

Rudolph F. Crew, Ed.D., Superintendent of Schools

**SUBJECT: UPDATE OF IMPROVEMENTS IN MAINTENANCE OPERATIONS**

**COMMITTEE: FACILITIES AND CONSTRUCTION REFORM**

**Background:**

At the October 2004 School Board meeting, The Office of School Facilities presented a plan to reorganize and restructure the entire organization, including the Facilities Operations, Maintenance Department (Maintenance). The plan also identified the areas of the Maintenance Department most in need of improvement and set the following goals:

1. To develop and implement planning processes;
2. To raise performance standards;
3. To increase accountability.

A key element of this effort was to allow the contract with UNICCO to expire, thereby returning the Maintenance Department to in-house control, and on February 17, 2005, a new Maintenance Officer was appointed to head the Department. At the same time, the reorganization to align the structure of the Maintenance organization with the six Regions of the School District was underway. By mid-March, the five original satellite offices were redistributed into six Regional Maintenance Centers. These organizational changes were designed to provide a structure and culture where real planning replaces ad hoc service delivery, and where performance is measurable, rendering the Department accountable for productivity.

**Previous Conditions and Highlights of Improvements**

1. Planning:

Prior to October 2004, there was only one way required repairs were identified. At that time, each school site called or faxed work requests which were then entered into COMPASS, the work order system, with little or no regard for their priority status. Only emergency and fire safety requests were prioritized. Every other request simply became part of the backlog. In addition, the work requests in COMPASS (approximately 26,000 at the time) were not effectively scheduled nor tracked, as the system was not designed to do so.

Today, we are operating in a planned work environment. A comprehensive needs assessment of all facilities was undertaken and completed in December 2004. The deficiencies identified by this assessment were entered into a database that ultimately drove the creation of both the Five-Year Capital Plan, and the newly created Individual

School-by-School Maintenance Work Plans. The School-by-School Maintenance Plans began July 1, 2005 as quarterly plans, and will be expanded to annual plans. Each school's plan is being created with input from the Regional Offices and Principals, who will sign off on the final product. The plans contain prioritized and scheduled work for the upkeep of the buildings and grounds for each school, and will be updated quarterly.

The data collected through facilities condition assessments and inspections allow the District to prioritize work and assign it to the most effective resource for completion. The Department also expects to improve the ratio of planned work to emergency work through scheduling of proactive repairs and preventive maintenance. In addition much of the District's deferred maintenance will be addressed through the holistic approach of bundling appropriate renovation needs at each school, as opposed to handling each type of project individually. Detailed scopes, budgets and schedules are already underway for half of all 2005-2006 schools funded for renovations. As these detailed scopes are completed, the required work will be managed by either the capital or maintenance department using Primavera, the recently adopted project management software in use since August 1, 2005. The timely completion of this work will bring those schools to a state-of-good-repair, and reduce or eliminate the unanticipated breakdowns of equipment and systems which are beyond their useful life expectancy, since they will be replaced prior to their failure. By 2010, when all deferred maintenance and new work planned for our existing facilities is completed, we will be operating fully in the mode of preventive maintenance, the ultimate goal.

## 2. Performance:

One year ago, the District's Maintenance Department was saddled with a backlog of 26,000 work orders. During fiscal year 2004-2005, the backlog of work orders was reduced to 20,322, a 24% reduction, and production by the Maintenance Capital project group more than doubled, as evidenced by the increase in project awards from \$18,360,747 million in fiscal year 2003-2004 to \$39,976,483 million in fiscal year 2004-2005. For fire safety deficiencies, commitments increased 1000%, from \$1,167,003 in 2003-2004 to \$10,263,842. In 2004-2005, 37 schools were painted, inside and out, compared to only 3 schools the previous fiscal year, and 64 schools had roof replacements, compared to 55 schools in 2003-2004.

The reorganization from five satellites to six Region Maintenance Centers assigned the work force to specific feeder patterns in order to align the work force closer to the schools. This enhances total productive time by reducing travel distances between their assignments. In addition, the team approach enhances communication, continuity and accountability, between the schools and Maintenance particularly concerning the Individual School-by-School Maintenance Plans. It not only flattened the overall structure of the department, but most importantly, it eliminated the inherent conflict of staff reporting to other members of the same bargaining unit. (see Attachment #1)

While school custodians report directly to principals and not to the Maintenance Department, custodial training does fall under Maintenance's purview. To increase standards of cleanliness and technical abilities, early this summer *Operation Clean Sweep*, was inaugurated as a collaborative effort within Facilities to train custodians at

school sites on how to clean their schools properly. In particular, deep cleaning requirements scheduled during the summer recess, were stressed. Each custodian was taught how to use chemicals and equipment safely and effectively as they clean bathrooms and classrooms. More training will be offered in the future.

