



To: Eric Hawkes, Director, University Recreation, North Carolina State University

Cc: Dr. Lisa Zapata, Vice Provost, Student Development, Health and Wellness, North Carolina State University  
Lisa Johnson, University Architect, North Carolina State University  
Tom Skolnicki, University Landscape Architect, North Carolina State University  
Lori Johnson, Director, Strategic Debt Management, North Carolina State University  
Jason Spivey, Associate Director, University Recreation, North Carolina State University

Date: November 21, 2014

Re: 2011 Recreational Sports Master Plan Addendum – Financial Analysis & Capital Improvement Plan Update

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## PURPOSE

North Carolina State University (“NC State” or the “University”) engaged Brailsford & Dunlavey (“B&D”) to perform an updated financial analysis for the Recreational Sports Master Plan (“RSMP”) that was completed in 2011 for the institution’s recreation department (“University Recreation” or “Department”). The intention of this current planning effort is to revise the RSMP’s original operating and capital improvement plan to detail the University’s and Department’s plan of action to enhance the existing on-campus recreating experience through new and improved facilities. To this end, the following memorandum summarizes the RSMP’s revised plan in terms of phasing, capital costs, required fee support, and operating assumptions to achieve the established objective (i.e., enhance the on-campus recreation experience), while maintaining financial solvency both at the departmental and institutional levels.

## METHODOLOGY

As a continuation from the original RSMP effort, a financial analysis was performed that updated all relevant assumptions underlying the initial analysis, including those related to revenues, expenses, and capital costs. Additionally, several conversations were held with key stakeholders from the University in order to refresh the prioritization of the previously identified capital projects as well as adjust for the institution’s current financial position and future debt capacity outlook. No further analysis related to recreational space needs or preferences was performed as a part of this planning effort. Therefore, the capital projects associated with the original RSMP (e.g., Carmichael Addition and Renovation) were carried forward as a part of the financial analysis update as assumptions, with the only changes to each involving updated capital cost projections, timing, and funding strategy. The culmination of these efforts was an updated Capital Improvement Plan, which summarizes how the Department and the University plan to implement the identified facility enhancements over the next 15 years from a sequencing, funding, and operating perspective.

## 2014 REVISED CAPITAL IMPROVEMENT PLAN

An overview of the revised Capital Improvement Plan is provided below as Figure 1. A comprehensive summary of the planning effort, including the updated financial analysis, is provided at the end of this memorandum as Exhibit A.

FIGURE 1: Revised Capital Improvement Plan Phasing and Student Fee Summary

NC State University Recreational Sports Master Plan Updated Fee & Capital Projects Summary		NC STATE STUDENT FEE OVERVIEW																
		2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031
<b>RECREATIONAL SPORTS ACTIVITIES FEE</b>																		
Recreational Sports Operations Fee [1]		\$162	\$167	\$167	\$173	\$179	\$185	\$190	\$196	\$202	\$208	\$274	\$282	\$291	\$300	\$309	\$318	\$327
Percent Increase in Operations Fee		0.0%	3.0%	0.0%	3.5%	3.5%	3.0%	3.0%	3.0%	3.0%	3.0%	31.9%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Recreation Fields Repair and Renewal Fee [2]		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$15.00
<b>TOTAL RECREATIONAL SPORTS FEES</b>		\$162	\$167	\$167	\$173	\$179	\$192	\$198	\$203	\$209	\$215	\$282	\$290	\$298	\$307	\$316	\$325	\$342
<b>CARMICHAEL COMPLEX DEBT SERVICE FEES</b>																		
Carmichael Recreation Center [3]		\$45	\$45	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Carmichael Complex Outdoor Improvements [3]		\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23
Carmichael - Locker Room Renovation [3]		\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28
Carmichael - Addition & Renovation [4]		\$0	\$0	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102
Carmichael - Outdoor Pool [5]		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Carmichael - New Aquatics Center [6]		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CENTENNIAL CAMPUS DEBT SERVICE FEES</b>																		
Centennial Campus - Recreation Center [7]		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$94	\$94	\$94	\$94	\$94	\$94	\$94
Centennial Campus - Boathouse [8]		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$94	\$94	\$94	\$94	\$94	\$94	\$94
<b>OUTDOOR FIELDS DEBT SERVICE FEES</b>																		
Lower Miller Field Improvements (Synthetic Turf)		\$0	\$0	\$0	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$0
Rec. Fields - Varsity Drive [9]		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28
Rec. Fields - Centennial Campus (Site TBD)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21
<b>TOTAL DEBT SERVICE FEES</b>		\$96	\$96	\$153	\$196	\$196	\$196	\$196	\$196	\$200	\$200	\$290	\$290	\$290	\$290	\$290	\$290	\$290
<b>TOTAL RECREATION-RELATED STUDENT FEES</b>		\$258	\$263	\$320	\$369	\$376	\$388	\$488	\$494	\$499	\$506	\$572	\$580	\$588	\$597	\$604	\$598	\$598

