



---

---

---

---

---

---

---

---

1



---

---

---

---

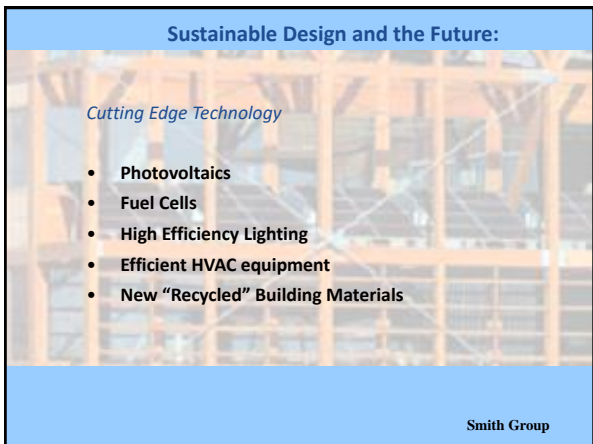
---

---

---

---

2



---

---

---

---

---

---

---

---

3

**Sustainable Design and the Past:**

*Building in Harmony with Nature*

- **Natural Daylight**
- **Passive Solar Heating**
- **Natural Ventilation**
- **Climate Responsive Design**
- **Local and Minimally Processed Materials**
- **Rainwater Collection**
- **Composting Toilets**
- **Low-Maintenance and Indigenous Landscape**

Smith Group

4

---

---

---


---

---

---



---

---



**Client's Goals**

- Create the best workplace for their staff
- Create the most environmentally sensitive building possible
- Lead by example so that others might create "green" buildings
- Be a good neighbor

Smith Group

5

---

---

---

---

---

---

---

---

**To care for the environment,  
 you must love it.  
 To love it, you must know it.  
 To know it, you must experience it.**



