

# AiM FMS FCA User Guide

## Planning and Needs Analysis Module

November 2016

# FCA Data resides in FMS


\* Recommend using GOOGLE CHROME, formatting is better when viewing all reports

← → ↻ 🏠  ★ 📄 📁 B ☰

Apps Google Gmail 17 Calendar Contacts AiM >> Other bookmarks

## Plant Operations @ UNIVERSITY OF MICHIGAN

Home Emergency Customer Services Plant Intranet Contact Us Departments Search Plant



**Welcome to Plant Operations!**

about this photo

Plant Operations Department Index

- Office of the Executive Director »
- Construction Services »
- Facilities Maintenance »
- Planet Blue Operations Teams
- Plant Academy »
- Plant Administrative Services
- Plant IT
- Plant Business Office (PBO)
- Plant Building and Grounds Services »
- Plant Material and Moving Services »
- Utilities & Plant Engineering »
- Work Management »

Plant Operations Partners »

Plant Operations Resources »

University Resources »

Environmental Initiatives »

@StandardsUMich

News Events Personally Owned Devices & SPG Job Openings

Mar. 28, 2016: Grounds now hiring for summer temp positions [more...](#)

Feb. 25, 2016: Ann Arbor campus earns Tree Campus USA recognition [more...](#)

Jan. 28, 2016: Paul Guttman - UM Distinguished Diversity Leader [more...](#)

Jan. 22, 2016: Plant Operations Blood Drive - Monday, January 25 [more...](#)

Jan. 05, 2016: Glass Recycling Temporarily Suspended [more...](#)


[...Read more Plant news.](#)

**Newsletters**


Plant Operations: [Plant Exchange](#)

Construction Services: [In the News](#)

**Request a Work Order**



Click [HERE](#) for information about Plant's Timekeeping System.



**Quick Links**

- Chiller Status / Heating Info
- Employee Recognition
- Energy Management
- Facility Condition Assessment
- Key Office
- POCC (Plant Operations Call Center)
- Recycling
- UManage

Path: The University of Michigan | Business & Finance | Facilities & Operations | Plant Operations Division

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There's a link on FCA site to FMS, plus access to the FCA User Guide



\* Recommend using GOOGLE CHROME, formatting is better when viewing all reports

← → ↻ 🏠 [www.plantops.umich.edu/utilities/operations-engineering/eng\\_services/fca/](http://www.plantops.umich.edu/utilities/operations-engineering/eng_services/fca/) ★ 📄 🗂️ ⓘ ☰

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# Plant Operations @ UNIVERSITY OF MICHIGAN

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## Utilities & Plant Engineering : Mechanical Engineering

about this photo

- Utilities & Plant Engineering
- Business Services
- Central Power Plant
- Electrical Operations and Engineering
- Energy Management
- Mechanical Engineering
- Utilities Distribution
- Utilities Records Integration

Mechanical Engineering @ U-M

- Customer Support Services »
- Engineering Services and Consulting »
- Outreach
- Special Programs »
- Who We Are
- Contact Us
- Site Map

Google UPE  
Available for UPE computers

### Facility Condition Assessment (FCA) Program



▼ Introduction

To better manage an increasingly complex infrastructure, the University implemented a Facility Condition Assessment (FCA) Program in 1998. The objective of which is to maintain a comprehensive database on the physical condition of the building portfolio. The FCA database contains identified deficiencies and as well as asset life cycle data of major building components and systems; including architectural, structural, civil, mechanical, electrical, life safety and fire protection, environmental health, and building accessibility. Deficiencies and anticipated needs are listed in the database as independent projects and assigned a priority, budget, classification and category.

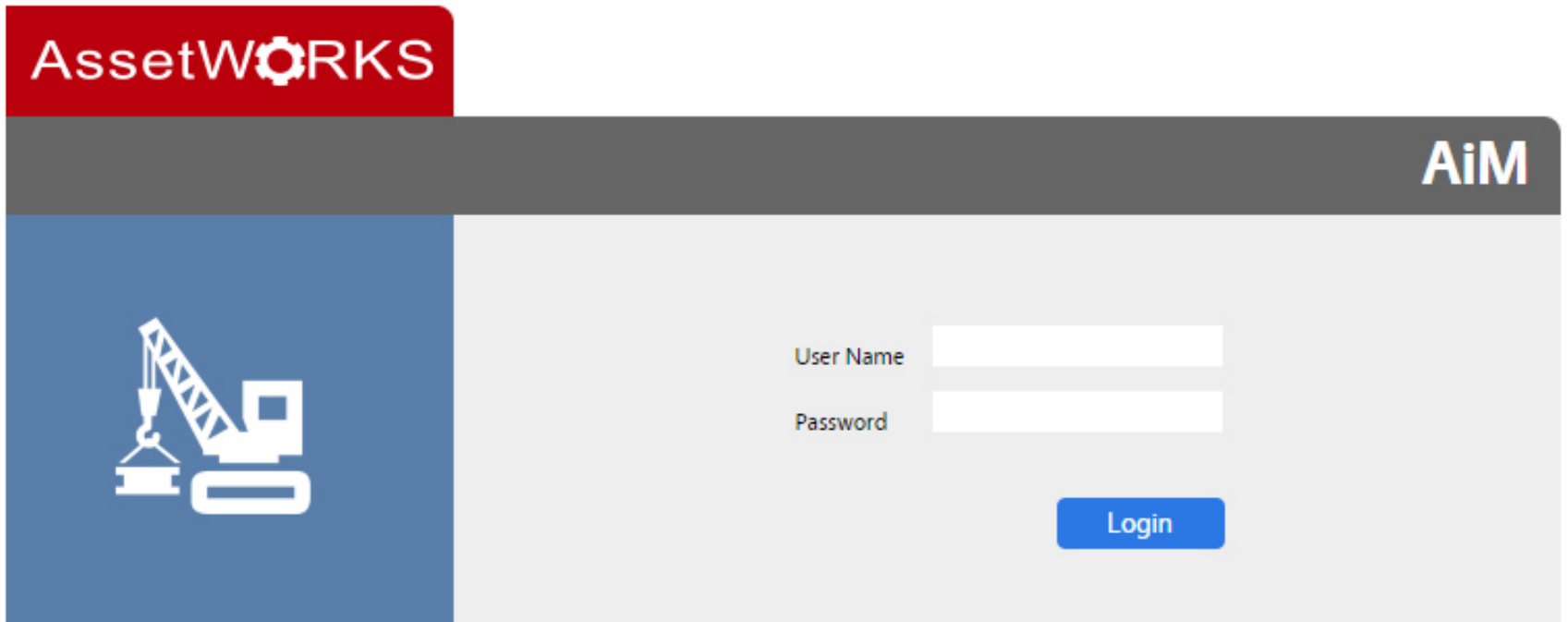
The FCA data is maintained in the "Planning and Needs Analysis" module within FMS, known in FMS as the PNA module. An FCA user guide has been developed that provides details on how to access the FCA data and how to generate reports.

