

LEED-NC Version 2.1 Registered Project Checklist Camp Aldersgate Commons Little Rock, AR Camp Aldersgate Commons Little Rock, AR

Yes ? No

	(O	
7 7	7 Sustainable Sites	#14 Points
Y	Prereq 1 Erosion & Sedimentation Control	
у	Credit 1 Site Selection	Required
_ r	Credit 2 Development Density	1
n	· ·	1
n		1
У	Credit 4.2 Alternative Transportation, Bicycle Storage & Changing Rooms	1
n	Credit 4.3 Alternative Transportation, Alternative Fuel Vehicles	1
У	Credit 4.4 Alternative Transportation, Parking Capacity and Carpooling	1
у	Credit 5.1 Reduced Site Disturbance, Protect or Restore Open Space	1
У	Credit 5.2 Reduced Site Disturbance, Development Footprint	1
n	Credit 6.1 Stormwater Management, Rate and Quantity	1
n	Credit 6.2 Stormwater Management, Treatment	1
У	Credit 7.1 Landscape & Exterior Design to Reduce Heat Islands, Non-Roof	1
n	Credit 7.2 Landscape & Exterior Design to Reduce Heat Islands, Roof	1
Yes	Credit 8 Light Pollution Reduction	1
6 ? 7		1
4 1	Water Efficiency	2 1 1 2 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2
		5 Points
У	Credit 1.1 Water Efficient Landscaping, Reduce by 50%	1
У	Credit 1.2 Water Efficient Landscaping, No Potable Use or No Irrigation	1
n	Credit 2 Innovative Wastewater Technologies	1
У	Credit 3.1 Water Use Reduction, 20% Reduction	1
У	Credit 3.2 Water Use Reduction, 30% Reduction	1
Yes ? No		'
8 9	Energy & Atmosphere	
	S, an amount of the second of	17 Points
Y	Prereq 1 Fundamental Building Systems Commissioning	Required
Y	Prereq 2 Minimum Energy Performance	Required
Y	Prereq 3 CFC Reduction in HVAC&R Equipment	Required
У	Credit 1 Optimize Energy Performance	1 to 10
l n	Credit 2.1 Renewable Energy, 5%	11010
n	Credit 2.2 Renewable Energy, 10%	1
n	Credit 2.3 Renewable Energy, 20%	1
n	Credit 3 Additional Commissioning	1
n	Credit 4 Ozone Depletion	1
n	Credit 5 Measurement & Verification	1
у	Credit 6 Green Power	1
		1

6 7	Materials & Resources	13 Poin
Y	Prereq 1 Storage & Collection of Recyclables	
n		Require
n	Credit 1.2 Building Reuse, Maintain 100% of Shell	
<u>n</u>	Credit 1.3 Building Reuse, Maintain 100% Shell & 50% Non-Shell	
Y	J Credit 2.1 Construction Waste Management, Divert 50%	
Υ	Credit 2.2 Construction Waste Management, Divert 75%	
n	Credit 3.1 Resource Reuse, Specify 5%	
<u>n</u>	Credit 3.2 Resource Reuse, Specify 10%	
Y	Recycled Content, Specify 5% (post-consumer + ½ post-industrial)	
Y	Recycled Content, Specify 10% (post-consumer + 1% post industrial)	
Y	Ciedle 5.1 Local/Regional Materials, 20% Manufactured Locally	
	Credit 5.2 Local/Regional Materials, of 20% Above, 50% Harvested Locally	
$\frac{1}{n}$	Cledit o Rapidly Renewable Materials	
<u> n</u>	Credit 7 Certified Wood	,
Yes ? No		
10 5	Indoor Environmental Quality	15 Points
Y	Prereq 1 Minimum IAQ Performance	
Y	" " " " " OHOHHMING	Required
Y	Prereq 2 Environmental Tobacco Smoke (ETS) Control Credit 1 Carbon Dioxide (CO ₂) Monitoring	Required
N	Credit 2 Ventilation Effectiveness	1
N	Credit 3.1 Construction IAQ Management Plan, During Construction	1
Y	Credit 3.2 Construction IAQ Management Plan, Before Occupancy	1
Y	Credit 4.1 Low-Emitting Materials, Adhesives & Sealants	1
Y	Credit 4.2 Low-Emitting Materials, Paints	1
	Credit 4.3 Low-Emitting Materials, Carpet	1
N	Credit 4.4 Low-Emitting Materials, Composite Wood & Agrifiber	1
4	Credit 5 Indoor Chemical & Pollutant Source Control	1
N	Credit 6.1 Controllability of Systems, Perimeter	1
N	Credit 6.2 Controllability of Systems, Non-Perimeter	1
	Credit 7.1 Thermal Comfort, Comply with ASHRAF 55-1992	1
H	Credit 7.2 I nermal Comfort, Permanent Monitoring System	1
	Credit 8.1 Daylight & Views, Daylight 75% of Spaces	1
	Credit 8.2 Daylight & Views, Views for 90% of Spaces	1
? No		'
	Innovation & Design Process	
TTT		5 Points
 	""" Tation in Design. Life Cycle Environmental Analysis	1
+	minoration in besign. Green Building Education	1
 	The state of the s	1
 	LABINDIAL PERFORMANCE OF Regionally Manual	1
? No	Credit 2 LEED™ Accredited Professional	1
29	Project Totals (pre-certification estimates)	69 Points
C	ertified 26-32 points Silver 33-38 points Gold 39-51 points Platinum 52-69 points	Units

