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 A-1 Form Mailed \_\_\_\_\_  
 SPIRS Date \_\_\_\_\_  
 Summary \_\_\_\_\_

(For Department Use Only)

**SUMMARY NUMBER****FORM NUMBER****PERMANENT IMPROVEMENT PROJECT REQUEST**

## 1. AGENCY

Cod H12 Name Clemson UniversityContact Person John McEntire Phone 864-656-1238

## 2. PROJECT

Project # 9934 Name Child Care Facility Construction

Facility # \_\_\_\_\_ Facility Name \_\_\_\_\_

County Code	39
New/Revised Budget	\$5,000,000.00

Project Type	Construct Additional Facility
Facility Type	Auxiliary/Housing/Food Service/Laundry

## 3. CPIP PROJECT APPROVAL FOR CURRENT FISCAL Y

CPIP priority number 2 of 7 for FY 2017-18.

## 4. PROJECT ACTION PROPOSED (Indicate all requested actions by checking the appropriate boxes.)

Establish Project		Decrease Budget		Close Project	
Establish Project - CPIP		Change Source of Funds		Change Project Name	
Increase Budget	X	Revise Scope		Cancel Project	

## 5. PROJECT DESCRIPTION AND JUSTIFICATION

(Explain and justify the project or revision, including what it is, why it is needed, and any alternatives considered. Attach supporting documentation/maps to fully convey the need for the request.)

This request is to establish the Phase II construction budget to construct an approximately 13,000 square foot child care facility that will serve Clemson faculty, staff and students. The center will be managed and operated through a third-party vendor and provide a safe, secure and stimulating learning environment for infants, toddlers and preschool-aged children, ages six weeks to five years old. The facility will include classrooms, outdoor play areas, laundry, office spaces, storage, parking and appropriate fencing and lighting to promote safety. The location on the periphery of campus will be easily accessible by using campus transit services and allows for convenient parent drop off and pick up. The facility will be constructed and managed to meet National Association for the Education of Young Children (NAEYC) accreditation standards.

Currently, there are no nationally accredited child care facilities within 25 miles of Clemson, with the exception of Head Start and other at-risk programs. Further, Clemson is the only Top 25 public university in the United States and the only major university in South Carolina that does not offer child care services. Faculty and staff have consistently listed child care as a top priority for the University. Child care services will aid in recruitment and retention efforts of top faculty, staff and doctoral students and will also save the university approximately \$965,000 in lost productivity annually because of missed work due to child care arrangements.

## 6. OPERATING COSTS IMPLICATIONS

Attach Form A-49 if any additional operating costs or savings will result from this request. This includes costs to be absorbed with current funding.

## 7. ESTIMATED PROJECT SCHEDULE AND EXPENDITURES

Estimated Start Date: Oct-17 Estimated Completion Date: June 2021  
 Estimated expenditures: Thru current FY: \$ 100,000.00 After current FY: \$ 4,900,000.00

8. ESTIMATES OF NEW/REVISED PROJECT COSTS

PROJECT# 9934

- 1. \_\_\_\_\_ Land Purchase ---->
  - 2. \_\_\_\_\_ Building Purchase ---->
  - 3. \$340,000.00 Professional Services Fees
  - 4. \_\_\_\_\_ Equipment and/or Materials ---->
  - 5. \_\_\_\_\_ Site Development
  - 6. \$3,350,000.00 New Construction ---->
  - 7. \_\_\_\_\_ Renovations - Building Interior -->
  - 8. \_\_\_\_\_ Renovations - Utilities
  - 9. \_\_\_\_\_ Roofing - \_\_\_\_\_ Roof Age
  - 10. \_\_\_\_\_ Renovations - Building Exterior
  - 11. \$470,000.00 Other Permanent Improvements
  - 12. \_\_\_\_\_ Landscaping
  - 13. \_\_\_\_\_ Builders Risk Insurance
  - 14. \$400,000.00 Other Capital Outlay
  - 15. \_\_\_\_\_ Labor Costs
  - 16. \_\_\_\_\_ Bond Issue Costs
  - 17. \_\_\_\_\_ Other: \_\_\_\_\_
  - 18. \$440,000.00 Contingency
- \$ 5,000,000.00 TOTAL PROJECT BUDGET

Land: \_\_\_\_\_ Acres  
 Floor Space: \_\_\_\_\_ Gross Square Feet  
 Information Technology \$ \_\_\_\_\_  
 Floor Space: 13,000 Gross Square Feet  
 Floor Space: \_\_\_\_\_ Gross Square Feet

**ENVIRONMENTAL HAZARDS**

Identify all types of significant environmental hazards (including asbestos, PCB's, etc.,) present in the project and the financial impact they will have on the project.

