

Facilities



Under Operational Expectations OE-13, the superintendent shall assure that physical facilities support the accomplishment of the board's **Results** policies, are safe and properly maintained.

The superintendent shall:

1. Develop a short- and long-term facilities plan based upon an ongoing annual needs assessment establishing priorities for new facilities, additions, renovations, and sustainment projects that:
 - a. Assigns highest priority to the correction of unsafe conditions;
 - b. Proposes projects to increase the educational facility capacity at locations exceeding 100% utilization now and in the future;
 - c. Includes annual capital projects as necessary to enable facilities to reach their intended life cycles including fixed and non-fixed assets;
 - d. Plans for and schedule facility replacements based upon the facility condition assessment and potential use;
 - e. Develops project management methodology including staffing, project delivery, contracting, and procurement processes;
 - f. Discloses assumptions on which the plan is based, including growth patterns and the financial and human impact individual projects will have on other parts of the organization.
 - g. Establishes expectations for maintenance and custodial services for all District facilities.

BUILDING MODIFICATIONS/RENOVATIONS PROJECTS:

The previous year's (2014) funding as budgeted by the Board was \$6,500,000.00 annually. Based upon the revised 7/28/2014 Board-Approved 11-year Capital Plan with a total budget of \$57,000,000.00 equals \$5,181,818.00 annually. The planning for Building Modifications / Renovations Projects includes the following goals and priorities:

- Modify any and all schools not meeting the minimum requirements for support space as identified in educational specifications.
- Additions to schools for support space if modifications reduce school capacity compared to enrollment forecast.
- Modify and update security for all schools including security check in buildings.
- Update science labs at all high schools.
- Review and re-analyze annually based upon funding and evaluation – based on annual budget of \$5,181,818.

The following are updates for the projects identified in the 2014 Building Modifications / Renovations planning:

- **North Myrtle Beach K-5 Conversions:** The building renovations were completed on schedule in time for school to open in August. Remaining areas of sitework are nearing completion.
- **Security Check-in Buildings at CFH, MBH, SH, SJH:** Drawings are complete for security check-in buildings and associated sitework and are now under review to obtain proper permitting. Bidding expected to occur in early January with work completed before summer.
- **Planning and Design for WE, and MBP:** Architectural programming analysis for these schools were completed in November. An architectural solicitation was published, and architects have been short-listed, interviewed, and selections made. Contracts are being prepared at this time with design work expected to begin after the New Year with bidding for construction in late spring 2015. Construction is expected to begin around May 2015.

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- **North Myrtle Beach High School** – The Board has established a separate capital budget for this renovation and it will not be reported under the building modification projects.

The current Building Modifications / Renovations projects continue to be analyzed and prioritized based upon program changes, additional evaluations of existing conditions, and for correcting unsafe conditions as they relate to indoor air quality and security needs. The following priority assumptions are based upon coordinating major renovation needs, planned future additions, and adding humidity control including HVAC equipment replacement.

All current Building Modification projects for the facilities listed below have been deferred to align with the current or future addition, renovation, or replacement projects. The assumed additions, renovations, and replacements as currently planned are:

- **Security Check-in Buildings** – A new or replacement security check-in (guard house) is being placed at CFH, MBH, SH, and SJH. Work will include sitework, gates, and utilities to appropriately place the guard house in the entrance / exit lane of the school.
- **Myrtle Beach Primary School** – A major renovation to include new entry vestibule, possible administrative area changes, adjustments for programming needs, and interior refreshing of finishes.
- **Waccamaw Elementary School*** - WE underwent a partial modification / renovation / addition project in 2009 which included new entry vestibule, administrative area changes, and new classroom wing addition, however the school still requires updates to the support space. Older remaining portions of the school were not renovated during that project and we plan to update those areas and others to meet current program and maintenance needs. ****Due to limited funds, construction will be delayed until 2016 and start design in 2015.***
- **New Loop Roads Construction** – New loop roads for parent drop off and queueing will be added and DE, SSE, and SJH. The work at the elementary schools will include a new Pre-K and K kindergarten playground, improvements to upper-grade playgrounds, fencing, gates, sod and irrigation work. At SJH, in addition to creating a new parent drop off and queueing road, a new student access driveway from Salem Road is to be added for separation of parent and student traffic.
- **Miscellaneous Projects:**
 - Time-Out Rooms for all remaining schools – Add, or modify existing, time-out rooms at all remaining schools not yet addressed. *(18 schools @ \$15,000 each).*
 - GSFH – Pave Existing Gravel Parking Lot (Athletics) – A project to pave the existing gravel parking lots at both the football stadium and the fieldhouse / ticket booth parking area.
 - SJH – Outdoor Storage (Athletic) – Approximately 1,000 square feet of new outdoor storage will be constructed to support athletic needs and bring the facility in line with the district's average for high school athletic storage space.
 - Facilities Building – Slab for Storage Building – Relocate metal building from old maintenance facility for food service, grounds, and transportation storage needs.