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Green Projects Entry Camp Aldersgate Commons

Section 1 - Project Overview Information Part 1

Online Submittal Tips (PDF 25 KB)

Project name:

Camp Aldersgate Commons

Project owner:

Women's Division of the United Methoc

Project address:

2000 Aldersgate Road Little Rock, AR 72205

Submitting architect:

Wilcox Group/ Architects

Joint venture or associate architect: RPPY Architects

Section 2 - Project Overview Information Part 2

Project completion date:

9/2004

(m/y) forma

Project Site:

Previously undeveloped - Greenfield Sit

Project type:

Assembly

Project site context/setting: Other Building description:

Suburban

New

Lot size:

20000.00 ft2

Building gross floor area:

12000 ft2

BOMA floor area method used?:

nο

Number of permanent occupants:

0

Number of visitors:

60

Occupants (hours/week/occupant): 0

Visitors (hours/week/visitor):

Total project cost:

\$2,500,000

Section 3 - Project Overview General Description

General description:

The Camp Aldersgate Commons is the primary building 120- acre site. Camp Aldersgate's programs include y ϵ with disabilities, weekly Seniors day out and summer r disabilities, developmental delays and diverse medical

dystrophy. While never permanently occupied, the buil includes the preparation and serving of three meals a activities and meals, wheelchair dances, arts and craft

The 12,000 sf "Camp Commons" is the first building in seamlessly exceed accessibility standards and to set a for property owned by faith-based entities. To ensure i team included wheelchair users in their integrated proinefficient facilities that did not meet the needs of the that the building should elevate awareness of the fragi impact on the children and seniors served here.

Section 4 - Top Ten Measures

Top Ten Measure 1: Sustainable Design Intent & Innovation

Key environmental aspects: Updating an older master plan the design team central to all the camp activities, placing it on a the wheelchair accessible terrain. The southern the camp and the mature shade trees are bene months. Minimizing the site impact was a desig to keep tree loss to a minimum and to be more

> At its simplest, the design parti developed out coupled geothermal system to achieve econom to this non-profit's long-term sustainability. Th center of the building where the concourse bec as a "hall of trees"- it is crafted to inspire both representation of the camp's natural surrounding informal gathering space it rises above the mai the visual and physical focal point for campers.