Type: \_\_\_\_\_

**Cost Breakdown**

Design Services \$ \_\_\_\_\_  
 Monitoring \$ \_\_\_\_\_  
 Abate/Remed \$ \_\_\_\_\_  
 Total Costs \$ \_\_\_\_\_

9. PROPOSED SOURCE OF FUNDING

Source	Previously Approved Amount	Additional Request	Combined Request	Request Number	Rev. Object Code	Accounted FID Number	Rev. Sub Fund	Exp. Sub Fund
(0) Capital Improvement Bonds, Gr ____					8115		3043	3043
(1) Dept Capital Improvement Bonds Gr ____					8115		3143	3143
(2) Institution Bonds								3235
(3) Revenue Bonds								3393
(4) Excess Debt Service Type								3497
(5) Capital Reserve Fund					8895		3603	3603
(6) Appropriated State Program Source -					8895	68800100	1001	3600
(7) Federal						78800100		5787
(8) Athletic						88800100		3807
(9) Other (Specify)								
Prudential Settlement	\$ 100,000.00	\$ 4,400,000.00	\$ 4,500,000.00		7201	98800100	4907	3907
Operating Revenue		\$ 500,000.00	\$ 500,000.00		7201	98800100	4907	3907
<b>TOTAL BUDGET</b>	<b>\$ 100,000.00</b>	<b>\$ 4,900,000.00</b>	<b>\$ 5,000,000.00</b>					

10. SUBMITTED BY: Brett A. Dalton  
 Signature of Authorized Official and Title  
 Brett A. Dalton, Executive Vice President for Finance and Operations

2-23-18  
 Date

11. APPROVED BY: \_\_\_\_\_  
 (For Department Use Only) Authorized Signature and Title

\_\_\_\_\_  
 Date  
 Revised 2/23/16

**ADDITIONAL ANNUAL OPERATING COSTS/SAVINGS  
RESULTING FROM PERMANENT IMPROVEMENT PROJECT**

1. AGENCY  
Code H12 Name Clemson University

2. PROJECT  
Project # 9934 Name Child Care Facility Construction

3. ADDITIONAL ANNUAL OPERATING COSTS/SAVINGS. (Check whether reporting costs or savings.)

XX  COSTS       SAVINGS       NO CHANGE

4.

TOTAL ADDITIONAL OPERATING COSTS/SAVINGS				
Projected Financing Sources				
(1)	(2)	(3)	(4)	(5)
Fiscal Year	General Funds	Federal	Other	Total
1) FY 19-20	\$	\$	\$82,550.00	\$82,550.00
2) FY 20-21	\$	\$	\$84,201.00	\$84,201.00
3) FY 21-22	\$	\$	\$85,885.00	\$85,885.00

5. If "Other" sources are reported in Column 4 above, itemize and specify what the other sources are (revenues, fees, etc.).

Child Care Center Operating Revenues

6. Will the additional costs be absorbed into your existing budget?      XX  YES       NO  
If no, how will additional funds be provided?

7. Itemize below the cost factors that contribute to the total costs or savings reported above in Column 5 for the first fiscal year.

<u>COST FACTORS</u>	<u>AMOUNT</u>
1. <u>Maintenance</u>	<u>\$41,275.00</u>
2. <u>Utilities</u>	<u>\$41,275.00</u>
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
TOTAL	<u>\$82,550.00</u>

8. If personal services costs or savings are reported in 7 above, please indicate the number of additional positions required or positions saved. \_\_\_\_\_

9. Submitted By: Brett A. Quirk  
Signature of Authorized Official and Title

2-23-18  
Date

**PERMANENT IMPROVEMENT PROJECT INFORMATION FORMAT  
FOR PHASE II CONSTRUCTION BUDGET**

**Child Care Facility Construction  
February 26, 2018**

1. What is the total projected cost of the project and what is it based on? Please attach a summary of the costs prepared during the A&E pre-design phase to support the total cost. \$5,000,000
2. What is/are the source(s) of funds for the construction? If any private or federal funds are included, please attach a letter guaranteeing the availability of the funds.

