by staff during the review. The final draft report was presented to the Audit Committee at its May 15, 2020, meeting.

BACKGROUND

ITN 19C-035W (ITN) was formulated with the intent to purchase an Integrated Workplace Management System (IWMS), replacing the current Computer Aided Facilities Management system (IBM's TRIRIGA System). The current budget for the new system is \$500,000.

Six vendors responded to the ITN. On October 1, 2019, an evaluation committee, consisting of eleven District staff members, chose three of the six vendors to present their products on October 4, 2019. The OIG observed the October 1, and October 4, 2019 meetings. At the end of the October 4, 2019 meeting, the committee chose one vendor to initiate the negotiation process.

During September and October 2019, the Office of Inspector General received complaints alleging that *“the major rationale behind the need for a new IWMS system is flawed”*, and that *“this is wasteful for the tax payers of Palm Beach County”*.

Our review of this technology procurement produced the following conclusions:

CONCLUSIONS

1. No Documented Feasibility Study or Business Case Performed Prior to ITN

A system development life cycle (SDLC) consists of processes designed to ensure IT projects are effectively managed. According to the Information Systems Audit and Control Association,

‘The system development life cycle is the process, involving multiple stages (from establishing the feasibility to carrying out post implementation reviews), used to convert a management need into an application system, which is custom-developed or purchased or is a combination of both...’¹

According to Control Objectives for Information and Related Technologies (COBIT),

¹ Information Systems Audit and Control Association (ISACA), *IT Standards, Guidelines, and Tools and Techniques for Audit and Assurance and Control Professionals*

*'Typical phases include the feasibility study, requirements study, requirements definition, detailed design, programming, testing, installation and post-implementation review....'*²

Also, according to the Institute of Internal Auditors³, as well as the United States Department of Justice's *Systems Development Life Cycle Guidance Document*⁴, the SDLC framework consists of 10 phases, with the first two phases being (1) Initiation, and (2) Systems Concept Development. The Initiation phase begins when a need or opportunity is identified. Once a business need is approved, the approaches for accomplishing the concept are reviewed (Systems Concept Development phase), which includes a documented feasibility study and a cost-benefit analysis.

Absence of all phases of a SDLC could result in:

1. Inadequate requirements and deliverables definitions due to lack of stakeholder participation;
2. Improper product and/or vendor selection, and alternate solutions not identified;
3. Failure in integration with the strategic technology plan, architecture and technology direction;
4. Failure to respond to project needs with best and approved decisions;
5. Failure of systems to meet business and/or user requirements;
6. Abandonment of project; and
7. Wasting District's resources.

Our review of ITN 19C-035W revealed that the District had not conducted a documented feasibility study, business case, or justification for a new system prior to the initiation of ITN 19C-035W. Staff provided us an Excel file (last saved on March 23, 2017) which compared and rated certain features and functions of TRIRIGA and School Dude software. However, this comparison was not a feasibility study to determine if the replacement of TRIRIGA with a new system is needed and justifiable.

Recommendation:

To help ensure computer system investments meet business needs, and as recommended by the Information Systems Audit and Control Association and the Institute of Internal Auditors, the District should perform a documented feasibility study, with business case and justification prior to initiating the competitive solicitation process.

Management's Response: *Management does not concur that the process utilized is not appropriate. Operations, Purchasing and Information Technology exercised due diligence, in alignment with the Institute of Internal Auditors and the U.S. Department of Justice's Systems Development Life Cycle Guidance Document, (as cited in the Special Review Report), completing the first two phases of (1) Initiation and (2) Systems Concept Development.*

² COBIT 4.1

³ Institute of Internal Auditors, *Auditing Systems in Development* (2018)

⁴ United States Department of Justice, *Systems Development Life Cycle Guidance Document* (January 2003)

Initiation Phase (Identification of Need):

The School District purchased Tririga in 2006, following approval by the Board on January 28, 2006. The Operations Division is the only user of Tririga, to support school and ancillary facilities. As a maintenance work order system, Tririga has proved to be complex, not end-user friendly and lacking in useful management level reporting. In alignment with the District's long-term strategy of continuous improvement, the Chief Operating Officer directed Operations Division staff to work through Purchasing to determine if there is software on the market that will better serve the work order/capital projects and related functionality needed to maintain the District's 30 million square feet of school and ancillary facility space. The objective is to replace all functionality currently residing in Tririga, to avoid the cost of running two systems.