[1] Total includes a \$60 new fee, beginning in 2024 / 2025, which will be used to operate the new Centennial Recreation Center.  
 [2] The Recreation Fields Repair & Renewal fee will need to increase to \$15 once Varsity Drive Fields and Centennial Fields are completed.  
 [3] Previously approved debt service fees.  
 [4] Includes cost to upgrade the sprinkler and fire alarm systems for the entire facility.  
 [5] The projected student fee requirement for this project equals ~\$111k if pursued through traditional means.  
 [6] A new aquatic center has not been identified as a priority for University Recreation.  
 [7] At the time of the Plan Update, NC State's funding ability for the project is ~\$1.5 million, which equates to a student fee of ~\$50. Alternate funding will be required to fund the project's full costs.  
 [8] An opportunity may exist for this project to be included in NC State's new public-private venture on Centennial Campus (i.e., the Town Center). The projected student fee requirement for this project equals ~\$611k if pursued through traditional means.  
 [9] The Varsity Drive Fields project will be pursued once the Lower Miller Field Improvements debt service is fully paid off either 10 years or some time sooner, depending on the project's final cost. The Plan currently assumes that design for the project will be initially funded through operations.  
 \* Grey shading indicates assumed duration of design and construction for a given project.



**SUMMARY OF REVISED ASSUMPTIONS & PLAN CLARIFICATIONS**

The remainder of this memorandum is intended to summarize the key changes in prioritization and assumptions underlying the RSMP Financial Analysis & Capital Improvement Plan Update.

**Revised Capital Projects List**

As a part of the original RSMP effort, a list of capital projects was identified that responded to the Department’s strategic objectives for campus recreation and supported the identified market demand that resulted from the planning effort’s different analyses. Since the RSMP was completed, two capital projects have been pursued. The Carmichael Entry Upgrades project was completed in 2012 / 2013 and the Carmichael Locker & Fitness Improvements project is in the middle of the design process.

With eight capital projects remaining, a major focus of the Financial Analysis & Capital Improvement Plan Update was to update the prioritization, phasing and capital cost assumptions associated with the previously identified enhancements. To this end, Figure 2 below summarizes the revised prioritization of the remaining capital projects based on this latest planning effort.

**FIGURE 2: Re-prioritized RSMP Capital Projects**

<u>CAPITAL PROJECTS</u>	<u>REVISED TIMING*</u>	<u>ORIGINAL TIMING</u>
1. Carmichael - Addition & Renovation	2016 / 2017	2017 / 2018
2. Lower Miller Field Improvements	2017 / 2018	2015 / 2016
3. Centennial - Recreation Center	2020 / 2021	2020 / 2021
4. Centennial - Boat House	2024 / 2025	2017 / 2018
5. Varsity Drive Fields**	2028 / 2029	2015 / 2016
6. Centennial Fields	2028 / 2029	2025 / 2026
7. Outdoor Pool	2028 / 2029	2021 / 2022
8. New Aquatic Center	TBD	TBD

\* Timing for student fee approval. Design and construction timelines may vary by individual project.