Smith Group

6

---

---

---

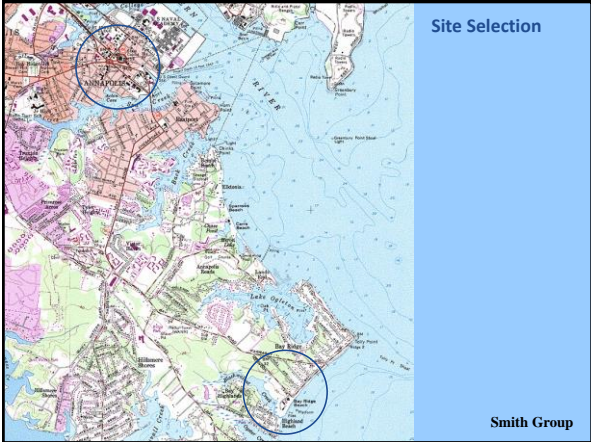
---

---

---

---

---



7

---

---

---

---

---

---

---

---



8

---

---

---

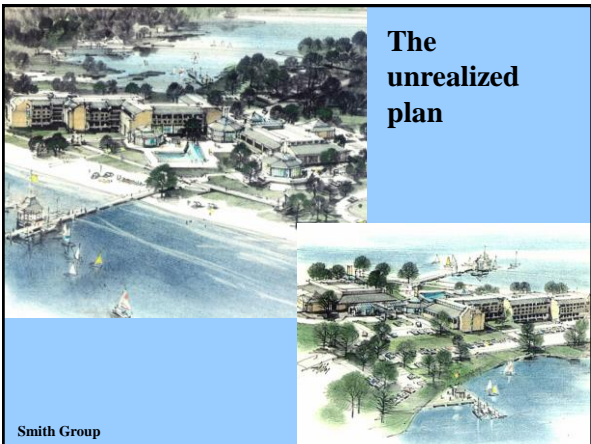
---

---

---

---

---



9

---

---

---

---

---

---

---

---



10

---

---

---

---

---

---

---

---



11

---

---

---

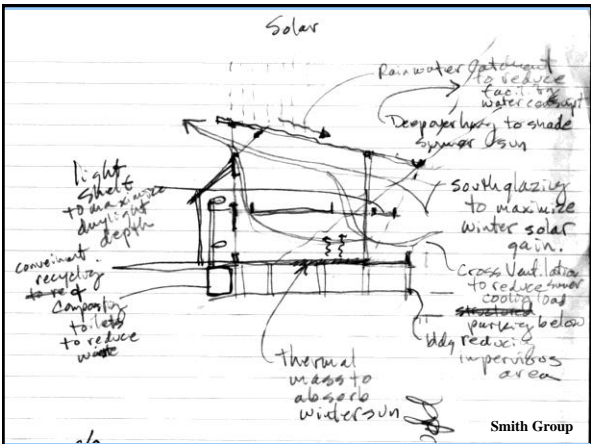
---

---

---

---

---



12

---

---

---

---

---

---

---

---



Meadow South of the Building



16

---

---

---

---

---

---

---

---

Beach



17

---

---

---

---

---

---

---

---

Native Landscape Species



18

---

---

---

---

---

---

---

---



19

---

---

---

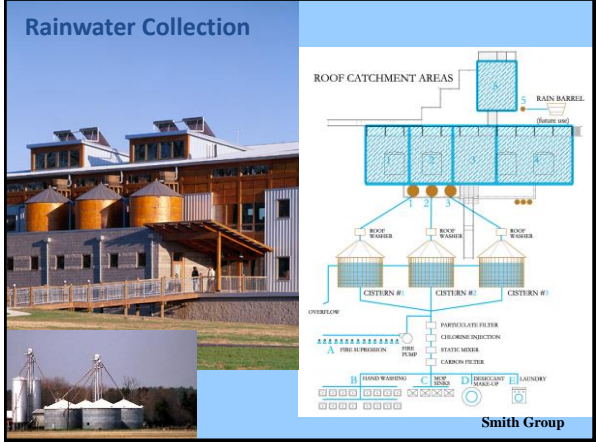
---

---

---

---

---



20

---

---

---

---

---

---

---

---



21

---

---

---

---

---

---

---

---



Rainwater

22

---

---

---

---

---

---

---

---



Rainwater Use for Hand Washing

23

---

---

---

---

---

---

---

---



Drinking Water

24

---

---

---

---

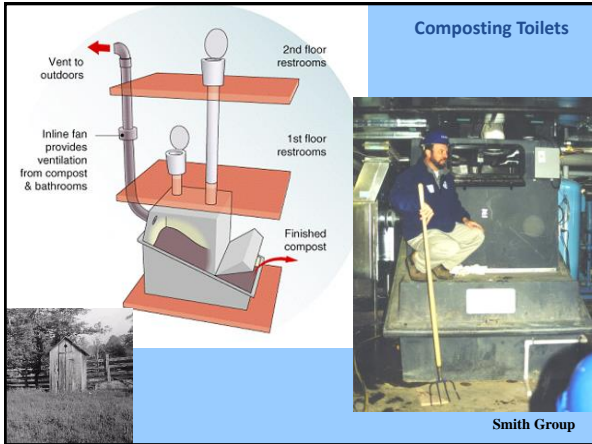
---

---

---

---





25

---

---

---

---

---

---

---

---

---

---



26

---

---

---

---

---

---

---

---

---

---



27

---

---

---

---

---

---

---

---

---

---



28

---

---

---

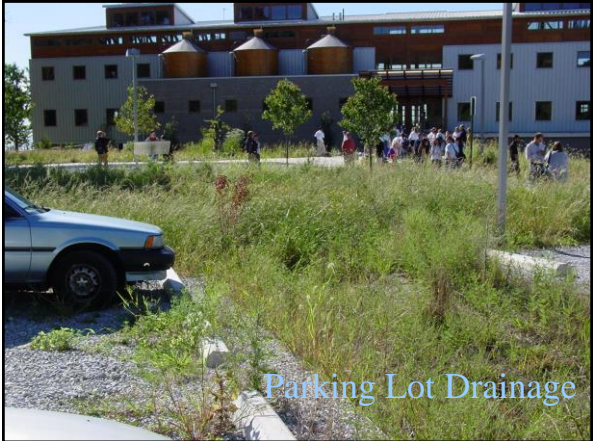
---

---

---

---

---



29

---

---

---

---

---

---

---

---



30

---

---

---

---

---

---

---

---



Locker Room for Bikers

31

---

---

---

---

---

---

---

---



Locker Room with Showers

32

---

---

---

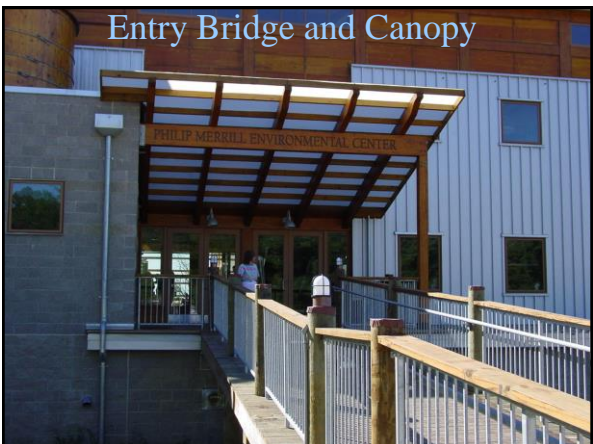
---

---

---

---

---



Entry Bridge and Canopy

33

---

---

---

---

---

---

---

---



34

---

---

---

---

---

---

---

---



35

---

---

---

---

---

---

---

---



36

---

---

---

---

---

---

---

---

Bridge Across Two Story Entry



37

---

