

Staffing for O&M, VA Level 2 Facility - Bath/Canandaigua NY VAMC

Jacob A. Yoder, PE, CFM, CHFM, Chief Engineer/Facility Manager Canandaigua/Bath VAMC's.

Overview of Bath, NY VAMC campus

- ▶ 210 acre campus facility (92 maintained).
- ▶ (45) buildings totaling approximately 600,000sf.
- ▶ (3) associated outpatient clinics.
- ▶ The campus has been designated as historic.
- ▶ Heat is provided by a central steam plant.
- ▶ Bath campus has a (25) bed acute care hospital unit, an urgent care unit, (2) nursing home units accounting for (95) beds, and a (220) bed domiciliary for substance abuse treatment, as well as many outpatient programs and services.
- ▶ The campus includes a bridge.
- ▶ Main Hospital is on a hill.
- ▶ Total Known Env. Liability is \$2.79 million.
- ▶ Total FCA is \$101.27 million.
- ▶ Project spending is approximately \$8 million/year.

Bath, NY Campus



Facilities Management – Bath VAMC

Engineering/FM Organization Bath, NY.

Facilities Management 4.00		
Position title	Approved	Series-grade
Facilities Manager	1	GS-0801-14
Secretary	1	GS-0318-06
Interior Design	1	GS-1008-11
Assistant Facility Manager	1	GS-0801-12

Grounds 4.00		
Position title	Approved	Series-grade
Tractor Operator Supervisor	1	WS-5705-5
Tractor Operator	3	WG-57056-6

Environmental Management Services (EMS) 1.00		
Position title	Approved	Series-grade
Housekeeping Officer	1	GS-0673-12

Environmental Sanitation Operations 34.20		
Position title	Approved	Series-grade
Housekeeping Aid Foreman	3.0	WS-3566-03
Housekeeping Aid Leader	2.0	WS-3566-02
Housekeeping Aid	2.0	WS-3566-03
Housekeeping Aid	13.0	WS-3566-02
Housekeeping Aid		WS-3566-01
Housekeeping Aid (0.5)	2.5	WS-3566-01/02
Housekeeping Aid (0.4)	3.2	WS-3566-01/02
Laundry Worker	1.0	WG-7304-02
Laundry Worker/Housekeeper	0.5	WG-7304-02
Upholstery Training Instructor	1.0	GS-1712-11

Fire Department 18.00		
Position title	Approved	Series-grade
Fire Chief	1	0081-GS-11
Assistant Chief	3	0081-07-03
Firefighter/EMT	6	0081-07-07
Firefighter/Paramedic	8	0081-GS-03

Approved Ceiling 105.70

Engineering Projects 4.50		
Position title	Approved	Series-grade
Projects Section Supervisor	1	GS-0801-12
General Engineer	1	080132-GS-11
Engineering Technician	1	080232-GS-10
Const. Control Rep.	1	0803-GS-10
Energy Engineer (shared)	0.5	080108-GS-13

Maintenance & Repair 6.00		
Position title	Approved	Series-grade
Maintenance & Repair	1	WS-4701-10
Maintenance Mechanic	2	WG-10
Maint. Mechanic (welder/mason)	1	TBD
Journeyman Painter	2	WG-4102-03

Boiler Plant 6.00		
Position title	Approved	Series-grade
Boiler Plant Operator	1	5402-WS-10
Boiler Plant Operator	3	5402-WG-10
Boiler Plant Operator	2	5402-WG-03

Utility Systems 12.00		
Position title	Approved	Series-grade
Utility Systems Supervisor	1	WS-4701-10
Maintenance Mechanic	1	WG-10
Work Lead	1	WL-4204-10
Pipefitter	2	WG-4204-10
High Voltage Electrician	3	WG-2810-10
AC/Refrigeration Mechanic	1	WG-530620-10
Bio-Med Technician	2	GS-1601-9
Bio-Med Technician Temp	1	GS-1601-9