► FCA Data Management

[PNA Module login](#)  
[FCA User Guide](#)  
[New Project Form](#)



<https://fms.bf.umich.edu/fmax/login>



The image shows the login page for AssetWORKS. At the top left, the "AssetWORKS" logo is displayed in white text on a red background. To the right, the "AiM" logo is shown in white text on a dark gray background. On the left side of the main content area, there is a blue square containing a white icon of a crane lifting a component. The main content area has a light gray background and contains a login form. The form has two input fields: "User Name" and "Password". Below these fields is a blue "Login" button. At the bottom right of the page, there is a small copyright notice: "Copyright 2015, AssetWorks LLC".

AssetWORKS

AiM

User Name

Password

Login

Copyright 2015, AssetWorks LLC

**Login using umich user name and kerberos password**

Add

Restore

## Menu

- Work Management
- Accounts Payable
- AiMport
- Asset Management
- Condition Assessment
- Contract Administration
- Customer Service
- Estimating
- Finance
- Human Resources
- IQ
- Inventory
- Key Performance Indicators
- Planning and Needs Analysis
- Preventive Maintenance
- Project Management
- Property
- Purchasing
- Time and Attendance
- System Administration

## Personal Query Listing









**aka FCA Module**

**Note: You may not see all of these other modules**








Add

Restore

Menu

- Q  Condition Assessment Asset Profile
- Q  Assessment Deficiency
- Q  Cost Model
- Q  Strategic Plan
- Q  Cost Model Adjustment
- Q  Property Needs Analysis

Setup

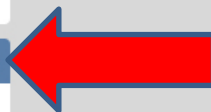
- Q  Assessment Deficiency Status
- Q  Cost Model Type
- Q  Strategic Plan Type
- Q  Strategic Plan Status
- Q  Planning Group
- Q  Priority
- Q  Inflation

Report Listing

- Asset Deficiencies Custom
- Asset Deficiencies by BLD
- FCI
- FCNI
- Matrix

### REPORTING LISTING (Use to generate basic FCA reports)







1. Most users can obtain the information that they are after in this section.
2. Reports are being developed and will be added to this section.
3. Current reports include:
  - “Asset Deficiencies Custom” - Generates custom reports with several fields to search on. (Note: Custom report only appears to F&O architects and engineers)
  - “Asset Deficiencies by BLG” - Generates standard FCA Report for any building.
  - “FCI” - Generate “Facility Condition Index” = Deferred Maintenance / Replacement Cost.
  - “FCNI” - Generate “Facility Condition Needs Index” = Entire Backlog / Replacement Cost.
  - Matrix - Backlog report by category & priority (Note: Only available to select few)










Add

Restore

## Menu

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## Setup

- Q  Assessment Deficiency Status
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## Report Listing

- Asset Deficiencies Custom
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- FCI
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- Matrix

**“Asset Deficiencies by BLG”**

The most common report.


Generates a standard FCA Report for any building.

- Use this report when searching for all needs within a given building.

## BIRT Report Viewer



Showing page 1 of

Go to page:  

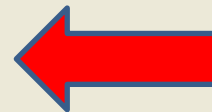
### Parameter



Parameters marked with \* are required.

{ } Please select the building to see deficiencies: \*

00005 (NICHOLS ARBORETUM RESIDENCE ▼)



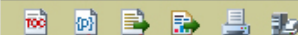
**Use pulldown to select desired building,  
then click OK.**

OK

Cancel



# BIRT Report Viewer



Showing page 1 of 3

## Asset Deficiencies by Building

Building: NICHOLS ARBORETUM RESIDENCE  
00005

Use this to export to PDF or other format  
Use this to export to Excel  
Use this to select another building if desired

Report as it appears using GOOGLE CHROME. If you use another browser formatting may appear differently.

DEFICIENCY	TITLE	COST	PRIORITY	CLASS	SOURCE	YEAR	STATUS
1000005EL01	UPGRADE INTERIOR / EXTERIOR ELECTRICAL TO INCLUDE LIGHTING	\$24,252.31	2	DM			OPEN
	The interior electrical system (switches, receptacles, wiring, and electrical panels) within this facility vary in age and life cycle. The wiring is primarily the old asbestos cloth type wiring, and several wire runs and outlets were not grounded. There is an increased need for properly grounded and reliable power in facilities that are utilized by students, as computers and other sensitive equipment are often used. Most of the interior electrical system needs to be replaced very quickly due to its deteriorating state and the age and type of construction of this facility. New panels with adequate sizing for electrical usage should be installed. Replace all switches and receptacles throughout the facility at one time, and ensure proper grounding of the building's electrical system. Replace distribution wire as needed. The light fixtures also vary in age and life cycle. It is recommended that new fixtures be added in each room and that the corridor and restroom lighting also be upgraded.						
1000005ES01	WEST BASEMENT WINDOW AND DOOR REPLACEMENT	\$4,137.44	2	DM			OPEN
	The window, door, and open door assemblies is recommended of the house.						
1000005ES02	REFURBISH						OPEN
	The rear brick patio area is recommended to restore painting to mask repairs and						
1000005ES04	EXTERIOR T						OPEN
	Generally, the exterior cedar repair on the east gable. It is protect the facility.						
1000005ES05	REPLACE ~3 ROOF						OPEN
	The existing shingles are be						
1000005FS01	IMPROVE GU AREA WELL						OPEN
	The guard protecting the ba necessary to infill the guard steel rods (or pipes as appr A steel pipe handrail should be installed on this stair.						
1000005FS03	INSTALL EXIT SIGNAGE AND EMERGENCY LIGHTING	\$4,362.39	2	PA			OPEN
	The building has no exit signs or emergency egress lighting units. Both are necessary to illuminate and direct the orderly and rapid evacuation of the building during times of an emergency. Self-illuminated exits signs and egress lighting units with battery and charger power packs are recommended.						