---

---

---

---

---

---

---

Open to Below along the South



38

---

---

---

---

---

---

---

---

Daylighting and Passive Solar Design



39

---

---

---

---

---

---

---

---



40

---

---

---

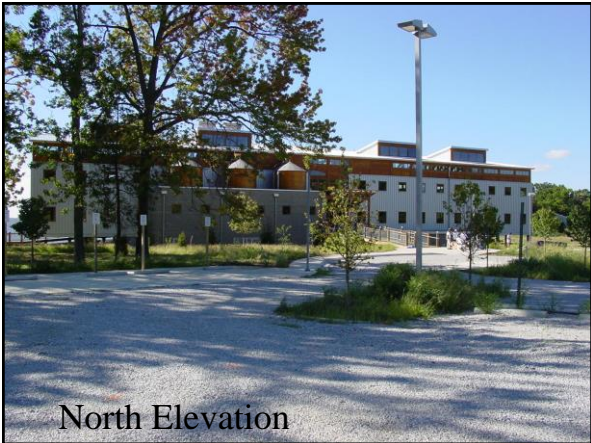
---

---

---

---

---



41

---

---

---

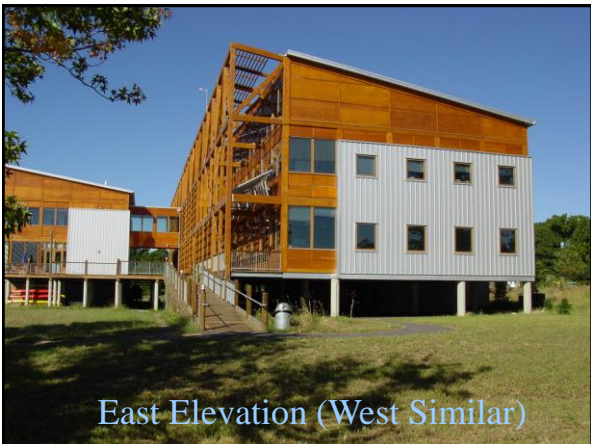
---

---

---

---

---



42

---

---

---

---

---

---

---

---

South Elevation



43

---

---

---

---

---

---

---

---

Conference Room



44

---

---

---

---

---

---

---

---

Sun Shading



45

---

---

---

---

---

---

---

---



South Deck

46

---

---

---

---

---

---

---

---



Circulation Along the South

47

---

---

---

---

---

---

---

---



Parallel to South Wall Organization

48

---

---

---

---

---

---

---

---





Conference Rooms in the Corners

49

---

---

---

---

---

---

---

---



Work Station Spacing with Structure

50

---

---

---

---

---

---

---

---



Workstation, North

51

---

---

---

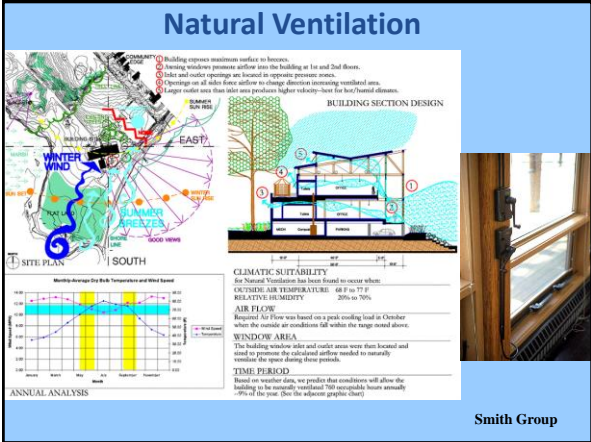
---

---

---

---

---



52

---

---

---

---

---

---

---

---

---

---

---

---



53

---

---

---

---

---

---

---

---

---

---

---

---



54

---

---

---

---

---

---

---

---

---

---

---

---



55

---

---

---

---

---

---

---

---



56

---

---

---

---

---

---

---

---



57

---

---

---

---

---

---

---

---

First Level, Indirect Lighting



58

---

---

---

---

---

---

---

---

Second Floor Lighting



59

---

---

---

---

---

---

---

---

Second Floor Circulation



60

---

---

---

---

---

---

---

---

### Building Material Conservation



- Recycled
- Rapidly Renewable
- Salvaged
- Locally Manufactured
- Locally Harvested
- Recyclable
- Minimally Processed
- Low Embodied Energy
- Non Toxic



Smith Group

61

---

