SLIDES PREPARED FOR SMALL SCREEN VIEWING
Presented by: the Culture of Sustainability
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Coordinator: Michelle Mareks
Graphics created by: Thomas Schaper and Michelle Mareks
Faculty: Blake Stephens, AIA
bstephens@saddleback.edu
-Saddleback College (949) 582-4786
Architecture/ Drafting Department Chairman
The Saddleback Arboretum Trail will promote a pedestrian-oriented academic environment, balancing the car-centric campus by enhancing outdoor circulation and socialization of the Saddleback Community.

Native and water-wise landscaping will provide a naturally shaded environment to reduce our carbon footprint and heat–island effect, reducing campus energy costs, and be an example of a sustainable college campus, while creating jobs and internships for Saddleback students and graduates.
PARALLEL PATHS
for cyclists, runners, walkers, prams, skateboards, tricycles

6 Ft. wide PEDESTRIAN TRAIL
Suggested material: Decomposed Granite @ $10. / L.F. of trail
- Sustainable
- Available
- Affordable

6 Ft. wide BIKING TRAIL
Suggested Material: Permeable Concrete Paving @ $36. / L.F. of trail
- No puddles
- Sustainable
- Wide variety available

ESTIMATED COST PER LINEAR FOOT OF PARALLEL WALKING/BIKING TRAIL, INCLUDING CURBS:

$42.
We will conduct a comprehensive study of campus microclimates to select the most appropriate native and water-wise plants for each area. Pictures depict suggestions only.

Phase 1:
Combination of currently landscaped Entrance area and undeveloped land behind greenhouse and along Ravine rim.

Phase 2:
Combine existing landscape with hillside Native trees and outdoor class rooms.

Phase 3: “Avenue Of Heroes”
Urban Landscape
Corridor/shade canopy of iconic Southern California - adapted Palm Trees

*Fragile ecosystem at Ravine easement

**PLANTS**

Coast Live Oak
Guadalupe Island Fan Palm
Palo Verde
T oyon

*Fragile ecosystem at Ravine easement
**PHASE 1:**
1.34 miles From College Drive entrance along eastern ravine, to Avery Pkwy Entry
Parallel Trail w/Curb: $296,814.
- Grading: $42,500.
- Architectural elements: $66,000.
- 354 TREES planted 20 ft.O.C. Staggered X$94.00/tree: $33,276.
- 20 benches @ $500 ea: $10,000.
- Signage: $8,000. TOTAL $456,590.

**PHASE 2:**
3008 ft. Between Avery Parkway entrance and College Drive West
Parallel Trail w/ curb: $126,336.
- Grading: $122,000.
- Architectural elements: $72,000.
- 50 Trees @ $188 ea: $9,400.
- 10 Benches @ $500 ea: $5,000.
- Signage $6,000. TOTAL $340,736

**PHASE 3:**
1865 ft along BGS Parking:
- Single width D.G. Trail @ $6/ft: $11,190
- Center Planter/curb @$22/ft: $41,030
- Grading: $5,000
- Trees x 94 @$200 ea: $18,800
- Total: $82,020

**PHASE 4:**
- Library road:
  - Signs: $4,000
  - Benches: $5,000
  - Striping: $2,000
  - Total: $11,000

**TOTAL**
- Grand Total: $890,346.
Focus: Phase 1

Conceptual design includes Arbors with vines over trail at College Drive Entrance.
Publicity and Fundraising

We want to target existing and available programs that are aligned with our Native Plants agenda to assist, fundraise, and educate.

Example: U.S. Fish and Wildlife program for schools:

Inviting Pollinators to your School Garden

A workshop designed for teachers interested in Garden Habitat Curriculum

U.S. Fish and Wildlife Service Schoolyard Habitat Program workshop series presented by Laurel Anderson and Sabrina Howell

Featuring Frederique Lavoipierre, Coordinator of SSU Entomology Outreach and Garden Classroom Programs

- Insect displays
- Garden tour
- Pollinator observations
- Identification skills
- Native plants for pollinators
- Activities to enhance your curriculum
- Resource information

Tuesday, November 15, 2011
4pm - 6:30pm

Fee $20
To register, contact Sabrina Howell
Schoolhabitats@gmail.com 707-529-5261

Saddleback Arboretum Trail
as a Link between Communities

- Form alliances with regional groups who are already in “the Trail Business”:
  - Mountain Bike Clubs
  - Equestrian Organizations
  - County and City Hiking and Biking Trail Organizations
- Create Promotional Brochure for:
  - Corporate support
  - Garden Clubs
  - Local Events
- Recognition Programs-Fundraisers
  - Buy-a-Bench with name plaque
  - Sponsor 20ft of Trail
Proposal Points

- **Accessibility for pedestrians and cyclists**
  - Reduce automobile traffic & create a pedestrian–oriented academic environment
- **Create a Student-centric learning environment**
  - Outdoor classrooms for faculty and student enrichment
- **New focus on healthy outdoor circulation and socialization area for students faculty and staff**
  - Opportunity for easy, free fitness on campus!
- **Reduce urban ‘heat island’ effect: create shaded trails, reducing microclimate temperatures during summer, stabilize temperatures in winter, will yield reduced electricity costs**
  - One study estimates that the heat island effect is responsible for 5–10% of peak electricity demand for cooling buildings in cities.
  - Shaded surfaces may be 20–45°F (11–25°C) cooler than the peak temperatures of unshaded materials.
  - Trees and vegetation lower surface and air temperatures and can help reduce peak summer temperatures by 2–9°F (1–5°C).
  - Trees and vegetation are most useful as a mitigation strategy when planted in strategic locations around buildings or to shade pavement in parking lots and on streets.
  - Source: epa website
- **Offset carbon footprint and more**
  - Reduce energy use
  - Improve air quality and lower greenhouse gas emissions
  - Enhance storm water management and water quality
  - Reduce pavement maintenance - **tree shade can slow deterioration of street pavement, decreasing the amount of maintenance needed.**
  - Improve quality of life
  - Source: epa website
- **Trees clean the air: increased oxygen from native and low-water-use plants and trees**
  - Trees absorb CO2 during their growth process
- **Re-create Saddleback to balance the car-centric campus with academic pedestrian environment**
- **To serve the community and provide an example of a sustainable college campus**
ESSENTIAL TO SUCCESS:
Participation and support from Faculty -
• Create informational presentation asking all Departments to create 189 Special Topics Classes for the Trail Project.
• Emphasize Urgent Need for Graduates in Sustainability – related fields.

PROJECT PRIORITIES:
Stipulate use of Sustainable practices and materials whenever possible to protect and preserve soils.
Contracts to be awarded w/ priority to Saddleback student / alumni contractors.
All contracts awarded w/provision of internships for Saddleback Students.
Use of Native and water-wise plants to increase pollinator populations, & reduce irrigation needs, enhance biodiversity.
Utilize Saddleback academic programs whenever possible to:
• Design Trail & Hardscape components
• Propagate plants and trees
• Maintain the trail and arboretum

VALUES AND INTENT
Benefits and Features:
• Outdoor Classrooms and Study areas w/ solar-powered Wi-Fi and lighting
• Bicycle racks placed throughout trail
• Replace lawns w/ Community Gardens and Culinary Program Gardens
• Provides ongoing employment for:
  • Maintenance
  • Native Garden Docents
  • Continued landscape improvements
Enhanced venue for Farmers Markets, Craft-faire events, Conferences, etc.
ARCHITECTURAL FEATURES

The Saddleback Arboretum Trail is meant to compliment the Campus Master Plan.

POSSIBLE DESIGNS for OUTDOOR CLASS ROOMS