Systems Concept Development Phase (Approach to Review Potential Solutions or Alternatives):

Operations staff, in conjunction with Information Technology, developed the list of functionality required of a new system. Maintenance & Plant Operations, School Food Service, School Police, Environmental & Conservation Services, Building Code Services, Planning, Facilities Management, and Transportation each developed their list of functions required and nice to have. Information Technology provided the list of technical, training and project management requirements. The consolidated list by function became the basis for the ITN. The attached excerpts from 19C-095W ITN, Section 13.0 Scope of Services, and Appendix A, summarize the District's business case for pursuing alternatives to Tririga.

Purchasing convened a committee of stakeholders to review vendor submissions. Of the six submissions, the committee selected three vendors to interview. Following interviews, the committee selected on vendor with whom to pursue negotiations. At the time of this response, negotiations are underway.

Next Steps:

Should the negotiating team come to terms with the vendor, formal business case documentation will be presented to the Technology Advisory Committee and the Technology Clearinghouse Committee. Following Committee reviews and consideration of their input, the proposal to purchase a replacement Integrated Workplace Management System will be brought to the School Board for approval. With Board approval, the contract will be executed and a purchase order issued. (Please see page 16 for a full management response.)

OIG Rebuttal:

The OIG reiterates that there was no documented justification that demonstrated the specific reasons why TRIRIGA was not serving the needs of the District, including:

- Analysis to conclude that TRIRIGA can no longer deliver the needed functions for which it was purchased;

- Details of the problem(s) with TRIRIGA, and how the problems will be solved with a replacement system;
- Specific advantages the District would gain by replacing TRIRIGA with the new system;
- Why replacement of TRIRIGA is critical; and
- Risk to the District if TRIRIGA is not replaced.

Because the above information was not documented, the justification for a new system was not established prior to taking steps to acquire a new system. As a result, the District expended significant personnel resources creating an ITN, selecting a new vendor, and moving forward with a major purchase, without fully and clearly establishing the just cause for a new system.

2. Crucial Information Not Available for Decision Making

Due to the lack of completed critical forms, crucial information was not available for informed decision making. The Information Technology Division has a Standard Operating Procedure (SOP) entitled '*Purchasing Technology*'. According to the SOP, the purpose is to:

'Assure student instruction's direct or indirect school support is met by exploiting the best technology at the lowest Total Cost of Ownership (TCO). This is accomplished utilizing technology and purchasing best practices, which are followed during the acquisition of new, replacement, maintenance, and service technology and recorded during the process.'

To ensure best practices are followed, analysis are performed, and justifications are present prior to acquiring new technology, the SOP requires completion and approval of the two forms, **Technology End of Life (EOL) Analysis and Request to Retire Obsolete Technology (Form PBSD 2567)**, and/or **Business Case for Technology or Maintenance Expenditure (Form PBSD 2566)**, for new technology purchases exceeding \$10,000. (See Exhibits A and B).

Another form, similar to **PBSD 2566**, is required by the Purchasing Department's SOP entitled *Standard Operating Procedures No. 2: Required Information on Purchase Orders and Change Orders*. (See Exhibit C).

Neither Forms **2567**, **2566**, nor the **Business Case For Technology Purchase** Form, was completed prior to the initiation of ITN 19C-035W.

Form PBSD 2567 (Exhibit A on Page 9)

Form PBSD 2567 - Technology End of Life (EOL) Analysis and Request to Retire Obsolete Technology states the purpose of completing the form:

'This form must be completed for any technology being replaced by new technology, or when retiring obsolete technology. The form documents the analysis used to assure the old technology can no longer deliver the function for which it

was purchased, or that it cannot be migrated to a different location/site/purpose to continue adding value to the District. All sections below must be completed. Director or Chief approval is required. Note: A Business Case for Technology or Maintenance Expenditure, form PBSD 2566, must also be completed to document analysis before acquiring new technology.'

Form PBSD 2567 was not completed prior to the initiation of ITN 19C-035W; thus, the following crucial information was not available for informed decision making:

- Analysis to assure the old technology (i.e. the TRIRIGA system) can no longer deliver the function for which it was purchased, or that it cannot be migrated to a different location/site/purpose to continue adding value to the District;
- The specific reasons why the technology no longer meets the needs of the District;
- Risk to the District if the End of Life Technology is NOT retired; and,
- The advantages the District and students will gain from the replacement technology; and why the replacement product is critical.

Completion of **Form PBSD 2567** is important because there are many functions and interfaces within each TRIRIGA module listed in ITN 19C-035W, as follows:

- *Work Orders*
- *Asset/Warranty Management*
- *Parts Management*
- *Comprehensive Facility and Equipment Database*
- *Capital Projects and Planning*
- *Lease Administration*
- *Utilities Management*
- *Performance Management Reporting*
- *Inspections*

It is imperative that all TRIRIGA modules are reviewed and evaluated to determine if detailed functions and processes are working properly and meeting business needs; and if not, that a justification for, and requirements of, a new system are well documented.