---

---

---

---

---

---

---



---

---

---

---

### Parallel Strand Lumber

Barn Construction

Smith Group

62

---

---

---

---

---

---

---


---

---

---

---

---



South Cross Bracing

63

---

---

---

---

---

---

---

---

---

---

---

---



64

---

---

---

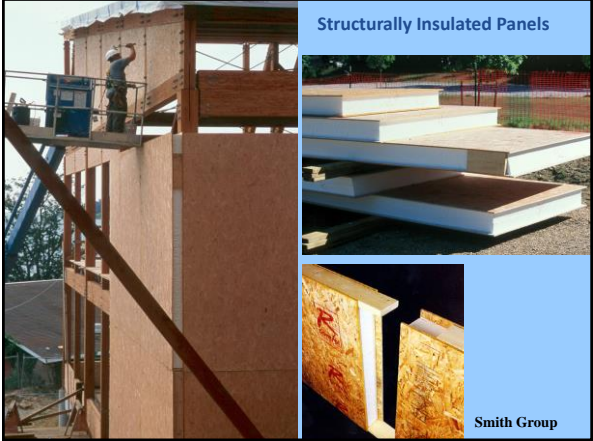
---

---

---

---

---



65

---

---

---

---

---

---

---

---



66

---

---

---

---

---

---

---

---



67

---

---

---

---

---

---

---

---



68

---

---

---

---

---

---

---

---



69

---

---

---

---

---

---

---

---



70

---

---

---

---

---

---

---

---



71

---

---

---

---

---

---

---

---



72

---

---

---

---

---

---

---

---





73

---

---

---

---

---

---

---

---



74

---

---

---

---

---

---

---

---



75

---

---

---

---

---

---

---

---



Exposed Electrical

76

---

---

---

---

---

---

---

---



First Level, Exposed Framing

77

---

---

---

---

---

---

---

---



Partially Exposed Systems

78

---

---

---

---

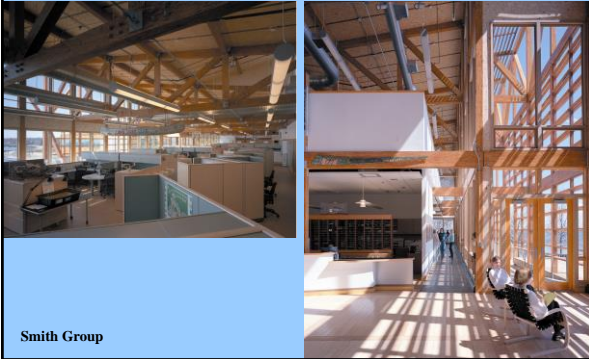
---

---

---

---

## Indoor Environmental Quality



79

---

---

---

---

---

---

---

---

## North Mechanical



80

---

---

---

---

---

---

---

---

## Mechanical Enclosure



81

---

---

---

---

---

---

---

---



Ground Source Heat Pump Water

82

---

---

---

---

---

---

---

---



Desiccant Dehumidification

83

---

---

---

---

---

---

---

---



North Air Handler Room

84

---

---

---

---

---

---

---

---



Air Return Grill

85

---

---

---

---

---

---

---

---



Structure Holding Exposed Ducts

86

---

---

---

---

---

---

---

---



Sitting Softly

87

---

---

---

---

---

---

---

---

# Brock Environmental Center



Virginia Beach, VA



---

---

---

---

---

---

---

---