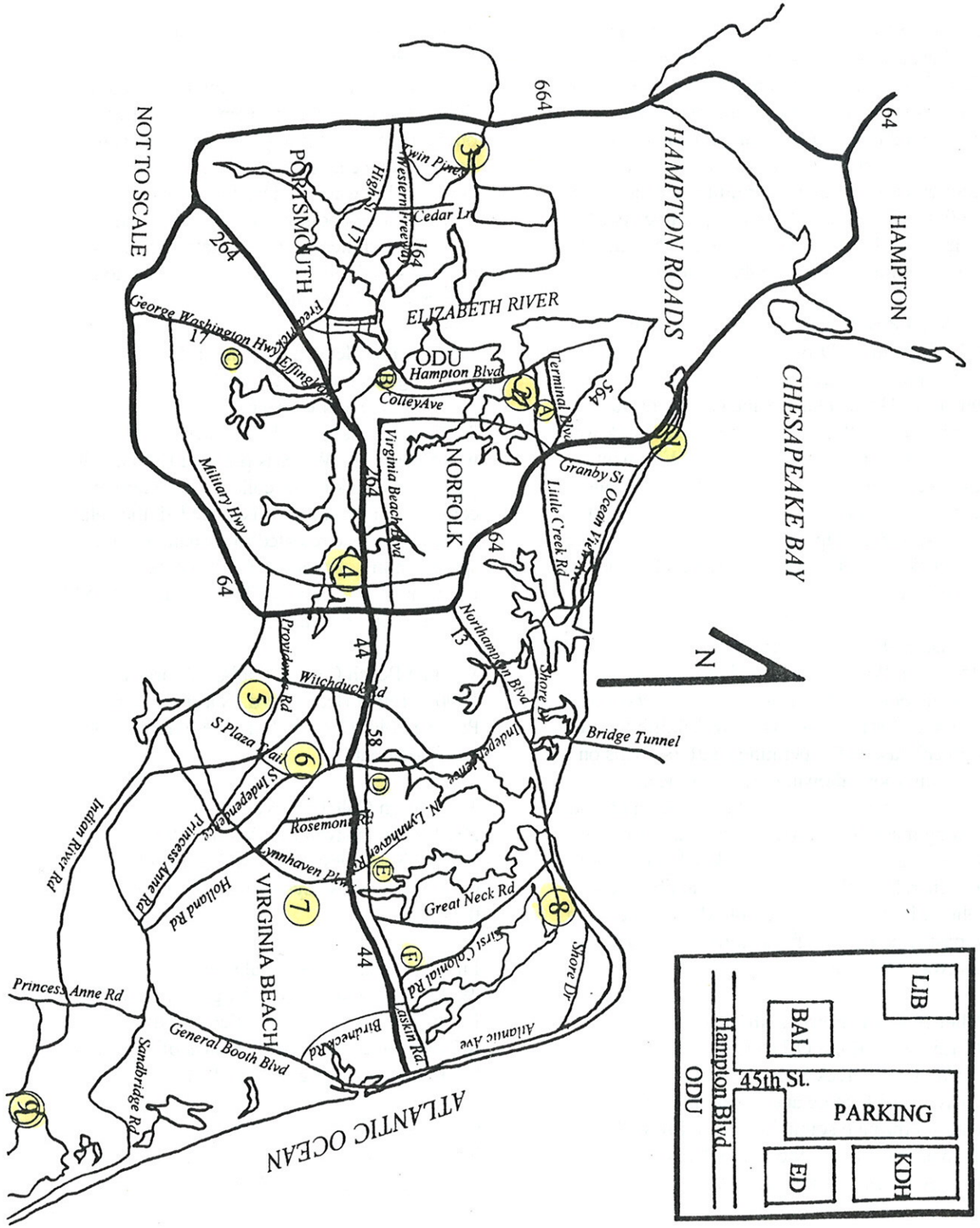


SOLAR ENERGY LECTURE
Saturday, October 19, 1996
10 a.m. (arrive early) - Rm 224
Kaufman Duckworth Hall (KDH), ODU

Introduction
Dr. Sacharia Albin
Electrical and Computer Engineering Dept.

