

# Maintenance Road Show

*What does it take to maintain a campus?*



*What are the costs?*



# UAF Facts and Numbers

Buildings:	267	Campus Sq. Feet:	3,470,408 GSF
Roads:	8.28 miles	Walkways:	8.81 miles
Exterior lights:	1,000	Exterior stairways:	164
Exterior steps:	1,700	Rep: 21 acres	
Parking spaces:	5,137	Parking lots:	24 acres
Utilidor:	8 miles	Rooms: (assignable)	6500 approximate
DDC System	16,000 Hard Building Points	66,000 Auxiliary points (Room thermostats, lighting control, etc.)	

Approximately 3 million square feet of campus is heated and powered by UAF's combined heat and power plant



# 67 Maintenance Workers



UNIVERSITY OF ALASKA FAIRBANKS



# Each Worker

1/2 acre Roads  
& Sidewalks





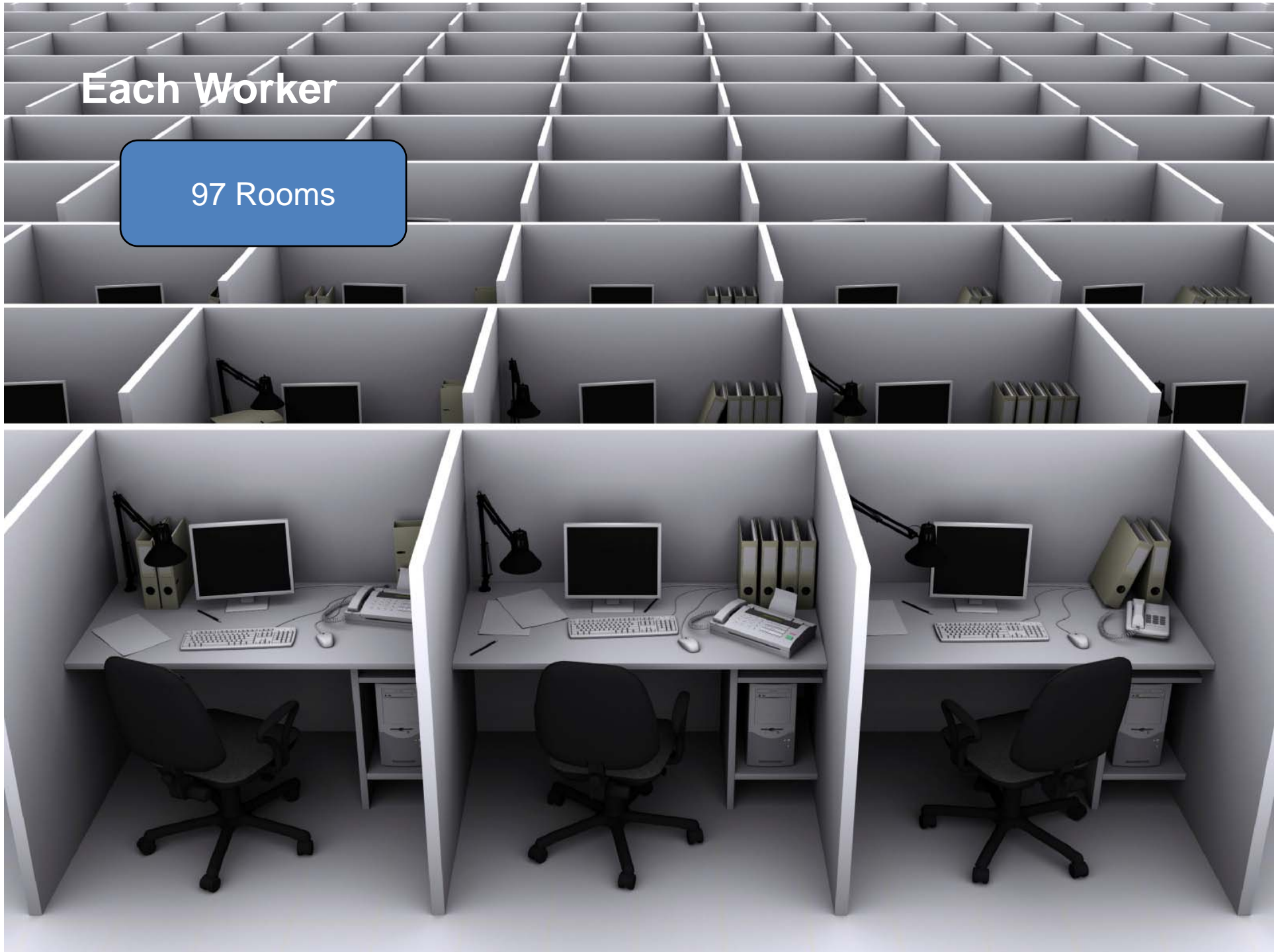
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Each Worker