COST  
Ballpark project cost, A/E to validate

PRIORITY  
1 = Failed item, address in current year  
2 = Goal is to address in 2 -5 years  
3 = Goal is to address in 6 -10 years  
4 = Goal is address via major renovation

CLASS  
DM = Deferred Maintenance  
CR = Capital Renewal  
PA = Plant Adaption

SOURCE  
Source used for funded items

YEAR  
If Year < current = year it was completed  
If Year > current = then target date

STATUS  
OPEN = unfunded assessment deficiency  
ACTIVE = unfunded asset  
COMPLETE = completed via contract  
FINAL = completed via WR

in window, and motif of the rest  
the enclosure ended exterior  
in need of weather-  
OPEN  
OPEN  
here, it is or horizontal) handrail system.

## BIRT Report Viewer



Showing page 1 of 3



## Asset Deficiencies by Building

Building: NICHOLS ARBORETUM RESIDENCE  
00085

Use this to export report to PDF, or other format

Use this to export report to excel

Use this to select other buildings if desired

Opens this dialog box

DEFICIENCY	TITLE	COST	PRIORITY	CLASS	SOURCE	YEAR	STATUS
1000005EL01	UPGRADE INTERIOR / EXTERIOR ELECTRICAL TO INCLUDE LIGHTING	\$24,252.31	2	DM			OPEN

The interior electrical system (switches, receptacles, wiring, and several wire runs and outlets were not grounded. Computers and other sensitive equipment are often used. type of construction of this facility. New panels with adequate time, and ensure proper grounding of the building's electrical that new fixtures be added in each room and that the correct

1000005ES01 WEST BASEMENT WINDOW AND DOOR REPLACEMENT

The window, door, and opening framing within the confined door assemblies is recommended. Work should include repair of the house.

1000005ES02 REFURBISH SCREEN PORCH

The rear brick patio area is now covered by a screened porch. It is recommended to restore the feature. Repair the framing painting to mask repairs and unify the appearance of the porch.

1000005ES04 EXTERIOR TRIM REPAIR AND PAINTING

Generally, the exterior cedar siding application is in good repair on the east gable. It is recommended that the water protect the facility.

1000005ES05 REPLACE ~30 YEAR OLD PITCHED SHINGLED ROOF

The existing shingles are beyond their life expectancy and need to be replaced.

1000005FS01 IMPROVE GUARD AND HANDRAILS ON BASEMENT STAIRWELL

The guard protecting the basement stairwell is a two-rail system. It is necessary to infill the guard systems with material which is strong. Steel rods (or pipes as appropriate) be added to close the stairwell. A steel pipe handrail should be installed on this stair.

1000005FS03 INSTALL EXIT SIGNAGE AND EMERGENCY LIGHTING

The building has no exit signs or emergency egress lighting units. Both are necessary to illuminate and direct the orderly and rapid evacuation of the building during times of an emergency. Self-illuminated exits signs and egress lighting units with battery and charger power packs are recommended.

## Export Data

Available result sets

- ELEMENT\_117
- ELEMENT\_117
- ELEMENT\_118
- ELEMENT\_11

Selected Columns

To export, use pulldown to select ELEMENT\_11  
Then select desired fields to export

Export format: CSV(\*.csv)

Output encoding: ☒ UTF-8☐ Other (If blank, use the local encoding)

Separator: Comma ( , )

☐ Export column's data type☐ Export column as locale neutral☐ Export data with Carriage Return

OK

Cancel

and asbestos cloth type  
ized by students, as  
ate and the age and  
out the facility at one  
e. It is recommended

OPEN

framing, window, and  
general motif of the rest

OPEN

ding of the enclosure  
commended exterior

OPEN

ponents in need of  
properly weather-

OPEN







OPEN

nch sphere, it is  
vertical (or horizontal)  
is no handrail system.








Add

Restore

Menu

- Q  Condition Assessment Asset Profile
- Q  Assessment Deficiency
- Q  Cost Model
- Q  Strategic Plan
- Q  Cost Model Adjustment
- Q  Property Needs Analysis

Setup

- Q  Assessment Deficiency Status
- Q  Cost Model Type
- Q  Strategic Plan Type
- Q  Strategic Plan Status
- Q  Planning Group
- Q  Priority
- Q  Inflation

Report Listing

- Asset Deficiencies Custom
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- Matrix



## **“Asset Deficiencies Custom”**

**Generates custom reports with several fields to search on.**

Note: Custom report only appears to F&O architects and engineers.

- Search fields include:
  - Non-completed, Completed or both
  - Campus, Region or Sub-region
  - Planning Group
  - Priority
  - Renewal Year
  - Funding Source

## Asset Deficiencies Custom Report



Showing page 1 of

Go to page:

Use pulldown to select desired search parameters, you can search on .

For instructions on how to export the report, refer to the instructions provided for exporting a BLD report outlined previously.

ALL in each field is the wildcard used to capture all items. eg; if ALL is left in planning group, then results will all groups.

Useful when searching for projects retired by a particular funding source

Useful when searching for DM/CR or PA items

**Parameter**

Parameters marked with \* are required.

{ } Would you like to include "Completed" deficiencies?: \*

No

{ } Enter a planning group: \*

- ALL -

{ } Enter the priority: \*

- ALL -

{ } Enter Renewal Year. If you need to search for all, enter %: \*

- ALL -

{ } Enter the funding source: \*

- ALL -

{ } Enter Funding Year: \*

- ALL -

{ } Please enter a reporting group.: \*

- ALL -

{ } Please enter a project classification.: \*

- ALL -

OK Cancel

Useful if you're a member of a specific FCA team

To find items targeted in a specific year

To find items funded in a specific year

Reporting group is for subsets of PPI. eg; VFD's, Water Treatment, CHW

If you want to include completed items change to "yes". If you're searching on particular year, or funding source, be sure to change this to "yes".