Prudential Settlement Funds and Operating Funds

3. What is your agency/institution's definition of each fund source to be used for construction? (If any type of fee makes up a portion of the source, what is the fee called, what is the fee amount, and when it was put in place. If there is a statutory authority authorizing the use of the funds for capital projects, please cite the code section.)

Prudential Settlement Funds are settlement proceeds and related earnings from a settlement with a private insurance company.

Operating Funds for this project are self-generated revenues.

4. What is the current uncommitted balance of funds for each source listed in 3 above?

Prudential Settlement Funds from settlement with private insurance company and related earnings – \$4,506,802 as of 1/31/18

Operating Funds from self-generated revenues for this project - \$500,000 as of 1/31/18

5. If institution or revenue bonds are included as a source, when were the bonds issued? If not issued yet, when is the bond resolution expected to be brought for B&C Board approval? N/A
6. If a student fee is used to fund debt service, what is the current amount of the fee annually or by semester? Please specify which. N/A
7. Will the use of any funds for construction require an increase in any student fee or tuition? If so, please explain in detail.

No student tuition or fee increase will be required for pre-design or construction of this project. Existing tuition and fees, including the FY 17-18 increase are sufficient to cover any costs associated with this project, although the identified funding sources are not generated from tuition and fees.

8. Will the project be LEED certified for energy savings and conservation and if so, at what level will it be certified? For projects requiring or using LEED certification, please attach the required cost-benefit analysis and a checklist of items to be used to achieve LEED points or a description of the energy measures to achieve LEED.

The project will be certified to Green Globes, 2 globes certification. The Green Globe scorecard and cost benefit analysis are attached.

9. What energy savings/conservation measures will be implemented within the project if the project will not be LEED certified? For projects that do not require/use LEED, please provide a paragraph on energy savings measures to be implemented as part of the project. If there are no energy savings measures included, please state that and explain why.

N/A – The project will be certified to Green Globe, 2 globes certification.

10. What is the projected date (month & year) for execution of the construction contract? September 2018

11. What is the projected date (month and year) for completion of construction? February 2020

12. What program(s) are to be included in the constructed or renovated space?

The facility will house a child care facility to be used on a first come, first serve basis by all Clemson faculty, staff and students.

13. What is the total square footage of the building to be renovated or constructed?

The facility will be approximately 13,000 square feet.

14. If a portion of the building is to be renovated, what is the square footage of the portion that will be included in the renovation? N/A

15. What is the current age of the building or building systems to be renovated? N/A

16. If any new space is being added to the facility, please provide demand/usage data to support the need.

Currently, there are no nationally accredited child care facilities within 25 miles of Clemson, with the exception of Head Start and other at-risk programs. Further, Clemson is the only Top 25 public university in the United States and the only major university in South Carolina that does not offer child care services. Faculty and staff have consistently listed child care as a top priority for the University. Child care services will aid in recruitment and retention efforts of top faculty, staff and doctoral students and will also save the University approximately \$965,000 in lost productivity annually because of missed work due to child care arrangements.

17. What are the estimated numbers of students, faculty, staff and/or clients that are expected to use the space affected by the project or the entire building? (Answer for as many as are applicable.)

The facility is expected to serve approximately 130 children on a first come, first serve basis and approximately 30 fulltime staff at full capacity provided by the third-party vendor.

18. If the construction cost increased significantly from the internal estimate (30% or more), what factors caused the cost to increase? N/A

19. If the contingency is more than 10%, please explain why. N/A

20. If funds are being transferred from another project, what is the current status of the project from which funds are being transferred? N/A

21. Has the project been included in a previous year's CPIP? If so, what was the last year the project was included and for which year, 1-5? 2016 and 2017 CPIP, Year One

22. What are the economic impacts of the project, including job creation and retention? If there are none, please explain.

