

September 2008

SUMMARY OF SERVICES

**MIDDLE
TENNESSEE**
STATE UNIVERSITY

Middle Tennessee State University

ANNUAL REPORT for the **FACILITIES SERVICES DEPARTMENT** **July 2007—June 2008**



FACILITIES SERVICES DEPARTMENT

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**MIDDLE
TENNESSEE**
STATE UNIVERSITY



Facilities Services is a department reporting to the senior vice president of the Division of Business and Finance.

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Fiscal Year 07/08 is history. For Facilities Services it was a significant year in terms of accomplishments, challenges (both present and future), and events. In addition to this summary, the report will provide details in each of these areas by departmental work unit.

Accomplishments

Performance Metrics

This report presents several performance indicators of each work unit in Facilities Services while outlining specific goals and accomplishments. The previous Summary of Services report identified a combined total of 61 individual goals across the departmental work units for the fiscal year. Overall, 53 of the goals were completely met or had substantial progress toward their completion providing for a success rate of approximately 86.9%.

Capital Projects and Construction Renovation Projects

- Twenty capital construction projects were completed totaling \$20.32 million
- One-hundred and ninety-four renovation projects were completed totaling \$1.71 million

Customer Service and Communication

- All work units combined to complete just over 17,900 work orders for the year
- A Facilities Services update and work order refresher program was held for various Academic department personnel in September

Management and Productivity

- Quarterly meetings were conducted for every work unit within the department
- The departmental emphasis on training continued with the implementation of a revised in-house safety training program as well as significant participation in technical, leadership, and managerial training



Campus Master Plan

The Campus Master Plan was completed in December 2007 and approved in February 2008. The Campus Master Plan provides the following:

- A listing and description of the future facilities needed and planned for the campus
- A description of the utilities infrastructure required for new facilities
- A section describing the overall condition of existing facilities on campus - defined by a combination of functional potential value and a physical condition
- A section describing and quantifying the deferred maintenance condition (\$112 million) of the existing facilities on campus

Challenges

Budgets

Operations and maintenance (O&M) budgets are for basic operational needs such as custodial services, grounds services, central utilities services, light bulb changing, etc., and routine maintenance and repair of facility systems such as HVAC, electrical, etc. The O&M budgets for Facilities Services have been fairly flat over the years.

In 2004, there was a significant reduction in this budget. Fiscal Year 2008/09 begins with another significant reduction (5%) in the O&M budget. While we seek to minimize impacts to our customers on campus, a reduction in services is required to account for the reduction in funding. The affected services include

(Continued on page 4)

The mission of Facilities Services is to prepare and present the facilities/grounds to the university tenants and the public in a safe, clean, and functional condition while managing the resources and assets in accordance with applicable requirements, procedures, and constraints.

Assistant Vice President's Summary, continued

(Continued from page 3)

reduced custodial services in offices (once a week cleaning in lieu of daily), and reduced in-house staffing in HVAC and general services.

Similarly, capital maintenance funding is significantly reduced for FY 2008/09. Capital maintenance projects are submitted each year, typically totaling \$10 million - \$13 million, to provide for the major repair and replacement needs of the campus. Funding formulas indicate an annual need of approximately \$8 million just to remain level. Recent funding history shows annual funding received in the amounts of \$3.5 million – \$4.5 million. Due to budget cuts, the FY 2008/09 funding received is for a single project (Campus School Repairs) for \$1.0 million. (See page 18.)

This under funding of capital maintenance accumulates over time to a condition referred to as “deferred maintenance.” Deferred maintenance puts an increased burden on the O&M needs because systems that need to be replaced remain in operation and are subject to more failures. As stated, this condition is reported on in the Campus Master Plan and highlighted in the body of this report. (See page 17.)

Utilities/Energy Cost Increases

Energy and utility costs are going up. This is a function of the both the increasing campus footprint and the rate escalations for the major utilities. Natural gas volatility has become the norm for the post-Katrina era. We expect double-digit increases for natural gas in FY 2008/09. In addition, the Tennessee Valley Authority has announced an incredible 20% increase in electrical rates effective in October 2008. These increases create additional incentive to be judicious in our utilities operations and more efficient in every aspect of energy usage management.

New Buildings

MTSU is fortunate, in many ways, to have a robust new building program. These new buildings, however, add to the O&M and utility needs of the campus. Capital funding for a project does not ensure adequate operational funding for operating the facility. The recent growth has substantially stretched the O&M services as well as the infrastructure capacity.

‘..we continue striving to maintain the campus in a safe, clean, and functional manner...’

-the FSD mission

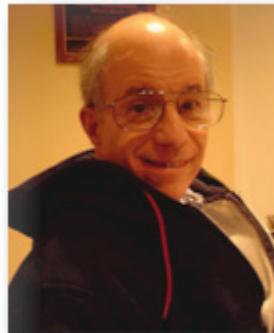
Events

Sadly, Facilities Services saw the passing of two beloved employees: Vance Atkins and James Luter. Vance was a custodian that had worked for MTSU for nearly 37 years. James was the manager for Grounds and Motor Pool working for MTSU for 17 years. They cared about their work and the people they worked with. Vance was known for his dedication to MTSU and his wit evidenced by his story telling. James was especially known for his love of turf, expertise in grounds and landscaping, and a free spirited personality that endeared him to those who got to know him. Vance and James will both be missed.

Summary

In summary, we continue striving to maintain the campus in a safe, clean, and functional manner while aligning the department more closely with the University mission and the Academic Master Plan. As we pursue these goals, it is important that we hear from our customers. Please review this document (as well as our website) for our service delivery. As always, feel free to contact us and let us know how we can serve you better.

David Gray



Vance Akin
(1938-2008)



James Luter
(1960-2008)

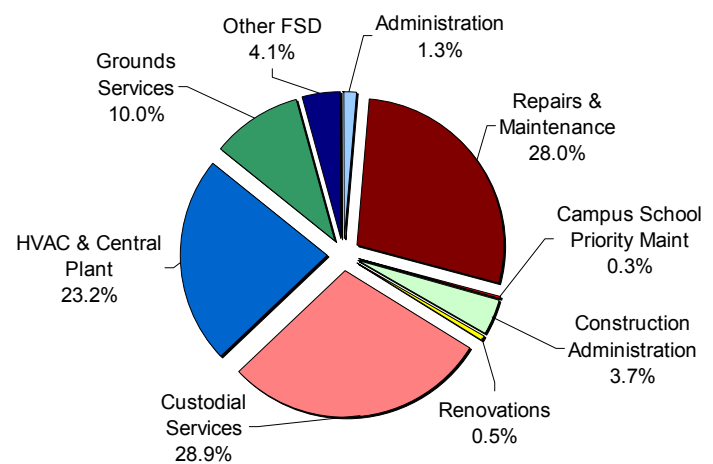
Accomplishments & Highlights 2007/08

- Adjusted departmental procedures for new MTSource procurement system
- Adjusted base budget recordings to reflect historical trends
- Revised motor pool policy to prohibit use of 15-passenger vans
- Developed invitation to bid for two hybrid motor pool vehicles
- Developed invitation to bid for waste removal and landfill services
- Streamlined paper flow procedures for approval of invoices, reducing turn-around time
- Provided rate sheet for all FSD services for access on website
- Reviewed and updated allocation formulas for auxiliary billings
- Hired and trained account clerk
- Provided advanced Excel training to employees