### Report Examples:

Give me all of the unfunded, priority 1 items: Leave Completed = No, Priority = 1, leave ALL other fields.

Give me all of the unfunded, priority 2 items for HV: Leave Completed = No, Planning group = HV, Priority = 2, leave ALL other fields.

Give me all of the projects funded in FY16: Change Completed to YES, Select 2016 in "Funding Year", leave ALL other fields.

Add

Restore

## Menu

- Q [icon] Condition Assessment Asset Profile
- Q [icon] Assessment Deficiency
- Q [icon] Cost Model
- Q [icon] Strategic Plan
- Q [icon] Cost Model Adjustment
- Q [icon] Property Needs Analysis

## Setup

- Q [icon] Assessment Deficiency Status
- Q [icon] Cost Model Type
- Q [icon] Strategic Plan Type
- Q [icon] Strategic Plan Status
- Q [icon] Planning Group
- Q [icon] Priority
- Q [icon] Inflation

## Report Listing

- Asset Deficiencies Custom
- Asset Deficiencies by BLD
- FCI
- FCNI
- Matrix

**“FCI” and “FCNI” – Generate condition index reports.**







- FCI is calculated by taking the unfunded “deferred maintenance backlog” and dividing by the facility replacement cost.
- FCNI is calculated by taking the “total unfunded backlog” and dividing by the facility replacement cost.
- The lower the FCI & FCNI values the better the condition of a building.
- Report can be generated for ALL buildings, the General Fund buildings, or BOTH.
- BOTH includes only the buildings that are shared between Auxiliaries and General Fund.

For instructions on how to export the report, refer to the instructions provided for exporting a BLD report outlined previously.








Add

Restore

## Menu

- Q  Condition Assessment Asset Profile
- Q  Assessment Deficiency
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## Setup

- Q  Assessment Deficiency Status
- Q  Cost Model Type
- Q  Strategic Plan Type
- Q  Strategic Plan Status
- Q  Planning Group
- Q  Priority
- Q  Inflation

## Report Listing

- Asset Deficiencies Custom
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**“Matrix”**

- Only available to select few.
- This report provides backlog totals by category and priority and includes DM, CR & PA backlog totals.



# Understanding FCA Data

## Two types of FCA Items

**Original ISES data  
migrated as non-recurring**

### Lifecycle Renewal (Recurring)

Condition Assessment Asset Profile

Lifecycle Assessment Cost Model  
(Renewal Cost)

### Recommended Project (Non-Recurring)

Assessment Deficiency

Project Assessment Cost Model  
(Deficiency Estimate)

**FCA data contains both recurring (lifecycle) and  
non-recurring items (one-time repair)**

Add

Restore

## Menu

- Q [icon] Condition Assessment Asset Profile
- Q [icon] Assessment Deficiency
- Q [icon] Cost Model
- Q [icon] Strategic Plan
- Q [icon] Cost Model Adjustment
- Q [icon] Property Needs Analysis

## Setup

- Q [icon] Assessment Deficiency Status
- Q [icon] Cost Model Type
- Q [icon] Strategic Plan Type
- Q [icon] Strategic Plan Status
- Q [icon] Planning Group
- Q [icon] Priority
- Q [icon] Inflation

## Report Listing

- Asset Deficiencies Custom
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**Condition Assessment Asset Profile** contains recurring items.

(Replacement of Assets based on life cycle)

**Assessment Deficiencies** contains one time repairs, or a group of Assets as single project. (Original ISES data migrated as Assessment Deficiencies)



New

Search

Browse

Launches search tool

Last Edited by On

Only users with write access will see "New"

## Assessment Deficiency example

Status

Adjusted Planned Budget

\$0.00

City

Campus

Building

Renewal Year

Planning Year

Planning Group

Priority

Subledger

Design Fees

Construction Costs

Labor Tax

Modernization

Contingency

### Deficiency Details

Line	Cost Model	Description	Base Year	Quantity	UOM	Planned Budget	Adjusted Planned Budget
------	------------	-------------	-----------	----------	-----	----------------	-------------------------

There is a similar screen for Condition Assessment Asset Profile Details on pages following Assessment Deficiency example.



Execute

Advanced Search

Reset

Action

[New Query](#)

View

Enter desired  
criteria and click  
“Execute”

Display Order	Sort	Operator	
<input type="checkbox"/> Deficiency	- ▼	= ▼	<input type="text"/> Use when Deficiency number is known
<input type="checkbox"/> Description	- ▼	contains ▼	<input type="text"/> Search based on partial project title
<input type="checkbox"/> Status	- ▼	= ▼	<input type="text"/> Search for Open vs Completed
<input type="checkbox"/> City	- ▼	= ▼	<input type="text"/>
<input type="checkbox"/> Campus	- ▼	= ▼	<input type="text"/>
<input type="checkbox"/> Building	- ▼	= ▼	<input type="text"/> Search for select building
<input type="checkbox"/> Renewal Year	- ▼	= ▼	<input type="text"/> Search for items for a select year
<input type="checkbox"/> Planning Group	- ▼	= ▼	<input type="text"/> Search for select group (Useful for FCA Teams)
<input type="checkbox"/> Priority	- ▼	= ▼	<input type="text"/> Search for items by priority (Useful for FCA Teams)
<input type="checkbox"/> Subledger	- ▼	= ▼	▼
<input type="checkbox"/> Design Fees	- ▼	= ▼	▼
<input type="checkbox"/> Construction Costs	- ▼	= ▼	▼
<input type="checkbox"/> Labor Tax	- ▼	= ▼	▼
<input type="checkbox"/> Modernization	- ▼	= ▼	▼
<input type="checkbox"/> Contingency	- ▼	= ▼	▼
<input type="checkbox"/> Extra Description	- ▼	contains ▼	<input type="text"/> Search based on partial project description
<input type="checkbox"/> Edit Date	- ▼	= ▼	<input type="text"/>
<input type="checkbox"/> Editor	- ▼	= ▼	<input type="text"/>