Purpose of Form PBSD 2566 (Exhibit B on Page 11)

Form PBSD 2566 - Business Case for Technology or Maintenance Expenditure states the purpose of completing the form:

To ensure best practices are followed and justifications are present, a Business Case for Technology or Maintenance Expenditure must be documented for all new technology purchases. If the new technology is a replacement of a current or existing District technology, a Technology End of Life Analysis, PBSD 2567, must

also be completed. All other Purchasing processes must be followed... Director or Chief approval is required.

Because **Form PBSD 2566** was not completed prior to the initiation of ITN 19C-035W, the following required information was not documented and available to Management in determining if the replacement of TRIRIGA with a new system is needed, economically feasible, or worth the additional investment:

- A detailed description of the technology or maintenance that is the subject of the expenditure;
- Description of the instructional or business concern or opportunity the expenditure would address and how it would benefit the needs of the District;
- Technology to be replaced with explanation why replacement is critical and what the anticipated advantages or improvements are that will be seen by implementing the new technology;
- Risk to the District if expenditure is not made; and
- Details of which committee(s) discussed and/or reviewed the expenditure.

Purchasing Department's Form Entitled: *Business Case for Technology Purchase*
(Exhibit C on Page 13)

A Purchasing Department SOP requires a '***Business Case for Technology Purchase***' Form be attached to the Purchase Order for IT purchases that go to the School Board for approval. The Form requires the following information:

- The problem to be resolved or the opportunity to be seized;
- Solutions to solve problem or seize opportunity, including what technology, people or process could be used; as well as,
- Recommended approach of available methods, including why the technology is the best choice over others or better than doing nothing.

Completing this form after vendor solicitation, selection, and negotiation essentially defeats its purpose.

Recommendations:

Forms **PBSD 2567** and **PBSD 2566**, as well as the '***Business Case for Technology Purchase***' Form should be completed prior to advertising competitive solicitations for technology related goods and services that exceed \$10,000. All critical information should be readily available for informed decision making.

When information is needed for decision-making, a Request for Information (RFI) may be more appropriate than an ITN.

To ensure proper accountability, we also recommend a signature block for the Director of Information Technology be added to each of the forms.

Management's Response: *Management does not concur. A final decision has not been made. As evidenced by the process described above, Management exercised appropriate procedures to determine that there is another system, which can better serve the functional needs of the District. Until negotiations are completed, it is inappropriate to bring a proposal to the Technology Clearinghouse Committee or the Technology Advisory Committee for approval, as the business case would not include the financial cost, which is an essential component in the final decision to purchase a new service to replace Tririga. The Operations Division is very cognizant of the importance of being a good steward of taxpayer dollars. That said, it is important to be clear that the present functionality provided by the in-house Tririga software application is not serving the maintenance and operational needs of District facilities, which in itself is a huge investment of taxpayer dollars. (Please see page 16 for full management response.)*

OIG Rebuttal:

Although the Management Response to our conclusion asserts that “*Tririga software is not serving the maintenance and operational needs of District facilities*”, there was no documented justification that supports Management’s assertion, as we discuss in Conclusion #1 of this report. Without a documented feasibility study or business case, Management would not have the crucial information necessary to justify why a new system is needed.

The OIG reiterates that crucial information was not available for decision making, such as the specific reasons why TRIRIGA was not serving the needs of the District, including:

- Analysis to demonstrate that TRIRIGA can no longer perform the needed functions for which it was purchased;
- Details of the problem(s) to be solved, and how the problems will be solved with a replacement system;
- Specific advantages the District would gain by replacing TRIRIGA;
- Why replacement of TRIRIGA is critical; and
- Risk to the District if TRIRIGA is not replaced.

As a result, the District moved forward with a major purchase, without fully and clearly establishing why a new system is needed.

End of Report –



THE SCHOOL DISTRICT OF PALM BEACH COUNTY
DIVISION OF INFORMATION TECHNOLOGY

Technology End of Life (EOL) Analysis and Request to Retire Obsolete Technology

This form must be completed for any technology being replaced by new technology, or when retiring obsolete technology. The form documents the analysis used to assure the old technology can no longer deliver the function for which it was purchased, or that it cannot be migrated to a different location/site/purpose to continue adding value to the District. All sections below must be completed. Director or Chief approval is required. **Note:** A Business Case for Technology or Maintenance Expenditure, form PBSD 2566, must also be completed to document analysis before acquiring new technology.