\*\* Design process to begin in 2028 / 2029; however, fee approval would not occur until the following year

Stemming from the prioritization update, several items arose that require further clarification, including the following:

- Durations for design and construction vary by individual project; however, as a general statement, major renovation and new construction projects such as the Carmichael Addition & Renovation and the Centennial Recreation Center assume four years for procurement, design, and construction. Outdoor projects such as Varsity Drive Fields and the Outdoor Pool currently assume two years for procurement, design, and construction. A summary of the implementation duration for each project is included in Exhibit A.
- There may be an opportunity for the Centennial Boathouse project to be included as a part of the planned Town Center development on Centennial Campus, which is currently envisioned as a public-private venture between a third-party and the University.

- A new aquatic center has not been identified as a priority project for University Recreation. Therefore, a targeted date for implementation was not finalized as a part of the Financial Analysis & Capital Improvement Plan Update.

### **Revised Capital Cost Projections**

University staff validated the project costs for four of the highest priority projects in the RSMP: Carmichael Addition & Renovation, Lower Miller Field Improvements, Centennial Recreation Center, and Varsity Drive Fields. Staff used unit prices and updated building costs (per gross square foot (“GSF”)) from similar projects constructed on campus in the past two years to validate the costs of these four projects. Elements of scope / program included in each project were also confirmed and are briefly described below. More detail can be found in the estimates for the two sport field projects in Exhibits C and D of this report.

1. **Carmichael Addition & Renovation:** The cost for this project provides for future structured parking to accommodate 19 parking spaces displaced per the Cates Avenue Master Plan, and six (6) additional spaces required for the additional office space in the addition. The project cost includes \$1.8 M to upgrade sprinklers and fire alarms for the entire building (existing and new addition) and also carries a placeholder of \$1.6 M for utilities infrastructure enhancements.
2. **Lower Miller Field Improvements:** Assumes one field house at 2,400 GSF (the 2011 RSMP assumed two smaller field houses totaling 1,400 GSF) for both program options (i.e., synthetic turf option and natural turf option.) The cost of the synthetic turf option was adjusted to reflect the increase in field house size by 1,000 GSF. The natural turf option assumes a section consisting of 12 inches of root zone mix over four (4) inches of stone, with underdrains 30 feet on center.
3. **Varsity Drive Fields:** Relocates the existing storm water pond with an underground detention facility. Replaces 134 parking spaces on site that are displaced by the sport fields, including 80 spaces built over the underground detention. Constructs the loop road south of the McKimmon Center.
4. **Centennial Recreation Center:** The cost of this project was verified as still accurate and sufficient to provide the scope described in the 2011 RSMP.

The projected costs for all remaining capital projects were escalated at 4% annually to the 2014 / 2015 school year from the established cost projections included in the original RSMP effort. From that point, project costs were inflated by 3% annually to each respective project’s targeted completion date. To reflect the current financial climate, the assumed interest rate for the debt associated with each capital project was changed to 4.75% from 5.00%.

Furthermore, due to revised assumptions related to the implementation timeline for each project (e.g., four years for major capital projects, up from two years), a portion of the initial student fees that will be collected while a project advances through design and construction will be applied to the overall capital costs to effectively act as an initial equity payment for the project. This approach will help to reduce the overall amount required for borrowing for each project and, therefore, will lower the required student fee necessary to support their respective debt service payments on an annual basis.

Based on the revised capital costs for each project, the identified year for delivery of each project, NC State's projected full-time equivalent ("FTE") student enrollment of 27,500 each year, and the updated methodology for calculating debt services fees (described previously), below (Figure 3) is a summary of the revised debt service fees that will be required to support each remaining capital project.

**FIGURE 3: Updated Student Fee Requirements for Remaining Capital Projects**

<u>CAPITAL PROJECTS</u>	<u>PROJECTED FEE</u>
1. Carmichael - Addition & Renovation	\$102.50
2. Lower Miller Field Improvements	\$43.00
3. Centennial - Recreation Center*	\$94.00
4. Centennial - Boat House **	TBD
5. Varsity Drive Fields	\$28.00
6. Centennial Fields	\$21.00
7. Outdoor Pool ***	TBD
8. New Aquatic Center	TBD

\* Fee requirement for the Centennial Recreation Center reflects the overall cost of the project (~\$47 million), not the identified funding capacity of the institution for the project (~\$15 million).

\*\* The projected student fee requirement for the Outdoor Pool equals ~\$15 if it is pursued through traditional means.