The figures provided are estimated costs based on recent project experience and industry standards. The figures provided are purely estimates and may vary by project.

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2014 Modification Projects

	<u>Costs</u>
NMB K-5 Conversions	\$6,200,252
Security Check-in Buildings (Design)	\$104,750
Planning Efforts for MBP, WE, and NMBH	\$30,000
Subtotal	\$6,335,002
2014 Budget	\$6,500,000
2014 Difference	\$164,998

2015 Modification Projects

	<u>Estimated</u>
Security Check-in Buildings (Construction)	\$400,000
Myrtle Beach Primary Renovation	\$2,350,300
Waccamaw Elementary Renovation (Construction) (Delayed)	\$3,918,803
New Loop Road Construction	
Daisy Elementary	\$790,547
Seaside Elementary	\$855,693
St. James High	\$304,810
Miscellaneous Projects	
Time Out Rooms - Multiple Locations	\$270,000
GSFH - Pave Existing Gravel Parking Lots	\$200,000
SJH - Outdoor Storage (Athletic)	\$125,000
FB - Slab for Storage Building	\$50,000
Subtotal	\$5,346,350
2015 Budget (\$5,181,818) plus Difference from 2014	\$5,346,816
Difference	\$466

SUSTAINMENT AND UPKEEP PROJECTS

The previous year's (2014) funding as budgeted by the Board was \$8,142,857.00 annually. Based upon the revised 7/28/2014 Board-Approved 11-year Capital Plan with a total budget of \$72,000,000, the new budget equals \$6,545,455.00 annually. The planning for Sustainment & Upkeep Projects includes the following goals and priorities:

- Sustainment projects to be reviewed and planned based upon further evaluation of degradation and failure rates of equipment.
- Further evaluate and develop replacement cycles specific to the District.
- District staff will create a priority list based upon evaluations. Original Long-term Plan identified approximately \$227,000,000 of needs for sustainment projects.
- Review and re-analyze annually based upon funding and evaluation – based on annual budget of \$6,545,455.00.
- Deferment of sustainment projects will occur annually due to the lack of funding. All projects will be proposed by staff and presented to the Board for approval.

The following are updates for the projects identified in the 2014 Sustainment and Upkeep projects:

- **Building Envelope** – Construction work is in progress:
 - Window replacements – These projects include replacement of old, deteriorated metal clad wooden windows, aging storefront panels, etc. at CFH, CMS, GSFH, SJE, and SJM.
 - Roofing Replacements - 2014 planning included 4 schools for roofing replacement or recovering work. Testing performed by the successful bidder revealed hidden roof damage

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- was more severe and more costly on CHS, FBE and LWE than anticipated, and less critical for ODE. Therefore, due to limited funds ODE has been deferred to 2016.
- Exterior Sealant / Joint Replacements (28 schools) – This work includes removal and replacement of aged and deteriorated exterior expansion and caulking joints to prevent water intrusion into the buildings.
 - **Consulting Contracts for Roofing, Windows, Sealant, Electrical, Plumbing, Interiors and other projects** – Engaged third-party professionals to provide more detailed analysis and prioritization of proposed projects for use in determining an appropriate scope of work and for annual project planning efforts.
 - **SH Track Refurbishment** - The refurbishment of the athletic running track was performed to correct unsafe surface conditions and drainage issues. Unexpected conditions were discovered during the work which required more substantial repairs. Final striping is expected to be complete this month.
 - **HVAC Replacements at GSFE** – This project was not originally planned for 2014. This project is currently replacing 46 split-system heat pumps. Scheduled for completion in January 2015.
 - **All Other HVAC Replacements** – All projects listed last year have been reviewed and reevaluated with new priorities established based upon the schools with the most critical needs. The 2014 projects that are recommended to proceed with replacements are listed under the 2015 projects and the projects to be deferred and reviewed next year based upon condition and need - Myrtle Beach High, Myrtle Beach Middle, Conway Middle, Therapeutic Learning Center (formally Conway Education Center), Carolina Forest High, Carolina Forest Elementary, Lakewood Elementary, Myrtle Beach Intermediate, Ocean Drive Elementary (NMBP), Whittemore Park Middle, Socastee High, and South Conway Elementary.