School/Dept ID	School/Department Name	Request Date
Technology Name	Technology Type <input type="radio"/> Hardware <input type="radio"/> Software <input type="radio"/> Service	End of Life Date
Being Replaced By:	Technology Type <input type="radio"/> Hardware <input type="radio"/> Software <input type="radio"/> Service	Start Date

1. General Overview of End of Life Technology

Provide a detailed description of the technology to be retired and what function it was originally purchased to perform.

2. Function(s) the End of Life Technology Can No Longer Perform

Provide the specific reasons why this technology no longer meets the needs of the District (e.g., original function is obsolete, missing functionality, or continued use is uneconomical or inefficient or serves no useful fuction).

3. Risk to the District if the End of Life Technology is NOT Retired

Explain the risk to the District if this technology is not retired.

4. Proposed Replacement Product Overview

Describe any advantages the District and students will gain from the replacment technology. Specify why the replacement product is critical. A comparison of alternative technical solutions should be included, or specify if there is no replacement.

5. Review of Competing Replacement Technologies (if applicable)

Specify other technologies which were reviewed as a possible replacement for the end of life product. See the *Business Case for Technology Purchase or Maintenance (PBS D 2566)*.

Signature of Manager

Signature of Manager

Signature of Director/Chief

Signature of Director/Chief



THE SCHOOL DISTRICT OF PALM BEACH COUNTY
DIVISION OF INFORMATION TECHNOLOGY

Business Case for Technology or Maintenance Expenditure

To ensure best practices are followed and justifications are present, a Business Case for Technology or Maintenance Expenditure must be documented for all new technology purchases. If the new technology is a replacement of a current or existing District technology, a Technology End of Life Analysis, PBSD 2567, must also be completed. All other Purchasing processes must be followed, including competitive bidding if over \$10,000, Legal review of contracts and submission to the Technology Clearinghouse Committee (TCC) and/or the Technology Advisory Committee (TAC). Direct Negotiation purchases must be coordinated through the Director of Purchasing and purchases must meet Purchasing Department bidding requirements. All sections below must be completed. Director or Chief approval is required.

Employee ID #	First Name	MI	Last Name
School/Dept ID	School/Department Name		Request Date
Name of Affected Technology		Technology Type <input type="radio"/> Hardware <input type="radio"/> Software <input type="radio"/> Service	
Anticipated Expenditure Date	Anticipated Implementation Date for New Purchases	Estimated Lifespan	
Vendor Name		Total Estimated Expenditure	

1. General Overview of Technology or Maintenance Expenditure

Provide a detailed description of the technology or maintenance that is the subject of the expenditure.

2. Potential Concern or Opportunity and Benefit

Describe the instructional or business concern or opportunity this expenditure would address and how it would benefit the needs of the District.

3. Review of Competing Technologies

Detail other technologies that were reviewed and briefly discuss why they were not chosen. Include cost estimates.

4. Technology to be Replaced (if applicable)

Specify what technology will be replaced. Explain why replacement is critical and what the anticipated advantages or improvements are that will be seen by implementing the new technology.

5. Maintenance Agreements (if applicable)

Specify what technology is subject to the maintenance agreement and describe the terms in detail.

6. Review of Maintenance Plans (if applicable)

Detail which plans were reviewed. Include a plan comparison/contrast analysis.

7. Risk to the District if the Expenditure is Not Made

Explain risks to the District if this technology or maintenance expenditure is not made.

8. Committee Discussion and Review

Detail which committee(s) discussed and/or reviewed this expenditure and on what date. List the committee name and meeting date if on a future agenda. **NOTE:** Agenda items are subject to the provisions of Florida's Government in the Sunshine Law as provided in Fla. Stat. 286.011.

Signature of Manager

Signature of Manager

Signature of Director/Chief

Signature of Director/Chief

Standard Operating Procedures No. 2:
Required Information on Purchase Orders and Change Orders

The Purchasing Agent is responsible for ensuring all pertinent data is included in the Edit Comment section of the PO, verify pricing and delivery dates are accurate, appropriate vendor is being utilized and clearly defines what is being purchased. Information should not be repeated multiple times in different ways and the guidelines below must be followed:

Descriptions – This information is created from information provided submitted on the requisition by the requestor. Purchasing Agent must review the information to ensure that it is accurate and clearly defines what is being purchased.

Line Comments – Line comments should be added if information is needed to describe each line rather than the entire PO. Line comments may also be created from information provided by the requestor. Purchasing Agent must ensure that the information is accurate, relevant, needed and clearly defines what is being purchased. If information is provided that is not relevant to the vendor but is for internal information only, ensure the line information is set not to go to the vendor.