97 Rooms





Each Worker

$\frac{1}{2}$  Acre of Roof

Photo: Todd Paris: UAF Marketing



# UAF Facilities Services

**UAF Facilities Services is responsible for all Facilities at UAF. Maintenance funds provided to FS and other departments are used to maintain UAF Facilities.**

FS Operations	Division of Auxiliary and Contract Services
Roads & Grounds	Vehicle Pool
Labor	Shuttle Bus
In House Custodial	Contracted Custodial
Warehouse	Post Office/Mail Services
Equipment & Vehicle Maintenance	Parking Services
Customer Service Center	Patty Ice Arena

## FS Maintenance Shops

Carpentry  
 Painting  
 Sign Shop  
 Lock Shop/Key Issue

Plumbing

Asbestos

HVAC

Heating  
 Ventilation  
 Air Conditioning  
 Refrigeration  
 Sheet Metal

Electric

Housing





# UAF Facilities Services

UAF Facilities Services is responsible for all Facilities at UAF. Maintenance funds provided to FS and other departments are used to maintain UAF Facilities.

**FS FY10 Expenditures \$19.3 M**

**Maintenance Expenditures \$10 M**

**Operations Expenditures \$9.3 M**

**Maintenance Expenditures by  
other UAF Departments  
Approximately \$5 M**

## FS Maintenance Shops

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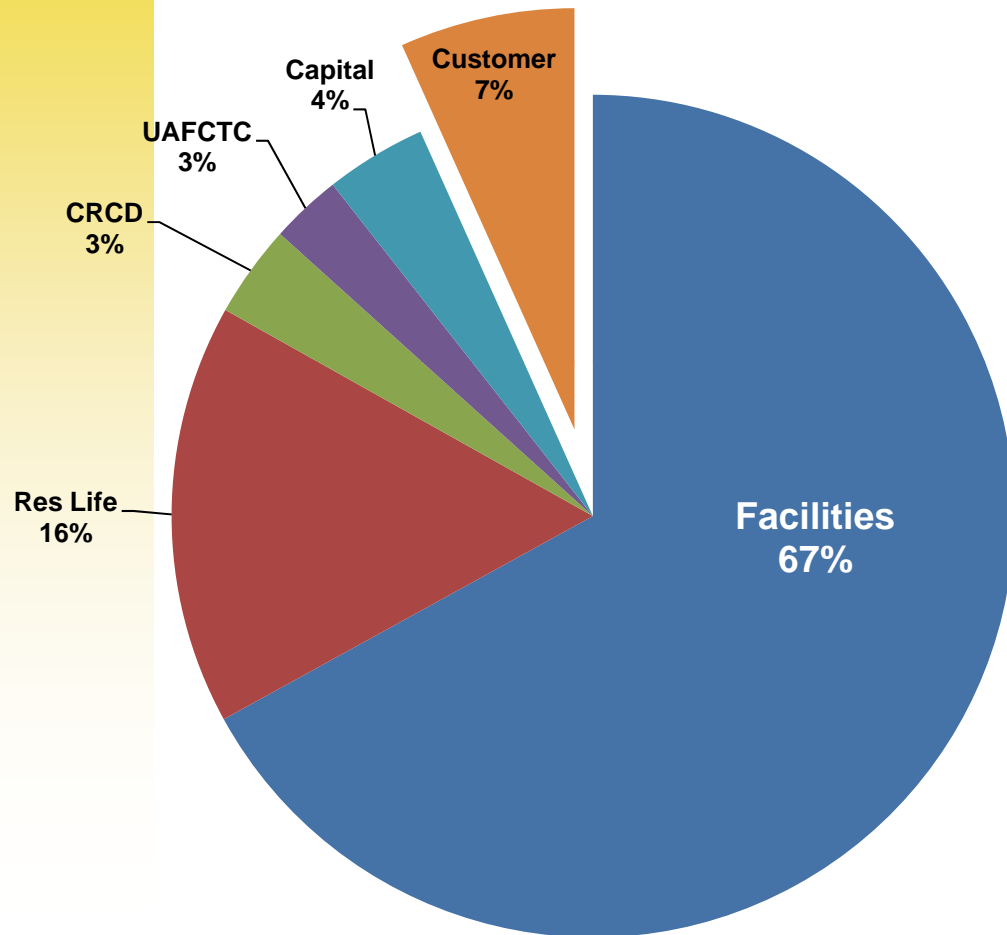