Top Ten Measure 2: Regional/Community Design & Connectivity

Regional/Community Design:

Camp Aldersgate has been an Arkansas tr history as one of the first racially integrat National Historic Site of the United Methor point and retreat for generations of scouti citizens and most recently, Katrina evacue serving the community in many outreach natural environment with large expanses Exceeding accessibility standards for the I automated entries, generous rooms for w restrooms constructed without entry yet v modesty and privacy of campers needing

Zoned an open site the camp is exempt fr no new parking spaces were added. For la parking and bused to the camp, while sen vans. All new pathways leading to the cor to accommodate pedestrians, wheelchairs available and there are about 100 designa

Use other transport options:

stimulating indoor environmental quality [run continuously during building occupance automated system uses space CO2 sensor reach a high limit set point. Low VOC pair selected, as were products without formal IAQ test based on the State of Washingto building has a permanent temperature an indoor chemical and pollutant source cont mechanically ventilated most of the year

Percent of building area that is daylit:

75%

Percent of building that can be ventilated

or cooled with operable windows:

67%

Top Ten Measure 6: Water Cycle

Water Cycle:

The building was sited to ma empties into the recreationa building becomes elevated o toward the creek that has no survey was conducted to ide none were found. All storm v site as described above. The installed on site and for any rainwater collection system

The fixtures selected for the using 30% less potable wate requirements of the Energy comprised of a lake-coupled ensure that the water qualit adversely impacted by the k conducted.

Precipitation managed on site:

100%

Total water used indoors:

118940 gal/yr

Toal water used outdoors:

0 gal/yr

Percent of total water from reclaimed sources: 0%

Percent wastewater reused on-site:

Calculated annual potable water use:

9.91 gal/sf/yr

Top Ten Measure 7: Energy Flows & Energy Future

Energy description:

After more than a year in operation, energy values were revised by remode The analysis revealed that the Commons building is 42% more efficient tha lake-coupled geothermal heat pump system was selected as the most cost reduce the use of fossil fuels. Using the lake for heating and cooling, there hydronic hot water, no electric back-up heat and no gas furnaces. Further, water source heat pump loop throughout the building allowing the pumps $t_{\rm f}$ Supplemental duct coils were used in order to use some of the waste energ

Additional measures that increased efficiency include a building envelope de

ENGINEERS & SURVEYORS

A DIVISION OF CRAFTON, TULL & ASSOCIATES, INC. 10825 Financial Centre Parkway, Suite 300 Little Rock, AR 72211-3554 Ph. (501) 664-3245 • Fx. (501) 664-6704 www.icearkansas.com • www.craftontull.com

JOB NO	SHEET NO OF
CLIENT:	
PROJECT:	
	SCALE:
CALCULATED BY:	DATE:
CHECKED BY:	

		(1 0-1-11 91)	
UNIT	Size (MBH)	REQ'D EER/COP	PROJUGED EER/COP
HP-1	8	9.5 / 3.0	12.9/4.6
2A	81	89 /3.0	9.1/3.7
2B	81	8.9 3.0	9.1 /3.7
3	32	9.5/3.0	15.7/4.7
4	102	8.9 / 3.0	9.7/3.7
5	÷ 11	1.5 /3.0	13.2/4.4
6	132	8.1/3.0	15.5/5.5
7A	163	8.5/2.9	· •
7B	163	8.5/2.9	15.0/4.8
8	34	9.5/3.0	13.0 4.0 12.0 4.2

PREMIUM FOR GEOTHERNAL SISTEM = \$25,000.00

AIR-AIR HP W/ ELEC. HEAT = 172,002.2 KWH/YR = #12,865.75/YR

GEOTHERMAL HP SYSTEM = 48,685.1 KWH/YR = #3,641.65/YR

AVERGE \$/KWH = \$0.0748

#9,224,10/VR SANNGS

Simple PayBack Period = Ann. Savings = #9, 224.10

= 2,7 yrs

SINGE PAYMER 43 YEARS

Regulated Lighting Space Cooling Space Heating Fans/Pumps Domestic Hot Water	Electric Electric Electric Electric Electric	29,440.0 31,636.8 2,041.6 12,236.7 2,228.8	0 0 0 0 0 369.7	22,919.3 \$ 310,388.2 \$ 5,620.0 \$ 121,013.0 \$ 21,866.5 \$	3,128.63 3,362.08 216.96 1,300.41 236.86
Subtotal Regulated (DEC)		77,583.9	370	481,807.0 \$	8,633.08
Non-Regulated Lighting Plug Loads	Electric	474.5 10,421.3	0	4,858.9 \$ 111,349.5 \$	50.43
Subtotal Non-Regulated (DEC)	()	10,895.8	0	116,208.4 \$	1,157.91
Total Building		88,479.7	370	598,015.4 \$	8,683.51
Subtotal Regulated Subtotal Renewable Design Energy Cost		77,583.9 0 77,583.9	370 0 369.7	481,807.0 \$ 0 \$ 481,807.0 \$	8,633.08

