

FACILITIES OPERATIONS

REPAIR & RENOVATION SERVICES

ANNUAL REPORT

*Carpentry Maintenance Shop
Carpentry Projects Shop
Construction Services Shop
General Shop
Lock Shop
Paint & Sign Shop
Roof/Waterproof Shop
FCAP Group
Projects Group
Commissioning and Warranty Services*

FY 2014-2015

Repair and Renovation Annual Report 2014 -2015

Program Summary:

The repair and renovation unit has responsibilities for the maintenance of the architectural systems, building envelope, building condition assessments, warranty project management and minor renovation project management. This work is accomplished in a team environment with the combined effort of the very talented and hardworking R&R staff. Although it is a team effort, each shop has distinguished itself and advanced the program for the shop and for the unit overall. The unit shares a commitment to the Division values of integrity, commitment, accountability, respect and excellence. The unit also shares a commitment to customer service, creating value for our customers and sustainability. These values are evident in the work we do every day and this annual report.

We value our staff and work to recognize their accomplishments regularly in shop meetings, on our bulletin board and on our website. We recognize our responsibility to the campus and this year we had 100% turnout for adverse weather. We recognize our place in the community and this year participated in meal packaging, Habitat for Humanity building projects and had 98% of our staff participate in the Combined Campaign program. We supported our staff with individualized training and OSHA 10 hour training for the entire R&R staff w/ support from EH&S.

Shop Accomplishments include:

- Assembled group of interns to perform CBC utility asset inventory
- Responded to 27 floods and 1 fire. Restored finishes to pre-disaster condition
- All shops worked together under Annette Snead's leadership to update finishes in Broughton Hall
- Extensive work at CBC for Ken Satterwhite to update spaces for new uses at an economical price
- Replaced aging and unreliable plumbing and refinished two restrooms in Nelson Hall
- Assisted with ALAC accreditation for animal holding areas
- Rekeyed all roof access points on appropriated buildings to new keyway
- Rekeyed and implemented Simple K in DH Hill, Talley, Witherspoon and part of Holladay
- Established an online process for ordering keys on Best System (now all keys can be ordered on the web)
- Established satellite door hardware storage rooms to reduce travel time for Locksmiths
- Partnered with Campus Police for a cost efficient method of documenting graffiti and vandalism reports
- Recognized the potential of damage to 3501 Avent Ferry and took steps to reverse the damage
- Helped return Pytotron to building inventory w/ Roofing, signage, electrical ID and other improvements

Unit level accomplishments

- Developed shop rates based on 3 years of actual cost. Posted on website for customer and PM reference
- Prepared construction standards guideline for minor renovation work – a document aimed at communicating our expectations to contractors and UTS mechanics to deliver consistent, quality work.
- Inspected 15 buildings and created work requests for each
- Served in a leadership role for the 2015 NCAPPA meeting at UNC Chapel Hill with over 523 attendees and 84 booths in the exhibit hall and over 25 educational sessions
- Established the Colby Award for Shop Excellence (CASE) to recognize a commitment to continuous improvement
- Continued to streamline processes to reduce paper. Eliminated time sheets in 2 shops and will eliminate the others this calendar year

A. Changes in Scope of Activity

Facility Condition Assessment Program (FCAP), Warranty, Design Review, RoofManager

FCAP

- A total of 287 buildings have been assessed in the first cycle. Multiple assessments have been done over the past year as part of the second cycle.
- 2013-2014 FCAP Annual Report was delivered with a Power Point presentation abstract
- Currently writing **FCAP 2.0- 5 year Strategic Plan-** FCAP (R&R Task Group) report
The goal is to integrate concepts namely space utilization, energy index, red flags for indoor environment and such other sustainability concepts into FCAP. This effort would be part of the ongoing condition assessments. The annual deliverables are developed to strategically tread from the status-quo towards stated goals to further enhance sustainability on campus.
- Condensed reporting template now includes more captioned photographs, less reliance on text
- Floor plan updates are routinely delivered to OUA for incorporation into AERES/FMI
- Assessed several special projects for facility condition.
- Provided numerous PowerPoint presentations to upper management on various topics.
- FCAP reports
 - Posted in FCAP Folder on S: Drive for ease of access to all interested parties, cost-effective and environmentally-friendly, by reducing paper consumption.
 - Reports separated by First and Second Cycle completions.