Passive Solar Design
Richard J. Fitts
The Design Collaborative
Virginia Beach, VA

Solar Heat Collectors
Richard Good
AAA Solar Services
Virginia Beach, VA

Photovoltaics/PV Demo
Philip J. Leach
Solar Building Systems Inc.
Exmore, VA

Wind and Wave Energy
George Hagerman
Gibbs & Cox Inc.
Arlington, VA

SPONSORED BY:
Electrical and Computer Engineering Dept.
Student Chapter of IEEE
Eta Kappa Nu

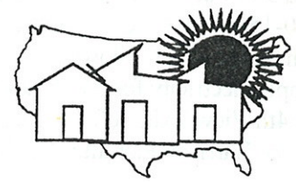
BEGIN TOUR

This free event was organized to promote sustainable building technologies and is made possible through the generosity of guest speakers and home tour hosts. Visit sites only during the hours indicated. Park carefully and exercise discretion when you're in a tour home. Eating, drinking and smoking are not allowed. Participation is limited to adults aged 14 and over.

Disclaimer: The Sustainable Building Society, its representatives, tour sponsors and solar home owners accept no responsibility for any damage occurring during the event. **Tour at your own Risk**

Join us at 6:30 p.m. on Thursday, November 14 for an introductory meeting of the Sustainable Building Society at Suite 600, One Columbus Center, Virginia Beach, VA. For more info call 489-1899.

The American Solar Energy Society's National Tour of Solar Homes



Saturday, October 19, 1996
10 a.m. - 5 p.m.

Tidewater Tour Coordinated by The Sustainable Building Society

A pre-tour lecture on
Solar Energy
is scheduled at ODU
Agenda printed on back

Home descriptions and directions are inside

For event information and registration, call Carol Brighton at 489-1899
SPACE IS LIMITED

Local Sponsors
Advantage Mortgage Company
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Old Dominion University
Tomorrow's World

National Sponsors
Department of Energy
The Interstate Renewable Energy Council

NORFOLK

The Hahn Residence (1) 12-4 p.m.
457 W. Ocean View Ave.
This restored turn of the century beach house is powered by the wind and a utility back-up. Two roof mounted 300 watt wind turbines generate an average of 10-15 kW/day meeting all electrical needs. When the wind isn't blowing, the battery bank can supply electricity for 3 to 5 days. From 64 - take the 4th View Exit, left on Ocean View Ave, park at the Harrison Pier alternate lot across from the house.

The Fitts Residence (2) 11:45-3 p.m.
7507 Major Ave.
The passive solar features of this home provide winter heating and summer cooling. Large south facing windows that allow heat collection in the winter are shaded in the summer by deciduous trees and overhangs. Window quilts, used to retain heat at night in the winter also retard summer heating. And, small windows on the east and west sides, provide light and ventilation. From Hampton Blvd. - turn on Little Creek Rd., right on Major, the house is located on what appears to be an undeveloped wooded lot.

The Burns Residence (4) 12- 3 p.m.
5504 Levine Court
A solar tracking parabolic-trough collector system is used to heat water, providing 80% of hot water while also contributing to home heating needs. With the high water temperature achieved with this concentrating system, an air handler was installed to blow air heated by the solar hot water coils into the living space. From 44/264 - take the Military Highway South Exit, first right on Corporate Drive, left on Shorewood, right on Levine Ct. House is at the end of the street on the right.

PORTSMOUTH

The Tillett Residence (3) 12-4 p.m.
4773 River Shore Road
Home heating, as well as domestic and pool water heating, is generated by 32 rooftop solar collectors. A zone controlled hydronic space heating system comprised of a series of infloor copper pipes runs solar heated water through thousand of pounds of sand which retain and slowly release heat to the home in winter. Because of the home is super insulated, heating bills are negligible. Follow Hampton Blvd to and proceed through the Midtown Tunnel, take the first exit marked Portsmouth Marine Terminal, at light make a right on Chautauqua which turns into 164 (Western Freeway), take the Cedar Lane Exit, left on River Shore Road, proceed to end.