The economic benefit of this project will be significant. Approximately \$5 million in construction will mean a significant number of jobs for architects, engineers, builders and tradesmen.

23. How will your agency/institution address and fund maintenance of this facility construction/renovation?

The University has a comprehensive maintenance stewardship funds as well as a designated fund for maintenance, repair and renovation. Annual prioritization resulting from objective building assessments determines the planned investments in asset stewardship on a building by building and project by project basis. The University targets balances for this maintenance stewardship fund required to adequately protect the physical assets of the University. It is a long-range planning tool/fund and, in that respect, the planned balances match the anticipated needs for annual and long-range stewardship.

24. If your agency/institution has a deferred maintenance account, what is the name of the account and what is its current uncommitted balance?

The University has Maintenance and Stewardship Funds (MSF) comprised of tuition, matriculation, and other debt retirement and plant fund revenues that are restricted to support capital investments and that are not formally obligated to fund debt service in the current period. These funds are consciously planned for maintenance and renovation needs and are responsibly transferred to and managed by the State Treasurer until the time the State Treasurer approves a qualified use of these funds. As of 1/31/18, the balance in the MSF held by the State Treasurer and not currently committed to identified capital projects is \$41,588,271.

25. If how maintenance will be addressed and funded for this facility construction/renovation has not been determined yet, what steps are in place to begin to address how your agency/institution will fund maintenance to this and other agency/institution facilities?

N/A – see the response to question 23.

# Clemson University Childcare Center - Total Project Cost

Quantity Total Cost Comments

## SITE DEVELOPMENT

Site Work and Utilities		\$	419,113	See Detailed Cost Estimate for further breakdown of site cost
Storm Water Management Allowance		\$	300,000	
Escalation (4% per year)		\$	28,765	Assumes a construction midpoint of Summer 2019
Site Design Contingency (15% of Escalated Site Cost)		\$	112,182	Covers cost of unknown site costs as design progresses pending Survey completion and preliminary Civil design
<b>Total Escalated Site Development Construction Cost</b>		<b>\$</b>	<b>860,059</b>	

## BUILDING CONSTRUCTION

Building Cost	13,000 GSF	\$	1,945,424	13,220 GSF Building. See Detailed Cost Estimate for further breakdown of building cost
Gen. Conditions / GC overhead & profit		\$	640,871	Includes Gen. Conditions, GC Overhead and profit, Payment & Performance Bond / Business License
Escalation (4% per year)		\$	103,452	Assumes a construction midpoint of Summer 2019
Building Design Contingency (5% of Escalated Bldg. Cost)		\$	134,487	
<b>Total Escalated Building Construction Cost</b>		<b>\$</b>	<b>2,824,234</b>	<b>(\$217/GSF)</b>

**TOTAL ESCALATED CONSTRUCTION COST** **\$ 3,684,293**

## OTHER PROJECT COSTS

Artwork		\$	18,421	.5% of Escalated Construction cost consistent with University Art Policy
Moveable Equipment and Furniture Allowance		\$	290,840	\$22 per GSF. Includes indoor play equipment
PM Fee		\$	125,000	2.5% of project
IT, Communications, Security		\$	30,000	Includes security system and cameras (Access control and fire alarm included in construction cost)
CP Fee		\$	25,000	.5% of project
Playground Equipment Allowance		\$	150,000	Includes equipment for both age group playgrounds. Cost for playground sun shades already included in construction cost
<b>Subtotal Other Project Costs</b>		<b>\$</b>	<b>639,261</b>	

## OTHER PROJECT SUPPORT COSTS

Facilities / Utilities Support		\$	15,000	
Utility Relocation			N/A	Already included in Site Development Cost
Chapter 1 & 17 Inspections		\$	13,220	\$1 per square foot
<b>Subtotal Other Project Support Costs</b>		<b>\$</b>	<b>28,220</b>	

## PROFESSIONAL FEES & EXPENSES

Professional Fees		\$	442,115	12% of Escalated Construction cost. Covers A/E fees for Design-Build team. Covers energy modeling and commissioning fees, Green Globes Registration
<b>Subtotal Professional Fees and Expenses</b>		<b>\$</b>	<b>442,115</b>	