Utility Asset Inventory (UAI):

- Assessing the condition of the utilities installed in the Centennial Biomedical Campus. Obtaining the latitude and longitude data for all utilities by dividing each utility into various geometrical shapes and plotting them in the AutoCAD Civil 3D drawings.
- Additional data such as installation dates, capacity of the utility, etc. is collected using AERES drawings, installation photos and field observations.
- Team is currently composed of **6 NCSU engineering interns**
- **The team is approximately 85% completed with the CBC campus** and preparations are currently underway to set the beginning stages for surveying the Centennial campus utilities.

Warranty Shop

In late 2012, the FCAP team absorbed responsibility for settlement of unresolved warranty issues on recently completed construction projects

- **Over 261 Warranty Work Orders have been closed since 2012**, with work completed by the general contractor at no additional cost to the university at recently completed projects.
- **Currently managing 18 warranty issues** varying in size and scope.
- Cost Avoidance Analysis due to Warranty- Started the process of documenting cost-avoidance analysis due to effective tracking, facilitate dialogue between customer and contractors/vendors for resolution of warranty issues. Starting February 2015 to date, the **Warranty shop has saved \$118, 638.60 in cost-avoidance due to Warranty.**
 - **JP Stevens's roof warranty issues** explored. Warranty is expected to be honored for 3 different roofs. The amount saved through warranty is expected to be over **\$50,000.00 in University cost avoidance.**
 - **Yarborough pump CDWP-4. 300 HP** pump ordered. PO's cut for all three parties portions of costs. Based on list price of motor- **\$37,000.00 in University cost avoidance.**
 - **Research IV** broken glass replacement and rectify incorrect installation of frame- avoided \$3,000 for the University.
- The current status of open work orders is updated and reviewed weekly.
- The Construction Warranty Expiration Countdown Calendar is a spreadsheet which triggers DCS and CPM PM's to schedule 9-month and 10-month final project walk-throughs to document any unresolved issues; it is updated and reviewed weekly
- Communications have significantly improved among BM&O upper management, BM&O Zone Shops, the Warranty Shop, Capital Project Management, Design and Construction Services, and our customers, including Campus Enterprises, Housing, and Athletics. A flow chart has been distributed to the Zone Shops to illustrate when to contact the Warranty Shop. A quarterly conference provides a forum for discussion and facilitates further cooperation.
- Vendor training sessions related to the opening of the Talley Student Center were coordinated by the FCAP team; assisted with receiving, storage, and disposition of materials attic stock
- O&M manuals for recent closeouts are issued by OUA for pickup by the Warranty Shop for distribution to appropriate Zone Shops.
- Warranty Management under review – Revised Procedure/Flowchart/ Cost-avoidance analysis.
- Attend the 9-month and 11 month Warranty walk-throughs to note warranty concerns.

Design Review

A continued initiative is underway to revitalize this program, which encourages review-and-comment participation from numerous agencies in the development of new construction and renovation projects

- A New Building Checklist Summary is also provided to directors each month. This report provides an updated progress report of the percentage of completion for the transition from project completion to hand over of facilities.
- Participation in building walk-throughs are also attended as needed.
- Attending Talley logistics meetings as the R&R portal
- Created a Facilities Operation Portal list. A list of all facilities operations personnel for distribution of reviews and submittals
- Currently in the process of implementing new procedures to streamline the design review process

Roof Maintenance, Roof Manager®

- 2014 edition of Top 20 Worst Campus Roofs report.
- Improved Roof Manager reporting capabilities are in place to produce more timely and more concise reports
- 2015 edition of Top 20 Worst Campus Roofs report is under development.

Waterproofing Database

An Excel workbook is in development to compile and report projected costs associated with above-grade and below-grade waterproofing needs across campus. Annual and on-demand reports will be similar to Roof Manager® reports.

Assisting Other Groups

- Working with OUA to review the University's current CRV values.
- Serving as a sustainability portal (liaison) between R&R and the University Sustainability Office to enhance and coordinate sustainability initiatives at R&R.
 - Currently working on a dialogue between R&R and Waste Reduction and Recycling to document and populate their database with sustainable practices by the R&R Shops.
 - In the process of documenting sustainability practices at R&R.
 - Develop a pilot project in collaboration with the University Sustainability Office and Waste reduction to recycle unusable stationary at R&R.