\*\*\* The projected student fee requirement for the Boathouse equals ~\$6 if it is pursued through traditional means.

Stemming from the capital cost update, several items arose that require further clarification, including the following:

- At the completion of the RSMP Update, NC State's funding ability for the Centennial Recreation Center is approximately \$15 million, which equates to a student fee of approximately \$30. Alternate funding will be required to fund the project's full cost of just over \$47,000,000 in 2024 / 2025 dollars.
- The Varsity Drive Fields project will be pursued once the Lower Miller Field Improvements' debt service is fully paid off, either 10 years or some time sooner, depending on the project's final cost. The Plan currently assumes that design for the project will be initially funded through operations.
- In support of the field improvements that are envisioned as a part of the RSMP, a new activities fee of \$7.50 is being recommended beginning in 2019 / 2020 to support the on-going repair and renewal of the enhanced spaces. Specifically, this fee will initially be used as a reserve to replace the synthetic turf on Lower Miller Field at the end of its useful life (projected to be 10 years after initial installation).

**Additional Items**

In addition to the updated project prioritization list and corresponding capital cost adjustments, there are several items related to revenues, expenses, and deferred maintenance that require clarification as a part of the Financial Analysis & Capital Improvement Plan Update. The items requiring clarification are outlined below:

- *Inflation Assumptions:* Beginning in the 2019 / 2020 school year, it is envisioned that the Recreational Sports Operations fee will increase by 3% annually. At that same time, non-fee revenue is assumed to increase by 2% annually. Furthermore, personnel expenses are expected to increase by 2% annually and non-personnel expenses have been budgeted to increase by 3% each year beginning at that same time. Prior to 2019 / 2020, growth in each of these areas is varied based on University Recreation's previously approved increases / projections.
- *Facility Memberships:* The facility access fee for non-students is projected to increase annually at the same inflation rate as the "Non-fee Revenue" assumption described above. Additionally, when the Centennial Recreation Center is delivered in 2024 / 2025, the financial analysis has assumed a 300-person increase in membership to reflect the additional capacity provided by the new facility. Similarly, in the year following the development's delivery, the financial analysis assumes a second increase in community participation by 300 members, which results in a total of 600 new members as a result of the new facility's availability.
- *Utility Cost Assumptions:* The financial analysis assumes that the University's "Education & General Fund" will continue to fund a portion of the Carmichael Complex's utility costs after the Addition & Renovation project is completed.
- *Deferred Maintenance:* The updated financial analysis assumes that existing and future deferred maintenance issues will be addressed through excess cash flow on an annual basis. The current assumption is that 75% of the Department's excess revenues after Personnel Reserves will be allocated to addressing deferred maintenance annually.

At the recommendation of RSMP stakeholders, a second financial analysis and capital improvement plan update should be pursued during the 2018 / 2019 school year in preparation for the delivery of the Carmichael Addition & Renovation project. This additional update should focus on ensuring that University Recreation's capital and operating plan optimally positions the Department and the broader institution for financial success once the new facility is delivered.