Lighting Space Cooling Space Heating Fans/Pumps Domestic Hot Water	Electric Electric Electric Electric Natural Gas	28536.4 49913.6 40643.7 14326.2 2228.8	0 0 0 0 439.0	357071.1 \$ 512966.3 \$ 384872.9 \$ 144352.1 \$ 21495.5 \$	3,048.79 5,332.71 4,342.32 1,530.59 236.86 460.92
Subtotal Regulated (ECB)		135,648.7	439.0	1,420,757.9 \$	14,952.20
Non-Regulated Lighting Plug Loads	Electric Electric	70226 10421.3	0 0	719116.1 \$ 111349.5 \$	7,502.86
Subtotal Non-Regulated (ECB))B)	80647.3	0	830465.6 \$	8,610.35
Total Building		216295.9805	438.9705882	2251223.491 \$	23,562.54
Subtotal Regulated Energy Cost Budget		135648.6805 135648.6805	438.9705882 438.9705882	1420757.891 \$ 1420757.891 \$	14,952.20 14,952.20

AIA Top Ten Measure 7

Energy Cost Budget Design Energy Cost

14,952.20 69 69

8,633.08

%savings = 100 x (ECB-DEC)/ECB

42.3%

Energy Cost Budget Design Energy Cost

23,562.54 8,683.51 क क

63.1%

ENERGY CONSUMPTION SUMMARY

	Elect Cons. KWh	Water Cons. 1000 cals	Percent of Total	Total Source Fnerov*
Primary heating			Energy	(kBtu/yr)
Primary heating	2,087.8			
Primary cooling			2.3 %	21,379.3
Cooling Compressor	31,453.0			
lower/Cond Fans	3,468.7	64.2	34.8 %	322 079 7
Other CLG Accessories	577.1			35,519.6
Cooling Subtotal	219.0 35,717.8	64.2	0.6 %	5,909.1 2,242.6
Auxiliary				365,750.9
Supply Fans Circ Pumps	11,720.5			
Base Utilities	474.5			120,018.2
Aux Subtotal	12,195.0		0.50	0.0
Lighting				124,877.1
Lighting	29,440.0			
Receptacle			32.6 %	301,466.7
Receptacles	10,873.5			
Heating plant load			12.0 %	111,344.9
Base Utilities				
Cogeneration			% 0.0	0.0
Cogeneration				
Totals			% 0.0	0.0
Totals**	90,314.1	64.2		
			100.0 %	924,818.9

Note: Resource Utilization factors are included in the Total Source Energy value.
 Note: This report can display a maximum of 6 utilities. If additional utilities are used, they will be included in the total.

ENERGY CONSUMPTION SUMMARY By Trane

	Elect		
	Cons.	Percent	Total Source
Primary heating		of lotal Energy	Energy* (kBtu/vr)
Primary heating	6.999.9		
Primary cooling		22.6 %	522,240.6
Cooling Compressor Tower/Cond Fans	49,475.6 4,405.6	219 %	506 631 4
Outher CLG Accessories Cooling Subtotal	438.0 54,319.2	% % % 0 0 0 0 0 0 %	45,113.2 0.0
Auxiliary		24.0 %	556,229.5
Supply Fans Circ Pumps	. 9.920.6		
Base Utilities Aux Subtotal	70,226.0 80,146.6	4.4 4.0 8.0 8.8 8.8 8.8	101,587.3 0.0 719.116.1
Lighting		35.4 %	820,703.4
Lighting	28.536.4		
Receptacle		12.6 %	292,213.1
Receptacles	12, 163.8		
Heating plant load		5.4 %	124,557.6
Base Utilities			
Cogeneration		% 0.0	0.0
Cogeneration			
Totals		% 0.0	0.0
Totals**	226,165.9		
		100.0 %	2,315,944.0

Note: Resource Utilization factors are included in the Total Source Energy value.
 Note: This report can display a maximum of 6 utilities. If additional utilities are used, they will be included in the total.