Since February 17, 2005, Facilities Operations, Maintenance has hired seven new Grounds Department employees and eighteen skilled trades, even as the department has been challenged by a high attrition rate and highly competitive job market. These positions have been assigned to support the feeder patterns throughout the District.

### 3. Accountability

In previous years, in the absence of specific targets included in a detailed plan, accountability was sorely lacking. Today, there are two main reporting instruments that are used to assess work performed. These are, quarterly status reports for the Individual School-by-School Maintenance Plans, and quarterly status reports created via the Primavera Project Management System for capital projects. Both quarterly reports will be issued on October 1<sup>st</sup>, 2005 to the Board and to the public-at-large.

Attachment #2 summarizes costs per square foot for the various components of Operation and Maintenance of Plant. Building Maintenance was reduced by \$.08 per square foot in fiscal year 2004-2005. For the same period, Operations costs increased by \$.28 per square foot, primarily due to hourly, overtime and other salary cost increases. Overall, controllable per square foot costs increased by \$.15, from \$3.63 in fiscal year 2003-2004 to \$3.78 in fiscal year 2004-2005, all of which is attributable to hourly, overtime and other salary increases. For fiscal year 2005-2006, a reduction of \$.07 per square foot is projected for controllable expenses. In addition to the quarterly reporting described above for the Individual School-by-School Maintenance Plans and capital projects, tracking and reporting of the Operations and Maintenance of Plant costs will occur quarterly as well.

In order to facilitate efficient dispatch of employees and improve safety and accountability, a rollout of a Global Positioning System (GPS) Employee Tracking Program for 300 Dade County School Maintenance Employee Committee (DCSMEC) employees will be completed on September 1<sup>st</sup>, 2005. Phase Two of the rollout will commence on October 3<sup>rd</sup>, 2005, incorporating all of the remaining DCSMEC employees and other bargaining unit members determined by Administration. In addition, all Maintenance workers have been issued Nextel radios which will be used to pilot the use of data transmission capabilities. The system will provide the potential for employees to punch-in and -out from remote locations, receive work orders, and order materials via radio. It will also allow the assembly of real data regarding travel time which will aid in the location of future support facilities or identify individuals who may take their vehicles home.

#### **Next Steps:**

The District is planning to increase its capacity to perform capital projects by forming a Capital Task Force. It is expected to be initially staffed with approximately 30 skilled

trades who will operate like a general contractor who uses both in-house and subcontracted resources to perform renovations and remodeling projects. In addition, hiring of additional trades personnel within the region centers is expected to increase in the near future.