Project Management

FCAP personnel assist the project management group as well as special projects. The following are projects the FCAP team managed:

- **3501 Avent Ferry Stabilization-** restored building utility services. Created the scope/estimating for HVAC/plumbing portion of the project. Currently overseeing the HVAC/Plumbing portion of the project and serving as the back-up PM of the overall project. The HVAC project included the removal the domestic hot water boiler, heating water boiler and cooling tower. Installation of new cooling tower and boilers with associated piping and pumps. Project also included chemical treatment of the closed loop and controls for the system.
- **3501 Avent Ferry Utilities-** worked with BM&O, Utilities, and Capital Projects to restore gas, water and electrical services back to property.
- **Marye Anne Fox skylight-** overseeing the repairs/replacement of the skylight. Prepared cost analysis to replace skylight, generated report of the current/past findings. Will provide project oversight for the recommend repairs suggested by REI.
- **Marye Ann Fox panels-** provided oversight for the verification of panel's security. Project included rigging of the south wall, removal of suspect panels to verify installation technique, securing panels in question
- **Varsity Research roof-** assisted with the investigation of the issues and repairs associated with HVAC system.
- **Western Blvd. Business Services-** provided scope of work/estimate for HVAC portion of the renovation. Will oversee HVAC portion of the project.
- **Holladay Hall restroom exhaust-** oversaw project to install exhaust fans for the men's and women's rooms per the request of Steve Arndt. Executed project with minimal interference to building occupants. Provided sketches of proposed installation for approval from the Raleigh Historic Development Commission.
- **Joyner Visitors Center-** investigated water infiltration issue to the front entrance of the building.

Determined issue and followed architects design to install basin drain system to counteract the issue. Project was completed with successful results.

AIM

- Currently participating in AIM boot camp to serve as one of two AIM representatives for the R&R group.

Construction Services

In this fiscal year the Construction shop has worked on 273 projects ranging from small work orders to large projects. Some of the large projects this year were, MRC suite 454, Dabney 512 lab renovation, Hillsborough 307 office renovation, CVM C100 Labs to office renovation, Bostian Hall 2nd floor, Poe 408 and the renovation of Research III 1st floor, now in phase 3 of the project replacing 16 HVAC terminals.

We have added 3 new employees to the shop to bring us to a total of 13 permanent workers. Those employees are: Carl White, Mike Hodges and Tom Perniciaro. We are also looking to promote Jeff Johnson to the position of Mechanical team Leader. This will create an opening for a HVAC position.

The following list is just some of the projects the construction shop has completed.

- **Poe 104:** remove 3 stub ups in Poe Room 104 and pull wire. Fix floor
- **CVM 111:** install new floor drain for future walk-in cooler.
- **CVM Terry:** install a 208/203 vac, 3phase, 50/60 hz, 16amp outlet and power supply to backup generator.
- **Toxicology 1216:** install transformer to convert 208v outlet to 230v.
- **Robertson 2105:** add a door to dept. head office, & wall plus door to create second office beside it.
- **Nelson 2100:** convert duplex outlet in reception area to a quad.
- **Daniels 320:** install an ac unit in room.
- **Poulton – ABB:** install outlet in ceiling and cord reel.
- **Park Alumni:** clean and repair fountain in the donor plaza.
- **Thomas 3rd floor:** demo and remodel lab add new grid ceiling and lights.
- **Thomas 4th floor:** frame and hang new walls, add new grid ceiling and lights.
- **CVM c112:** anatomy phase 2 renovations.
- **Winslow 100:** run av cables, conduit - attach to wall.
- **Daniels 320c:** install noise cancellation system.
- **Schaub 307:** install outlets and data port conduit.
- **Phytotron:** install louvers in greenhouses
- **Poulton lab:** replace stairwell lights.
- **Winston Hall:** install three water fountains with bottle filers.
- **Caldwell 210:** install 4 led lights and 2 dimmers, reconfigure hvac.
- **Poe Hall:** install water fountains with bottle filers on floors 1 – 7.
- **West Dunn 115:** install steel storefront and build and finish wall.
- **Dearstyne Lab:** raise outlet in room 5 and in room 7.
- **Admin II:** install water fountains with bottle filters.
- **Schaub Hall:** rooms 341, 341a, 300, 301, 306, 307, 339b need shelves and cabinets removed, patch holes & paint.