# Total UAF M/R Expenditures

		UAF
<b>FY08 Expenditures</b>	Operating	\$14.9 million
<b>FY09 Expenditures</b>	Operating	\$17.0 million
<b>FY10 Expenditures</b>	Operating	\$15.4 million
<b>FY11 Calculated</b>	Operating	\$16.4 million

The UAF calculated need is based on the greater of 1.5% of adjusted building value or total state appropriations for M&R (base funding for M&R).

# Who Pays for what?

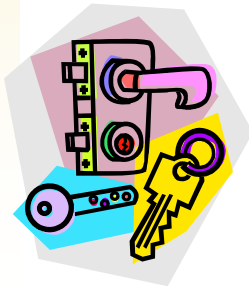


Maintenance Work  
Orders by Funding  
Source





# What is Maintenance?

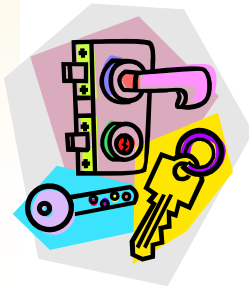


Recurrent day-to-day work required to preserve or immediately restore a facility or fixed equipment to such a condition that it can effectively be used for its designated purpose.

*(Regents' Policy 05.12.020.F)*



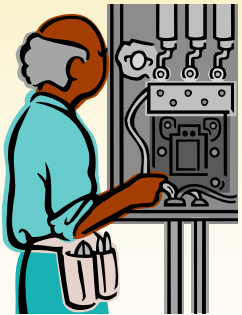
# Common Maintenance Items



Included in maintenance would be expenditures for painting, relamping, filter replacement, heating unit repairs and replacement of floor coverings.



# What is Maintenance?



Repair Toilets	Leaking Faucets	Unclog Drains	RO Water System Service
Pumps	Sewer Lift Stations	Fire/Sprinkler System	Painting
Keys	Door Locks	Flooring Tile	Carpet Replacement
Restroom Partitions	Paper dispensers	Broken Windows	Damage to walls
Minor Concrete Repairs	Pool Maintenance	Emergency Showers Eye wash repairs	Re-lamping/ Lighting Repair





**Drain at Patty Pool**

**Before**



**Drain at Patty Pool**



**After**

**The job isn't done until the paperwork is finished!**







Who wants to go down first?

Hess Village Sewage Lift Station

# Patty Ice Freon Leak

Feb 16, 2010

12 miles of piping

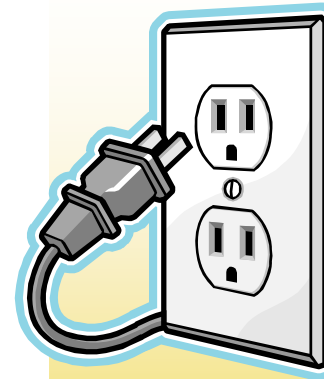
6000 pounds of Freon

13,000 gallons of water

800 lbs. of paint!