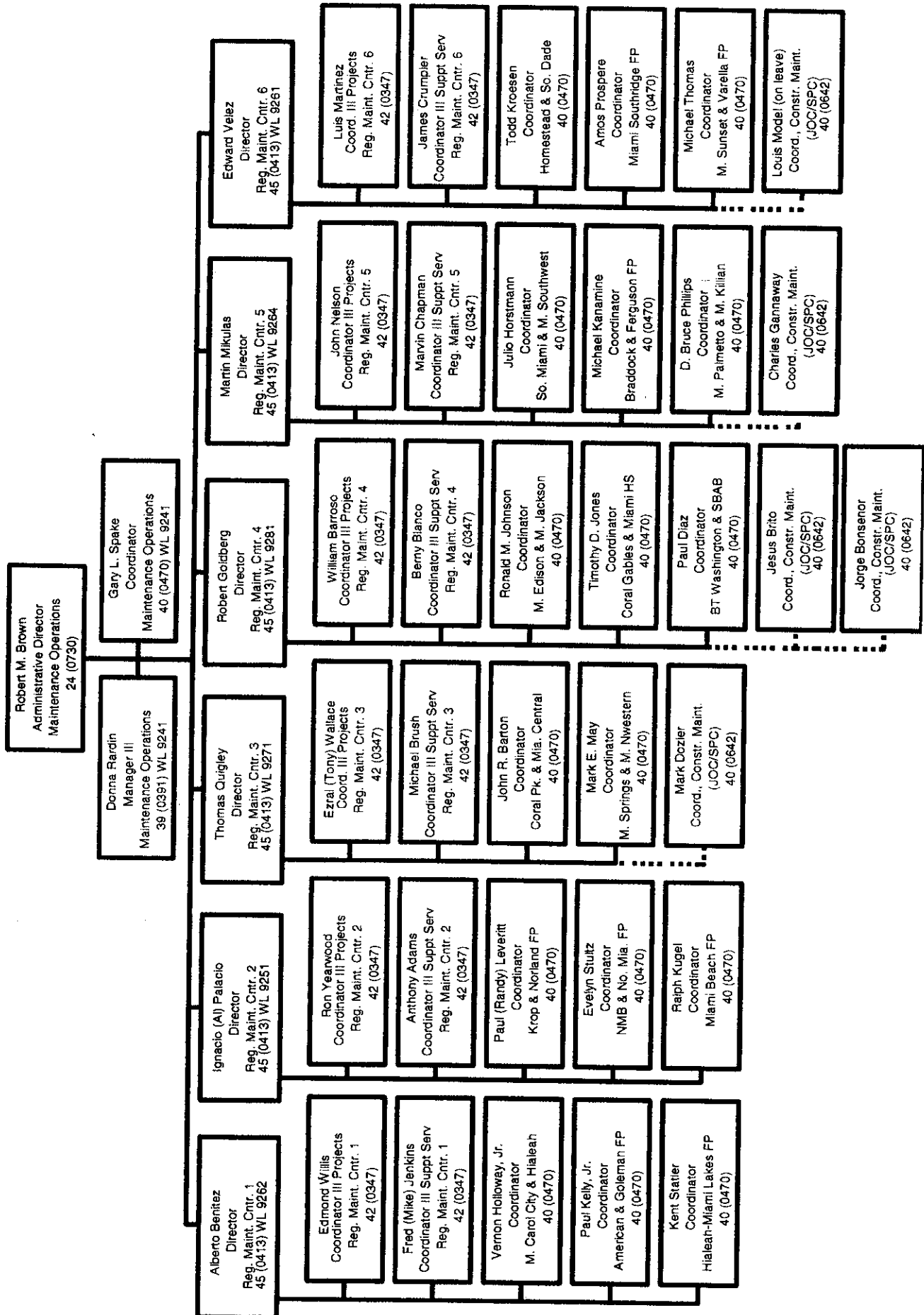
A goal has been set to achieve a minimum standard for the condition of the landscape and play fields for Miami-Dade County Public Schools that is comparable to the condition of the County's public parks. A Grounds Program will be implemented to the extent budget is available. The School Board now employs 55 grounds workers who care for the grounds of all 356 school sites and other District facilities. As a first phase, Maintenance implemented an aggressive mowing and reconditioning program to improve play fields during Summer 2005. An on-site certificate program for horticulture will begin this year. The University of Florida extension program will present an eight-module program of half-day sessions over a two-month period to select Grounds employees.

There is now a dedicated focus on employee training in the Maintenance Department. An Executive Director has been hired solely to handle training. Additionally, the District is considering advanced training and cooperative arrangements for apprenticeship programs to provide more workers for our needs. Both training and apprenticeships provide a high quality, motivated, and productive work force. Training will also provide a career ladder for both the skilled and unskilled workers.

A new Maintenance work order system is required to replace the COMPASS system and for integration with the Magellan deficiencies database, as well as with the Nextel phone capabilities. This replacement system is expected to be piloted next summer, and will allow Maintenance to produce more sophisticated, complete reports that will aid management in developing and tracking the Individual School-by-School Maintenance Plans. It will be the companion project management system to Primavera that is now in use for all capital projects in the District.

**RECOMMENDED:** That The School Board of Miami-Dade County, Florida accept the update of improvements in Maintenance Operations.