- **Poe:** 1-4th floor water fountains - converted to the newer models with water bottle refill stations
- **Biltmore :** removal of equipment and erection of temporary walls to close in area to be vacated by equipment removal from 1001 and 1001
- **Broughton:** 1st floor for minor repairs, painting, carpet, fire alarms
- **Terry Center:** install 200-208/230 vac, 3 phase, 50/60 hz, 16 amp outlet in 1420 for steris vhp sterilizer.
- **Nelson:** 4th floor bathroom renovations
- **CVM main building:** c115 area. Renovations. HVAC, plumbing and electrical
- **Nelson:** Room 3346 - frame and hang wall in new office.
- **Daniels 416:** provide work in 416 Daniels Hall - 3 circuits installed as well as outlets for new bank of cubicles. Wiring of cubicles to new outlets.
- **BTEC-201202:** (1) route existing circuit (osrp2-32/34/36) that exists above ceiling for future use. (2) route from 4 square box in room 252 (above ceiling) in to wall between room 252 and 253.
- **Poulton:** - complete work to install emergency shut off switches in ABB suite
- **Jordan Hall:** 5103: estimate for lighting rezone and fixture upgrade
- **Bostian Hall:** renovations which includes rooms 2717, 2717b, 2717c, 2719, 2720, 2720a.
- **Phytotron:** cosmetic label receptacles and install gfi's
- **Partners III:** installation of laser interlock safety system
- **Burlington Labs:** replace building air compressor
- **Admin III: room 108:** threat assessment office - install sound proofing insulation in new walls
- **CVM main building:** room c105, c108, c110. Renovate area for phase 1 of anatomy project.
- **Hillsborough:** Room 307/307a: - renovations electrical outlets & lights
- **Language and Computer Labs:** re-orient and expand the offices in laundry room adjust doorway
- **Student Health Services:** office renovations work also include sketches of proposed hvac modification
- **Schaub Hall:** renovate suite 100
- **MRC 454 area:** Assist lock shop with install
- **Caldwell:** convert m4 through m7 and m9 offices into an office suite and break room.

Construction Shop Electrical Service

For this fiscal year the Construction Shop Electrical Service Department has worked on 70 small – to – medium electrical projects for a total of \$74,040.00 and are doing the majority of its work for the Project Managers. We have had a total 181 projects involving electrical work for a total of \$410,849.86 and 8879.5 hours. This number is the combined of Electrical and lighting systems.

Trades Shops

Carpentry Projects Shop

- The Carpentry Projects shop responded to a total of 27 floods last year. Some of the more notable floods were at Partners I, BTECH, COT, Research IV, Toxicology, Research III and Dabney Hall.
- Responded to a fire at Schaub Hall.
- Removed 8 walk in coolers at Biltmore Hall.
- Fabricated shelves, stand up cabinets on the new emergency response box truck for Housekeeping. This was for the water extracting team to secure all their new equipment.
- Admin I & 2 install 1"x 6" chair rail on and in various rooms and conference rooms.
- Poe Hall fabricated 3 custom open red oak cabinets
- Gardner Hall, removed 3 rooms of old paneling, install new drywall and install all new grid and ceiling tile.
- Broughton, helped get rooms and common areas ready for the new tenants. Cut doors where carpet was installed, installed ceiling tile, made laminate counter-tops, install white boards, removed trash, hung artwork, installed display cases and installed cove base all on the 1st, 2nd and 3rd floors.
- Biltmore, sheet rocked one doorway opening, cut and framed in two new door openings. Repaired and replaced ceiling tile. Moved furniture and replaced it back after job was painted.
- CVM installed numerous signs for Ken Satterwhite for the Terry Centers open house.
- 3501 Avent Ferry, boarded all the 1st floor windows and doors. Repaired attic pull down steps. Installed two heavy duty dehumidifiers, fabricated new 4x8 cork board and other misc. items.
- Nelson we did the demolition of the 4th floor men's and ladies rooms. We now are installing all new hardware, grab bars, soap dispensers and paper towel dispensers.
- Caldwell, frame, drywall and install pocket door.
- Cherry building install ladder cages.