Header comments - Use header comments to provide the information regarding contract and resulting terms and conditions, Quote(s), PO expiration date, board approval, (All Purchase Orders for IT purchases that go to Board for approval must have the completed “Business Case For Technology Purchase” form attached to the PO, see Attachment 1), SAML information, bid exempt, change order reasons, and any other pertinent information.

Header Attachments - Attach a copy of the signed contract, if one exists; the quote(s), agenda item or other documents supporting the purchase order or change order justification.

Verify that delivery dates are accurate based upon the release of the PO.

Check amount only if the Purchase Order is a Blanket or requires multiple payments.

ATTACHMENT 1



Information Technology

Business Case for Technology Purchase

Text in this color within this report is to be replaced with normal text. This report may expand to accommodate the volume needed to fully answer each section.

[Delete this section.]

DEPARTMENT NAME: NAME OF DEPARTMENT HERE	REQUEST TO PURCHASE: NAME OF TECHNOLOGY HERE
THIS REPORT WAS WRITTEN: DATE THIS REPORT IS WRITTEN	THIS PURCHASE IS EXPECTED: DATE OF EXPECTED PURCHASE
PROJECTED GO-LIVE DATE: PROJECTED DATE HERE	ANTICIPATED END-OF-LIVE FOR TECHNOLOGY: PROJECTED EOL DATE (YEAR ONLY) HERE

1 THE PROBLEM TO BE RESOLVED OR THE OPPORTUNITY TO BE SEIZED

Describe the business or instructional problem to be solved or the instructional opportunity to be seized to help student academic achievement.

2 SOLUTIONS TO SOLVE PROBLEM OR SEIZE OPPORTUNITY

Detail how the solutions are to solve the problem or seize the opportunity presented above. What technology, people or process could be used to solve or seize. Be sure to enter all the solution(s) found to solve or seize the problem including doing nothing

3 RECOMMENDED APPROACH OF AVAILABLE METHODS

What approach are you recommending to fix the problem or take advantage of the opportunity? Which technology do you need to do it and why is it the best choice over the others or even better than doing nothing? This should include a table with the solutions and related risks of doing each one where you recommendation has the lowest risk and greatest advantage for the District.

4 COMPETING TECHNOLOGIES REVIEWED

Detail and/or list the other technologies that were reviewed in the selection of this product and briefly detail why they are not the chosen one. Include pricing if quotes or other pricing information was gathered. It is critical that a Total Cost of Ownership (TCO) review be included in the comparison of alternative technical solutions. This should clearly show that the final recommendation was arrived at after an open and free review process occurred.



Information Technology

Business Case for Technology Purchase

All text in this color within this report is to be replaced with normal text. This report may expand to accommodate the volume needed to fully answer each section.

[Delete this section.]

5 GENERAL OVERVIEW OF RECOMMENDED: (TECHNOLOGY NAME HERE)

Type a general description of the technology to be purchased. Make sure you include the type of technology it is Hardware, Software, or a Service and as much detail as possible.

6 EXPECTED DISTRICT BENEFIT FROM (TECHNOLOGY NAME HERE)

Write the reason for this proposed purchase and how it will help the District improve our core mission of educating students. This section is critical and should be well thought out.

7 (TECHNOLOGY NAME HERE) WILL REPLACE (OLD TECHNOLOGY HERE)

If this technology is replacing old technology clearly discuss the advantages for the District of this new technology and why it is critical to have it replace the old technology. Make sure you reference our core mission of student academic growth. If this is not a replacement technology then so note it in this area. If it is a replacement that the End-of-Life Analysis must be completed.

8 RISK TO THE DISTRICT IF NOT PURCHASED

Explain the risk to the District if this purchase is not made. Explain the risk in technical terms and additionally how that will/could impact the classroom negatively. This is high impact paragraph expanding on the statements made in #3 above.

9 REQUEST FOR RECOMMENDATION APPROVAL

Manager's Signature Here

Director's Signature Here

Type Manager's Name Here Date
Manager Requesting Purchase

Type Director's Name Here Date
Director Approving Purchase

Management's Response



THE SCHOOL DISTRICT OF
PALM BEACH COUNTY, FL

CHIEF OPERATING OFFICE
3300 FOREST HILL BOULEVARD, B-302
WEST PALM BEACH, FL 33406

PHONE: 561-357-7573 / FAX: 561-357-7569
WWW.PALMBEACHSCHOOLS.ORG/COO

WANDA F. PAUL, M.Ed., MBA
CHIEF OPERATING OFFICER

DONALD E. FENNOY II, Ed.D.
SUPERINTENDENT

RECEIVED
FEB - 5 2020

INSPECTOR GENERAL

MEMORANDUM

DATE: February 6, 2020
TO: Lung Chiu, CPA, Inspector General
FROM: Wanda F. Paul, M.Ed., MBA, Chief Operating Officer
Michael J. Burke, Chief Financial Officer
SUBJECT: Management Response - Special Review of Technology System Acquisition (ITN 19C-035W)

1. No Documented Feasibility Study or Business Case Performed Prior to ITN

Management does not concur that the process utilized is not appropriate.

