



Building a Self-Sustainable Campus in the West Valley

College of the Desert and the City of Palm Springs are embarking on a unique initiative to establish a self-sustainable satellite campus on the northwest corner of Indian Canyon Drive and Tramview Road to serve the cities of Palm Springs, Cathedral City, Desert Hot Springs and beyond.

The 119-acre site to house the campus will encompass three components:

1. College of the Desert program buildings integrated with the recreational resources of the existing James O. Jessie Desert Highland Unity Center;
2. Commercially-operated facilities for training, research & development, business incubation of 'clean technologies' and a potential location for a Coachella Valley iHub;
3. *GreenPark*, a 60- to 70-acre site that will feature sustainable energy-generating systems, and facilities for research & development and teaching & learning.

To serve the needs of the West Valley, COD has tentatively identified four program 'pillars' for the new campus that each present significant opportunities for partnerships with business, industry, and other educational institutions: (1) Hospitality & Tourism; (2) Media & the Arts; (3) Allied Health; and (4) Sustainability Technology. COD's Educational Master Plan will determine the mix of programs to be offered gradually at the West Valley Campus.

Going Green big time

'Integrated sustainability' will feature prominently in design, construction and operation of the West Valley Campus to address issues such as waste management, water conservation, energy efficiency and reduction, and renewable energy generation. The result will be a holistic operating campus that is compatible with desert ecology, and feature a teaching and learning environment that is environmentally and socially responsible, and economically viable.

The City of Palm Springs aims to establish a green economy and attract clean technology companies. College of the Desert is poised to educate future 'green collar' workers and become a catalyst and economic development driver for the region's plans. The proposed West Valley Campus will allow COD to show leadership in meeting or exceeding federal, state, county and municipal sustainability policies.

Creating energy and jobs

About half of the campus is envisioned as a commercially operated energy center, named *GreenPark*, featuring photovoltaic solar technologies that have the potential to generate enough power for 2,800 homes.

Phase 1 of the campus, slated to open September 2014, is being developed with proceeds from voter-approved Measure B bond sales. Future phases will be funded from other sources, including potential revenues from the sale of *GreenPark* energy to 'the grid'. During Phase 1 construction, the West Valley Campus is estimated to create 700 jobs.



"This bold and ambitious initiative makes economic and environmental sense. The City of Palm Springs and College of the Desert have the leadership and commitment to innovation and collaboration that's required to turn this bold vision into reality."

Jerry Patton, President, College of the Desert

Questions & Answers

1. Why is COD developing the West Valley Campus?

COD's Palm Desert Campus is reaching capacity for enrollment; at the same time, access from the outer regions of the Valley is becoming more difficult. In 2004, citizens passed Measure B, a \$346.5 million bond issue that included a mandate to establish satellite campuses in the east and west Valley. The interim East Valley Campus at Mecca-Thermal is operational; plans are underway to replace the leased facilities in Indio with a newly constructed building in downtown Indio. In 2007, COD's Board of Trustees identified Palm Springs as the location of the West Valley Campus and a small satellite center in Desert Hot Springs. COD is already offering classes at Palm Springs High School and the new Desert Energy Enterprise Center.

The City of Palm Springs is diversifying its economy and developing plans to establish a green economy and attract clean technology companies. COD is poised to educate future 'green collar' workers and become a catalyst and economic development driver for the region's economic plans.

College of the Desert recognizes the opportunity to work with the City of Palm Springs to achieve these sustainability goals. COD intends to not only teach the principles of sustainability but to distinguish itself from other post-secondary institutions by inviting the West Valley Campus and Valley community to learn, teach, work, and experience the benefits and challenges of a sustainable campus. For example, if water is processed on campus in a closed-loop system, the campus community will need to learn to prevent hazardous materials (e.g., from labs) from entering the water system.

In addition, COD intends to show that if community needs are considered in concert with the needs of the campus, green buildings and infrastructure can pay for themselves. The College recognizes the benefit of demonstrating how green buildings result in lower life cycle costs and higher productivity, and how passive or active cooling based on renewable sources is better for the environment and better economically. The proposed West Valley Campus will allow COD to show leadership in meeting or exceeding federal, state, county and municipal sustainability policies.



Main entrance of the West Valley Campus



Transportation hub

2. Why a self-sustainable campus?

The College has three reasons for developing a self-sustainable campus:

1. To reduce the ecological footprint (e.g., water and energy consumption and conservation, and greenhouse gas emissions) to demonstrate and teach that sustainable buildings and infrastructure are environmentally and socially responsible, and economically viable.
2. To show the ecological, social, and economic value of designing campus buildings and infrastructure in an integrated approach.
3. To reclaim resources and generate energy through renewable technologies in a sustainable fashion.

3. How can COD build and expand in the midst of budget cuts?

This is a legitimate concern that requires a multi-faceted answer.

- In 2004, voters overwhelmingly approved a bond measure that authorized COD to sell \$346.5 million in bonds to be guaranteed by local property tax revenues. Voters agreed to fund renovation of COD buildings and infrastructure, to build necessary new facilities, and establish permanent campuses in the east and west areas of the Valley. What followed was nearly four years of planning, design, and the lengthy approval process required by California.

- By law, the bond proceeds can only be used for acquisition of land and construction, including equipment and furnishings ('capital expenditures'). A volunteer committee of citizens oversees the spending and assures no bond money is used for salaries or operations ('operational expenditures' that are funded by the state).
- Penalties would accrue if COD failed to complete the bond-approved projects within a certain length of time, and the bonds would become taxable to those who purchased them.
- The original campus was completed 50 years ago; Measure B was designed to meet the needs of the Valley for the next 50 years. Stopping development and construction now would cost time and money.