## EXHIBIT A

# UPDATED RSMP FINANICAL ANALYSIS



NC STATE STUDENT FEE OVERVIEW	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031
<b>RECREATIONAL SPORTS ACTIVITIES FEE</b>																	
Recreational Sports Operations Fee [1]	\$162	\$167	\$167	\$173	\$179	\$185	\$190	\$196	\$202	\$208	\$274	\$282	\$291	\$300	\$309	\$318	\$327
Percent Increase in Operations Fee	0.0%	3.0%	0.0%	3.5%	3.5%	3.0%	3.0%	3.0%	3.0%	3.0%	31.9%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Recreation Fields Repair and Renewal Fee [2]	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$15.00
<b>TOTAL RECREATIONAL SPORTS FEES</b>	<b>\$162</b>	<b>\$167</b>	<b>\$167</b>	<b>\$173</b>	<b>\$179</b>	<b>\$192</b>	<b>\$198</b>	<b>\$203</b>	<b>\$209</b>	<b>\$215</b>	<b>\$282</b>	<b>\$290</b>	<b>\$298</b>	<b>\$307</b>	<b>\$316</b>	<b>\$325</b>	<b>\$342</b>
<b>CARMICHAEL COMPLEX DEBT SERVICE FEES</b>																	
Carmichael Recreation Center [3]	\$45	\$45	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Carmichael Complex Outdoor Improvements [3]	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$0	\$0	\$0
Carmichael - Locker Room Renovation [3]	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$0
Carmichael - Addition & Renovation [4]	\$0	\$0	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102
Carmichael - Outdoor Pool [5]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Funding Approach To Be Determined		
Carmichael - New Aquatics Center [6]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CENTENNIAL CAMPUS DEBT SERVICE FEES</b>																	
Centennial Campus - Recreation Center [7]	\$0	\$0	\$0	\$0	\$0	\$0	\$94	\$94	\$94	\$94	\$94	\$94	\$94	\$94	\$94	\$94	\$94
Centennial Campus - Boathouse [8]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Funding Approach To Be Determined			\$0	\$0	\$0	
<b>OUTDOOR FIELDS DEBT SERVICE FEES</b>																	
Lower Miller Field Improvements (Synthetic Turf)	\$0	\$0	\$0	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$0	\$0
Rec. Fields - Varsity Drive [9]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28	\$28
Rec. Fields - Centennial Campus (Site: TBD)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21	\$21	\$21
<b>TOTAL DEBT SERVICE FEES</b>	<b>\$96</b>	<b>\$96</b>	<b>\$153</b>	<b>\$196</b>	<b>\$196</b>	<b>\$196</b>	<b>\$290</b>	<b>\$290</b>	<b>\$290</b>	<b>\$290</b>	<b>\$290</b>	<b>\$290</b>	<b>\$290</b>	<b>\$290</b>	<b>\$288</b>	<b>\$273</b>	<b>\$245</b>
<b>TOTAL RECREATION-RELATED STUDENT FEES</b>	<b>\$258</b>	<b>\$263</b>	<b>\$320</b>	<b>\$369</b>	<b>\$376</b>	<b>\$388</b>	<b>\$488</b>	<b>\$494</b>	<b>\$499</b>	<b>\$506</b>	<b>\$572</b>	<b>\$580</b>	<b>\$588</b>	<b>\$597</b>	<b>\$604</b>	<b>\$598</b>	<b>\$588</b>

[1] Total includes a \$60 new fee, beginning in 2024 / 2025, which will be used to operate the new Centennial Recreation Center  
 [2] The Recreation Fields Repair & Renewal Fee will need to increase to \$15 once Varsity Drive Fields and Centennial Fields are completed.  
 [3] Previously approved debt service fees  
 [4] Includes cost to upgrade the sprinkler and fire alarm systems for the entire facility  
 [5] The projected student fee requirement for this project equals -\$15 if it is pursued through traditional means.  
 [6] A new aquatic center has not been identified as a priority for University Recreation.  
 [7] At the time of the Plan Update, NC State's funding ability for the project is -\$15 million, which equates to a student fee of -\$30. Alternate funding will be required to fund the project's full costs.  
 [8] An opportunity may exist for this project to be included in NC State's new public-private venture on Centennial Campus (i.e., the Town Center). The projected student fee requirement for this project equals -\$6 if it is pursued through traditional means.  
 [9] The Varsity Drive Fields project will be pursued once the Lower Miller Field Improvements' debt service is fully paid off, either 10 years or some time sooner, depending on the project's final cost. The Plan currently assumes that design for the project will be initially funded through operations.  
 \* Grey shading indicates assumed duration of design and construction for a given project