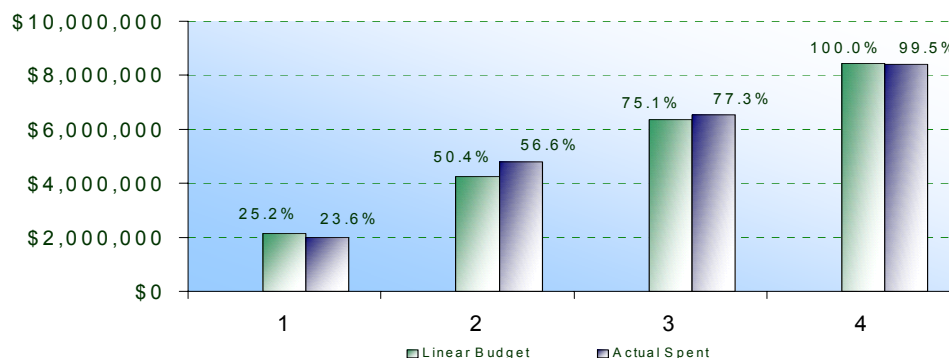
Goals for 2008/09

- Adjust FSD procedures to comply with new Facility Use Policy
- Evaluate feasibility of scanning all FSD invoices for on-line access
- Evaluate feasibility of using QuickBooks software for FSD use
- Develop a monthly budget reporting system for each director/manager
- Adjust allocation formulas for new wellness/recreation building addition
- Continue search for hybrid or other energy conserving motor pool vehicles
- Continue to improve communications with other MTSU departments
- E-mail monthly customer billing reports for MTSU departments

Net E & G Expenditures by Function



E & G FSD Maintenance and Operations Budget FY 07/08 by Quarter



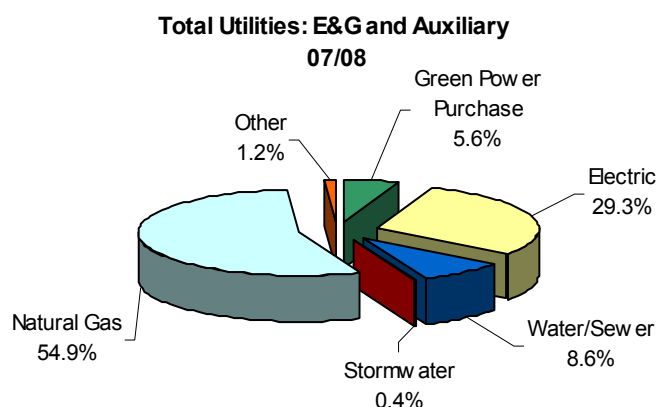
07/08	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Annual Totals
Total M&O Expenditures	\$2,974,624	\$3,625,176	\$2,982,250	\$3,385,987	\$12,968,037
Work for Others	(\$981,969)	(\$834,643)	(1,239,213)	(\$1,506,237)	(\$4,562,062)
Net E&G Expenditures	\$1,992,654	\$2,790,542	\$1,743,036	\$1,879,750	\$8,405,982
E&G Budget	\$8,447,795	\$8,447,975	\$8,447,795	\$8,447,795	\$8,447,795
% of Budget	23.59%	33.03%	20.63%	22.25%	99.51%

Accomplishments & Highlights 2007/08

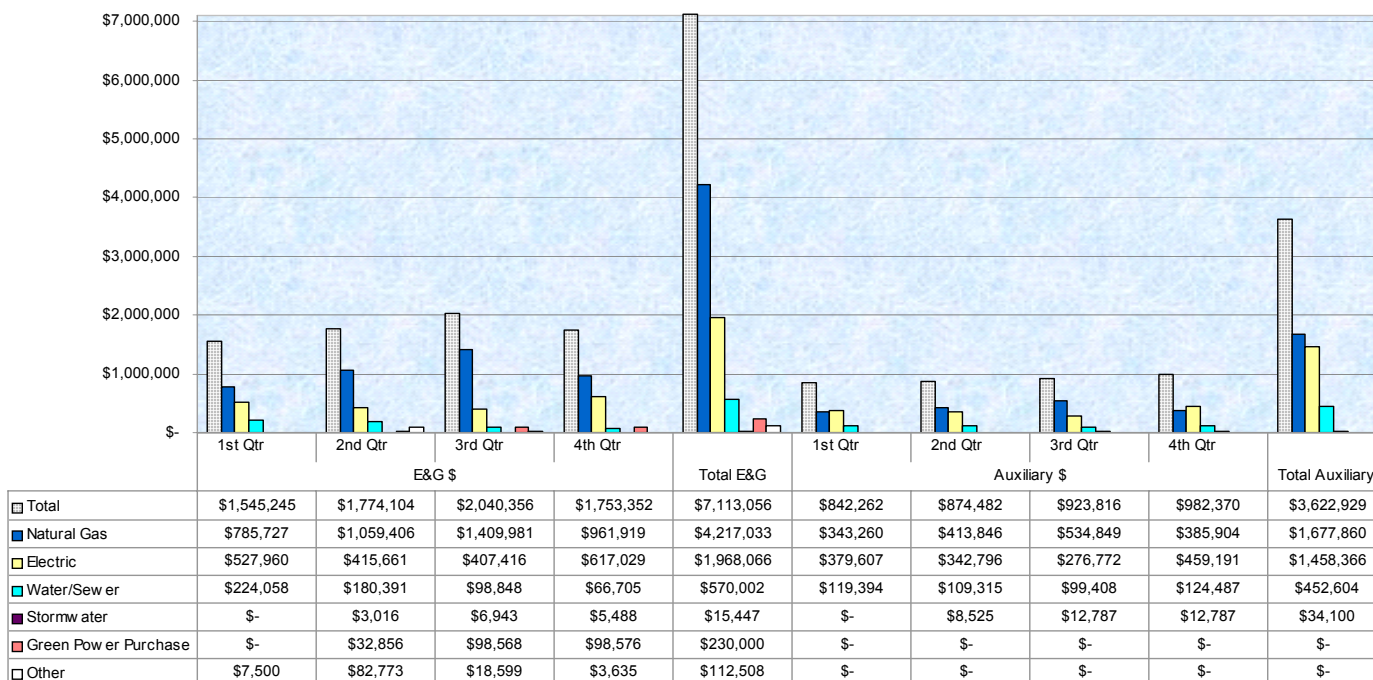
- Added the mandated stormwater fees into the utilities budget
- Continued working with the MTSU Sustainable Campus Fee Program (See page 19.)
- Attended two of the four part APPA Institute for Facilities Management (L. Hardymon)
- Completed the calculations for utilities for the new Rec Center /Health Services addition
- Supported utilities planning for new construction on campus: science building, College of Education and Behavior Sciences, and satellite chilling plant
- Assisted TBR in development of Sustainable Design Guidelines for new buildings
- Provided unit cost utility calculations for THEC and NCAA athletics reports
- Served on Safety Training Taskforce to develop training materials
- Continued FSD website support adding labor rates and new custodial cleaning standards
- Presented at the APPA Institute for Facilities Management (J. Whitefield)
- Participated in training and professional development, including TNAPPA and SRAPPA
- Served on APPA Thought Leaders Committee

Goals 2008/09

- Complete the APPA Institute for Facilities Management course
- Continue to provide utility and energy management support to university departments
- Continue support of MTSU Sustainable Campus Fee Program
- Continue to support Academic Enrichment, Engineering Technology, and other classroom instruction and projects where possible (on-going)
- Continue training and professional development