The overriding goal is to provide a safe and healthy environment for student learning in planning future sustainment and upkeep projects. For the major facility modification/renovation projects planned within the next two to three years, a particular sustainment need may be deferred when possible to be accomplished within an overall major project. Projects relating to exterior enclosure (shell and roof), regardless of future projects, are given priority.

As identified in the Long-term Facilities Plan and in the current Board Approved Capital Plan, sustainment needs are greater than the current annual budget of \$6,545,455.00. In order to create the proposed project list, additional, more detailed assessments have been done this year with one primary focus and emphasis relative to the health and safety of students, staff, and community members: Indoor air quality including mold/mildew prevention. These include:

1. Exterior building envelope: Roofing, windows, caulking and sealant
2. Heating, cooling, and ventilation systems (HVAC)

Following this criteria, the list was compiled based upon prioritizations until the budgeted funding amount was reached. The sustainment and upkeep projects are provided for Board information:

- **Building Envelope** - There are additional needs related to exterior building envelope projects but due to the funding needs for HVAC replacement projects, no additional projects are being recommend for 2015. All other work will be deferred and reviewed next year.
- **2015 HVAC Replacements** - The following HVAC replacement projects have been identified as critical needs based upon current condition:

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- Green Sea Floyds Elementary: Phase 2, 1991 Original construction - Standard air-air split system heat pumps, approximately 25 units. Unit connected ventilation air. Remove and replace split system heat pump equipment, include Lennox dehumidification systems as in Phase 1, replace classroom ductwork, new control system for Lennox units.
 - Green Sea Floyds High: 1988 Original Construction Section - Water source heat pumps, unit connected ventilation, approximately 95 units. Remove and replace water source heat pumps, clean ductwork, new control sensors. Add entire school to Apogee Building Automation System with controls and graphics.
 - Loris High: 1988 Original Construction Section - Water source heat pumps, unit connected ventilation, approximately 120 units. Remove and replace water source heat pumps, clean ductwork, new control sensors. Add entire school to Apogee Building Automation System with controls and graphics.
 - District Office Server Room A/C replacement - Remove existing rooftop a/c systems, replace with Liebert style computer room units at ground level with ducted air supply system. Two (2) units, 100% redundancy for complete a/c backup. New units will be located in a new mechanical space on the adjoining grade next to the server room.
 - Seaside Elementary: 1996 Original Construction - Remove and replace standard air-air split system heat pumps, approximately 66 units. Clean existing ductwork and install new control sensors. Install new dedicated decoupled ventilation air equipment, three (3) systems.
 - Aynor Elementary: 1997 Original Construction - Remove and replace standard air-air split system heat pumps, approximately 70 units. Clean existing ductwork and install new control sensors. Repair dedicated ventilation equipment as needed.
 - Aynor High: 1971 Original Construction section, 1992 Renovation section, oldest portions of the facility - Rooftop heat pumps serving multiple zones, approximately 50 units. Unit connected ventilation air. Bard wall hung units, approximately 10 units. Remove and replace equipment, clean ductwork, new control sensors.
 - Forestbrook Elementary: 1987 Original Construction - Water source heat pumps, approximately 70 units. Dedicated ventilation air. Remove and replace equipment, clean ductwork, new control sensors.
 - St. James Elementary: 1986 Original Construction Section - Water source heat pumps, approximately 40 units. Unit supplied ventilation air. Remove and replace equipment, clean ductwork, new control sensors.
 - St. James Middle: 1986 Original Construction Section - Water source heat pumps, approximately 55 units. Unit supplied ventilation air. Remove and replace equipment, clean ductwork, new control sensors.
- **Miscellaneous Projects** - The following projects have been identified as an unsafe condition requiring replacement:
 - St. James High – Gym Floor Refinish – Original Construction 2001 – The floors will be sanded, re-painted and finished with polyurethane.
 - Conway High – Track Refurbishment – The track is uneven and requires several repairs. It cannot be used for track meets due to its current condition. The refurbishment will include drainage, paving, and lighting.