Garage 12.00		
Position title	Approved	Series-grade
Motor Vehicle Operator S	1	WS-5703S-7
Heavy Mobile Equipment	1	WG-580320-10
Automotive Worker/Driver	1	WG-5823-8
Motor Vehicle Operator	2	WG-570360-6
Motor Vehicle Operator	6	WG-570360-7
Transportation Assistant	1	GS-210203-7
MVO (shuttle)	1	WG-5703-4
MVO (intermittent)	3	WG-570360-7

Overview of Canandaigua, NY VAMC

- ▶ 163 acre (80 maintained) campus facility.
- ▶ (50) buildings totaling approximately 900,000 sf.
- ▶ (1) associated outpatient clinic.
- ▶ Buildings date from 1932.
- ▶ The campus has been designated as historic.
- ▶ Heat is provided by a central steam plant.
- ▶ Canandaigua campus includes (4) nursing home units accounting for 106 beds, and a 48 bed domiciliary for substance abuse treatment, houses several call centers including the Veterans Crisis Line, an EUL for homeless housing and substance abuse treatment, and a national center of excellence for suicide prevention as well as many outpatient programs and services.
- ▶ Canandaigua is currently in the early stages of a \$130 million dollar major project.
- ▶ Total Known Env. Liability is \$1.6 million.
- ▶ Total FCA is \$90.643 million.
- ▶ Project spending is approximately \$9 million/year.

Canandaigua Campus



Facilities Management

Engineering Organization Canandaigua.

Approved Ceiling: 80.00

Chief of Engineering		5.50
Position title	Approved	Series-grade
Supervisory General Engineer	1	GS-0801-14
Program Support Assistant	1	GS-303-7
Budget Technician	1	GS-0561-7
Supervisory General Engineer	1	GS-0801-13
Interior Designer	1	GS-1008-11
General Engineer (Energy Mang)	0.50	GS-0801-13

Grounds & Transportation Unit		15.00
Position title	Approved	Series-grade
Supervisory Motor Vehicle Operator	1	WS-5703-7
Transportation Assistant	1	GS-2102-7
Motor Vehicle Operator	6	WG-5703-7
Motor Vehicle Operator	2	WG-5703-6
Heavy Mobile Equipment Mechanic	1	WG-5803-10
Engineering Equip. Operator (leader)	1	WL-5714-10
Laborer	3	WG-3502-03

Plant Operations Unit		10.00
Position title	Approved	Series-grade
Supervisory Utility Systems Operator	1	WS-5406-09
Boiler Plant Operator	1	WG-5402-10
Boiler Plant Operator	3	WG-5402-9
Boiler Plant Operator	1	WG-5402-9
Boiler Plant Operator (helper)	2	WG-5402-5/7/9
Waste Water Plant Operator	1	WG-5408-9
Boiler Plant Equipment Mechanic	1	WG-5309-10

Fire Department		12.50
Position title	Approved	Series-grade
Fire Chief	1	GS-0081-11
Assistant Chief	2	GS-0081-9
Lead Firefighter	1	GS-0081-8
Firefighter (BLS/Hazmat Tech)	6	GS-0081-7
Firefighter	2.5	GS-0081-5

Construction Maintenance		9.50
Position title	Approved	Series-grade
General Engineer	1	GS-0801-11
Engineering Technician	1	GS-0802-10
Engineering Technician	1	GS-0802-9
Engineering Technician	1	GS-0802-7
Maintenance Control Manager	1	GS-1601-11
ROPC Maint./Elec. Worker	1	WG-2805-8
Biomedical Equip. Supt. Spec.	1	GS-1601-9
Medical Equipment Repairer	1	WG-4805-11
MVO (Term)	1.5	WG-5703-4

Mechanical Unit		8.00
Position title	Approved	Series-grade
Maintenance Supervisor	1	WS-4701-10
Maintenance Mechanic	2	WG-4749-10
Maintenance Worker	1	WG-4744-7
AC Equipment Mechanic	1	WG-5306-8
AC Mechanic	1	WG-5306-10
Maintenance Mechanic	1	WG-4749-10
Pipefitter	1	WG-4204-8