Camp Aldersgate C:\CDS\TRACE700\Projects\ALDRSGTAIA.TRC Project Name: Datas me:

are 35% better than that required by ASHRAE standard 90.1-1999. High ef which had 95% AFUE ratings vs. the required 80% AFUE. The building inclu 90% less artificial lighting than that allowed by ASHRAE Standard 90.1-199

Since it was not possible to purchase green power locally the camp's board Green-E certificate from Renewable Choice to encourage and educate the p means of a publically displayed board. This purchase represents the replace power and reduces the amount of CO2 by 138,393 pounds.

Light sensors were utilized throughout the building that help reduce peak e primary function for summer camp is to operate during peak power consum

Performance Rating

EPA HERS

Percent total energy savings 4

Total energy (Btu/sf/yr)

Electricty (Btu/sf/yr)

Natural gas (Btu/sf/yr) -

Other: (Btu/sf/yr)

Heating (Btu/sf/yr)

Cooling (Btu/sf/yr)

Cooling capacity (sf/ton) 1

Lighting load connected (W/sf) 1

Lighting load after controls (W/sf)

Plug load (W/sf)

Peak electricty demand (W/sf)

Percent on-site renewable energy (%)

Percent grid-supplied renewable energy (%)

Energy data attachment v Supplemental Narrative

The base case data for the energy model was taken from minimum requirer Standard 90.1-2004, Energy Standard for Buildings Except Low-Rise Reside governed the minimum requirements at the time of actual system design w The design case system data that was input into the model exceeded all rec budget and design energy cases were modeled with Trace 700 v.4.1. Trace which requires building energy simulation programs to be tested using ANS 140 is based on the International Energy Agency (IEA) BESTEST 1995. A fo of the building energy simulation software specifies test procedures for eva

Top Ten Measure 8: Materials & Construction

Materials description:

Material selections were based on resource conser considerations for the upstream environmental im Green, was used to evaluate building assemblies a six different environmental indicators, three buildi

carried the largest burden; tectum for the ceilings wall system. To minimize the impact, the tectum masonry was reduced by 25% and a different alurecycled content was selected.

The primary goal in the selection of materials was seniors who use the building the most. Prudent ch material cost and low maintenance. Paints, stains, for their low VOC content. Several products contai with 30% slag content, all structural steel, gypsur standing seam metal roof. Over 50% of all the bu manufactured and extracted regionally and over 7

Top Ten Measure 9: Long Life, Loose Fit

Long life, loose fit:

The Commons multipurpose building currently serves groups, therefore it was designed for maximum flexit evolved its programming to serve the community bas only state provider of its kind for residential medical many children, it is the highlight of their year. The lor profit was recently boosted significantly by a generou programs, in part, due to the staying power conveyed

The Camp's board of directors had challenged the design new structures to a 100-year standard. Consequently selected with timeless qualities in mind resulting in all and metal roof (all of which can be reused or recycled wood ceiling decking and the organically stained concomaintenance and substance. The four pairs of interior maximum flexibility.

Top Ten Measure 10: Collective Wisdom & Feedback Loops

Collective Wisdom & Feedback Loops:

A grant made possible by the Arkans Energy unit, enabled the team to util cost analysis) an upstream cost-mod Management District provided free comparts waste management plan to divert up understanding with the DOE's Rebuild team with valuable assistance from the lighting and daylighting strategies ald Trane Arkansas provided pro-bono en with results from two different laborations one-year free monitoring of the build satisfaction of the camp.

Fundamental commissioning was req Due to job changes the role of the co was one of the biggest challenges to third party commissioning agent was occupied.

All of these strategies and partnershi AR Energy Unit, SMARTER ARCHITEC Arkansas. Five thousand copies were

raising tool and they were also distril encourage more effective public polic

Section 5 - Project Economics

Finance:

This project was funded through the efforts of ϵ members, volunteers and staff of Camp Alderse total project cost were raised prior to constructi

The life-cycle cost analysis performed during de making cost saving decisions that also resulted associated with certain products, their manufac

The design team and staff selected a contractor the design process to monitor construction cost the cost savings were not apparent in the desig along with the contractor agreed to bid the proj The lowest bid was accepted and the project wa

Cost and payback analysis: The analysis of two mechanical systems resulte heat pumps. The premium paid for the geothers performing standard air-to-air heat pumps in 20 months of electric bills the air-to-air HP w/ elec costing the camp \$12,865.75/yr. The geotherm and costs the camp \$3,641.65/yr. The average for selecting the lake-coupled geothermal HP sy less than three years.