Operations, Purchasing and Information Technology exercised due diligence, in alignment with the Institute of Internal Auditors and the U.S. Department of Justice's Systems Development Life Cycle Guidance Document, (as cited in the Special Review Report), completing the first two phases of (1) Initiation and (2) Systems Concept Development.

Initiation Phase (Identification of Need):

The School District purchased Tririga in 2006, following approval by the Board on January 28, 2006. The Operations Division is the only user of Tririga, to support school and ancillary facilities. As a maintenance work order system, Tririga has proved to be complex, not end-user friendly and lacking in useful management level reporting. In alignment with the District's long-term strategy of continuous improvement, the Chief Operating Officer directed Operations Division staff to work through Purchasing to determine if there is software on the market that will better serve the work order/capital projects and related functionality needed to maintain the District's 30 million square feet of school and ancillary facility space. The objective is to replace all functionality currently residing in Tririga, to avoid the cost of running two systems.

Systems Concept Development Phase (Approach to Review Potential Solutions or Alternatives):

Operations staff, in conjunction with Information Technology, developed the list of functionality required of a new system. Maintenance & Plant Operations, School Food Service, School Police, Environmental & Conservation Services, Building Code Services, Planning, Facilities Management, and Transportation each developed their list of functions required and nice to have. Information Technology provided the list of technical, training and project management requirements. The consolidated list by function became the basis for the ITN. The attached excerpts from 19C-095W ITN, Section 13.0 Scope of Services, and Appendix A, summarize the District's business case for pursuing alternatives to Tririga.

The School District of Palm Beach County, Florida
A Top High-Performing A-Rated School District
An Equal Education Opportunity Provider and Employer

Management's Response

Page 2 of 2

February 6, 2020

SUBJECT: MANAGEMENT RESPONSE - SPECIAL REVIEW OF TECHNOLOGY SYSTEM ACQUISITION (ITN 19C-035W)

Purchasing convened a committee of stakeholders to review vendor submissions. Of the six submissions, the committee selected three vendors to interview. Following interviews, the committee selected one vendor with whom to pursue negotiations. At the time of this response, negotiations are underway.

Next Steps:

Should the negotiating team come to terms with the vendor, formal business case documentation will be presented to the Technology Advisory Committee and the Technology Clearinghouse Committee. Following Committee reviews and consideration of their input, the proposal to purchase a replacement Integrated Workplace Management System will be brought to the School Board for approval. With Board approval, the contract will be executed and a purchase order issued.

2. Crucial Information for Decision Making Not Available

Management does not concur.

A final decision has not been made. As evidenced by the process described above, Management exercised appropriate procedures to determine that there is another system, which can better serve the functional needs of the District. Until negotiations are completed, it is inappropriate to bring a proposal to the Technology Clearinghouse Committee or the Technology Advisory Committee for approval, as the business case would not include the financial cost, which is an essential component in the final decision to purchase a new service to replace Tririga. The Operations Division is very cognizant of the importance of being a good steward of taxpayer dollars. That said, it is important to be clear that the present functionality provided by the in-house Tririga software application is not serving the maintenance and operational needs of District facilities, which in itself is a huge investment of taxpayer dollars.

WFP/SK:cdss

cc: Deepak Agarwal, Chief Information Officer
Darci Garbacz, Purchasing Director

The School District of Palm Beach County, Florida
A Top High-Performing A-Rated School District
An Equal Education Opportunity Provider and Employer

Management's Response

19C-035W ITN – Excerpts Which Summarize the District's Business Case

13.0 SCOPE OF SERVICES

13.1 This request is for software, implementation, training and ongoing support.

13.2 The IWMS software must provide a comprehensive system that will serve the District's functional requirements, including but not limited to, work orders, asset/warranty management, parts management, comprehensive facility and equipment database, capital projects and planning, lease administration, utilities management, performance management reporting, and inspections. Key deliverables for the new system are:

13.2.1 Describe the capabilities of the proposed IWMS regarding how it will support/enhance functional areas identified in Appendix A.