Electrical Unit		8.50
Position title	Approved	Series-grade
Electrician Supervisor	1	WS-2805-10
Electricians	3	WS-2805-10
Electrical Worker	2	WG-2805-8
Industrial Equipment Mechanic	1	WG-5352-10
Equipment Servicer	0.5	WG-4801-4
Laundry Equipment Mechanic	1	WG-5317-10

Building Unit		11.00
Position title	Approved	Series-grade
Maintenance Supervisor	1	WG-4701-10
Carpenters	3	WG-4607-9
Carpentry Worker	1	WG-4607-7
Locksmith	1	WG-4804-9
Painter	2	WG-4102-9
Masons	2	WG3603-10
Laborer	1	WG-3502-03
Temp. Carpenters	4	WG-4607-9

Before answering questions, discussion about (M&O) vs. (M&R) for trades (carp/plumb/elec/etc

- ▶ For Maintenance staff: Maintenance & Repair or Maintenance & Operations?
- ▶ Large improvements and modifications done by contractors.
- ▶ Temp staff used when in house projects required.

1 More thing:

- ▶ Bath/Canandaigua formally became one administration on October 1st, 2018.

Electric Shop Questions Answered -

- ▶ Bath:
 - ▶ (3) High voltage electricians
- ▶ Canandaigua:
 - ▶ (3) electricians
 - ▶ (1) electrical worker
- ▶ Fire alarm and notification systems are maintained by the electric shop at both sites.
- ▶ High Voltage, Maintained in house at Bath, not Canandaigua.
- ▶ Most electrical maintenance is handled locally, 80+%.
- ▶ We have fully implemented NFPA 70E.
- ▶ 20% of staff time is spent supporting contracted projects.

HVAC Shop Questions Answered:

- ▶ Bath:
 - ▶ (1) HVAC Tech.
 - ▶ (2) HVAC Maint. Mech.
- ▶ Can:
 - ▶ (2) Refrigeration mechanic.
 - ▶ (1) maintenance mechanic.
- ▶ Bath: 0% of staff time is spent doing chemical treatment.
Canandaigua: 10% of staff time is chemical treatment
- ▶ Bath has no chiller plant.
Can has (1) small chiller plant serving (2) buildings.
- ▶ We do not PM VAV boxes or other terminal devices.
- ▶ At Bath, no HVAC maintenance work is contracted.
At Canandaigua, 15-20% is contracted.
- ▶ 10% of HVAC staff time is spent supporting projects.
- ▶ Bath: Medical Air Compressors are maintained by contract.
Canandaigua: has no Med Air Compressors
- ▶ No separate controls staff.
- ▶ At Bath: 70% DDC, 30% Pneumatic controls,
At Canandaigua: 90% DDC, 10% Pneumatic controls
- ▶ Other items maintained by HVAC include: Refrigerators, ice machines, air compressors.
- ▶ We don't exercise valves, we wait until failure.

Pipe Shop Questions Answered

- ▶ Bath:
 - ▶ (1) lead pipefitter
 - ▶ (2) pipefitters
- ▶ Canandaigua:
 - ▶ (2) Maint. Mech.
 - ▶ (1) Pipefitter
 - ▶ (1) plumbing worker.
- ▶ We do not exercise valves unless we have a need to.
- ▶ We do not check steam traps.
- ▶ Pipe insulation is done by HVAC and/or pipefitters.
- ▶ VA Water Safety Policy has resulted in significant work for Pipe shop.
- ▶ Bath: Back flow preventers are checked by a 3rd party annually.
Canandaigua: Back flow preventers are checked by in house staff.
- ▶ 20% of time is spent supporting projects.