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The figures provided are estimated costs based on third-party consultant using RS Means cost estimating information, recent project experience, and industry standards. The figures provided are purely estimates and may vary by project.

2014 Sustainment & Upkeep Projects

	<u>Costs</u>
Misc. Consultants for Sustainment Projects	\$69,215
Roof Replacements	
Conway High	\$154,020
Forestbrook Elementary	\$801,365
Lakewood Elementary	\$920,387
Ocean Drive Elementary (<i>Deferred</i>)	\$488,035
Exterior Sealant Replacements	\$335,838
Window Replacements	
Carolina Forest High	\$87,200
Conway Middle	\$244,713
Green Sea Floyds High	\$45,480
St. James Elementary	\$216,143
St. James Middle	\$271,898
Misc. Exterior Painting and Door Replacements	\$70,000
SH - Track Refurbishment	\$365,000
GSFE - HVAC Equipment Replacement (Phase 1)	\$892,555
Subtotal	<u>\$4,473,814</u>
2014 Budget	<u>\$8,142,857</u>
2014 Difference	\$3,669,043

2015 Sustainment & Upkeep Projects

	<u>Estimated</u>
HVAC Equipment Replacement	
Green Sea Floyds Elementary (Phase 2)	\$650,000
Seaside Elementary	\$1,485,000
Green Sea Floyds High	\$1,050,000
Aynor Elementary	\$780,000
Forestbrook Elementary	\$650,000
St. James Elementary	\$650,000
St. James Middle	\$750,000
District Office - Server Room	\$200,000
Loris High	\$1,130,000
Aynor High	\$2,250,000
Miscellaneous Sustainment Projects	
SJH - Refinish Gym Floor	\$100,000
CH - Track Refurbishment & Exterior Lights	\$500,000
Subtotal	<u>\$10,195,000</u>
2015 Budget (\$6,545,455) plus Difference from 2014	<u>\$10,214,498</u>
Difference	\$19,498

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The proposed list of Sustainment and Upkeep Projects is based on the current condition and established needs using the priorities identified above. The capital investment indicated in the Long-term Facilities Plan consisted of \$227,000,000 over a ten year timeframe (+/- \$22,700,000 annually).

In addition to the information provided in the Long-term Facilities Plan, there are national standards and recommendations regarding sustainment and upkeep of public facilities. According to the National Research Council, the **Asset Protection Index (API)** provides a guideline that the annual maintenance expenditures for a facilities inventory (maintenance and sustainment combined) should be in the range of from two to four percent of the replacement value of the building stock ([*Committing to the Cost of Ownership: Maintenance and Repair of Public Buildings*](#) of the Building Research Board of the National Research Council http://www.nap.edu/openbook.php?record_id=9807). The current assessed value of Horry County Schools' capital assets is \$628,447,474. Therefore, the range of annual maintenance and sustainment recommended by the National Research Council for Horry County Schools would be \$12,568,949 to \$25,137,899.

The deferred capital improvement costs will continue to grow unless additional funding is established for sustainment and upkeep projects. A matrix is provided to demonstrate the deferred costs over time based on the current funding. The matrix calculates the current approved funding of \$6,545,455 annually versus the forecasted rate of \$22,700,000 annually in the Long-term Facilities Plan.

Deferred Costs		Inflation
2014	\$14,557,143	\$436,714
2015	\$30,711,688	\$1,371,166
2016	\$46,866,234	\$2,818,288
2017	\$63,020,779	\$4,793,460
2018	\$79,175,325	\$7,312,524
2019	\$95,329,870	\$10,391,796
2020	\$111,484,416	\$14,048,082
2021	\$127,638,961	\$18,298,693
2022	\$143,793,507	\$23,161,459
2023	\$159,948,052	\$28,654,745
2024	\$176,102,598	\$34,797,465

The Long-term Facilities Plan nor the current Board Approved Capital Plan include inflation or escalation. The matrix above provides the compounded inflation over eleven years at 3% a year.