Campus Utilities 07/08 FY



Accomplishments & Highlights 2007/08

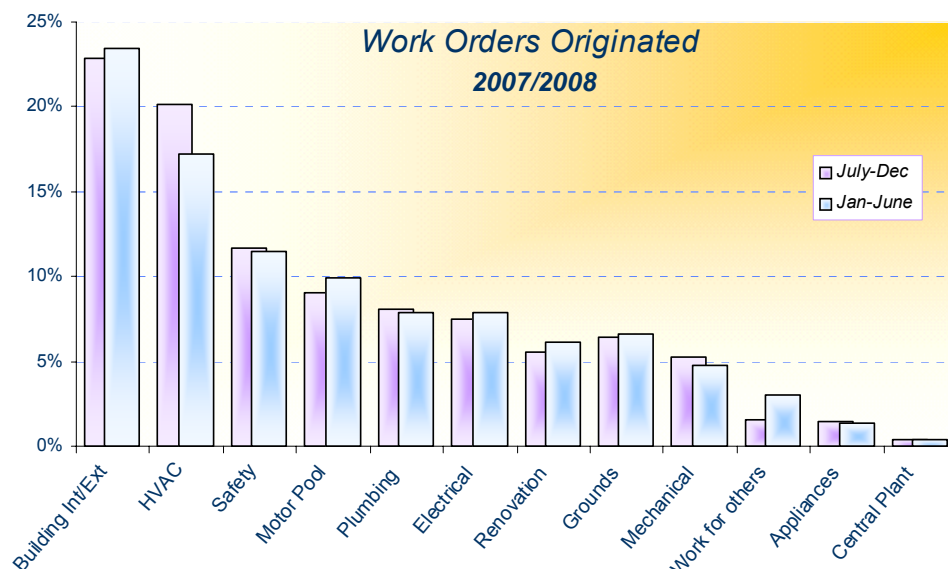
- Move all documents and files to new server
- Install Mainsaver Web Module
- Hire and train new work order Clerk
- Add Murphy Center Complex to work order tracking
- Train new Greek Life personnel in work order system

Goals 2008/09

- Implement new Special Event Billing procedures
- Devise tracking systems for project warranty information and electronic work order approvals
- Participate in training and professional development
- Support year-end billing and reporting

Work Orders Originated: 2007/2008

Description	1 st Qtr		2 nd Qtr		3 rd Qtr		4 th Qtr		Annual Totals	
	#WO	% Total	#WO	% Total	#WO	% Total	#WO	% Total	#WO	% Total
Appliances	80	2%	50	1%	63	1%	44	1%	237	1%
Building Interior/Exterior	1,066	23%	947	23%	1,290	24%	905	24%	4,208	23%
Central Plant	18	0.4%	17	0.4%	22	0.4%	11	0.3%	68	0.4%
Electrical	320	7%	340	8%	448	9%	304	8%	1,412	8%
Grounds	321	7%	247	6%	365	7%	256	7%	1,189	7%
HVAC	983	21%	795	19%	646	12%	665	17%	3,089	17%
Mechanical	221	5%	240	6%	260	5%	135	4%	856	5%
Motor Pool	429	9%	371	9%	490	9%	487	13%	1,777	10%
Plumbing	338	7%	378	9%	421	8%	272	7%	1,409	8%
Renovation	260	6%	229	6%	362	7%	247	6%	1,098	6%
Work for Others	89	2%	48	1%	247	5%	165	4%	549	3%
Safety	511	11%	518	12%	680	13%	355	9%	2,064	12%
Total	4,636	100.0%	4,180	100.0%	5,294	100.0%	3,846	100%	17,956	100%



Accomplishments & Highlights 2007/08

- Facilitated the Training Task Force, developing materials (video resources, topic outlines, testing) for the safety training program, and procedures for materials check-out and record-keeping with Continuing Studies
- Facilitated educational employee development training sessions for FSD work units: new safety training program, computer/e-mail training sessions, Preventing Employment Discrimination and Title VI on-line training
- Initiated monthly training sessions for Custodial Services evening staff
- Coordinated tow motor training for employees of Moving and Receiving Services, Tennessee Miller Coliseum, Tennessee Livestock Center and Facilities Services Department
- Provided professional assistance and guidance for work unit employees for updating Job Functions Questionnaires, as requested
- Participated in training and professional development, including Leaderfish, SRAPPA, and TNAPPA

Goals 2008/09

- Continue to organize and coordinate training sessions for FSD work units
- Continue maintenance and productivity studies for FSD with emphasis on custodial services
- Continue to provide professional assistance and guidance for work unit employees in the preparation of updating their Job Functions Questionnaires, as requested

FSD Staff Training Records – 07/08

		Leadership / Professional Development			Technical Training		
By Training Type	Employees (Full-Time)	Employees Trained	Total Hours		Employees Trained	Total Hours	
			In-House	Conference		In-House	Conference
Central Administration							
Assistant VP's Office	3	3	6.0	27.0	0		
Accounting Info Services	2	2	7.0				20.0
Center for Energy Efficiency	2	2	22.5	110.3	2	19.5	31.5
Work Orders	3	3	11.0		0	7.0	
Employee Development	1	1	2.5	14.0	1	1.0	
Engineering and Building Svcs	33	32	120.5	70.0	29	94.5	90.0
Energy Services	19	1	6.0		19	97.0	
Construction Administration	4	4	9.0	18.0	4	2	25.0
Grounds/Motor Pool Services	19	16	10.0		19	182.5	39.0
Custodial Services	25	25	13.5		25	201.5	
Totals	111	89	248.0	239.3	99	605.0	205.5

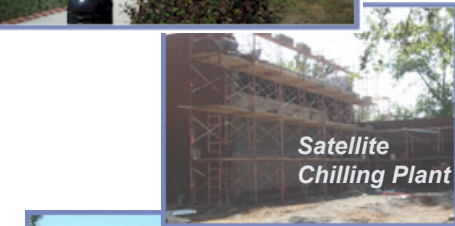
By Hours per Employee (Full-Time)	Employees	0-1 Hours	1-10 Hours	11-20 Hours	>20 Hours
Central Administration					
Assistant VP's Office	3		1	2	
Accounting Info Services	2			2	
Center for Energy Efficiency	2				
Work Orders	3		3		
Employee Development	1			1	
Engineering and Building Svcs	33		28	1	4
Energy Services	19		18	1	
Construction Administration	4		2	1	1
Grounds/Motor Pool Services	19		8	11	
Custodial Services	27		10	15	
Totals	111	0	70	34	5

Accomplishments & Highlights 2007/08

- Submitted Capital Maintenance budget request for 2009/2010 (See page 18.)
- Continued efforts for more cooperative relationship with City Codes Department and other city departments
- Continued participation in training and professional development
 - APPA Institute for Facilities Management
- Continued update of campus standards for facilities

Goals 2008/09

- Continued enhancement of City Code Department/ university relations
- Continued update to campus standards and plans review process
- Continued understanding and benefits of construction management/general contractor process for the university
- Greater participation in educational opportunities
- Continued participation of staff in APPA facilities education programs



Capital Projects Review		
07/08	New Projects	Completed Projects
July-September	<ul style="list-style-type: none"> Baseball stadium upgrade KUC/Peck Hall fire alarm system upgrade 	<ul style="list-style-type: none"> Chilled water line (Mass Comm/SFA) Steam manhole updates Mass Comm mix room Peck Hall HVAC Lytle House renovation Monohan Hall renovation JUB/Wiser Patten life safety project Womack Lane Apt renovations (A, B, C, & J, K, L) Womack Lane Apt kitchen upgrades (A, B, C, & J, K, L)
October-December	<ul style="list-style-type: none"> Peck Hall Social Work renovation Satellite chilling plant Corlew & Cummings Housing renovation 	<ul style="list-style-type: none"> Observatory Phase 2 Peck Hall ADA restroom Todd Hall Dean suite renovation Judd, Gracy, and Smith re-roofs Peck Hall elevator Peck Hall/KUC fire alarm system upgrade
January-March	<ul style="list-style-type: none"> Division Street parking lot 	<ul style="list-style-type: none"> Peck Hall Social Work renovation
April-June	<ul style="list-style-type: none"> Monohan Hall re-roof Sewer/Steam manhole updates Lyon Hall re-roof KOM exterior renovation and re-roof 	<ul style="list-style-type: none"> Division Street parking lot Womack Lane Apt renovations (A, B, C, & J, K, L) Womack Lane Apt kitchen cabinet renovations (A, B, C, & J, K, L)