Carpentry Maintenance Shop

- The Point, Park Alumni, consistently moving items in preparation of events and functions.
- Park Alumni, re-mounted grand staircase handrail. Window replacement.
- Bus stops, three locations replaced 10 pieces of glass.
- Biltmore, replaced all seals on exterior doors.
- Tompkins, replaced 3 pieces I.G. 3' x 4'.
- MRC, 4th floor VCT replacement.
- Mary Anne Fox, re-attached wooden panels in atrium area.
- Deerstyne, Floor tile in 3 labs.
- Provide access into walls campus wide (installation of access panels).
- Poulton, replacement of 3rd floor glass.
- Made repairs to all three buildings at CVM in advance of accreditation visit.
- Replaced numerous pieces of broken glass throughout campus.
- Completed over 70 moves throughout campus.
- Standard building maintenance and repairs campus wide.
- Made multiple laminate repairs at SHC.
- Made numerous VCT repairs throughout campus.
- Made repairs to numerous doors throughout campus.

- Replaced numerous stained and damaged ceiling tile throughout campus.
- Repaired numerous doors throughout campus.

General/Fabrication Shop

- CVM Renovations in C100 section (block work).
- Campus wide- sign installations and refurbishment.
- Venture Bldgs.- pointing brick bands in sidewalks.
- Housing- tile and grout repairs.
- Becton Hall- hammock posts design, fabrication and installation.
- Trailwood and Main Campus Dr.- leaning rail installation for OUA.
- Sullivan Dr.- assist Utilities Distribution with steam line replacement.
- Carmichael bus stop- installation of 2 solar trash compactors for Waste and Recycling.
- Biltmore Hall- demo 6 environmental chambers.
- Reynolds Parking Deck- fabricate and install bollards for Transportation.
- Numerous damaged handrail and bollard repairs.
- Broughton renovation masonry repairs and fence installations.
- Oval Dr. at EB 2- replacement of 3 broken concrete slabs.
- ES King Village bldg. G- pour back demoed floor areas in 6 ground floor units (1.5 cu yds.).
- Yarborough Steam Plant- pour 2 slabs near back entrance for Utilities shops.
- Pedestrian tunnel under Main Campus Dr. on Centennial Campus- grind down tripping hazards.
- Public Safety- assist Utilities Distribution and replace curb and sidewalk.
- Bragaw- concrete deck repairs.
- Varsity Research Mod 1- install a trench drain near outside door entrance.
- Founders Dr. near DH Hill- replace broken concrete and curb in bus lane.
- Transportation- pour 2 pads for pay machines.
- CVM Necropsy- pour 2 small pads.
- Western Manor- brick in AC openings for Housing.
- Bostian Hall project- build block walls.
- Grounds CBC- fabricate swing arm brackets to hold leaf vacuum on leaf truck.
- CVM- numerous welding repairs on gates, gurneys and miscellaneous equipment.
- Broughton and Reynolds- fabricate AC brackets.
- Waste and Recycling- fabricate and install side rail cages for 3 recycling trucks.
- Owen- fabricate meter vault cover.
- Method Road Headhouse units 3 and 4- pour pads for chiller replacements.
- Relocate Armory equipment to Sullivan shops.
- David Clark Labs- demo concrete piers, bollards and pads from the mechanical room.
- Resurfaced the granite entrance steps of seven buildings on Main Campus.
- Auto Shop- install vehicle lift in small equipment repair shop.
- Installed numerous building and directive signs throughout campus for OUA
- Installed various bike racks on Campus.
- Replaced and installed various types of hand rails on Campus.

