

Joint City-Schools Facility  
Investment Task Force

# Facility Maintenance & Operations Subcommittee

Subcommittee Meeting #3  
October 30, 2017

# Welcome / Meeting Agenda and Objectives

Amy Liu, Subcommittee Chair



# Joint Task Force

## Review of Charge (Resolution No. 2775)

1. Discuss and provide guidance to City Council with regards to providing recommendations to help frame the CIP for FY2019-2028 and beyond
2. Assist in development of a report that shall include comments and recommendations that will:
  - Develop and recommend a long-range CIP with prioritization of City and School facilities utilizing identified available funding
  - Determine opportunities for joint facility / site / colocation
  - Review and recommend municipal facility planning and civic engagement principles, standards, and practices
  - Review and recommend alternative capital project delivery methods and project management structures
  - Review and recommend governance of capital planning and project delivery
  - **Review and recommend asset management practices**

# Community Comments



# Meeting #2 Review

Kayla Anthony, Brailsford & Dunlavey



# Meeting #2

## Review

- Review of Discovery Phase - DGS, ACPS, and AFD
  - Introductory & Deep Dive Interviews
  - Review of preventative maintenance (PM) documentation
  - Facility Assessments & Operational Reviews
  - Initial takeaways
- Subcommittee members discussed considerations for:
  - Shared services agreements
  - Procurement reform
  - Staffing structures
  - Opportunities for new standards/pilot programs and resulting system-wide implications
  - Associated cost implications, timing and staging.
- Members reiterated the importance of maintaining facilities and that well-maintained facilities cost less in the long run.





# City and ACPS Procurement Overview

Randy Burns, COA Purchasing Agent

Sharon Lewis, ACPS

Director of Procurement & General Services

The background features a photograph of a multi-story brick building with several windows. A large, semi-transparent red triangle is overlaid on the right side of the image, pointing towards the top right. A white diagonal shape cuts across the left side of the image, creating a white space for the text.

# Update on Maintenance and Operations Review

Adam Shirvinski, A2 Services



# Maintenance and Operations

## Goals for Review

### Task Force goals for this process:

1. Extend the lifecycle of new buildings – include new opportunities, pilots, investments, technologies to manage new portfolio
2. Enhance the performance of existing buildings - create a framework that will move away from a reactive culture
3. Address cost-efficiencies, fiduciary responsibility, maintaining investments – underinvesting is irresponsible
4. Align processes to the extent possible (City, ACPS, AFD) so they can inform budget cycles

# Discovery Phase

## Update

- Conduct cursory Facility Assessments (FA) /Operational Reviews (ORs):
  - **ACPS** – Cora Kelly ES – October 11, 2017
  - **AFD** – Fire Station 8 – September 27, 2017
  - **DGS** – City Hall – October 12, 2017; City Public Safety Center – October 19, 2017
- Three of the four FA/ORs are available for review.
- Reviews focused on MEP equipment but noted various other issues to the facility staff.

# Discovery Phase

## Initial Takeaways

- All three entities have an implemented PM systems but standardization and effectiveness can be improved.
- PM is accomplished in various ways but resources (direct & indirect) are limited.
- Overall PM systems are reactive with minimal ability to be proactive in providing “capital resource” decisions.
- Procurement rules limit and underestimate PM needs.
- Pre/Post construction coordination efforts need improvement.
- FCA/FCI process requires review and modifications to scope of work and review of in-process and end product(s).



# Draft Recommendations

## For Discussion

### From Takeaways to Recommendations:

1. Explore opportunities for shared services agreement(s) across the three city entities, with DGS as the hub.
2. Explore procurement methods for awarding (e.g. via the best value if allowable)
3. Study optimal staffing arrangements to implement Preventive Maintenance.
4. Identify areas in which "pilots" or other new LEED-like standards can be implemented with focus on newly constructed buildings.



# Draft Recommendations

## Share Services Agreement

- 1. Explore opportunities for shared services agreement(s) across the three city entities, with DGS as the hub.**

### For example...

- Establish DGS as the owner of the PM CMMS system.
- Utilize the current VFA system but add CMMS module.
- Provide Administrative and QC staff support at end user.
- DGS is owner of FCA/FCI process for which CMMS is a natural extension.
- Standardize MEP equipment types; PM tasks; frequency and annual scheduling which is derived from a common work breakdown structure (WBS).