This series not current being used

Similar search feature exist for  
Condition Assessment Asset Profile

Search for select Reporting Group  
(Use magnifying glass for options)

Edit

New

Search

Browse

## Action

[Copy](#)[Email](#)[Print](#)

## View

[Extra Description](#)[Location And Asset](#)[Classification Standard](#)[Assessment Activity](#)[Sent Email](#)[Notes Log](#)[User Defined Fields](#)[Status History](#)[Related Documents](#)**1000065HV09**

Last Edited by MICHAEL BOWEN On 01/28/2016 11:27 AM

REPLACE HEAT PUMP UNITS

**This description is project TITLE**

Status

[OPEN](#)**See below**

Adjusted Planned Budget

\$935,000.00

City

[AA](#)**If Renewal Year  
< current year,  
then = actual year**

Renewal Year

2018

**If Renewal Year  
> current year,  
then = target year**

Campus

[MEDCAMP](#)

MEDICAL CAMPUS

Building

[00065](#)

VAUGHAN VICTOR C HOUSE

Planning Year

Planning Group

HV

HVAC

Priority

**1 = Address this year  
2 = 2 - 5 years  
3 = 6 - 10 years  
4 = Greater than 10 yrs  
YEAR TWO TO FIVE**

Subledger

No

Design Fees

No

Construction Costs

No

Labor Tax

No

Modernization

No

Contingency

No

**These apply to  
Cost Model and  
are not  
currently being  
used.**

## Deficiency Details

Line	Cost Model	Description	Base Year	Quantity	UOM	Planned Budget	Adjusted Planned Budget
1		REPLACE HEAT PUMP UNITS	2016	1.0000	EA	\$935,000.00	\$935,000.00

**All original FCA projects migrated as non-recurring deficiencies.  
Currently working towards moving recurring items from  
Assessment Deficiencies to Condition Assessment Asset Profile  
section. This effort will take significant effort to complete.**

**STATUS OPTIONS:**

OPEN = Unfunded

PLANNING = Current year consideration

FINAL = Associated with a WR

CANCELLED, possibly to Asset Profile

COMPLETED = via an AEC project

Edit

New

Search

Browse

## Action

[Copy](#)[Email](#)[Print](#)

## View

[Extra Description](#)[Location And Asset](#)

Classification Standard

Assessment Activity

Sent Email

Notes Log

[User Defined Fields](#)[Status History](#)

Related Documents

**1000065HV09**

Last Edited by MICHAEL BOWEN On 01/28/2016 11:27 AM

REPLACE HEAT PUMP UNITS

Status

[OPEN](#)

Adjusted Planned Budget

\$935,000.00

**Detailed description****If linked to Asset**

City

[AA](#)

ANN ARBOR

Campus

[MEDCAMP](#)

MEDICAL CAMPUS

Building

[00065](#)

VAUGHAN VICTOR C HOUSE

**To view WR  
activity select  
"Assessment  
Activity"****Funding source,  
Classification, etc.**

Renewal Year

2018

Planning Year

Planning Group

HV

HVAC

Priority

2

YEAR TWO TO FIVE

Subledger

No

Design Fees

No

Construction Costs

No

Labor Tax

No

Modernization

No

Contingency

No

## Deficiency Details

Line	Cost Model	Description	Base Year	Quantity	UOM	Planned Budget	Adjusted Planned Budget
1		REPLACE HEAT PUMP UNITS	2016	1.0000	EA	\$935,000.00	\$935,000.00

**Look for engineering  
reports, OPC's, etc.**

[← Back](#)**1000181PL06**

Last Edited by ALFONSO VIGGERS On 07/23/2015 02:47 PM

DCW BOOSTER PUMP REPLACEMENT

## Assessment Activity

Capital Project	Work Order	Status
	<a href="#">1848455-2013</a>	CLOSED



If Assessment Deficiency has been linked to a Work Order then the Work Order number will appear here. Click to open WO.

Edit

Search

Browse

## Action

[ViewFinder](#)[Email](#)[Print](#)

## View

[Extra Description](#)[Reference Data](#)[Account Setup](#)[Budget Change Order](#)[Cost Analysis](#)[Assessment Deficiency](#)[Condition Assessment Information](#)[Sent Email](#)[Notes Log](#)[User Defined Fields](#)[Status History](#)[Related Documents](#)**1848455-2013**

Created By TERESA BURHANS On 11/30/2012 01:11 PM

Last Edited by ALFONSO VIGGERS On 07/23/2015 02:47 PM

BOOSTER PUMP REPLACEMENT

Status

[CLOSED](#)

Project

[INFPP1-2014](#)

PPI FUNDED PROJECTS FY14

Desired Date

Jun 28, 2013

Budget

\$90,000.00

Organization

[678746](#)

Requestor

[678746](#)

Contact

MIKE BOWEN

Contact Phone

734-647-5797

Contact Email

MBOWEN@UMICH.EDU

City

[AA](#)

ANN ARBOR

Campus

[CENTCAMP](#)

CENTRAL CAMPUS

Building

[00181](#)

HATCHER H SOUTH GRAD

Problem Code

[PROJ](#)

PROJECTS

Type

[C](#)

CUSTOMER

Category

[C](#)

CUSTOMER NONFIXED PRICE

Job Priority

## Phase

Phase	Description	Location	Shop	Work Code	Priority	Status
<a href="#">001</a>	BOOSTER PUMP REPLACEMENT		U4000	XXXX	04	CLOSED
<a href="#">002</a>	BOOSTER PUMP REPLACEMENT		M2550	XXXX	04	CLOSED
<a href="#">003</a>	[P]DEVELOP JOB PLAN- PLANNER(MARK)	C	M1260	PLAN	05	CLOSED
<a href="#">004</a>	[P]DISCOVERY PHASE 1(ELEC)1HR		M2550	R941	04	CANCELLED
<a href="#">005</a>	[PC]COORDINATE WORK FLOW	C	M3000	C965	05	CLOSED
<a href="#">006</a>	[PC]ABATEMENT AND FIBERGLASS REMOVAL. 2(INSL)X10HRS***THIS IS PHASE 35***	C	M3300	C539	05	CLOSED
<a href="#">007</a>	[PC]MOVE MATERIAL INTO WORK SPACE.	C	S5100	M825	05	CLOSED

If a WO has an associated Assessment Deficiency you can access it here

New

Search

Browse

Last Edited by On

## Condition Assessment Asset Profile example

**For RECURRING Assets:  
Roofs, Elevators, Chillers, AHU's,  
Substations, etc.**

City

Campus

Building

Location

Planning Year

Planning Group

Priority

Install Year

Physical Life (Years)

Physical Life Adjustment

Remaining Life (Years)

Renewal Year

Cost Model

Base Year

Complexity Factor

Renewal Cost

Adjusted Renewal Cost

Users can see target renewal year and  
discuss with engineering if adjustments  
need to be considered.