**CAPITAL COST ASSUMPTIONS FOR PROPOSED PROJECTS**

	CARMICHAEL COMPLEX				
	Entry Upgrades	Locker & Fitness Improv.	Addition & Renovation	Outdoor Pool	New Aquatics Center
Project Type:	Medium Renovation	Medium Renovation	New Construction	New Construction	New Construction
Total Project Size (GSF):	8,230	20,040	84,000	10,929	58,800
Total GF Added (if applicable):	0	0	0	10,929	15,184
Total Project Cost (2014 Dollars):	N/A	\$7,281,200	\$43,050,000	\$2,495,698	\$33,847,908
Project Year:	2012/2013	2015/2016	2020/2021	2030/2031	N/A
Project Cost @ Project Year:	\$1,081,600	\$7,499,636	\$51,403,951	\$4,004,863	\$0
Annual Debt Service:	N/A	\$700,000	\$2,938,000	\$342,000	\$0
Debt Term:	N/A	15 Years	25 Years	15 Years	25 Years
Total Debt Issued:	N/A	\$7,499,636	\$42,949,228	\$3,661,450	\$0
	CENTENNIAL CAMPUS		RECREATIONAL FIELDS		
	Recreation Center	Boathouse	L. Miller Improvements	Varsity Drive Fields	Centennial Fields (TBD)
Project Type:	New Construction	New Construction	Medium Renovation	New Construction	New Construction
Total Project Size (GSF):	90,855	5,513	370,260	175,000	228,000
Total GF Added (if applicable):	90,855	5,513	0	175,000	228,000
Total Project Cost (2014 Dollars):	\$35,074,875	\$1,729,783	\$9,186,418	\$3,770,943	\$3,200,733
Project Year:	2024/2025	2026/2027	2019/2020	To Be Determined [8]	2030/2031
Project Cost @ Project Year:	\$47,137,699	\$2,466,256	\$10,649,576	\$6,051,256	\$5,136,237
Annual Debt Service:	\$2,694,000	\$158,000	\$1,191,000	\$761,000	\$574,000
Debt Term:	25 Years	25 Years	10 Years	10 Years	10 Years
Total Debt Issued:	\$39,384,672	\$2,307,433	\$9,467,076	\$6,051,256	\$4,563,191



## EXHIBIT B

# ALTERNATE RSMP FINANCIAL ANALYSIS SCENARIO *(“NATURAL TURF OPTION”)*

NC STATE STUDENT FEE OVERVIEW	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031
<b>RECREATIONAL SPORTS ACTIVITIES FEE</b>																	
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Percent Increase in Operations Fee	0.0%	3.0%	0.0%	3.5%	3.5%	3.0%	3.0%	3.0%	3.0%	3.0%	31.9%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Recreation Fields Repair and Renewal Fee [2]	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$7.50	\$15.00
<b>TOTAL RECREATIONAL SPORTS FEES</b>	<b>\$162</b>	<b>\$167</b>	<b>\$167</b>	<b>\$173</b>	<b>\$179</b>	<b>\$192</b>	<b>\$198</b>	<b>\$203</b>	<b>\$209</b>	<b>\$215</b>	<b>\$282</b>	<b>\$290</b>	<b>\$298</b>	<b>\$307</b>	<b>\$316</b>	<b>\$325</b>	<b>\$342</b>
<b>CARMICHAEL COMPLEX DEBT SERVICE FEES</b>																	
Carmichael Recreation Center [3]	\$45	\$45	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Carmichael Complex Outdoor Improvements [3]	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$0	\$0	\$0
Carmichael - Locker Room Renovation [3]	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$0
Carmichael - Addition & Renovation [4]	\$0	\$0	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102	\$102
Carmichael - Outdoor Pool [5]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Funding Approach To Be Determined		
Carmichael - New Aquatics Center [6]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CENTENNIAL CAMPUS DEBT SERVICE FEES</b>																	
Centennial Campus - Recreation Center [7]	\$0	\$0	\$0	\$0	\$0	\$0	\$94	\$94	\$94	\$94	\$94	\$94	\$94	\$94	\$94	\$94	\$94
Centennial Campus - Boathouse [8]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Funding Approach To Be Determined			\$0	\$0	\$0	
<b>OUTDOOR FIELDS DEBT SERVICE FEES</b>																	
Lower Miller Field Improvements (Natural Turf)	\$0	\$0	\$0	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$0	\$0
Rec. Fields - Varsity Drive [9]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28	\$28
Rec. Fields - Centennial Campus (Site: TBD)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21	\$21	\$21
<b>TOTAL DEBT SERVICE FEES</b>	<b>\$96</b>	<b>\$96</b>	<b>\$153</b>	<b>\$173</b>	<b>\$173</b>	<b>\$173</b>	<b>\$267</b>	<b>\$267</b>	<b>\$267</b>	<b>\$267</b>	<b>\$267</b>	<b>\$267</b>	<b>\$267</b>	<b>\$267</b>	<b>\$264</b>	<b>\$273</b>	<b>\$245</b>
<b>TOTAL RECREATION-RELATED STUDENT FEES</b>	<b>\$258</b>	<b>\$263</b>	<b>\$320</b>	<b>\$346</b>	<b>\$352</b>	<b>\$365</b>	<b>\$464</b>	<b>\$470</b>	<b>\$476</b>	<b>\$482</b>	<b>\$548</b>	<b>\$556</b>	<b>\$565</b>	<b>\$574</b>	<b>\$580</b>	<b>\$598</b>	<b>\$588</b>