13.2.2 Describe how the proposed IWMS can eliminate or replace existing programs such as Computer Aided Facilities Management (CAFM) system,

13.2.3 Describe how the proposed IWMS will receive information/interface with PeopleSoft.

13.2.4 Describe how the system is updated, the frequency, and how best practices are established and implemented within the software.

13.2.5 Describe the system's ability to produce and publish both customized and standard reports.

13.2.6 Describe the system's functionality with portable devices and what mobile application are included.

13.3 General requirements of the new system are: a) user friendly, b) efficient work-flow design, c) ease of maintenance, d) technical support and documentation, and e) web-enabled application.

13.4 The District may adapt its business practices, where feasible, to those supported by the configuration of the proposed software.

19C-035W
IWMS Functional Requirements
Appendix A

Overall System

The District seeks to purchase a comprehensive Integrated Workplace Management System (IWMS) which will address the following functions:

- Work Orders
- Asset/Warranty Management
- Parts Management
- Comprehensive Facility and Equipment Database
- Capital Projects and Planning
- Lease Administration
- Utilities Management
- Performance Management Reporting
- Inspections
- Key Management
- IWMS Security (System Security)
- Implementation, Training, Project Management and Support

Work Orders

Minimum Requirements:

- Configurable drop-down menus to accommodate work requests submitted to various departments, including Maintenance & Plant Operations, School Food Service, School Police, Environmental & Conservation Services, Construction, Building Code Services, and Planning & Intergovernmental Relations
- Ability to import fire safety citations into work order system
- Approval trees and routing aligned to the type of work order request
- Support for multi-level approvals, with options to return for revisions or reassign
- In-application email notifications for creation, approval, assignment, completion, and status of all requests and tasks
- Ability to track costs by type of request (Sales Tax, CIP, hurricane, IAQ, routine, etc.)
- Provide electronic (web) customer satisfaction surveys and/or surveys for business owners/customers to provide feedback
- Seamless ordering of materials and notification when materials arrive
- Mobile device accessibility to enter, view and process work orders
- Time entry by technicians, vendors or designee via mobile device
- Dashboards to view work order status by team, technician and asset type

Additional functions if possible:

- Allow routing of work orders to contract vendors
- Integrated entry of fire safety citations with the work order system
- Interface work order and equipment information with building floor plan graphic

Management's Response

- Ability to create work order requests for GIS information from web form which is accessible to public entities; such work orders are then routed to Planning department staff for review before processing
- Support different (multiple) numbering schema by business need
- Establish parent/child work order relationship for multiple trades
- CAD drawings for all PBCSD facilities available for users to select the locations they are referencing when creating work orders

Asset/Warranty Management

Minimum Requirements:

- Enter, store and track equipment warranty status
- Auto populate asset warranty information on work orders upon submission
- Allow users to update equipment information and retire obsolete information
- Provide notifications when warranty period is close to ending

Additional Functions if possible:

- Ability to track tool assignments

Parts Management

Minimum Requirements:

- Interface with Fastenal MRO (maintenance, repair & operations) system
- Track min/max inventory levels in trucks & warehouse (minimal inventory)
- Real time data exchange with PeopleSoft Financials to allow budget/purchase orders/p-card costs/expenditure tracking
- Ability to edit parts catalog, including addition of new parts, with as many pre-populated or drop-down field entries as possible
- Parts return interface with PeopleSoft

Additional functions if possible:

- Ability to generate labels with work-order and part number when issuing parts to technicians
- Reserve capabilities to reserve vehicles, tools, keys, etc. and send notifications if time limit has been exceeded

Comprehensive Facility, Building Component, and Equipment Database

Minimum Requirements:

- Store and manage school campus and ancillary building configurations, including building, room numbers and functional use, FISH (Florida Inventory of School Houses) facility numbers, MSID (Master School Identification) numbers and space measurements
- Store and manage vacant real estate parcels
- Store and track useful life, repair and replacement history of each building component

Management's Response

- Track building component repair history by work order, including labor and materials cost or contract vendor cost
- Reports to assist with repair vs. replace decisions
- Ability to group multiple buildings into user defined groups, such as service areas, in a tiered location structure
- Ability to create organizations, people, geography, location, specification, and assets in a hierarchical format
- Ability for a user to drill down to a particular facility, building, floor, room, etc.
- Accessibility to facility records (a building or other structure) to update and maintain the data
- Associate and manage building contact information

Additional Functions if possible:

- Maintain building characteristics database for insurance/risk management purposes
- Ability to track portable classroom locations and relocations
- Store and maintain CAD (Computer-aided design) drawings for all schools and ancillary facilities*
- Ability to display CAD drawings with dynamic data generated by a query without using the actual CAD program (e.g., total area occupied by each department)
- Store and track historical Insurance Company and FEMA claims paid (amount, date and building component) for each facility