Paint Shop Questions Answered

- ▶ Bath:
 - ▶ (2) Painters
- ▶ Canandaigua:
 - ▶ (2) Painters.
- ▶ With current staffing we are not able to keep up with painting needs.
- ▶ Painters also do
 - ▶ desk assembly,
 - ▶ hang artwork, calendars, clocks, bulletin boards,
 - ▶ replace broken window glass (single pane)
 - ▶ all pavement markings.
- ▶ Contractors do 30% of annual painting.
- ▶ Need staff doubled to meet needs.

Carpentry and Lock Shop Questions Answered

- ▶ Bath:
 - ▶ (2) maintenance mechanics.
- ▶ Canandaigua:
 - ▶ (3) carpenters.
 - ▶ (1) maintenance worker.
 - ▶ (1) maintenance mechanic worker.
 - ▶ (1) Electronics tech (locksmith).
- ▶ There is no PM for doors or anything else done by carpenter shop.

Boiler Plant Questions Answered

- ▶ Bath:
 - ▶ (5) boiler plant operators.
- ▶ Canandaigua:
 - ▶ (5) boiler plant operators
 - ▶ (2) operator helpers.
 - ▶ (1) mechanic.

Grounds Questions Answered

- ▶ Bath:
 - ▶ (1) Supervisor,
 - ▶ (3) Tractor Operators.
- ▶ Canandaigua:
 - ▶ (1) Eng. Equip. Operator Lead,
 - ▶ (3) Laborers.
- ▶ None of the grounds work at either site is contracted.

Other Maintenance Staff:

- ▶ Bath -
 - ▶ (1) Maintenance mechanic.
 - ▶ (1) Heavy Mobile Equipment Mechanic
 - ▶ (1) Automotive Worker
 - ▶ (1) Upholster
- ▶ Canandaigua -
 - ▶ (1) wheelchair mechanic
 - ▶ (1) laundry mechanic
 - ▶ (1) machinist/welder
 - ▶ (2) masons.
 - ▶ (1) Wastewater Treatment plant operator
 - ▶ (1) Heavy Mobile Equipment Mechanic

Other Engineering Staff

- ▶ Projects Section
- ▶ Transportation
- ▶ Budget Clerk
- ▶ Maintenance Control Manager
- ▶ PSA/Secretary
- ▶ Interior Design
- ▶ Energy Engineer
- ▶ Biomedical Engineering
- ▶ Fire Department

Defining the mission: What is the expectation of the facilities management function?

- ▶ To keep the medical center safe, operational and current with the requirements and trends in the services supported.
- ▶ This includes:
 - ▶ Maintenance and repair.
 - ▶ Renovation and new builds.
 - ▶ In some cases this includes the provision of utilities.
 - ▶ This may also include some service delivery.
 - ▶ Includes support of other requirements.

My expectations?

- ▶ That my staff accomplish the mission above in their area of responsibility within the guidelines of the policies and procedures I have developed, VA and other pertinent guidelines, and the law.
- ▶ When they are unable to do the above, they notify me immediately for direction.
- ▶ When a situation arises that is outside established practice and they are unaware of what to do, they notify me for direction.

What do I do as Facility Manager/Chief Engineer?

- ▶ Establish policy/procedure/process for the department.
- ▶ QA/QC oversight.
- ▶ Code Enforcement Official.
- ▶ Final Decision on all hiring actions/ verify competence.
- ▶ Assign responsibility as necessary.
- ▶ All Discipline.
- ▶ Budgeting.
- ▶ Capital Planning.
- ▶ Facilities Strategic Planning.
- ▶ Oversee Training.
- ▶ Represent Facilities to Leadership.
- ▶ Public Relations relative to clinical/leadership/other staff.
- ▶ Ask the right questions and lead.
- ▶ Work with very little oversight.....95% of what I do and the decisions I make are never looked at or seen by anyone above me in the chain of command.
- ▶ Take blame/hear complaints.