Construction Administration Capital Projects Summary

2007/2008	1 st Qtr		2 nd Qtr		3 rd Qtr		4 th Qtr		Annual Totals	
	# Projects	Value of Projects	# Projects	Value of Projects	# Projects	Value of Projects	# Projects	Value of Projects	# Projects	Value of Projects
Beginning Active Projects	21	\$57,811,497	13	\$47,954,655	10	\$75,916,194	10	\$75,625,194	21	\$57,811,194
Added Projects	2	\$5,396,520	3	\$30,509,000	1	\$78,000	4	\$1,251,088	10	\$37,234,608
Completed Projects	10	\$15,253,362	6	\$2,547,461	1	\$369,000	3	\$2,147,584	20	\$3,118,230
Ending Active Projects	13	\$47,954,655	10	\$75,916,194	10	\$75,625,194	11	\$74,728,698	11	\$74,728,698

Central Plant

Accomplishments & Highlights 2007/08

- Managed 323 callbacks
- On-going preventative maintenance program implemented by staff resulting in no unplanned central plant (steam or chilled water) outages, maintaining zero incident record for unplanned outages
- Prepared new water treatment specifications
- Supported Wellness Center addition
- Supported steam and manhole repair project
- Supported central plant shutdown in May 2008
- Participated in training and professional development, including TNAPPA
- Operated turbine in accordance with sound economic principles

Central Plant

Goals 2008/09

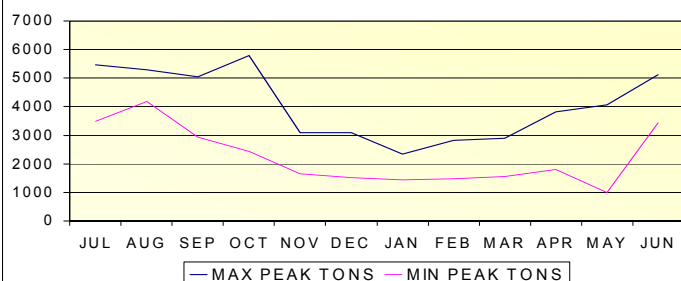
- Support steam manhole project phase II
- Support development of College of Education and Behavioral Science project
- Support development of Student Union Building project
- Support Master Plan with regard to satellite chilling plant
- Support construction of new satellite chilling plant
- Support development of new science building project
- Continue to evaluate operating schedule for gas turbine generator with respect to natural gas and electric rates
- Continue in-house training for employee on central plant operation
- Prepare new project applications for the MTSU Sustainable Campus Fee Program
- Continue support of work unit council

Central Plant Equipment Peak Operational Levels 07/08

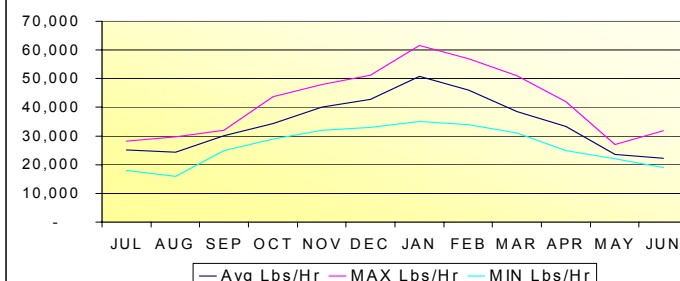
Natural Gas Fired Turbine/Generator					Steam Boilers					Chillers				
5MW (nominal)					85,000 Pounds/Hour (peak)					6,000 Tons (peak)				
	1 st /2 nd Qtrs	3 rd Qtr	4 th Qtr	Annual		1 st /2 nd Qtrs	3 rd Qtr	4 th Qtr	Annual		1 st /2 nd Qtrs	3 rd Qtr	4 th Qtr	Annual
Peak MW	5.03	5.02	5.01	5.03										
Ave MW	4.56	4.84	4.63	4.66	Ave LBS/Hr	32,810	45,117	26,363	34,275	Peak Tons	5,789	2,902	5,122	5,789
Total MWH	17,697	10,540	6,322	31,889	Peak LBS/Hr	51,208	61,625	42,083	61,625					

Purchased power: 42,728.4 MWH

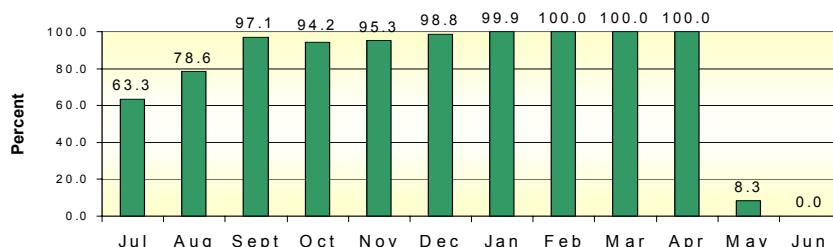
Chilling Plant 2007/2008



Steam Boilers 2007/2008



Turbine: Percent Runtime per Month 07/08



HVAC

Accomplishments & Highlights 2007/08

- Responded to 88 callbacks (approximately 10% fewer than 06/07)
- Replaced AHUs in McCallie cafeteria
- Supported Lyon Complex renovations
- Supported Wellness Center addition
- Implemented projects approved by MTSU Student Environmental Initiatives Fee
- Supported safety training initiative
- Continued participation in additional training for HVAC staff
- Participated in training and professional development, including TNAPPA

HVAC

Goals 2008/09

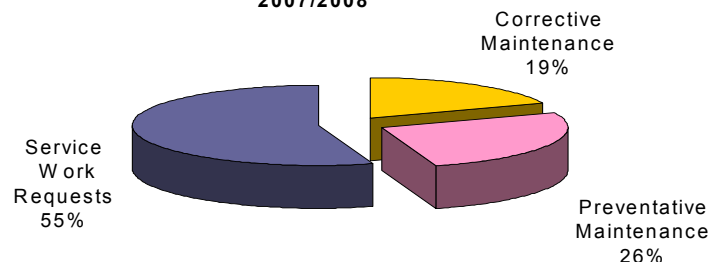
- Review and implement recommendations on services to auxiliaries, zone maintenance, runners, and shift work where applicable
- Support installation of Cope Administration Building computer room HVAC units
- Support new science building project
- Continue support of work unit council

PERFORMANCE MEASURES: Energy Services

		#Work Orders Completed			Man Hours			Avg MH/WO			% Closed Past Due		
CORRECTIVE MAINTENANCE (CM)	07/08	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual
	Appliances	22	22	44	99	75	173	4.5	3.4	3.9	22.7%	27.3%	25.0%
	Central Plant	1	0	1	1	0	0	1.0	0.0	0.0	100.0%	0.0%	100.0%
	HVAC	820	786	1606	2287	2493	4780	2.8	3.2	3.0	16.7%	13.0%	14.9%
	Mechanical	84	63	147	417	371	788	5.0	5.9	5.4	20.2%	25.4%	22.4%
	Total	927	871	1798	2804	2937	5741	3.0	3.4	3.2	17.3%	14.2%	15.8%
PREVENTIVE MAINTENANCE (PM)	07/08	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual
	Appliances	6	6	12	11	7	17	1.8	1.1	1.4	0.0%	0.0%	0.0%
	Central Plant	21	23	44	1365	1360	2725	65.0	59.1	61.9	9.5%	8.7%	9.1%
	HVAC	488	365	853	2068	1572	3640	4.2	4.3	4.3	15.2%	11.2%	13.5%
	Mechanical	336	317	653	816	843	1659	2.4	2.7	2.5	0.0%	0.0%	0.0%
	Total	851	711	1562	4259	3782	8041	5.0	5.3	5.1	8.9%	6.0%	7.6%
SERVICE WORK ORDERS	07/08	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual
	Appliances	13	13	26	19	10	29	1.5	0.8	1.1	30.8%	61.5%	46.2%
	Central Plant*	13	14	27	4684	5310	9993	360.3	379.3	370.1	15.4%	21.4%	18.5%
	HVAC	357	264	621	3020	3475	6495	8.5	13.2	10.5	18.5%	32.6%	24.5%
	Mechanical	32	17	49	88	46	134	2.7	2.7	2.7	6.3%	5.9%	6.1%
	Total	415	308	723	7810	8840	16650	18.8	28.7	23.0	17.8%	31.8%	23.8%