FACILITIES OPERATIONS, MAINTENANCE  
REGION MAINTENANCE CENTERS



**Operations and Maintenance of Plant**

	FY 2000-2001		FY 2001-2002		FY 2002-2003		FY 2003-2004		FY 2004-2005		Projected 2005-2006	
	Expenditures	Cost GSF	Expenditures	Cost GSF	Expenditures	Cost GSF	Expenditures	Cost GSF	Expenditures	Cost GSF	Expenditures	Cost GSF
<b>Building Maintenance</b>												
Maintenance Operations	\$93,448,131	\$2.44	\$75,154,102	\$1.92	\$71,757,714	\$1.82	\$74,422,685	\$1.88	\$79,213,316	\$1.92	\$81,589,716	\$1.89
Maintenance Private Management	0	0.00	0	0.00	468,680	0.01	1,778,974	0.04	939,586	0.02	0	0.00
Materials Management	3,522,365	0.09	3,340,565	0.09	3,451,700	0.08	2,640,138	0.07	2,566,052	0.06	2,643,033	0.06
Transportation Department	3,991,393	0.10	3,471,180	0.09	1,990,918	0.05	3,476,323	0.09	2,104,313	0.05	2,167,443	0.05
Media Programs (WLRN)*	\$821,961	0.02	\$789,341	0.02	\$880,301	0.02	\$998,948	0.03	\$904,832	0.02	931,977	0.02
ITS*	8,702,647	0.23	7,353,895	0.19	6,150,937	0.16	7,723,008	0.19	8,004,619	0.19	8,244,758	0.19
Other*	243,934	0.01	2,378,938	0.06	(204,542)	(0.01)	2,471,777	0.06	899,828	0.02	925,793	0.02
	\$110,730,431	\$2.89	\$92,488,021	\$2.37	\$84,185,708	\$2.13	\$93,511,853	\$2.36	\$94,631,547	\$2.28	\$96,502,719	\$2.23
<b>Operations Costs</b>												
Rentals	2,606,068	\$0.07	\$2,501,998	\$0.06	\$2,172,578	\$0.06	\$2,779,906	\$0.07	\$1,811,604	\$0.04	\$1,865,952	\$0.04
Custodians	48,554,921	1.27	48,455,564	1.24	48,785,478	1.24	48,336,712	1.22	52,336,412	1.27	53,906,504	1.25
Hourly & Overtime	6,025,918	0.16	6,000,000	0.15	5,990,763	0.15	5,317,609	0.13	8,639,171	0.21	8,898,346	0.21
Other Salaries and Abatements	3,717,906	0.10	3,000,000	0.08	1,874,966	0.05	2,197,522	0.06	6,261,943	0.15	6,449,801	0.15
Supplies	2,566,202	0.07	2,577,391	0.07	2,483,437	0.06	2,806,310	0.07	2,843,622	0.07	2,928,930	0.07
Self Insurance*	10,828,394	0.28	15,870,045	0.41	22,864,835	0.58	23,577,803	0.59	24,319,387	0.59	25,048,968	0.58
Fringes Benefits & Insurance*	19,337,046	0.51	19,000,000	0.49	19,025,729	0.48	22,728,930	0.57	24,688,920	0.60	25,429,588	0.59
Utilities*	59,109,235	1.55	60,000,000	1.53	62,605,808	1.58	70,041,755	1.77	77,246,991	1.88	79,566,460	1.85
Security*	39,829,315	1.04	42,068,581	1.08	42,523,285	1.08	48,172,061	1.22	51,598,642	1.25	53,146,602	1.23
Other Non-Salary Expenditures*	985,330	0.03	6,689,841	0.17	(265,532)	(0.01)	6,693,240	0.17	3,586,676	0.09	3,766,010	0.09
	193,560,335	\$5.08	\$206,163,420	\$5.28	\$208,051,347	\$5.27	232,651,848	\$5.87	\$253,335,367	\$6.15	\$261,007,162	\$6.06
<b>Building Maintenance &amp; Operations Costs</b>												
Grand Total	\$304,290,766	\$7.97	\$298,651,441	\$7.65	\$292,237,055	\$7.40	\$326,163,701	\$8.23	\$347,966,914	\$8.43	\$357,509,881	\$8.28
Less: Non-Controllable Costs												
Items Asterisked(*) Above	\$139,857,862	\$3.67	\$154,150,641	\$3.95	\$153,580,801	\$3.88	\$182,407,522	\$4.60	\$191,250,895	\$4.64	\$197,060,155	\$4.57
<b>Controllable Maintenance and Operations Expenses</b>												
	\$164,432,904	\$4.30	\$144,500,800	\$3.70	\$138,656,254	\$3.52	\$143,756,179	\$3.63	\$156,716,019	\$3.78	\$160,449,725	\$3.71

- Notes:
1. Fiscal year 2003-2004 includes raises employees received for two years.
  2. Fringes Benefits increased by approximately 12% and health insurance increased by 33.00% from fiscal year 2000-2001 to Fiscal year 2003-2004.
  3. Management contract cost did not exist in fiscal year 2000-2001 (base year).
  4. Increased in Contracted Services from fiscal year 2002-2003 to fiscal year 2003-2004 were approximately \$5 million for Maintenance.