Measuring Success/Identifying Issues

MEDICAL EQUIPMENT MANAGEMENT PROGRAM							
Engineering-Biomed EC.02.04.01		Target	OCT	NOV	DEC	JAN	FEB
1	# of Medical Equipment Incidents (injury/death/failure)	0	0	0	0		
Performance Indicators							
1	Medical Equipment PM's will be addressed no later than 15 days past month assigned (lags a month for data gathering)	95%	80%	30%			
2	% of medical equipment repair work orders completed within 30 days or plan of action.	90%	98%	100%	100%		
UTILITY MANAGEMENT PROGRAM							
Engineering - Maintenance and Repair		Target	OCT	NOV	DEC	JAN	FEB
EC.02.05.07 Emergency Power Systems							
1	% Generators and Transfer switches tested 12 times a year.	100%	100%	100%	100%		
EC.02.05.09 Piped Medical Gas Systems							
1	Annually Inspect, test & maintain critical components of the piped medical gas systems including master signal panels, area alarms, automatic pressure switches, shutoff valves, flexible connectors & outlets.	100%	100%	100%	100%		
Utility Maintenance							
1	% preventive Maintenance performed within the month due	90%	91%	94%	84%		
2	% of work orders completed within 30 days for normal priority. (lags a month for data gathering)	80%	88%	86%			
3	% of High priority work orders completed/downgraded within 5 days.	95%	92%	91%	91%		
4	% of Emergency priority work orders completed/downgraded within 1 day.	100%	95%	95%	92%		
Performance Indicators							
1	% of PM's completed for critical equipment	100%	100%	100%	100%		
2	% of PM's completed for non-critical equipment	90%	95%	91%	90%		
3	% completion of all EOC 14 day work orders.	95%	90%	84%	93%		
NRM							
NRM \$ -% to be Obligated by 06/30/17		Target	1st QTR			JAN	FEB
1	FMS Obligations	80.0%	0.0%	0.0%	5.0%		

Work Order & PM System - AEMS/MERS

- ▶ Both Facilities are still using the DOS based AEMS/MERS system.
- ▶ Not well supported, training is non-existent.
- ▶ IT has impacted in a negative way.
- ▶ VA has already gone away from AEMS/MERS we need something new.

Budget and Workforce Modeling - my thoughts on potential variables for operations and maintenance.

1. Differentiation between % in-house staffing versus contracted services is a challenging item.
2. Utilized/maintained square footage is the single most important variable.
 1. Differentiation between a campus and a high rise should be considered.
 2. Average age of the buildings or some other age factor should be considered.
 3. Historic status of the campus/majority of buildings should be considered.
 4. Condition of buildings should not be considered in a standard budget and workforce modeling variable.
3. Developed/maintained facility acreage should be a variable.
4. Inventory of medical equipment should be a variable, if biomedical engineering is part of Facilities management.
5. Inventory of utility systems, or systems supported, should be a variable.

Budget and Workforce Modeling - variables continued

6. Facility Complexity should be a variable.
7. Capital Projects should not be included, I assume this was mentioned as a possibility to drive project staffing levels?

Unique Operation Procedures/Issues Not Included in non-VA/Fed benchmarking

- ▶ Inability to recruit prior to separation.
- ▶ VA prefers SDVOSB's.
- ▶ VA purchasing and contracting process requirements.
- ▶ Federal Facilities cannot modify historic properties without agreement of the SHPPPO (State Historic Preservation Officer).

Unique Operation Procedures/Issues Not Included in non-VA/Fed benchmarking Cont.

- ▶ Classification and Pay options are limited.
- ▶ Hiring Process and ability to find best candidates are limited by process.

Special requirements for healthcare maintenance staffing.

- ▶ Maintenance and Construction in an operating healthcare setting require significant knowledge and awareness of the maintenance/construction staff, and oversight by project/maintenance management.
 - ▶ ICRA/Permitting
 - ▶ Safety Risk Assessment
 - ▶ WICRA
 - ▶ Training

Best Practices:

- ▶ In Bath we have a very strong Compensated Work Therapy (CWT) program.
- ▶ Boiler Plant Operator Training Program.