4. What programs will be offered at the new West Valley Campus?

To serve the needs of the West Valley, COD has tentatively identified four educational 'pillars' that each present significant opportunities for partnerships with business, industry, and other educational institutions: 1. Hospitality & Tourism; 2. Media & the Arts; 3. Allied Health; 4. Sustainability Technology. COD's Educational Master Planning process will determine the mix of programs that will gradually be offered at the West Valley Campus.

5. Why will GreenPark be located on the campus?

About half of the property is envisioned as an 'energy center'—named *GreenPark*—to generate power from renewable sources and to provide space for research & development, demonstration, testing and teaching. Photovoltaic solar technologies are being considered because of the available land area, height restrictions, proximity to a residential neighborhood, and a mission to promote sustainable use of water resources.

GreenPark, expected to be operated by a third-party in association with COD, has the potential to generate an estimated 10 MWp (MegaWatts Peak) of energy annually, enough to power 2,800 homes. The sale of energy to the 'grid' will provide revenues for the College to develop programs and services at the West Valley Campus and energy for the Valley.

6. What is covered in COD's Policy on Sustainability Stewardship?

Based on the knowledge that we do not 'own' environmental resources but only 'manage' them and are responsible to

future generations for their condition, COD has adopted a Policy on Sustainability that guides decision making about:

- Responsible and thoughtful utilization of College land;
- Development and operation of alternative energy generation to promote self-sustainability and practical teaching and learning;
- Design, construction and retrofitting of buildings to the highest feasible level of sustainability recognition;
- Fund and grant raising to promote green initiatives;
- Partnerships with energy producing agencies and other businesses, public and private, to promote green initiatives;
- Operating practices that demonstrate commitment to sustainability management;
- Encouragement of 'greening' of the curriculum;
- Development of annual strategies to meet sustainability targets.



Box canyon inspired Plaza Arcade

7. What is meant by integrated sustainability?

Sustainability, as applied to the West Valley Campus project, moves beyond "simply living within available resources" to a strategy of designing a holistic campus that is compatible with, and learns from ("mimics") desert ecology, emphasizing conservation, efficiency, recovery of wastes, adaptation, and regeneration. A desert-inspired design concept for the West Valley Campus might look like: *a campus designed like a box canyon, with a shaded south side and wind protection, photovoltaic solar panels that create shade and energy, daylight from the north, a storm water reservoir to create evaporative cooling, and desert landscaping.*

8. What are COD's Integrated Sustainability Guidelines?

The Guidelines establish five broad goals for the West Valley Campus: 1. Zero waste; 2. Sustainable hydrology; 3. Net-zero energy utilization/energy generation; 4. Carbon neutral; 5. Ecological regeneration.

9. Are there examples of integrated sustainability building designs at other California colleges?

There are many bond-driven building and energy retrofit projects at colleges in California that address specific environmental features and conditions. For examples, please visit: Directory of Sustainability Programs at California Community Colleges: www.green-technology.org/ccsummit/directory.html.

10. How will COD's West Valley Campus be different?

Because the new West Valley Campus is a *tabula rasa* ('clean slate'), COD has the opportunity to take an integrated approach to campus planning, facility design and construction, facility operation, and campus management. West Valley Campus plans to deal with sustainability at a building scale, a land development scale, and in a community context. This holistic approach will address sustainability issues such as waste management, water conservation, energy efficiency and reduction, and incorporate renewable energy systems to create an integrated sustainable teaching and learning environment that is environmentally and socially responsible, and economically viable.

11. How much will it cost to build the new campus?

COD's Bond program includes \$40 million for Phase 1 of the West Valley Campus, including infrastructure development of the entire 119-acre site. Future phases of the campus will be funded from other sources, including potential revenues from *GreenPark*.

12. When will construction of Phase 1 start?

Design of the campus will start as soon as COD obtains formal title to the property. Design, followed by the necessary state approvals including Division of the State Architect (DSA) that approves all community college building plans, will take approximately 2 years. Construction is expected to start during 2012 and take

2 years. A tentative opening for classes is slated for September 2014.

13. Who owns the property now?

Bureau of Land Management (BLM) owns the property.

14. When will BLM transfer title?

Transfer of title takes place in two stages: (1) the City of Palm Springs purchases the land from BLM; and (2) the City transfers title to College of the Desert. The whole process is anticipated to be completed by summer 2010.

15. Does it cost more to use green technologies?

Not necessarily. The initial cost to install such green technologies as triple-pane glass windows or low-flow toilets may be more expensive; however, these costs are offset by lower cooling and heating equipment requirements and lower water usage, resulting in significant net savings over the long term.

16. How long before there are quantifiable benefits from green technologies?

GreenPark will be developed on a different timeframe from the campus and may be completed within 2 years, at which time benefits of the green technologies to the campus will be immediate.

17. Are there any endangered species on the property?

There is no evidence of documented endangered animals on the property; however, there is an endangered plant: Coachella Valley milk vetch—an herb that grows to about a foot in height, produces pinkish-purple flowers, and is found in wind-blown dunes or flat areas and along sandy washes. COD intends to work with appropriate environmental agencies and groups to find ways to protect the plant and possibly incorporate it into the xeriscape landscape design.

For More Information

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