Capital Projects and Planning

Minimum Requirements:

- Forecast capital needs - create predictable/preventive maintenance schedules
- Import 2016 Facility Condition Assessment data, including actions taken to resolve (i.e., repair and replace building components) and maintain and track information going forward
- Import and maintain 2018 Referendum Projects
- Daily capital projects synchronization with PeopleSoft Financials: project-related budget, purchase orders, blanket purchase orders, invoices and receipts
- Ability to create and track project change orders
- Ability for MPO department to track facilities construction projects and for Construction to track Maintenance projects
- Accommodate 5- and 10-year Capital Project plans
- Provide Project Tasks Gantt Chart capabilities
- Financial forecasting/budget development (based on equipment maintenance schedules, repair vs replace options, etc.)
- Functionality to track equipment condition and facility condition to perform accurate Condition Assessment with minimal effort

Additional Functions if possible:

Management's Response

- Interface with electronic payment and internal accounting systems
- Ability to communicate with utility system to control EMS/HVAC
- Establish lease revenue limit for schools funded with tax-exempt debt

Utilities Management

Minimum Requirements:

- Ability to link to School Dude utilities module (called "Energy Manager by Dude Solutions"):
 - Ability to link leases to District EMS (Energy Management System) for automatic scheduling of utilities at facilities, authorized through an approval system
 - Ability to interface with BACnet system installed at each facility

Performance Management Reporting

Minimum Requirements:

- Performance dashboards
- Drag and drop reporting capability
- Metrics/productivity reports by team, person, location, trade, category, etc.
- BIRT (Business Intelligence Reporting Tools) integration or ability to create embedded reports with School District Logo and other custom formats
- Ability to send reports via email attachments automatically
- Access pre-defined reports directly from individual user portals
- High level (e.g., volume, efficiency, productivity) reports for management
- User-friendly report capabilities (users should have the ability to create/modify as needed, not restricted to IT or software company)

Inspections

Minimum Requirements:

- Ability to create customized inspection forms for use by building code, school police, and environmental inspectors
- Ability to record and track permits, submittals, inspections and associated data
- Ability to store and reference code and regulatory information for the fire safety and building inspections
- Seamless interface to generate work orders
- Portal access to all inspections and work orders generated by the inspectors
- Customized reports about permitting, plan review and inspection data
- Ability to use mobile devices, tablets, to conduct inspections, enter plan review comments, generate work orders and generate inspection requests
- Import and maintain existing permit and inspection records database, including outstanding or multi-year citations
- Integrate with electronic document storage system (Imagequest) for permit, drawing, and inspection documents
- GIS integration for control/access of all documents and inspections
- Interface occupancy and inspection information with building floor plan graphic

Management's Response

- Read only public access to permit, submittal and inspection data

Key Management

Additional Functions if possible:

- Track keys issued by location
- User can log into software and enter location they need, using a search to see all locations available in the District
- Describe exactly what is needed
- Submit request with the due date and ability to designate as an emergency
- Emails automatically generated for technicians when key requests are submitted, and users receive emails about the status of their key request
- Reports designed as needed by the customer

Technical Requirements

Minimum Requirements:

IT Security requirements

- Ability to interface with PeopleSoft to assign roles and process additions, retirements, and modifications for School District employees
- Admin security access to modify employee access
- Admin access to audit user access and actions, i.e., track individual user activity
- Allow delegation/assignment of actions
- Provide the ability to automate escalations when actions are not performed within a designated time frame or use is flagged as unavailable
- Audit logs for all edits of data, with the logs tagged with date, time and user-ID
- Provide the ability to make changes to records and track the author of the changes, plus an audit trail of the changes
- Role-based Security

General requirements:

- Single-Sign On (SSO) with Active Directory authentication
- Thin-client (browser-based) supporting Google Chrome, Microsoft IE & Edge, Apple Safari & Firefox
- Mobile capability for Android & iOS phones/tablets

Additional requirements, if possible:

- Gartner-rated, upper right quadrant
- Cloud-based, hosted software preferred - SaaS/Cloud-based Solution
- Internal & external e-signature capability

Implementation, Training, Project Management and Support

Minimum Requirements:

- Implementation
 - Pilot phase
 - Phased implementation
 - On-site vendor support during implementation

Management's Response

- Critical dates considerations (roll-over, start of school, testing blackout, etc.)
- Payment schedule based on milestones reached
- Training
 - Vendor-supplied training
 - Train the trainer
 - Online training resources
- Project Management
 - Vendor-supplied project management services
- Ongoing support after implementation
 - Tiered support available with priority escalation