Target Year

Cost Model has not been  
developed. Ultimately  
will contain replacement  
cost and life cycle data.

Status

Asset Type

Asset Group

UOM

Quantity



New

Search

Browse

Last Edited by On

**Cost Model has not been developed.  
Ultimately it will contain replacement cost  
and life cycle data.**

UOM

Physical Life (Years)

Property Class

Standard

Active

Type

Base Year

Labor

Material

Equipment

Contract

Total

\$0.00

## Climate Zone

Zone

Description

Physical Life (Years)





Search

Browse

## Action

[External Url](#)[ViewFinder](#)[Email](#)[Print](#)

## View

[Extra Description](#)[Reference Data](#)[Classification Standard](#)[Attributes](#)[Relocation](#)[Account Setup](#)[Warranty](#)[Parts List](#)[Active PM Templates](#)[Meters](#)[Locations Served](#)[Condition Assessment](#)[Condition Assessment](#)[Employees](#)[Replacement Tag History](#)[Sent Email](#)[Notes Log](#)[User Defined Fields](#)[Status History](#)[Related Documents](#)

## 00158-CTR1

Last Edited by MICHAEL BOWEN On 05/09/2016 01:26 PM

CENTRIFUGAL CHILLER #1 @ CHEMISTRY

City

[AA](#)

ANN ARBOR

Campus

[CENTCAMP](#)

CENTRAL CAMPUS

Building

[00158](#)

CHEMISTRY

Location

[1601](#)

MECHANICAL AREA

Warehouse

PM Route

Route Sequence

Lockout/Tagout

No

Manufacturer

[YORK](#)

Model

YKM4MQK2-DBG

Serial Number

SBAM-578530

Part

Status

[ACTIVE](#)

Asset Type

SERIALIZED

Asset Group

[CHILLCENT](#)

CENTRIFUGAL CHILLER

Rentable

No

Replacement Tag

**Click to access  
Condition  
Assessment data**

## Component Asset

Sequence	Asset	Description	Asset Type	Asset Group	Replacement Tag	Status
----------	-------	-------------	------------	-------------	-----------------	--------

Edit

New

Search

Browse

Action

[Copy](#)[Email](#)[Print](#)

View

[Extra Description](#)[Location And Asset](#)[Classification Standard](#)[Assessment Activity](#)[Sent Email](#)[Notes Log](#)[User Defined Fields](#)[Status History](#)[Related Documents](#)

**Step 10: Attach  
Related Documents  
(Studies, Reports,  
Estimates, etc.)**

**Step 9: Only applicable  
after you create UDF's**

1198

Last Edited by MICHAEL BOWEN On 03/28/2016 08:24 AM

Status

[FINAL](#)

REPLACE VFD'S SERVING EXHAUST FANS EF-1A, EF-1B, EF-2A, EF-2B

**Step 1: Enter project title**

Adjusted Planned Budget

\$90,000.00

**Step 7: Enter project description**

City

[AA](#)**Step 8:  
Link  
Asset**

ANN ARBOR

**Step 2: Select  
City, Campus,  
Building**

Campus

[CENTCAMP](#)

Building

[00208](#)**Step 9:  
Populate  
UDF's**

RANDALL HARRISON M LABORATORY

Renewal Year

2017

Planning Year

**Step 3: Target year**

Planning Group

HV

**Step 4: Group**

HVAC

Priority

2

**Step 5: Priority**

YEAR TWO TO FIVE

Subledger

No

Design Fees

No

Construction Costs

No

Labor Tax

No

Modernization

No

Contingency

No

## Deficiency Details

Line	Cost Model	Description	Base Year	Quantity	UOM	Planned Budget	Adjusted Planned Budget
1		REPLACE VFD'S SERVING EXHAUST FANS EF-1A, EF-1B, EF-2A, EF-2B	2015	4.0000	EA	\$22,500.00	\$90,000.00

**Step 6: Copy Title, enter base year, add quantity, add budget****NOTE: You need to have write access to add items.**

Done

Cancel

1198

Last Edited by MICHAEL BOWEN On 05/16/2016 12:35 PM

REPLACE VFD'S SERVING EXHAUST FANS EF-1A, EF-1B, EF-2A, EF-2B

**Step 8 from page 1: Linking Asset**

## Location

Remove

Load

Location	Description	Floor	Location Type	Space Type	Location Status
----------	-------------	-------	---------------	------------	-----------------

## Asset

Step 1: Click LOAD

Remove

Load

Asset	Description	Asset Type	Asset Group	UOM	Value
<input type="checkbox"/> <a href="#">00208-E-0013-0</a>	VARIABLE FREQUENCY DRIVE (EF-2A) @ RANDALL	SERIALIZED	VFD	<input type="text"/> Q	<input type="text"/>
<input type="checkbox"/> <a href="#">00208-E-0014-0</a>	VARIABLE FREQUENCY DRIVE (EF-2B) @ RANDALL	SERIALIZED	VFD	<input type="text"/> Q	<input type="text"/>
<input type="checkbox"/> <a href="#">00208-E-0015-0</a>	VARIABLE FREQUENCY DRIVE (EF-1A) @ RANDALL	SERIALIZED	VFD	<input type="text"/> Q	<input type="text"/>
<input type="checkbox"/> <a href="#">00208-E-0016-0</a>	VARIABLE FREQUENCY DRIVE (EF-1B) @ RANDALL	SERIALIZED	VFD	<input type="text"/> Q	<input type="text"/>