# Draft Recommendations

## Example

ASSET_NAME	SYSTEM_UNIFORMAT	SYSTEM_NAME	STEM_QUA	_UNITO
Fire Station 201	D2020 - Domestic Water Distribution	Domestic Water - Distribution	5,690	SF
Fire Station 201	D2020 - Domestic Water Distribution	Water Heater - Indirect - 80 Gal	1	Each
Fire Station 201	D3020 - Heat Generating Systems	Boiler HW - Gas-Fired	2	Each
Fire Station 201	D3050 - Terminal and Package Units	Split System - Fan Coil	3	Each
Fire Station 201	D3060 - Controls and Instrumentation	Controls - Basic Electric	5,690	SF
Fire Station 201	D5012 - Low Tension Service and Dist.	Main Electrical Service - 400A 208Y/120V	1	Each
Fire Station 201	D5022 - Lighting Equipment	Lighting - Exterior - HID Wall Packs	6	Each
Fire Station 201	D5022 - Lighting Equipment	Lighting Fixtures - Interior Lighting	5,690	SF
Fire Station 201	D5092 - Emergency Light and Power Systems	Emergency Battery Pack Lights	5,690	SF
Fire Station 201	D5092 - Emergency Light and Power Systems	Emergency Generator - 15 KW	1	Each

# Draft Recommendations

## Example

WATER HEATER	
Frequency	Operational Task
Quarterly - Electric	Check temperature controls and electrical contactors for proper operation
Quarterly - Gas Fired	Check burner operation, make visual check of fire.
	Check and record pressure, water temperature and stack temperature.
Semiannually	Check temperature and safety controls.
	Check for water leaks.
	Check burners and burner nozzles.
	Check all recirculation pumps and lubricate as required.
Annually	Check exhaust temperature to determine if water heater needs cleaning.
	Make necessary adjustments to maintain combustion efficiency.
	Clean fire side of water heater as required.
	Check gas pressure and all gas controls.
	Check combustion efficiency.
	Make necessary adjustments to maintain combustion efficiency.
	Check all electrical connections, tighten as required. Replace any defective wiring.
	If an auxillary stroage tank is used, check the tank, piping and insulation.
	Check induced drafty fan if provided
	Test all relief valves

Select valid Procedure from PM Procedures tab	Enter Valid Step Code from PM Procedure Steps tab	Select valid Trade code from Trades tab	Enter Hours with 2 decimals
PM Procedure Code	PM Step Code	Trade Code	Hours Required
WATER HT-QTR	1	HVAC MECH	1.00
WATER HT-SEMI	1	HVAC MECH	3.00
WATER HT-YR	1	HVAC MECH	4.00

# Draft Recommendations

## Example

Alexandria - Fire Station 201					
Select valid Procedure from PM Procedures tab	Enter Valid Step Code from PM Procedure Steps tab	Select valid Trade code from Trades tab	Enter Hours with 2 decimals		
PM Procedure Code	PM Step Code	Trade Code	Hours Required	#	Total Hours
AC PKG UNIT-QTR	1	HVAC MECH	2.00	3	6
AC PKG UNIT-SEMI	1	HVAC MECH	8.00	3	24
AC PKG UNIT-YR	1	HVAC MECH	8.00	3	24
BOILER GAS-QTR	1	HVAC MECH	4.00	2	8
BOILER GAS-YR	1	HVAC MECH	16.00	2	32
EMER GEN-MTHLY	1	BPO	2.00	1	C
EMER GEN-YR	1	CONTRACT SERVICE	6.00	1	C
FAN COIL-QTR	1	HVAC MECH	0.50	3	1.5
FAN COIL-YR	1	HVAC MECH	2.00	3	6
WATER HT-QTR	1	HVAC MECH	1.00	1	1
WATER HT-SEMI	1	HVAC MECH	3.00	1	3
WATER HT-YR	1	HVAC MECH	4.00	1	4
				Total Hours for PM	109.5



# Draft Recommendations

## Procurement

- 2. Explore procurement methods for awarding (e.g. via the best value if allowable)**

For example...

- Best Value will require past performance considerations.
- Improve SOW requirements.
- Improve Internal Government Estimate (IGE) process.

# Draft Recommendations

## Staffing and Outsourcing

### 3. Study optimal staffing/outsourcing arrangements to implement PM.

For example...

- CMMS implementation will yield required Hrs./FTEs for each site and overall agency (i.e. PM Workforce).
- CMMS implementation will allow for regionalized and/or stationary PM decisions.
- Optimal PM staffing will be derivative of WBS.
- For outsourced PM support, CMMS will be able to validate contractor pricing and monitor performance.



# Draft Recommendations

## Pilots and Standards

- 4. Identify areas in which "pilots" or other new LEED-like standards can implemented with focus on newly constructed buildings.**

For example...

- Modify Construction Specifications to require the MEP equipment list at Substantial Completion (.xls format).
- Reemphasize the CxA process, specifically the LEED enhanced Cx credit (inclusion in design reviews; receipt of MEP Systems Manual).
- Consider implementation of LEED EBOM program.



Ad Hoc Joint City-Schools Facility  
Investment Task Force

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Alexandria, VA

June 2017 – December 2017