Lock Shop

- From end of last fiscal year to date, the lock shop has responded to a total of five thousand four hundred and sixty one work orders.
- The break down was two thousand eight hundred and twenty seven academic, and two thousand six hundred and thirty four for housing. This includes seven hundred and ten urgent calls for housing alone.
- Rekeying of the Zone roof access doors and added to Simple K key management software
- Updating all of the Zone shop rings and providing key boxes to those Zone shops in need.
- Completion of the Simple K building re key of Witherspoon, Burlington, DH Hill, 2nd floor of Holliday Hall and the near completion of the new Talley Building.
- We are in the beginning stages of re-keying Schaub Hall.
- We are in the preliminary stages re-keying of Ricks Hall.
- The lock shop was involved in the redesign of the new chit vaults to make it easier to access for first responders based on their suggestions. The momentum of the boxes being installed have picked up again and working on Ricks, Daniels, Schaub hall to start
- We have been very busy providing support to housing, with their ongoing renovation efforts of Wood hall with the changing out the hardware for the new dorm doors, as well as keeping up with their locking needs and urgents.
- The lock shop has also been working close with SAT providing support for all of the new buildings going on line, and coordinating with them on projects, such as Scott hall, and the beta testing of the new wireless Schlage locking systems.
- This year we have been accessing some of the high priority entrance doors that we have had many service calls with and addressed.
- Entrances doors that have been replaced were Riddick, Kilgore, Harris and Burlington.
- Another project we have been working on is our new Satellite key rooms at Broughton, and MRC.
- These two locations are filled with the specific inventory used in those two regions of campus. This will help eliminate drive time back to the lock shop for building keys and product needed to make repairs, as well as continuing our efforts to be as sustainable as possible, as well as to increase response time to service our customers. Both rooms are heavily secured and monitored by campus PD.
- Lastly for now we are pleased with our new On-line key request form. No longer will our key rep's need the five part key request forms of the past, they can now sign into their google account, and go to our website, @ rnr.ofb.ncsu click trades shop, and click lock shop, there it will show you a link to create a key request. We are working on an announcement to all of the key representative's about this new process.

Paint/Sign Shop

- Patched and painted common areas in Broughton, Leazar, Park Shops, EB II, Williams and Poulton.
- Cleaned numerous amounts of graffiti around campus.
- Painted suites in Poe Hall on the 3rd, 4th, 6th and 7th floors.
- Painted and patched medical rooms and labs in Student Health.
- Painted Partners I suite 1100.
- Patched and painted numerous flood response work requests.

- Painted Broughton Hall 2nd and 3rd floor.
- Fabricated and installed signage campus wide.
- Painted exterior hand rails on campus.
- Painted Peele Hall suite 317
- Painted lab 1102 in the College of Textiles.
- Painted exterior of the Solar House.
- Painted Admin II in 5 phases.
- Painted Motor Pool.
- Painted Jordan Hall 6th floor.
- Painted Schaub Hall labs.

Roofing/Waterproofing Shop

- Thomas Hall- Investigated ongoing problem near the mechanical room on the roof. Repaired the louver flashing inside of the plenum for the H.V.A.C. unit.
- Admin II - Sealed all windows and frames
- Park Alumni - Multiple large repairs made to failing roofing material.
- Phytotron - Stopped the leak in the basement by waterproofing the window well
- M.R.C- Fabricated and installed temporary roof system over the parking deck elevator shaft.
- Assisted the Warranty Shop on numerous projects.
- Performed campus wide roof inspections and PM's.
- A.F.C.T.C. - Waterproofed concrete foundation and brick facade below grade.
- Performed below grade waterproofing at Avent Ferry Tech building.
- Jordan Addition - Found and repaired an ongoing issue with the window and curtain wall system.
- SAS hall- Removed metal coping, air sealed the entire perimeter, and re-installed the metal as part of an energy saving project.

Projects Group

Projects Group

- Assigned over 1196 projects at a total cost over \$ 5,513,143.40 including :
- Management of the AiM database for monitoring all work orders assigned, close and billing upon completion for Repair & Renovation Services.
- Roxane Waller joined the team as Document Control Specialist, she has facilitated a smoother processing with AiM and assists with obtaining quotes from vendors and submission of invoices for final payment. Roxane scans all documents relating to work orders in AiM for quick reference.
- Building Inspections were conducted on 15 different buildings. This identified deficiencies that work orders were created for different shops to make repairs.
- Milled and repaved over 755 sys of asphalt on Dan Allen (North), Founders Drive patching and curb repair. Schaub Hall parking lot was repaired after a major steam pipe repair was accomplished.
- Recycled 755 sys of asphalt for reuse.