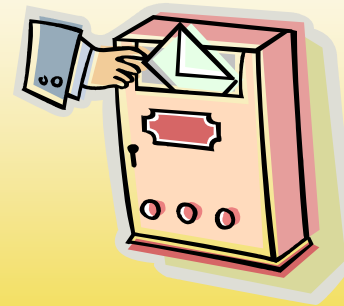


# What is not Maintenance



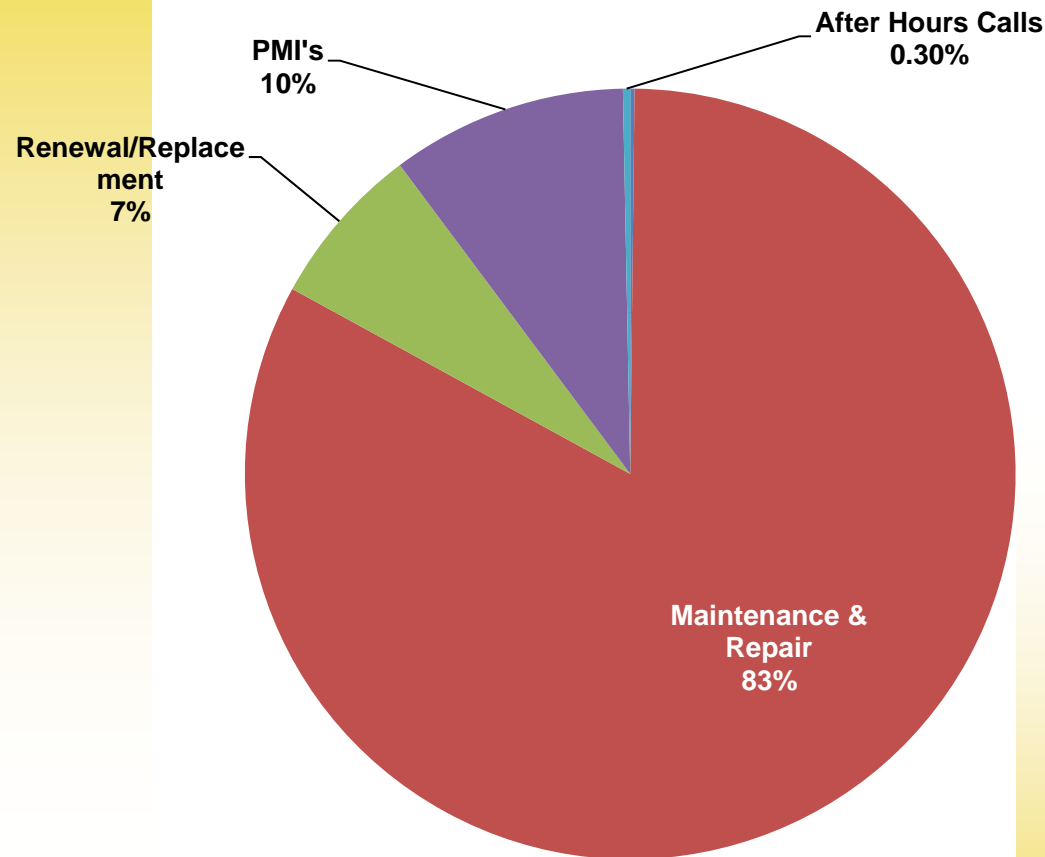
# Examples of non Maintenance Items

Furniture Repair	Hanging Pictures	Installing Shelves	Projector and screen installations
Mailboxes Door Slots	Repairs to Food Service Equipment	Repairs to department owned equipment	Relocating outlets
Plugged in equipment			





# Where Maintenance \$ are Spent



## Maintenance Work Orders by Class

*PMI's are primarily things that "spin" and filters.*

*Renewal & Replacement – the replacement of worn-out parts to extend the life of a building.*



# Who decides what maintenance gets done?

Planned	Unplanned
PMI	Emergency Calls
Projects	Customer Requests
Deferred Renewal	Work Order Priorities



# *Shop Hourly Rates*

Rates set annually - Available in April

Asbestos Shop	\$81.00
Carpentry Shop	\$81.00
Electrical Shop	\$81.00
Housing Shop	\$81.00
Plumbing Shop	\$81.00
HVAC Shop	\$81.00

**FY11 Hourly Rates for all  
Maintenance Shops are \$81/hr**



# Shop Rates

*How are they calculated? (How do you get to \$81?)*

Average Hourly Rate of Pay for Shop Workers	\$25.11/hr
Add Benefit Rate - 70.9%	+ \$17.80
	<hr/>
Yields cost per hour	\$42.91
Multiply by hours paid per year – 2080 gives annual cost. (40 hrs x 52 weeks) = 2080	\$89,252.80





# Shop Rates

*How are they calculated? (How do you get to \$81?)*

2080 hrs per year

But.... How many hours can they really work (bill)?