[1] Total includes a \$60 new fee, beginning in 2024 / 2025, which will be used to operate the new Centennial Recreation Center  
 [2] The Recreation Fields Repair & Renewal Fee will need to increase to \$15 once Varsity Drive Fields and Centennial Fields are completed.  
 [3] Previously approved debt service fees  
 [4] Includes cost to upgrade the sprinkler and fire alarm systems for the entire facility  
 [5] The projected student fee requirement for this project equals -\$15 if it is pursued through traditional means.  
 [6] A new aquatic center has not been identified as a priority for University Recreation.  
 [7] At the time of the Plan Update, NC State's funding ability for the project is -\$15 million, which equates to a student fee of -\$30. Alternate funding will be required to fund the project's full costs.  
 [8] An opportunity may exist for this project to be included in NC State's new public-private venture on Centennial Campus (i.e., the Town Center). The projected student fee requirement for this project equals -\$6 if it is pursued through traditional means.  
 [9] The Varsity Drive Fields project will be pursued once the Lower Miller Field Improvements' debt service is fully paid off, either 10 years or some time sooner, depending on the project's final cost. The Plan currently assumes that design for the project will be initially funded through operations.  
 \* Grey shading indicates assumed duration of design and construction for a given project

**CAPITAL COST ASSUMPTIONS FOR PROPOSED PROJECTS**

	CARMICHAEL COMPLEX				
	Entry Upgrades	Locker & Fitness Improv.	Addition & Renovation	Outdoor Pool	New Aquatics Center
Project Type:	Medium Renovation	Medium Renovation	New Construction	New Construction	New Construction
Total Project Size (GSF):	8,230	20,040	84,000	10,929	58,800
Total GF Added (if applicable):	0	0	0	10,929	15,184
Total Project Cost (2014 Dollars):	N/A	\$7,281,200	\$43,050,000	\$2,495,698	\$33,847,908
Project Year:	2012/2013	2015/2016	2020/2021	2030/2031	N/A
Project Cost @ Project Year:	\$1,081,600	\$7,499,636	\$51,403,951	\$4,004,863	\$0
Annual Debt Service:	N/A	\$700,000	\$2,938,000	\$342,000	\$0
Debt Term:	N/A	15 Years	25 Years	15 Years	25 Years
Total Debt Issued:	N/A	\$7,499,636	\$42,949,228	\$3,661,450	\$0
	CENTENNIAL CAMPUS		RECREATIONAL FIELDS		
	Recreation Center	Boathouse	L. Miller Improvements	Varsity Drive Fields	Centennial Fields (TBD)
Project Type:	New Construction	New Construction	Medium Renovation	New Construction	New Construction
Total Project Size (GSF):	90,855	5,513	370,260	175,000	228,000
Total GF Added (if applicable):	90,855	5,513	0	175,000	228,000
Total Project Cost (2014 Dollars):	\$35,074,875	\$1,729,783	\$4,170,393	\$3,770,943	\$3,200,733
Project Year:	2024/2025	2026/2027	2019/2020	To Be Determined [8]	2030/2031
Project Cost @ Project Year:	\$47,137,699	\$2,466,256	\$4,834,628	\$6,051,256	\$5,136,237
Annual Debt Service:	\$2,694,000	\$158,000	\$539,000	\$761,000	\$574,000
Debt Term:	25 Years	25 Years	10 Years	10 Years	10 Years
Total Debt Issued:	\$39,384,672	\$2,307,433	\$4,284,628	\$6,051,256	\$4,563,191