Step 2: Using search, identify appropriate Asset(s), check box and click "Done" until you're back at Assessment Deficiency screen

**NOTE: You need to have write access to add items.**

Done

Cancel

1198

Last Edited by MICHAEL BOWEN On 03/28/2016 08:24 AM

REPLACE VFD'S SERVING EXHAUST FANS EF-1A, EF-1B, EF-2A, EF-2B

## Step 10 from page 1: Linking Related Documents

**Step 1: Click ADD**

### Document Listing

Attach

Link

Remove

Add

Thumbnail	Title	Current Version	Document Type	Extra Description	Related On
-----------	-------	-----------------	---------------	-------------------	------------

**Step 2: Next Page****NOTE: You need to have write access to add items.**

Next

Cancel

[Upload File\(s\)](#)

**Step 4: Click next/done until back at Assessment Deficiency screen.**

Add Meta Data

[Add Attributes](#)

[Add Permissions](#)

Title

P11070 DEliverable OPC Memo.pdf

**Step 2: Choose Files (Locate on drive and select file(s), click next.**

Type

ESTIMATE



**Step 3: Select appropriate type (Click magnifying glass for options)**

Tags

**Linking Related Documents - Continued**

File Name(s)

P11070 DEliverable OPC Memo.pdf

**NOTE: You need to have write access to add items.**

# PROPERTY NEEDS ANALYSIS and STRATEGIC PLAN

**AiM**

Planning and Needs Analysis

MICHAEL About Help Logout

AddRestore

Menu

Q

Condition Assessment Asset Profile

Q

Assessment Deficiency

Q

Cost Model

Q

Strategic Plan

Q

Cost Model Adjustment

Q

Property Needs Analysis

Setup

Q

Assessment Deficiency Status

Q

Cost Model Type

Q

Strategic Plan Type

Q

Strategic Plan Status

Q

Planning Group

Q

Priority

Q

Inflation

Report Listing

Asset Deficiencies Custom

Asset Deficiencies by BLD

FCI

FCNI

Matrix

PROPERTY NEEDS ANALYSIS (Requires write access to develop plans)

1. This is where you establish Planning Year for selected items.

2. You need to complete Property Needs Analysis before developing a STRATEGIC PLAN

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# PROPERTY NEEDS ANALYSIS (Requires write access to develop)

AiM

Property Needs Analysis

MICHAEL About Help Logout

Save Cancel

View

Extra Description

Notes Log

User Defined Fields

Related Documents

City

AA

ANN ARBOR

Campus

CENTCAMP

CENTRAL CAMPUS

Building

00162

DENTAL W K KELLOGG FOUND INST

Planning Year

2017

Planned Budget

\$240,000.00

Remaining Budget

\$240,000.00

Ranking

Rankings Remove Load Asset Renewals Load Assessment Deficiencies

Ranking	Need	Description	Status	Renewal Year	Type	Planned Budget
ES		EXTERIOR				\$175,000.00
<input type="checkbox"/>	1 1223	INVESTIGATE LEAK IN ROOM 6201	FINAL	2017	Assessment Deficiency	\$25,000.00
<input type="checkbox"/>	2 1222	EAST LOADING DOCK REPAIRS	FINAL	2017	Assessment Deficiency	\$150,000.00
HV		HVAC				\$65,000.00
<input type="checkbox"/>	1 1106	REROUTE STEAM VENT LINE FROM FLASH TANKS	FINAL	2017	Assessment Deficiency	\$35,000.00
<input type="checkbox"/>	2 1204	REPLACE VFD SERVING AHU-3	FINAL	2017	Assessment Deficiency	\$30,000.00

Start by selecting City/Campus/Building

Enter desired Planning Year

Budgets are compiled automatically as items are added

Load desire items

You can Rank items here

Note that the status of items has to be PLANNING, FINAL OR COMPLETE in order to add them







To develop a Strategic Plan you must first start by developing Property Needs Analysis

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Add

Restore

## Menu

- Q  Condition Assessment Asset Profile
- Q  Assessment Deficiency
- Q  Cost Model
- Q  Strategic Plan
- Q  Cost Model Adjustment
- Q  Property Needs Analysis

## Setup

- Q  Assessment Deficiency Status
- Q  Cost Model Type
- Q  Strategic Plan Type
- Q  Strategic Plan Status
- Q  Planning Group
- Q  Priority
- Q  Inflation

## Report Listing

- Asset Deficiencies Custom
- Asset Deficiencies by BLD
- FCI
- FCNI
- Matrix

**STRATEGIC PLAN (Requires write access to develop plans)**  
**\* First develop Property Needs Analysis**



# STRATEGIC PLAN (Requires write access to develop)

AiM

Strategic Plan

MICHAEL About Help Logout

Save Cancel

View

Extra Description

Notes Log

User Defined Fields

Status History

Related Documents

FY17 IMF/PPI

Created By On

Last Edited by MICHAEL BOWEN On 09/29/2016 07:56 AM

FY17 IMF/PPI

Enter Title and Description

Start

End

Years

Review Date

Estimated Approval

Actual Approval

Last Updated

Today

Status

PRELIMINARY

Type

IMF/PPI

Reference Number

1

Needs Identified

\$0.00

Target Budget

Allocated Budget

\$0.00

Remaining Budget

Remaining Needs

\$0.00

Totals

Load

Portfolio/Planning Group	Description	Allocation	Needs Identified	Allocated Budget	Remaining Needs
Portfolio is the grouping of buildings you wish to include in the Plan. This allows you to create multiple plans for different groups (General Fund, Athletics, Housing, etc.)					