> Since the lake was approximately .25 miles awa as a ground source for the heat pumps was eva Soil conductivity tests were performed and it was wells would be required at a cost of \$100,000. trench to the lake and install the racks of coils, Trenching to the lake was done along existing p significantly over the vertical wells.

Section 6 - Process and Results

PreDesign:

A unique, community-invited pre-design charm environmental consultant along with a Mac Art elevate the status of the disabled children and sustainable design. This charrette galvanized t to achieve a LEED Gold certification on the Cor venture sustainable/accessible design/build pri School of Architecture and Camp Aldersgate. I achieved the LEED Gold certification and stude treehouse, an archery pavilion and an outdoor reused and recycled products. Several design t students on their projects and conduct tours fo student projects.

Design:

In an integrated process, design-team meeting members. The LEED checklist was reviewed at points were reviewed weekly during constructi

agent.

Construction Process:

Operations/maintenance:

Commissioning:

A third party commissioning agent was under ϵ

construction.

Measurement & verification/ Trane Arkansas continues to measure the perfect accurancy evaluation.

Rating System Name:

U.S. Green Building Council LEED-NC,

Version:

v2

Rating Date:

06/09/05

Score or rating level:

gold

39 total

Credits:

Sustainable Sites 7 points Water Efficiency 4 points

Energy & Atmos. 8 points Materials & Res. 6 points

IEQ 10 points Innovation 4 points

Sections 7: Visuals

Exhibit A

84662(COTE).jpg

Image has been scaled down. Click it to view

Photo/Image credit: Tim Hursley

Description:

Entrance canopy at the "hall of trees"

Exhibit B

84219(COTE).jpg

Photo/Image credit:

Image has been scaled down. Click it to view

Tim Hursley

South facade gathers natural light

Exhibit C

Description:

84659_COTE_.jpg

Photo/Image credit:



Image has been scaled down. Click it to view

Tim Hursley

expansive space and daylighting at "hall of tro

Exhibit D

Description:

Region & site plan(COTE).jpg



Image has been scaled down. Click it to view

Mark Littrell

context and site plan

Exhibit E

Description:

plan&elev(COTE).jpg

Photo/Image credit:

Photo/Image credit:



Image has been scaled down. Click it to view

JB Mullins - Wilcox Group Architects

Plan, elevation and section

Exhibit F

Description:

84660(COTE).jpg

Photo/Image credit:



Image has been scaled down. Click it to view

Tim Hursley

Indoor & outdoor classroom at East porch

Exhibit G

Description:

84673(COTE).jpg

Photo/Image credit:



Image has been scaled down. Click it to view

Tim Hursley

Dining hall invites natural light & forest indoo

Exhibit H

Description:

cistern(COTE).jpg

Photo/Image credit:

Image has been scaled down. Click it to view

Mark Littrell - Wilcox Group Architects

700 Gallon rainwater collection at north eleva

Exhibit I

Description:

Rain1_COTE_.jpg

Photo/Image credit:

11.

Image has been scaled down. Click it to view

Wesley Walls - Wilcox Group Architects

A fresh rain at the South porch

Exhibit 1

Description:

84665(COTE).jpg

Photo/Image credit:

Description:

10

Image has been scaled down. Click it to view

Tim Hursley

Evening view at South entry porch

Sections 8: Project Team

Primary Contact

Martha Jane Murray
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Sarah Wacaster Camp Aldersgate Owner/developer (Executive Director of the Camp) Little Rock, AR 501-224-1444 swacaster@aristotle.net

Jim Chidester ICE, Inc. Mechanical engineer Little Rock, AR 501-664-3245 jim.chidester@craftontull.com

Jimmy Alessi Alessi-Keyes Construction Co. Contractor Little Rock, AR









Our Dep. the . Mus. this Build host judg

For more information about the AIA/COTE Top Ten Green Projects, contac site, contact Jessica Boehland

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