* Central Plant Avg MH/WO includes plant shutdown

Energy Services: Work Order Hours
HVAC
2007/2008



Accomplishments & Highlights 2007/08

- o Participated in training and professional development, SRAPPA and TNAPPA Conferences (Gerald Caudill)
- o Monitored opportunities for improved services to all areas of the university by monitoring performance and evaluating opportunities for improvement
- o Reviewed and reported on recommendations on services to auxiliaries, zone maintenance, runners and shift work
- o Rolled out new university E, H & S policy to all divisions (on going)
- o Completed development of process flow charts for Construction/Renovation; developed a process that is compatible with the TBR In-House Construction Guidelines
- o APPA Institute scholarships and attendance by Gerald Grimes, Terri Carlton and Jeff McConnell
- o APPA exam for Educational Facilities Professional credentials passed by Gerald Grimes and Jeff McConnell

Construction/Renovation

- o Opened a record breaking number of new projects... over 300
- o Closed projects totaling over \$1,000,000
- o Completed major renovations in:
 - o Fairview Building – Continuing Education relocation
 - o Peck Hall 227 – new master classroom
 - o Keathley University Center – Disabled Student Services renovation
 - o Murphy Center 104 – new master classroom
 - o Peck Hall 223 & 224 – new History offices
 - o Public Safety – office renovation
 - o Airport Hanger build-out
 - o Todd Building – sink replacements
- o Completed and implemented In-House Construction Guidelines

Building Services and Key Shop

- o Managed numerous emergency situations including restoring power to Cope after a fault occurred in the electrical primary feeding the building
- o Provided training for Electrical Arc Flash requirements
- o Provided training on electrical grid and equipment maintenance and operation
- o Three technicians training in backflow device testing and repair
- o Managed the project to repair the sewer line at Murphy Center without significant downtime for the building
- o Assisted Construction Administration in numerous projects
- o Provided support to Campus Planning on design considerations for access control and door hardware for new science building, education building and student union
- o Replaced lighting at Murphy Center exterior steps and concourse

Construction / Renovation Project Summary										
	1 st Qtr		2 nd Qtr		3 rd Qtr		4 th Qtr		Annual Totals	
	# Projects	Value of Projects	# Projects	Value of Projects	# Projects	Value of Projects	# Projects	Value of Projects	# Projects	Value of Projects
Beginning Active Projects	111	\$1,495,613	136	\$1,692,914	164	\$1,790,838	183	\$1,234,154	111	\$1,495,613
Added Projects	78	\$634,872	67	\$540,869	66	\$405,061	82	\$633,111	293	\$1,910,011
Completed Projects	53	\$437,571	39	\$442,945	47	\$461,159	55	\$371,652	231	\$2,222,191
Ending Active Projects	136	\$1,692,914	164	\$1,790,838	183	\$1,734,740	210	\$1,375,792	210	\$1,375,792

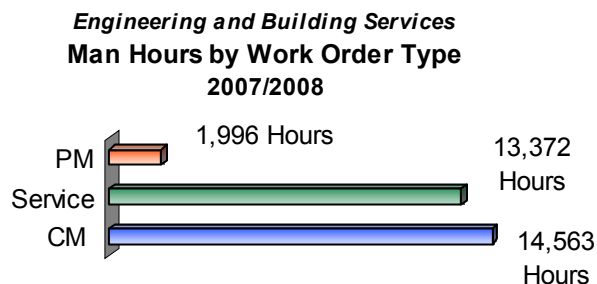
Accomplishments & Highlights 2007/08 (continued)

Environmental Health & Safety (EH&S)

- o Obtained Administration/EH&S Committee approval for the MTSU Employee Safety Handbook
- o Updated the MTSU Emergency Operations Plan
- o Organized a tabletop emergency exercise in coordination with Rutherford County Emergency Management Agency for MTSU and responding agencies on pandemic flu
- o Assisted TBR with guidance and direction on system-wide EH&S issues
- o Craig McDaniel, EH&S employee, was recognized as the MTSU Employee of the Year
- o Applied for a Homeland Security Grant for an Emergency Planning Needs Assessment
- o Supervised demolition of a number of MTSU structures

Goals 2008/09

- o Continue to monitor opportunities for improved services to all areas of the University by monitoring performance and evaluating opportunities for improvement
- o Continue to review and report on recommendations on services to auxiliaries, zone maintenance, runners and shift work
- o Continue development of the University EH&S program
- o Continue to refine the process flow charts for Construction/Renovation that are compatible with the TBR In-House Construction Guidelines
- o Manage work units to obtain optimum productivity and quality while dealing with reduced budgets and manpower
- o Continue training and professional development, SRAPPA and TNAPPA



PERFORMANCE MEASURES: Engineering and Building Services													
		#Work Orders Completed			Man Hours			Avg MH/WO			% Closed Past Due		
CORRECTIVE MAINTENANCE (CM)		1 st /2 nd Qtrs	3 rd /4 th Qtrs	Annual	1 st /2 nd Qtrs	3 rd /4 th Qtrs	Annual	1 st /2 ⁿ d Qtrs	3 rd /4 th Qtrs	Annual	1 st /2 nd Qtrs	3 rd /4 th Qtrs	Annual
	07/08												
	Appliances	48	43	91	154.5	126	280.5	3.2	2.9	3.1	12.50 %	4.65%	8.79 %
	Building Interior/Exterior	1121	1309	2430	3589.7	3311.5	6901.2	3.2	2.5	2.8	7.40 %	7.94%	7.70 %
	Electrical	467	687	1154	1842.5	2197	4039.5	3.9	3.2	3.5	9.42%	9.32%	9.36 %
	Plumbing	607	524	1131	1391.2	1485.7	2876.9	2.3	2.8	2.5	2.97%	4.39%	3.63 %
	Safety	103	135	238	241.5	223.5	465.0	2.3	1.7	2.0	4.85%	4.44%	4.62 %
Total	2346	2698	5044	7219.4	7343.7	14563.1	3.1	2.7	2.9	6.65%	7.38%	7.04 %	
PREVENTIVE MAINTENANCE (PM)		1 st /2 nd Qtrs	3 rd /4 th Qtrs	Annual	1 st /2 nd Qtrs	3 rd /4 th Qtrs	Annual	1 st /2 ⁿ d Qtrs	3 rd /4 th Qtrs	Annual	1 st /2 nd Qtrs	3 rd /4 th Qtrs	Annual
	07/08												
	Building Interior/Exterior	41	108	149	59	337	396	1.4	3.1	2.7	2.44%	22.22%	16.78%
	Electrical *	19	20	39	33	35	68	1.7	1.8	1.7	5.26%	0.00%	2.56%
	Safety	798	815	1613	775	757	1532	1.0	0.9	0.9	0.00%	0.00%	0.00%
Total	858	943	1801	867	1129	1996	1.0	1.2	1.1	0.23%	2.55%	1.44 %	
* Includes generator PMs performed by Motor Pool Services													
SERVICE WORK ORDERS		1 st /2 nd Qtrs	3 rd /4 th Qtrs	Annual	1 st /2 nd Qtrs	3 rd /4 th Qtrs	Annual	1 st /2 ⁿ d Qtrs	3 rd /4 th Qtrs	Annual	1 st /2 nd Qtrs	3 rd /4 th Qtrs	Annual
	07/08												
	Appliances	15	7	22	22.5	9	31.5	1.5	1.3	1.4	6.67%	14.29%	9.09 %
	Building Interior/Exterior	782	793	1575	2802.3	3137.2	5939.5	3.6	4.0	3.8	7.42%	4.92%	6.16 %
	Electrical	156	118	274	403	343	746	2.6	2.9	2.7	7.05%	13.56%	9.85 %
	Plumbing	93	67	160	203	156.5	359.5	2.2	2.3	2.2	5.38%	5.97%	5.63 %
	Renovation	425	629	1054	1769.9	4121.9	5891.8	4.2	6.6	5.6	5.88%	7.63%	6.93 %
	Safety	92	94	186	184.9	218.5	403.4	2.0	2.3	2.2	11.96%	8.51%	10.22%
Total	1563	1708	3271	5385.6	7986.1	13371.7	3.4	4.7	4.1	7.10%	6.79%	6.94 %	