**SUBTOTAL PROJECT COST** **\$ 4,793,890**

Contingency (4% of Project Cost) \$ 200,000

**TOTAL ANTICIPATED PROJECT COST** **\$ 4,993,890**

# Cost Benefit Analysis

Clemson University Childcare Center

In accordance with the Energy Independence and Sustainable Construction Act of 2007, the construction of the Clemson University Childcare Center will meet, at a minimum, two Green Globes. Below is a preliminary Cost Benefit Analysis as a produced at the conclusion of the Phase I Design Process. Baseline energy costs are provided below.

Estimated Cost Associated with Green Globes Certification and Improved Energy Performance		
Estimated Basic and Enhanced Commissioning Fees	\$ 16,500	(Including Green Globes project registration fees)
Estimated Administration and Energy Modeling Fees	\$ 34,500	
Estimated Misc. increase of construction costs for items such as HVAC controls, energy star appliances, stormwater reduction strategies and general contractor overhead.	\$ 13,500	(Based on an anticipated premium of 3-5% of total construction cost)
<b>TOTAL</b>	<b>\$ 64,500</b>	

Estimated Annual Baseline Operating Costs of Childcare Center				
	square footage	cost per sq. ft.	annual cost	30 year cost
Energy	13,000	\$ 3.47	\$ 45,110	\$ 1,353,300
Water & Sewer	13,000	\$ 0.97	\$ 12,610	\$ 378,300
Maintenance	13,000	\$ 4.75	\$ 61,750	\$ 1,852,500
<b>TOTAL</b>			<b>\$ 119,470</b>	<b>\$ 3,584,100</b>

Estimated Annual Operating Costs of Green Globes Certified (2 Green Globes) Childcare Center				
Energy (goal 30% reduction)	13,000	\$ 2.43	\$ 31,577	\$ 947,310
Water & Sewer (goal 30% reduction)	13,000	\$ 0.68	\$ 8,827	\$ 264,810
Maintenance (assumed 40% reduction)	13,000	\$ 2.85	\$ 37,050	\$ 1,111,500
<b>TOTAL</b>			<b>\$ 77,454</b>	<b>\$ 2,323,620</b>

<b>SAVINGS OVER 30 YEAR LIFE CYCLE</b>	<b>\$ 42,016</b>	<b>\$ 1,260,480</b>
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# GBI Project Checklist for Green Globes for New Construction



Date: 23-Feb-18

Project Name: Clemson University Childcare Center

**Important Note:** This document is intended to provide information regarding the areas assessed and associated maximum points available under the Green Globes for New Construction program. Each of the areas presented here contain more specific criteria which are scored within the online Construction Documents Survey. Please refer to the Technical Reference Manual to view all assessed criteria, associated maximum points possible, ToolTips and references. **Please purchase and complete the online Construction Documents Survey for the most accurate self-evaluation of a project. Final Green Globes certification is based upon third-party assessor verified points at the conclusion of an assessment.**

PROJECT MANAGEMENT		Maximum Points: 50	Y	N	?
<b>1.1</b>	<b>Integrated Design Process (IDP)</b>	<b>9</b>			
1.1.1	Pre-Design Meetings	3			X
1.1.2	IDP Performance Goals	3			X
1.1.3	IDP Progress Meeting for Design	3			X
1.1.4	Capital Asset Plan & Business Case Summary (Federal only)	0		X	
<b>1.2</b>	<b>Environmental Management During Construction</b>	<b>12</b>			
1.2.1	Environmental Management Systems (EMS)	3			X
1.2.2	Clean Diesel Practices	2			X
1.2.3	Building Materials and Building Envelope	2	X		
1.2.4	IAQ During Construction	5	X		
<b>1.3</b>	<b>Commissioning</b>	<b>29</b>			
1.3.1	Pre-Commissioning	3	X		
1.3.2	Whole Building Commissioning	19	X		
1.3.3	Training	1	X		
1.3.4	Operations and Maintenance Manual	6	X		