- Major roof repairs were accomplished on Biltmore, Research II, Partners I, Broughton Hall, Phytotron A section and Kilgore Hall total over \$494,106. Repairs were removing damaged and wet insulation, replacing rotten nailers and sealing various penetrations.
- Roof coating was applied to Phytotron E, increasing the life of the existing roof.
- Glass repairs on several buildings, most noticeable would be Jordan Hall, with over 24 pieces of glass replaced, with a price of over \$40,000. Other buildings with glass with broken glass or failed seals include, Daniels, Scott, DH Hill, Tomkins, Caldwell, Winston and many others that had either broken glass or fail seals.
- Fall Protection was added to several roofs making for a safer working environments for everyone who accesses the roof. These buildings include Biltmore Hall, Brooks Hall, Erdahl Cloyd Wing, Pulp and Paper and Robertson and Weaver Administration. Total spent of fall protect this FY 15, \$169,976.
- Moving items from one location to another and sometimes within the same space were requested multiple times from our unit. Doug Lynn our move coordinator, most times our in-house resources can assist. Doug also uses outside expertise when needed.
- Asbestos abatement was accomplished in various manholes, steam pipes were rewrapped at a cost of over \$23,000.
- Abatement of flooring was accomplish at Caldwell Hall and Tomkins Hall, Ground floor, total area 6,832 sf.
- Installation of over 7257 sf vinyl flooring in Caldwell, Tomkins and Thomas Halls.
- Tasked for request for carpet on 49 projects.
- Installed over 10,000 sq. yards of carpeting in CVM, Poe Hall, Caldwell Hall, Patterson Hall, Student Health, Research II, Research III, Hillsborough, Broughton Hall and others. Approximately \$192,000 was spent on carpet.
- Lab renovations completed: Thomas Hall, 2 labs, with short turnaround for completion for new faculty. Dabney Hall is starting on a large lab renovation for Chemistry, Research II completing a lab for City of Raleigh, Water Department, Schaub Hall, 1 lab and Kilgore Hall, 1 lab. Included in renovations are new casework, new energy efficient lighting, new ceilings, bench tops, sinks, electrical, fixtures and flooring.
- Renovations to modify office space and common areas in various locations, Caldwell Hall, Poe Hall, Tompkins Hall, David Clark Labs, Nelson Hall, Daniels Hall, Daniels Hall, CVM, Research II, Research III, Partners I, Partners II, Research I, Student Health, EHS, Hillsborough Building, Admin II and College of Textiles along with others. Renovations included items like electrical, painting, moving walls, doors, locks, HVAC modifications, address life safety, ceilings, lights and flooring.
- LED Lighting – Polk Hall, 1st floor replaced lighting with new LED lighting and installed replaced ceiling grid and ceiling tiles.
- Ceiling and lights – Kilgore Hall, 2nd floor 23 rooms– removed asbestos ceiling panels, secured the HVAC to the structure, installed new ceiling and lights.
- Exterior painting was accomplished on Polk Hall and Solar House.
- Interior upgrade to State Club Dining area – with a strict budget, we were able to change the dining area, giving a higher class of dining area. Changes include a fire place, new carpet, woodwork, paint and electrical.
- Participated in NCAPP at UNC - Chapel Hill, Jeff Luz and Steven Eisenberg provided training on our method of Small Project Renovations. This is shared information that others can take and build upon.
- Established a direct working relationship with the University Architects Office and State Construction Office for requirements for construction completion.

- Restroom renovation – Nelson Hall, 4th floor – renovation to the Men’s and Women’s restroom, replacing the tile, both wall and floor. New partitions, fixtures, plumbing, ceilings, lights and new paint, totaling \$120,000.
- Developed book rates for typical work to support uniform project cost established on our share drive.

B. Volume of Activities

There were a total of 11,958 work requests completed by Repair & Renovations for this fiscal year.

<u>R&R Work Requests</u>	<u>14-15</u>
Admin	20
Carpentry Maintenance Shop	1,669
Carpentry Projects Shop	647
Construction Services	614
FCAP	14
General Shop	762
Lock Shop	4,005
Paint Shop	804
R & R Projects	1,196
Roofing/Waterproofing Shop	1,277
Sign Shop	886
Warranty	<u>64</u>
Total	11,958

C. Special Achievements of Significance

- Served on university committee for Shop Hunger Now meal packaging
- Recognized by Habitat for Humanity for significant contribution of skilled labor to the Augusta Crossings neighborhood project
- Sponsored Supervisor’s Toolkit at NC State with 54 graduating (15 from NCSU). This represents the largest class in the SE region
- Proposed and secured approval for SRAPPA 2017 at NCSU