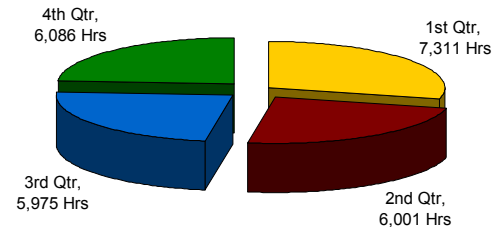
Accomplishments & Highlights 2007/08

- o Bought on Sports Plex on East Main Street
- o Improved irrigation by using more efficient valve work and by changing stations to minimize irrigation time
- o Planted trees at parking areas: Bell Street, James Union Building, and throughout campus
- o Provided upgrades for on-campus athletic fields
- o Participated in training and professional development, including TNAPPA

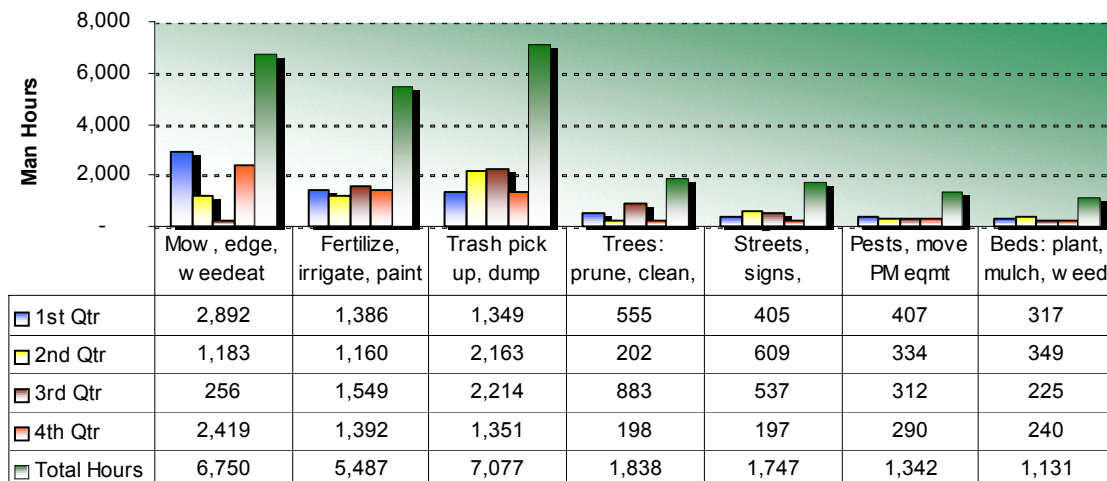
Goals 2008/09

- o Develop new landscape specifications for campus standards
- o Work with campus planning for tree replacement of old trees on campus
- o Improve services to the campus
- o Better communication with athletic department
- o Continue design review
- o Begin cross training for grounds positions for better work efficiency and shared responsibilities
- o Continue irrigation progress at Sports Plex using well water to supplement field irrigation
- o Continue improvements and development for campus rain gardens

2007-2008
Grounds: Total Hours By Quarter
25,372 Hours



Grounds Services Allocation of Labor by Activity
2007/2008



PERFORMANCE MEASURES: Grounds Services

		#Work Orders Completed			Man Hours			Avg MH/WO			% Closed Past Due		
Grounds Services	07/08	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual
	Maintenance	66	86	152	340	721	957	5.1	8.4	6.3	17.0%	7.0%	13.0%
	Preventative (PM)	2	1	3	5	3	6	2.5	0.0	2.0	0.0%	0.0%	0.0%
	Corrective (CM)	64	85	149	335	689	1023	5.2	8.1	6.9	17.0%	7.0%	13.0%
	Service	485	553	1,035	4,210	26,530	30,740	8.7	8.2	8.4	12.0%	9.0%	2.0%
	Routine	485	534	1,016	4,210	4,398	8,608	8.7	8.2	8.4	12.0%	0.0%	4.0%
	Annual	0	19	19	0	22,132	22,132	0.0	1,164.8	1,164.8	0.0%	0.0%	0.0%
	Total	551	639	1,187	4,550	27,251	31,697	8.3	42.6	26.7	12.0%	9.0%	11.0%

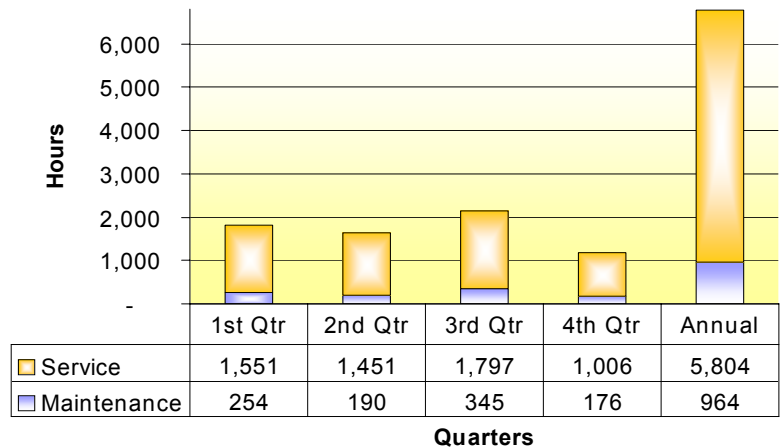
Accomplishments & Highlights 2007/08

- o Supported ordering of two hybrid vehicles from sustainable campus fees
- o Completed automotive engine performance training
- o Installed leak detection sensors and storage tank readers for underground storage tanks
- o Performed required emissions testing on all campus vehicles
- o Participated in training and professional development

Motor Pool Man Hours 2007/2008

Goals 2008/09

- o Order the hybrid vehicles for campus use
- o Continue providing training opportunities to mechanical staff
- o Work with grounds and welding shop to rebuild/repair equipment, including street sweeper



PERFORMANCE MEASURES: Motor Pool Services													
		#Work Orders Completed			Man Hours			Avg MH/WO			% Closed Past Due		
Motor Pool Services	07/08	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual	1st/2nd Qtrs	3rd/4th Qtrs	Annual
	Maintenance	433	474	907	444	521	964	1.0	1.1	1.1	24.9%	0.4%	12.1%
	Preventative (PM)	418	456	874	425	476	900	1.0	1.0	1.0	25.8%	0.2%	12.5%
	Corrective (CM)	15	18	33	19	45	64	1.3	2.5	1.9	0.0%	5.6%	3.0%
	Service	481	491	972	3,002	2,802	5,804	6.2	5.7	6.0	8.3%	2.6%	11.0%
	Routine	481	491	972	3,002	2,802	5,804	6.2	5.7	6.0	8.3%	2.6%	11.0%
	Total	914	965	1,879	3,445	3,323	6,768	3.8	3.4	3.6	16.2%	1.6%	8.7%