ENERGY (cont'd)		Maximum Points: 390	Y	N	?
<b>3.3</b>	<b>Metering, Measurement, and Verification</b>	<b>12</b>			
3.3.1	Metering	8	X		
3.3.2	Measurement and Verification	4			X
<b>3.4</b>	<b>Building Opaque Envelope</b>	<b>31</b>			
3.4.1	Thermal Resistance and Transmittance	10			X
3.4.2	Orientation	5		X	
3.4.3	Fenestration Systems	16			X
<b>3.5</b>	<b>Lighting</b>	<b>36</b>			
3.5.1	Lighting Power Density	10	X		
3.5.2	Interior Automatic Light Shut-off Controls	3	X		
3.5.3	Light Reduction Controls	4			X
3.5.4	Daylighting	8			X
3.5.5	Controls for Daylighted Zones	6			X
3.5.6	Exterior Luminaires and Controls	5	X		
<b>3.6</b>	<b>HVAC Systems and Controls</b>	<b>59</b>			
3.6.1	Building Automation System	10	X		
3.6.2	Cooling Equipment	13	X		
3.6.3	Cooling Towers	8			
3.6.4	Heat Pumps	6	X		
3.6.5	Heating Equipment	8		X	
3.6.6	Condensate Recovery	3			X
3.6.7	Steam Traps	2		X	
3.6.8	Domestic Hot Water Heaters	3	X		
3.6.9	Variable Speed Control of Pumps	6		X	
<b>3.7</b>	<b>Other HVAC Systems and Controls</b>	<b>32</b>			
3.7.1	Minimizing Re-heat and Re-cool	6	X		
3.7.2	Air Economizers	3	X		
3.7.3	Fans and Ductwork	7	X		
3.7.4	Demand Controlled Ventilation	10	X		
3.7.5	Variable Refrigerant Flow Systems	6			X
<b>3.8</b>	<b>Other Energy Efficient Equipment and Measures</b>	<b>11</b>			
3.8.1	Elevators and Escalators	5		X	
3.8.2	Other Energy Efficient Equipment	6			X
<b>3.9</b>	<b>Renewable Energy</b>	<b>50</b>			
3.9.1	On-site Renewable Energy	32		X	
3.9.2	Off-site Renewable Energy	18		X	
<b>3.10</b>	<b>Energy Efficient Transportation</b>	<b>24</b>			X

SITE		Maximum Points: 115	Y	N	?
<b>2.1</b>	<b>Development Area</b>	<b>30</b>			
2.1.1	Urban Infill and Urban Sprawl	10	X		
2.1.2	Greenfields, Brownfields and Floodplains	20		X	
<b>2.2</b>	<b>Ecological Impacts</b>	<b>32</b>			
2.2.1	Site Disturbance and Erosion	8	X		
2.2.2	Tree Integration	5		X	
2.2.3	Tree Preservation	4			X
2.2.4	Heat Island Effect	13			X
2.2.5	Bird Collisions	2			X
<b>2.3</b>	<b>Stormwater Management</b>	<b>18</b>	X		
<b>2.4</b>	<b>Landscaping</b>	<b>28</b>	X		
<b>2.5</b>	<b>Exterior Light Pollution</b>	<b>7</b>			X

ENERGY		Maximum Points: 390	Y	N	?
<b>3.1</b>	<b>Energy Performance</b>	<b>100</b>	X		
<b>3.2</b>	<b>Energy Demand</b>	<b>35</b>			
3.2.1	Passive Demand Reduction	19	X		
3.2.2	Power Demand Reduction	16	X		



# GBI Project Checklist for Green Globes for New Construction



Date: 23-Feb-18

Project Name: **Clemson University Childcare Center**

WATER		Maximum Points: 110	Y	N	?
4.1	Water Consumption	42	x		
4.2	Cooling Towers	9		x	
4.3	Boilers and Water Heaters	4		x	
4.4	Water Intensive Applications	18			
4.4.1	Commercial Food Service Equipment	6		x	
4.4.2	Laboratory and Medical Equipment	5		x	
4.4.3	Laundry Equipment	4	x		
4.4.4	Special Water Features	3		x	
4.5	Water Treatment	3		x	
4.6	Alternate Sources of Water	5		x	
4.7	Metering	11	x	x	x
4.8	Irrigation	18		x	