Annual Hours	2080
Less 12 Holidays per year (12 x 8)	-96
Less 120 hrs sick leave per year	-120
Less 168 hrs annual leave per year	-168
Less 2 – 15 min breaks per day (212 days x .5 hrs)	-106
Less 1 Safety meeting per month	-12
Less 78 hours of training & sanctioned events	-78
	<hr/>
Available hours to bill	1500



# Shop Rates

*How are they calculated? (How do you get to \$81?)*

Annual Cost	\$89,252.80
Divided by Available hours to bill	1500
	<hr/>
	\$59.50/hr
Add these costs to recover	
Supervisor's Salary	\$6.05/hr
11 person shop	
Vehicle & Fuel	\$6.58/hr
Shop Supplies, Uniforms, Phones, etc.	\$5.42/hr
Customer Service charge	\$3.39/hr
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	\$80.94/hr

Shop Rate Rounded



**\$81.00/HR**



# How does this rate compare?

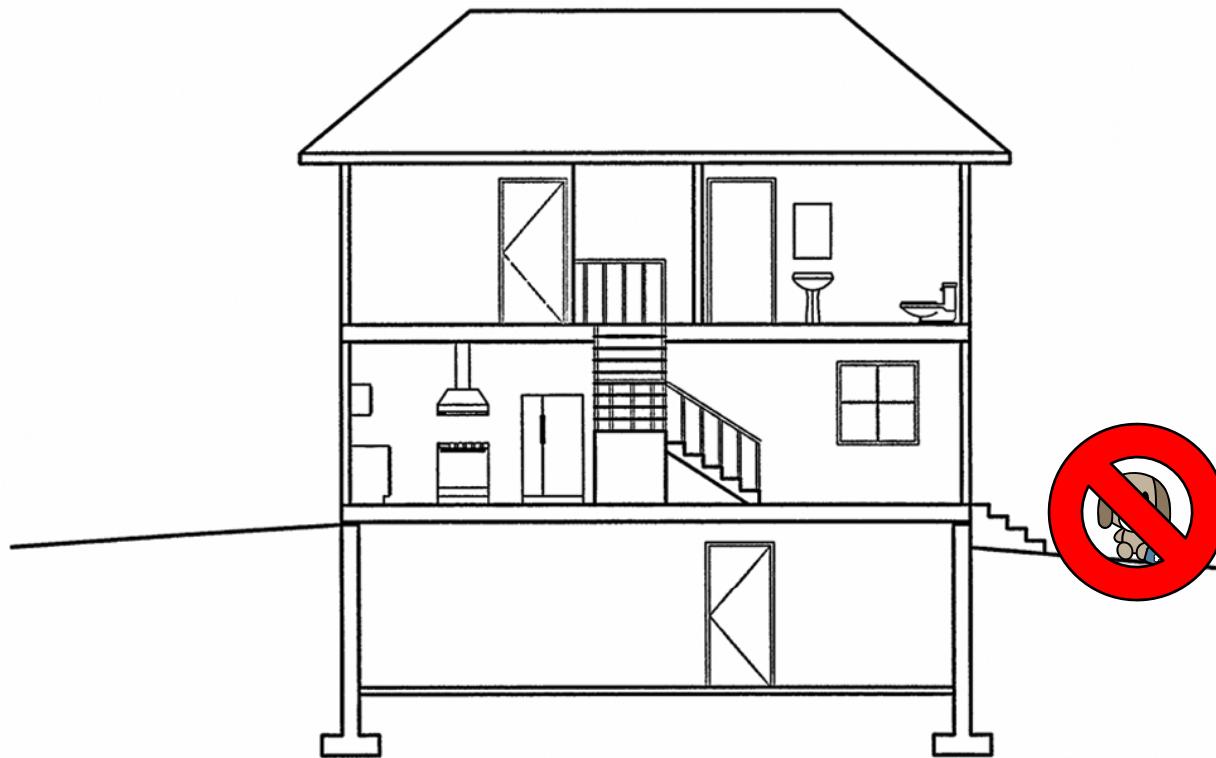
	UW - SEA	OSU - Corvallis	UM - Ann Arbor
<b>Carpenter</b>	\$ 70.43	\$56.00/84.00	\$ 82.02
<b>Plumber</b>	\$ 84.11	\$58.00/87.00	\$ 82.71
<b>Electrician</b>	\$ 94.80	\$60.00/90.00	\$ 81.50
	FY11 rates		FY10 rates

Variances:

Regular Time Rates, Overtime Rates, Alteration Rates vs. Maintenance Rates, Weekend Rates, Evening Rates, Consumable Charges, Project Manager Charges.