Accomplishments & Highlights 2007/08

- o Performed taskforce inspections of facilities for cleanliness according to contract cleaning standards and frequencies
- o Performed "pre-planned" facility inspections with contractor to build "team relationship"
- o Held monthly Joint Review with FSD administration and contractor to assess facility inspection scores and project work progress
- o Completed analysis of Murphy Center Complex custodial staffing levels based on the facilities' cleanable square footage
- o Prepared analysis of FSD in-house custodial staffing levels based on cleanable square footage
- o Prepared analysis of campus office square footage, including financial impact of reduction in service; revised custodial cleaning standards and frequencies due to budget constraints, with reduction in service for campus offices (July 2008)

Goals 2008/09

- o Continue taskforce inspections of facilities
- o Bring new Wellness Center on-line
- o Bring new square footage on-line at the Recreation Center

E&G Space 2007/08			
	Gross Square Feet	Cleanable Square Feet	% Cleanable Square Feet
Facilities Services	562,702	225,669	12%
Murphy Center Complex	589,306	485,724	26%
Contract labor	1,569,956	1,169,458	62%
Total	2,721,964	1,880,851	100%

Recycling Program - MTSU Recycles

LINDA HARDYMON

Accomplishments & Highlights 2007/08

- o Maintained the recycling program to meet campus needs, running the program with students and preserving a high level of continued quality
- o Increased inventory of bins and equipment with MTSU Sustainable Campus Fee Program funding
- o Consulted on recycling opportunities for planned new building constructions
- o Provided recycling support for special requests on campus (retiring faculty, department relocations, special events)
- o Increased collections in all commodities in program
- o Expanded campus and community recycling area, adding several new bins
- o Negotiated new cardboard vendor contract
- o Participated in training and professional development, including TNAPPA conference



Recycling Program Collections 2007/2008		
Commodity	Annual Totals	Percent Increase
	Pounds	
Aluminum	6,664	32.5%
Mixed/White Paper	313,280	7.5%
Newspaper/ Magazines	497,830	23.2%
Maintenance metals	53,020	66.9%
Cardboard	291,200	32.5%
Misc electronics	1,126	New
Units		
Batteries	138	16.0%
Ink cartridges	1,267	32.0%

Goals 2008/09

- o Continue working with MTSU Sustainable Campus Fee Program for recycling program improvements
- o Explore recycling for special events on campus (BRAA, athletics, housing)
- o Assess staffing issues and opportunities
- o Develop scholarship guidelines and initiate award procedures
- o Continue serving on planning and funding committees for Tennessee Higher Education Sustainability Association
- o Continue exploring new initiatives: plastics, ink cartridge collection for housing; light bulb exchange; wooden pallet recycling
- o Continue participation in training and development programs, including TNAPPA conference

Excerpts from Campus Master Plan December 2007—
The following information categorizes the Education and General (E&G) facilities according to condition and quantifies the overall level of deferred maintenance.

Existing Building Analysis: Educational and General Facilities

Building Name	Year Constructed	Bldg ID	Current Condition (1)	Potential Value (2)	Overall Building Rating (3)	Net SF	Gross SF
Alumni Relations House (2259 Middle Tennessee Boulevard)	1908	P0174	99.8	High	A	5,598	10,105
President's Home **	1910	P0001	87.0	High	B	7,015	7,794
Tom H. Jackson Building **	1911	P0003	86.0	High	B	4,921	8,792
Kirksey Old Main **	1911	P0002	69.8	High	C	45,772	83,705
Jones Hall **	1921	P0005	82.3	High	B	21,110	39,855
Pittard Campus School **	1927	P0007	65.5	High	C	29,805	52,424
Ellington Human Science Annex	1928	P0018	77.6	Low	D	7,254	10,276
Wiser-Patten Science Hall	1932	P0008	83.0	Medium	B	27,991	41,116
Voorhies Industrial Studies	1942	P0009	89.4	Medium	B	28,516	39,289
ROTC Annex	1942	P0010	60.2	Low	D	8,574	10,143
Alumni Office (2263 Middle Tennessee Boulevard)	1948	P0172	100	High	A	1,869	2,796
1114 East Lytle Street (Lytle House)	1948	P0171	95.1	High	A	1,379	1,874
Sam H. Ingram Building (2269 Middle Tennessee Boulevard)	1951	P0169	98.6	High	A	18,907	27,498
Parking Services Building (1403 East Main Street)	1951	P0158	98.2	High	A	7,349	12,099
James Union Building	1952	P0015	84.5	Medium	B	37,101	59,351
Forrest Hall	1954	P0017	90.3	Low	D	8,562	14,177
Photography Building	1957	P0046	76.0	Low	D	8,196	11,873
Todd Hall	1958	P0019	96.0	High	A	65,598	114,388
Saunders Fine Art	1959	P0022	89.6	Medium	B	20,088	32,870
E.W. Midgett Building	1959	P0076	65.0	Low	D	10,804	18,326
Fairview Building	1962	P0149	90.5	Medium	A	22,584	38,250
Ellington Human Science	1962	P0025	83.6	Medium	B	10,828	15,509
Boutwell Dramatic Arts	1964	P0031	81.4	Medium	B	37,655	59,876
Cope Administration Building	1965	P0034	89.4	High	B	30,815	51,184
Keathley University Center	1967	P0042	84.4	Medium	B	78,973	122,671
Davis Science Building	1967	P0041	82.7	Medium	B	44,411	75,258

Notes:

- 1.) Current condition - Facility Survey Score as of 10/07
- 2.) Potential Value determined by factors including: various land use, program suitability, code issues, original campus structure
- 3.) Overall building rating combines the current condition and potential values

Building Name	Year Constructed	Bldg ID	Current Condition (1)	Potential Value (2)	Overall Building Rating (3)	Net SF	Gross SF
Stark Agribusiness and Agriscience Center	1968	P0045	89.3	High	B	15,059	24,813
Peck Hall	1968	P0044	84.0	Medium	B	52,724	110,440
McFarland Health Service	1969	P0054	81.4	Low	D	6,873	10,285
Tennessee Livestock Center	1972	P0070	91.8	Low	D	135,079	158,191
Ezell Hall	1973	P0072	78.5	Low	D	32,497	52,452
Greenhouse	1975	P0073	100	Low	D	4,709	4,774
Ned McWherter Learning Resources Center	1975	P0074	85.1	High	B	41,763	65,865
Vocational Agriculture	1979	P0080	90.9	Low	D	5,217	6,000
Wright Music Building	1980	P0081	92.8	Medium	A	20,802	31,141
Telescope Building	1986	P0106	n/a	Low	D	328	412
ProjectHELP	1986	P0088	100	High	A	3,258	4,568
John Bragg Mass Communication Building	1990	P0083	95.5	High	A	53,735	91,114
Cason-Kennedy Nursing Building	1994	P0084	97.3	High	A	18,755	31,494
Telecomm Building	1997	P0089	100	High	A	5,957	10,267
Business & Aerospace Building	1997	P0091	99.3	High	A	100,973	184,931
Horticulture Facility	1997	P0093	94.0	Low	D	6,458	9,002
James E. Walker Library	1998	P0094	99.3	High	A	172,928	254,596
Tennessee Center for the Study and Treatment of Dyslexia	2000	P0155	94.0	High	A	4,148	7,169
Wood-Steigall Center	2001	P0156	100	High	A	4,636	10,142
Paul W. Martin, Sr. Honors Building	2003	P0166	100	High	A	11,605	20,720
Printing Services Building	2005	P0175	100	Low	D	3,927	4,320
Nursing Building Addition	2006	P084A	100	High	A	13,924	24,044

** Original campus structure

Overall Building Rating - Current Condition

Potential Value	High Medium Low	Overall Building Rating - Current Condition		
		90-100	80-90	<80
		A	B	C
		A	B	C
		D	D	D