MATERIALS & RESOURCES		Maximum Points: 125	Y	N	?
5.1	Building Assembly (Core & Shell including Envelope)	33	x		
5.2	Interior Fit-Out (including Finishes and Furnishings)	16	x		
5.3	Reuse of Existing Structures	26		x	
5.3.1	Facades	6		x	
5.3.2	Structural Systems	6		x	
5.3.3	Non-Structural Elements	14		x	
5.4	Waste	9			
5.4.1	Construction Waste	7	x		
5.4.2	Operational Waste	2	x		
5.5	Building Service Life Plan	7	x		
5.6	Resource Conservation	6			
5.6.1	Minimized Use of Raw Materials	3			x
5.6.2	Multi-Functional Assemblies	1			x
5.6.3	Deconstruction and Disassembly	2	x		
5.7	Building Envelope - Roofing/Opening	10			
5.7.1	Roofing Membrane Assemblies and Systems	3	x		
5.7.2	Flashings	3	x		
5.7.3	Roof and Wall Openings	4	x		
5.8	Envelope - Foundation, Waterproofing	6			
5.8.1	Foundation Systems	4	x		
5.8.2	Below Grade Wall Slabs and Above Grade Horizontal Assemblies	2	x		
5.9	Envelope - Cladding	5			
5.9.1	Exterior Wall Cladding Systems	3	x		
5.9.2	Rainscreen Wall Cladding	2		x	
5.10	Envelope - Barriers	7			
5.10.1	Air Barriers	4	x		
5.10.2	Vapor Retarders	3		x	

EMISSIONS		Maximum Points: 50	Y	N	?
6.1	Heating	18			
6.2	Cooling	29		x	
6.2.1	Use of New or Existing Cooling Equipment (informational only)	0			
6.2.2	Ozone-Depleting Potential	10		x	
6.2.3	Global Warming Potential	10		x	
6.2.4	Leak Detection	9		x	
6.3	Janitorial Equipment	3	x		

INDOOR ENVIRONMENT		Maximum Points: 160	Y	N	?
7.1	Ventilation	37			
7.1.1	Ventilation Air Quantity	11		x	
7.1.2	Air Exchange	8		x	
7.1.3	Ventilation Intakes and Exhausts	8		x	
7.1.4	CO2 Sensing and Ventilation Control Equipment	5		x	
7.1.5	Air Handling Equipment	5		x	
7.2	Source Control and Measurement of Indoor Pollutants	46			
7.2.1	Volatile Organic Compounds	10		x	
7.2.2	Leakage, Condensation and Humidity	8		x	
7.2.3	Access for HVAC Maintenance	4		x	
7.2.4	Carbon Monoxide Monitoring	4			x
7.2.5	Wet Cooling Towers	2			x
7.2.6	Domestic Hot Water Systems	2			x
7.2.7	Humidification and Dehumidification Systems	3		x	
7.2.8	Pest and Contamination Control	3			
7.2.9	Other Indoor Pollutants (Tobacco, Radon)	8		x	
7.2.10	Ventilation and Physical Isolation for Specialized Activities	2		x	
7.3	Lighting Design and Systems	30			
7.3.1	Daylighting	17			
7.3.2	Lighting Design	13		x	
7.4	Thermal Comfort	18			
7.4.1	Thermal Comfort Strategies	12		x	
7.4.2	Thermal Comfort Design	6		x	
7.5	Acoustic Comfort	29			
7.5.1	Acoustic Comfort Design	18			x
7.5.2	Mechanical, Plumbing, and Electrical	11			x

TOTAL: 1000



## GBI Project Checklist for Green Globes for New Construction



Date: 23-Feb-18

Project Name: Clemson University Childcare Center

**Important Note:** This document is intended to provide information regarding the areas assessed and associated maximum points available under the Green Globes for New Construction program. Each of the areas presented here contain more specific criteria which are scored within the online Construction Documents Survey. Please refer to the Technical Reference Manual to view all assessed criteria, associated maximum points possible, ToolTips and references. **Please purchase and complete the online Construction Documents Survey for the most accurate self-evaluation of a project. Final Green Globes certification is based upon third-party assessor verified points at the conclusion of an assessment.**



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