D. Special Program Reviews, Studies or Plan

- Prepared study to reduce excess margin. Implemented recommendations throughout the year
- Contributed to SCO presentation “Maintenance Considerations with New and Existing Facilities
- Prepared FCAP report for 112 Cox Avenue
- Booth at Earth Day to showcase the reuse trailer and sustainable practices at R&R

II. Compact Plan: Major Initiatives

- R&R Employee Recognition Program
- Shop Excellence Program
- Continue to Enhance Delivery Process for Minor Renovation Projects
- Bell Tower Phase II
- Continue technology implementation
- In-House Exterior Sign Refurbishment Project
- Roof Access Rekeying
- Continue I Desk Pilots/Implementation
- Health and Wellness training
- Building Trades Salary Equity Study
- Refresher Course on Successive Discipline
- Communicating Service Level Capabilities and Priorities to Campus
- Planning for CBC Support Building

III. Diversity

- **Project SAFE NC State Ally training & safe place**

IV. Staff

A. Major New Appointments

New Hires

- Anthony Pennock, UTS to MM III in Carpentry Projects Shop
- Roxane Waller, UTS to Document Control Specialist Projects Group
- Sonja White, UTS to R&R Admin staff
- Carl White, UTS to Carpenter, Construction Shop
- Daniel Herring, UTS to Trades Worker I, General Shop
- Mike Hodges, UTS to Carpenter II, Construction Shop
- Mark Shoe, Carpenter/Welder, General Shop
- Tom Perniciaro, UTS to Carpenter II, Construction Shop

Promotions

- Steven Bostic, Trades Worker I to Mason in General Shop
- Tara Williams, Locksmith II to Locksmith III in Lock Shop

B. Kudos, Professional Activities and Recognition

Pride of Wolfpack Awards – Chris Wolfgang, Derek Kristeller, Gene Copley, Bud Brannock
Pathways – Rodney Holmes

Performance Leadership – Derek Kristeller

APPA Institute for Facilities – Rich Hassard

Supervisor’s Toolkit Training – John O’Connor, Jack Walder, Rich Hassard, Joe Hill, Rodney Holmes, Tara Williams

School Security Locking Hardware Training – Jeff Thomas, Maynard Pilley, Terry Ennis

Automatic Operators & ADA Training – Tara Williams, Graham Drewes, Pat Ferguson, Jack Walder

SketchUp 2014 – David Hatch

OSHA 10-hour safety training: 106 R&R employees

SRAPPA 2014 – David Hatch, Kevin Ingalls, Rich Hassard

Ethics Training – 34 R&R employees

NEC Electrical Updates – Mike Ellison

HVAC Training – Kevin Cummings

Shelton Leadership Conference – Kevin Ingalls

2015 Painting & Decorating Expo – Bud Brannock

The Compass Online Training – Cathy Blanchard

Excel 1 & 2 – Roxane Waller, Johnny Cline

Excel 1 & Word 1 – Wayne Lynch

Quick Start – Sonja White

Roofing Conference – Joe Hill, Sean Kennedy

NCAPPA 2015 Conference – 31 R&R Employees

State Construction Conference – David Hatch, Kevin Ingalls, Johnny Cline

Employees of the Quarter 2014: Tom Moore, Joe Riley, Sam Curtis, Kevin Park

CASE Award – (Colby Award for Shop Excellence) – awarded to Jack Walder & Lock Shop

Stop Hunger Now - 24 R&R employees participated in SHN project at Carmichael Gym

Habitat for Humanity – 15 R&R employees volunteered for Habitat for Humanity project in Raleigh

Finance & Business Award for Excellence – Jeff Luz was nominated for this award

ATTA Jobs – We received 102 ATTA Jobs from customers during the past year. ATTA Jobs may be viewed at our web site: rnr.ofb.ncsu.edu

V. Recommendations and Concerns for the Future

- Continue outreach to colleges and departments to explain deferred maintenance and the impact on campus mission and goals

VI. Impacting Energy and the Environment

- Received Champion Sustainability award
- Added Elf Organic Transit vehicle and Nissan LEAF to R&R fleet
- Recycled 755 sys of asphalt for reuse.