Deferred Maintenance

Educational and General (includes maintenance, utilities, and athletics)		
Overall Buildings Ratings	Square Footage	20-year Deferred Maintenance (1)
A	1,267,353	\$ 19,297,167
B	977,395	\$ 49,955,169
C	297,334	\$ 31,204,298
D	95,614	\$ 5,937,337
Other	67,808	\$ 1,919,804
Infrastructure		\$ 27,078,443
20-YR Capital Maintenance Funding		\$ (23,380,000)
Totals	2,705,504	\$ 112,012,217

(1) 20-YR Deferred Maintenance is the sum of the Annual Capital Maintenance calculations for the most recent 20 year period for each facility. The Annual Capital Maintenance formula is:

$$ACM = 2/3 (\text{Building Current Replacement Value}) * \text{Building Age}/1275$$

Like many universities and colleges, MTSU has experienced significant growth and associated financial needs over many years. These conditions have led to a postponement of major repairs and replacements of facilities and infrastructure. The delay, combined with the age of the facilities, is leading to a deterioration of the facilities and an increased backlog of maintenance and capital renewal projects. This backlog is commonly referred to as "deferred maintenance".

This table summarizes the estimated cost of 20 years of accumulated deferred maintenance for the Education and General facilities and the infrastructure on campus according to Overall Building Rating category, the 20-year total of capital maintenance funding, and the net deferred maintenance.

The following tables outline requested and funded capital maintenance requests for three consecutive years.

MTSU Capital Maintenance				
List of Projects for Capital Budget Request				
2007 - 2008	Priority	Project name	FY 07/08 Request	Appropriated Funding
	1	Several Buildings Life Safety Updates	\$ 1,376,685	\$ 1,380,000
	2	Cope Administration Electrical Service Entry Update	\$ 650,000	\$ 650,000
	3	Underground Electrical Update Phase IV	\$ 750,000	\$ 750,000
	4	Sewer System and Steam Manhole Updates Phase II	\$ 500,000	\$ 500,000
	5	Jones Hall HVAC Update	\$ 705,000	\$ 710,000
	6	Several Buildings Envelope Repair	\$ 600,000	\$ -
	7	Several Buildings Roof Replacements	\$ 350,000	\$ -
	8	Murphy Center Fire Alarm Replacement	\$ 550,000	\$ 550,000
	9	Underground Electrical Phase V	\$ 1,300,000	\$ -
Total:			\$ 6,781,685	\$ 4,540,000

2008 - 2009	Priority	Project name	FY 08-09 Request	Appropriated Funding
	1	Pittard Campus School Renovation	\$ 1,000,000	\$ 1,000,000
	2	Underground Electrical Phase V (7.1)	\$ 2,000,000	\$ -
	3	Underground Electrical Phase VI (7.2)	\$ 1,500,000	\$ -
	4	Domestic Water/Sewer System Updates	\$ 250,000	\$ -
	5	Several Buildings Envelope Repair	\$ 650,000	\$ -
	6	Several Buildings Roof Replacement	\$ 400,000	\$ -
	7	Peck Hall HVAC Updates Phase 2 - VAV	\$ 410,000	\$ -
	8	Murphy Center Exterior Door Repair/Replacement	\$ 350,000	\$ -
	9	Murphy Center Arena HVAC	\$ 975,000	\$ -
	10	Business/Aerospace Roof Replacement	\$ 680,000	\$ -
	11	Walker Library Roof Replacement	\$ 600,000	\$ -
	12	Murphy Center Roof Replacement	\$ 1,500,000	\$ -
	13	Several Buildings Life Safety	\$ 500,000	\$ -
Total:			\$ 10,815,000	\$ 1,000,000

2009 - 2010	Priority	Project name	FY 09/10 Request	Appropriated Funding
	1	Underground Electrical Phase V	\$ 2,700,000	\$ -
	2	Boiler Feed System & Steam Line Improvements	\$ 1,475,000	\$ -
	3	Several Buildings Roof Replacement	\$ 450,000	\$ -
	4	Domestic Water/Sewer System Updates	\$ 300,000	\$ -
	5	Several Buildings Envelope Repair	\$ 750,000	\$ -
	6	Peck Hall HVAC Updates Phase 2 - VAV	\$ 460,000	\$ -
	7	Murphy Center Exterior Door Repair/Replacement	\$ 400,000	\$ -
	8	Murphy Center Arena HVAC	\$ 1,100,000	\$ -
	9	Underground Electrical Phase VI	\$ 1,235,000	\$ -
	10	Business/Aerospace Roof Replacement	\$ 785,000	\$ -
	11	Walker Library Roof Replacement	\$ 700,000	\$ -
	12	Murphy Center Roof Replacement	\$ 1,725,000	\$ -
Total:			\$ 12,080,000	\$ -

MTSU Sustainable Campus Fee Project List

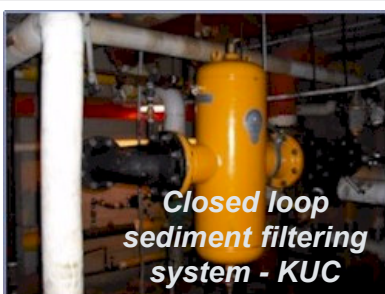
JOE WHITEFIELD
LINDA HARDYMON

Funded by a fee initiated by the student body and supported by the Tennessee Board of Regents, the intent of the MTSU Sustainable Campus Fee Program is to decrease consumption on the campus of non-renewable energy. A portion of the fee is designated for purchasing 'green power' to facilitate production of electricity from wind, solar power, and methane gas as a clean alternative to traditional energy sources.

The remainder of the funds generated by the fee provides support for campus projects that increase or improve energy efficiency on campus, such as retrofitting older systems, lowering consumption and decreasing energy expenses. Projects approved support energy and environmental sustainability.

The following table lists the approved projects for the last two fiscal years.

MTSU Sustainable Campus Fee Program		
Approved Project Listing	2006—07	2007—08
Green Power Purchase	\$ 220,000	\$ 230,000
Chilling plant: pressure gauges installation	\$ 1,000	
Installation of programmable thermostats in F/S maintenance shops	\$ 1,200	
Light switch plate cover replacement	\$ 2,500	
Recycling - community drop-off relocation/expansion	\$ 3,000	
Lamp crusher	\$ 4,000	
Sub-metering for Chilling Plant	\$ 4,000	
Sub-metering for Murphy Center	\$ 4,000	
Bus conversion to run on used cooking oil	\$ 15,000	
Hybrid/Alternative fuel vehicle purchase (subsidy)	\$ 17,250	
HVAC controls replacement Wright Music	\$ 29,950	
Re-lamp Cason Kennedy Nursing Building (existing portion)	\$ 30,600	
Development of flex-fueled engine (sun and hydrogen)	\$ 13,000	\$ 14,000
Recycling containers	\$ 1,500	\$ 5,000
Golf cart conversion (electric to solar)		\$ 8,000
Golf cart conversion (electric to solar) Safety and suspension upgrade		\$ 2,500
Hot/chilled water valve assessment		\$ 5,000
Multi-fuel bus emission testing project		\$ 11,000
Closed loop sediment filtering system KUC		\$ 12,000
DRIPS Project		\$ 13,500
Re-caulk exterior windows (Davis Science Building)		\$ 14,000
Poster campaign and Earthwise Reusable Bag Project		\$ 18,160
Development of flex-fueled engine 2 (sun and hydrogen)		\$ 27,000
Re-lamp Fairview Building		\$ 30,600
Replacement of 21 exterior windows Holmes Building		\$ 35,000
Annual Total:	\$ 347,000.00	\$ 425,760.00





Summary of Services 2007/2008 Annual Report

This report is produced by the FSD assistant vice president and staff and published by FSD Central Administration.

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