Load desired Portfolio

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# STRATEGIC PLAN (Requires write access to develop)

AiM

Strategic Plan

Save

Cancel

MICHAEL About Help Logout

View

Extra Description

Notes Log

User Defined Fields

Status History

Related Documents

FY17 IMF/PPI

FY17 IMF/PPI

Created By: ON

Last Edited by MICHAEL BOWEN On 09/28/2016 12:58 PM

Status

FINALIZED

Type

IMF/PPI

Reference Number

1

Start

2015

End

2017

Years

3

Review Date

May 24, 2016

Estimated Approval

Jul 01, 2016

Actual Approval

Jul 11, 2016

Last Updated

Today

Needs Identified

\$11,390,000.00

Target Budget

\$13,195,610.00

Allocated Budget

\$10,765,000.00

Remaining Budget

\$2,430,610.00

Remaining Needs

\$625,000.00

These values calculated automatically

Totals

Load

Portfolio/Planning Group	Description	Allocation	Needs Identified	Allocated Budget	Remaining Needs
GENERAL FUND	GENERAL FUND - DOES NOT INCLUDE SHARED BUILDINGS		\$9,890,000.00	\$9,265,000.00	\$625,000.00
CH	CHILLER	100.00	\$275,000.00	\$275,000.00	\$0.00
EL	ELECTRICAL	100.00	\$1,810,000.00	\$1,810,000.00	\$0.00
ES	EXTERIOR	100.00	\$1,550,000.00	\$1,550,000.00	\$0.00
FS	FIRE/LIFE SAFETY	100.00	\$250,000.00	\$250,000.00	\$0.00
HC	HANDICAPPED ACCESS		\$0.00	\$0.00	\$0.00
HE	HEALTH		\$0.00	\$0.00	\$0.00
HS	HARDSCAPES		\$0.00	\$0.00	\$0.00
HV	HVAC		\$2,055,000.00	\$2,055,000.00	\$0.00
VFD	VARIABLE FREQUENCY DRIVES		\$0.00	\$0.00	\$0.00
IS	INTERIOR/FINISH SYS		\$0.00	\$0.00	\$0.00
PL	PLUMBING	100.00	\$1,460,000.00	\$1,460,000.00	\$0.00
RF	ROOFS	100.00	\$450,000.00	\$450,000.00	\$0.00
SA	SAFETY ISSUES		\$0.00	\$0.00	\$0.00
SI	SITE		\$0.00	\$0.00	\$0.00
SL	SITE LIGHTING	100.00	\$115,000.00	\$115,000.00	\$0.00
SS	SECURITY SYSTEMS		\$0.00	\$0.00	\$0.00
UT	UTILITIES		\$625,000.00	\$0.00	\$625,000.00
VT	VERTICAL TRANSPORTATION	100.00	\$1,300,000.00	\$1,300,000.00	\$0.00
GENERAL FUND - SHARE	BUILDINGS THAT INCLUDE BOTH GENERAL FUND AND NON-GENERAL FUND SPACE		\$1,500,000.00	\$1,500,000.00	\$0.00
CH	CHILLER		\$0.00	\$0.00	\$0.00
EL	ELECTRICAL		\$0.00	\$0.00	\$0.00
ES	EXTERIOR		\$0.00	\$0.00	\$0.00
FS	FIRE/LIFE SAFETY		\$0.00	\$0.00	\$0.00
HC	HANDICAPPED ACCESS		\$0.00	\$0.00	\$0.00
HE	HEALTH		\$0.00	\$0.00	\$0.00
HS	HARDSCAPES		\$0.00	\$0.00	\$0.00
HV	HVAC		\$0.00	\$0.00	\$0.00
VFD	VARIABLE FREQUENCY DRIVES		\$0.00	\$0.00	\$0.00
IS	INTERIOR/FINISH SYS		\$0.00	\$0.00	\$0.00
PL	PLUMBING		\$0.00	\$0.00	\$0.00
RF	ROOFS	100.00	\$1,500,000.00	\$1,500,000.00	\$0.00
SA	SAFETY ISSUES		\$0.00	\$0.00	\$0.00
SI	SITE		\$0.00	\$0.00	\$0.00
SL	SITE LIGHTING		\$0.00	\$0.00	\$0.00
SS	SECURITY SYSTEMS		\$0.00	\$0.00	\$0.00
UT	UTILITIES		\$0.00	\$0.00	\$0.00
VT	VERTICAL TRANSPORTATION		\$0.00	\$0.00	\$0.00

This section is populated automatically from Property Needs Analysis based on Planning Years

You can open any Category by clicking dollar value and then set priorities within each

Enter percentage that will be addressed

Each Portfolio will appear as a separate section within the Plan

# STRATEGIC PLAN (Requires write access to develop)

AiM

Strategic Planning Needs

MICHAEL

About

Help

Logout

Done

Cancel

FY17 IMF/PPI

Created By On

Last Edited by MICHAEL BOWEN On 09/28/2016 12:58 PM

FY17 IMF/PPI

Status

FINALIZED

Portfolio

GENERAL FUND

GENERAL FUND - DOES NOT INCLUDE SHARED

Planning Group

ES

Needs Identified

\$1,550,000.00

Allocation

100.00

Allocated Budget

\$1,550,000.00

Remaining Needs

\$0.00

Screen shot when selecting "Exterior" from Strategic Plan

Needs

This section is populated automatically from Property Needs Analysis based on Planning Years

Totals

Rankings

Ranking	Need	Region/Facility	Building	Planning Year	Type	Planned Budget	Remaining Need / Allocation %
1	1100 ADDRESS EXTERIOR DOOR	AA CENTCAMP	05188 ROSS SCHOOL OF BUSINESS	2017	Assessment Deficiency	\$725,000.00	\$0.00 100.00%
2	1221 EXTERIOR WALL AND	AA CENTCAMP	00167 WEST HALL	2017	Assessment Deficiency	\$380,000.00	\$0.00 100.00%
3	1222 EAST LOADING DOCK REPAIRS	AA CENTCAMP	00162 DENTAL W K KELLOGG FOUND INST	2017	Assessment Deficiency	\$150,000.00	\$0.00 100.00%
4	1223 INVESTIGATE LEAK IN ROOM	AA CENTCAMP	00162 DENTAL W K KELLOGG FOUND INST	2017	Assessment Deficiency	\$25,000.00	\$0.00 100.00%
5	1224 INVESTIGATE AND REPAIR	AA MEDCAMP	00065 VAUGHAN VICTOR C HOUSE	2017	Assessment Deficiency	\$250,000.00	\$0.00 100.00%
6	1225 BUILDING ENVELOPE	AA CENTCAMP	00166 EAST HALL	2017	Assessment Deficiency	\$20,000.00	\$0.00 100.00%

Set desired ranking

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