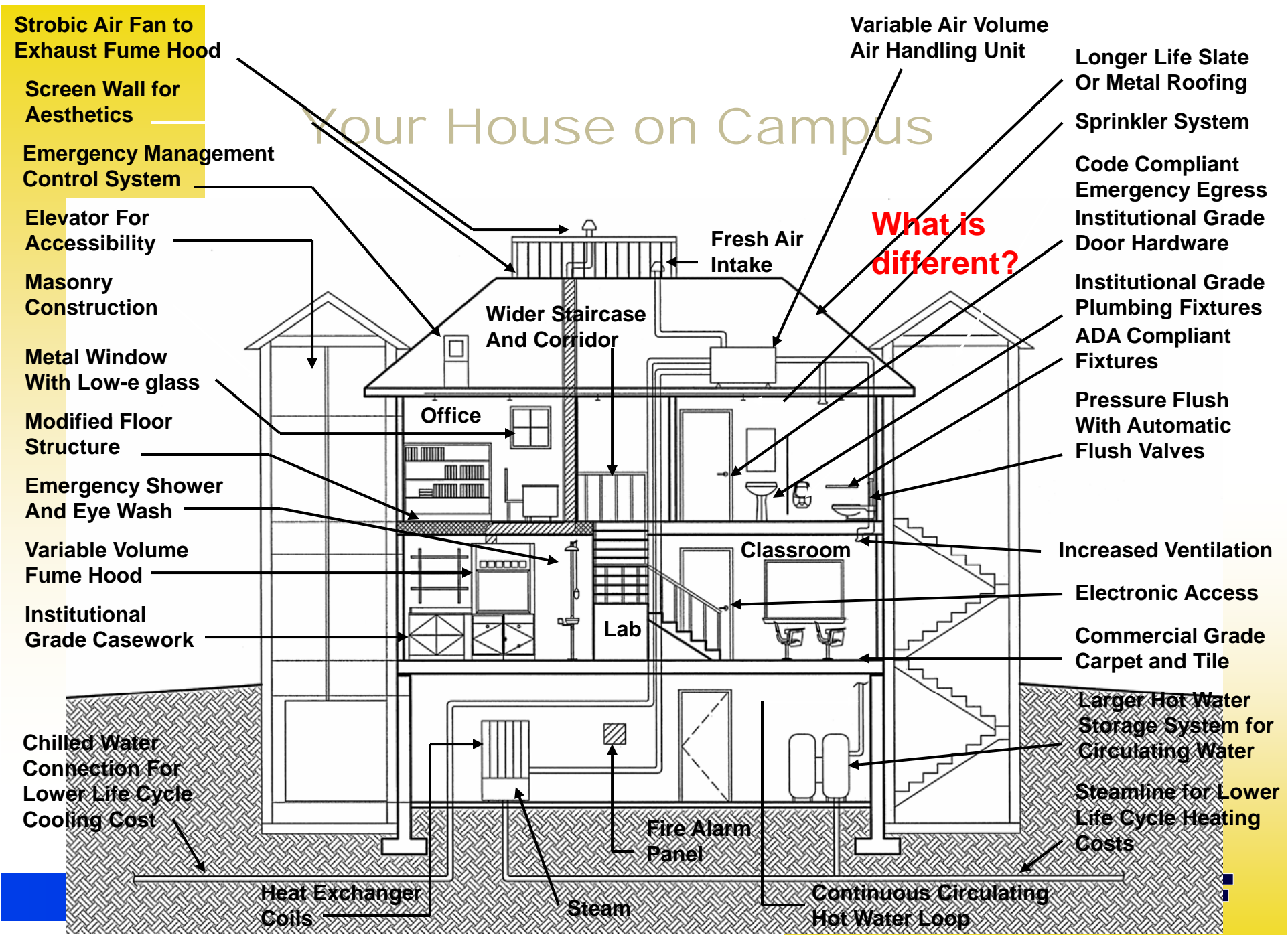


# Your House

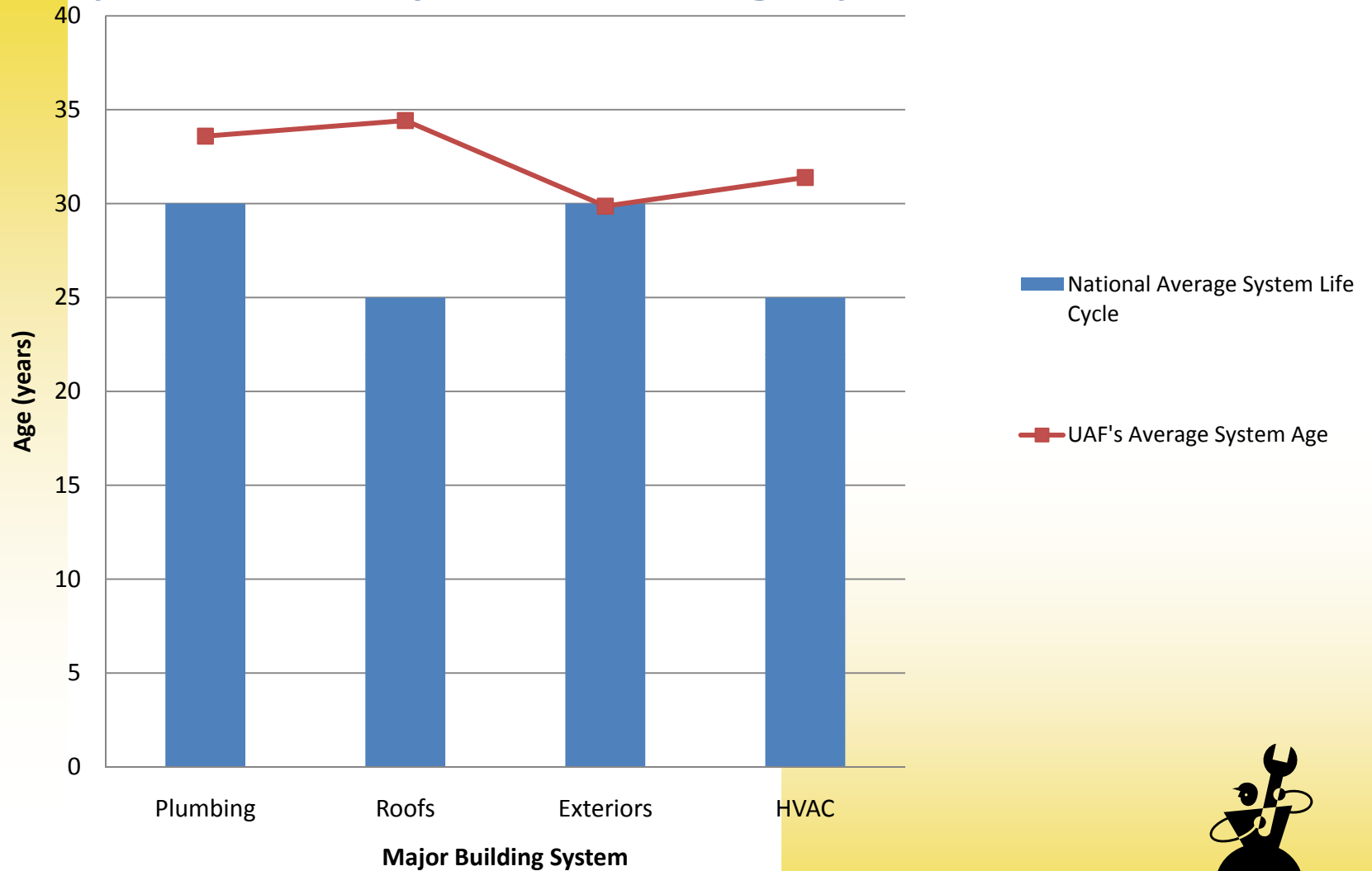




# Your House on Campus



# Life-cycle of major building systems



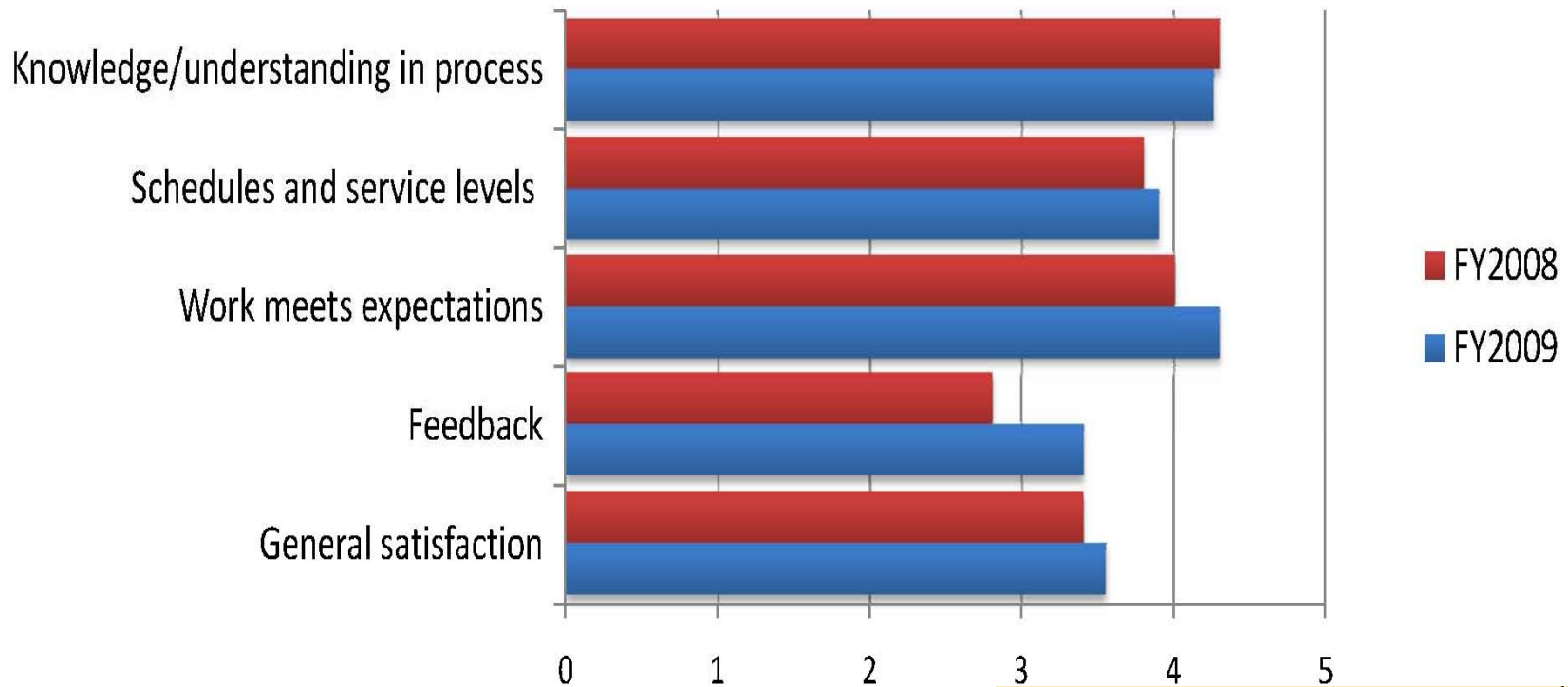
## *What are we doing?*

- Building Coordinators Program
- Transparency
- Responsive
- Maintenance Road Show
- One Number to Call 474-7000 (24 Hrs)
- Benchmarking to Other Universities

# How are we doing?

Surveyed:  
Eworf users  
811 email  
addresses

## Customer Satisfaction





# How are we doing?

## Customer Satisfaction Index



“Best in the West!” 2008

- Indiana University, Bloomington, IN
- Oregon State University, Corvallis, OR
- University of Illinois, Chicago, IL
- University of Maine, Orono, ME
- University of Massachusetts, Lowell, MA
- University of Missouri, St. Louis, MO
- University of New Hampshire, Durham, NH
- University of Oregon, Eugene, OR
- University of Vermont, Burlington, VT
- West Chester University, West Chester, PA
- West Virginia University – E&G, Morgantown, WV



# Ideas for Improvements

What are we doing well?

What can we do better?

*Thank  
You!*