VIRGINIA BEACH

The McGonegal Residence (5) 2-5 p.m.
5097 Langston Court
400 sq. feet of solar collectors provide heat for hot water and home heating. With a standard ranch design, this well insulated home is angled toward the sun, with several large windows facing south for solar gain. A solar assisted heat pump further reduces winter heating costs. From 44 - take Witchduck Rd. Exit towards Princess Anne, left on Providence, right on Indian Lakes, right on Autumn Harvest, right on Langston.

The Ainscough Residence (6) 12:30-4:30 p.m.
4400 Leatherwood Dr.
Both passive and active systems are found in this contemporary home. Rooftop solar collectors provide hot water. And, a sunspace with heat retaining slate floors and extensive south facing windows contribute to winter heating. Roof overhangs and trees provide summer shading, while the white western exterior of the home reflects afternoon sun. From 44 - take the South Independence Exit, stay on S. Independence when the road splits, take first right on Silver Leaf, right on Moosewood, left on Leatherwood.

Race Prep Building (7) 12-1:30 p.m.
777 Seahawk Circle - See Ed Templeman
This 12,000 sq. ft. building receives most of its heat from the sun. South facing windows provide light and allow solar gain while flat plate collectors meet most of the remaining heating requirements. In the winter utility bills average $160 instead of $2,000 for comparable spaces. From 44 - take the Lynnhaven Pkwy S Exit, left at mall on International, right on Seahawk.

The Reed Residence (8) 2-5 p.m.
2116 E. Admiral Drive
This home was retrofitted with an 18 X 30 ft. sunspace. The insulated 8 inch concrete slab along with an 18 in. interior perimeter brick wall store heat for nighttime radiation. With winter day time temperatures of 80 to 85 degrees and night time temperatures ranging from 58 to 60 degrees, no back-up heat is needed. From Shore Dr. - make a land side turn on Kendall St., left on E. Admiral.

US Fish and Wildlife Service (9) 2:30-4:30 p.m.
1150 Horn Point Road - See Florence James
This custom passive solar home now serves as a dormitory for the U.S. Fish and Wildlife Service. A greenhouse with operating shutters opens on to the living room allowing the sun to heat extensive brick and tiled surfaces. A unique day lighting method is utilized in other areas of the home. From 44 - take Birdneck Rd. Exit, right on General Booth Blvd., left on Sandbridge Rd., right on Princess Anne, left on Muddy Creek Rd. N, past Blue Petes, left on Horn Point Rd, first driveway on the left.

Other Sites of Interest/No Tour

Dr. Kesser's Dental Office (A)
900 W. Little Creek Road, Norfolk
Passive solar heating and day lighting are achieved through south facing windows. A thermal mass wall in the central hallway absorbs and slowly releases the heat. At Armfield Ave.

The Army Corps of Engineers (B)
803 Front St., Norfolk
Accessible only during working hours. Passive Solar Design. Active System is no longer operating but is still in place. A large array of vacuum tube collectors was used to provide domestic hot water and heat via a hydronic system. Solar cooling was achieved though an absorption chiller. For information, contact Pete Riley at 441-7693. Follow Colley Ave. to the end, right on Front St.

James Hurst Elementary School (C)
18 Dahlgren Ave., Portsmouth
192 flat plate draindown collectors (covering 3,322 sq. ft.) supply all hot water and 75% of winter heating. Water is pumped from a 6,300 gal. storage tank to the collectors to maintain a constant temperature. When needed, the solar heated water is circulated to air handlers for space heating. From George Washington Highway (17), - turn on Channing at ODU-NSU Center, right on Dahlgren.

Virginia Beach Central Public Library (D)
4100 Virginia Beach Blvd., Virginia Beach
Passive Solar Design. Between Independence and Rosemont.

The Design Collaborative (E)
2949 N. Lynnhaven Rd., Virginia Beach
Passive Solar Design. From Va. Beach Blvd. - head North on N. Lynnhaven Rd., building is on the right.

First Colonial Professional Center (F)
909 First Colonial Road, Virginia Beach
PV system provides 70% of electricity. For information contact Bruce Baines of Simmons Heating and Cooling at 424-2911.

Canon Manufacturing Facility
Newport News
Photovoltaic Array visible from 64.