



October 26, 2009

MEMORANDUM

To: Campus Planning Committee

From: Christine Taylor Thompson, Planning Associate
Campus Planning and Real Estate

Subject: **Record** of the October 12, 2009 Campus Planning Committee Meeting

Attending: Gregg Lobisser (Chair), Leslie Bennett, Scott Coltrane, Don Corner, Carole Daly, Tom Driscoll, Frances Dyke, Kohlton Kauffman, Roger Kerrigan, Rich Linton, Chris Ramey, George Rowe, Collin Schless, Eric Selker, Don Swain

Staff: Christine Taylor Thompson (Campus Planning and Real Estate)

Guests: Vince Babkirk (Facilities Services), Martina Bill (CPRE), Jane Brubaker, (Facilities Services), Becca Cavell (HDR/THA), CJ Ciaramella, Emily Eng (CPRE), Oliver Kuehne (HDR/THA), Lou Moses (Psychology, User Group co-chair), Roger Snyder (HDR/THA), Denise Stewart (Facilities Services), Susan Stumpf (Oregon Hall), Fred Tepfer (CPRE), Ariana Willey (CPRE), Zach Vishanoff

Agenda:

1. Campus Plan Open-Space Amendments Related to the Lewis Integrative Science Building (LISB) – Public Hearing

Background: Fred Tepfer, project manager from Campus Planning and Real Estate, introduced the LISB project and associated proposed *Campus Plan* open-space amendments. The overall purpose of the project is to create an integrative facility that brings together scientists from different disciplines. From a design perspective, the goal is to improve the science facilities as well as the surrounding campus open spaces.

Staff reviewed the proposed *Campus Plan* amendments as described in the meeting mailing. The proposed special-conditions text for the affected open spaces is taken largely from existing sections of the *Campus Plan* and prior comments and suggestions from committee members.

Public Hearing: The chair opened the public hearing. One guest provided the following comments:

- It is unfortunate that the process didn't try harder to engage the public when undertaking such a large project (\$80 million).
- The result of the proposed LISB building will be a wall of buildings, something identified in the proposed open space amendments as to be avoided.
- The UO should not be exempt for the toxic reporting laws.

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- More carefully consider other siting options such as the ORI site and Huestis Hall. If the general public were asked, they would likely support replacing Huestis Hall, which is an eyesore.
- To resolve the above issues, establish a subcommittee of students as a way to allow good interaction and discussion.
- Distribute to CPC members a series of articles related to the above issues [refer to attached].

The committee chair closed the public hearing.

Discussion: Members discussed the proposed amendments.

In response to a member's question, Fred explained that the primary difference between designated open spaces and other landscaped areas is that development is not allowed in designated open spaces. A member questioned this concept because open spaces can and will be amended to accommodate new development, as demonstrated by the LISB project. Another member said that future amendments are possible, but they would be subject to a purposefully rigorous amendment process to ensure that the amendments are well thought through. Since 1991, *Campus Plan* designated open spaces have been amended only one or two times to accommodate programmatic needs.

A member said the proposed amendments should have been addressed earlier in the process. Also, trees, rather than the open space framework, always seem to dominate the site selection process. Fred reminded the committee that the idea to possibly amend the Science Green and expand the open-space framework was identified as an initial project goal and discussed numerous times by the CPC. Another member added that this was the fourth CPC meeting held to address these challenging issues. There are a series of trade offs to consider, for example, views into campus versus expanded open space along the Franklin edge. The net amount of designated open space remains about the same.

A member noted the need to consider the various functions of open spaces including their relationship to buildings (exterior connectivity, sense of openness, etc.).

A member questioned whether a future bridge crossing over Franklin Boulevard would require a *Campus Plan* amendment to the new Franklin edge open space. Staff said the open space description specifically indicates the potential for an aboveground crossing (versus at grade), so likely not. A member said it is important to note the potential for a crossing and suggested modifications to the proposed text to strengthen this concept.

In response to a member's question, staff said that designation as an open space would restrict its use as service access. The special conditions associated with the proposed open spaces recognize the need to accommodate service and emergency access, but give priority to creating a landscaped area with pathways for pedestrians and bikes.

Action: The committee agreed unanimously to recommend to the president that the *Campus Plan* open-space amendments related the LISB project be approved.

2. Lewis Integrative Science Building (LISB) – Schematic Design

Background: Roger Snyder from the THA/HDR design team introduced the schematic design, which was developed after careful consideration of budgetary restrictions and all prior CPC comments.

Oliver Kuehne, THA/HDR design team, reviewed the proposed site and landscape design as presented in the meeting mailing. The overall goal is to create a building that is well integrated

into the site and improves the visual experience and connectivity for on-site users and passersby. The Science Green was left intact south of the Science Walk, the size of the service area adjacent to the north entrance was reduced, the intersection of the Science Walk and the Deschutes/Oregon Hall walk was enhanced, and the walk through Agate Entry Green was reconfigured. He suggested some improvements to help buffer the existing service area between Deschutes Hall and Oregon Hall. Removal of trees accommodate the new building and fire lane, as well as open views into campus.

Becca Cavell, THA/HDR design team, reviewed the proposed building design. She described how it was altered to address prior CPC comments. The up-and-over access through the interior lobby was made as low as possible, and the stair was reconfigured. The fourth floor was stepped back on the south elevation, and the mechanical penthouse was stepped back on the north side to reduce the apparent bulk and better relate to the scale of adjacent buildings. South-facing sunshades are not fully designed, but they will be similar to those used on the south face of the HEDCO Education Building. The north side is meant to convey a more formal institutional design.

Discussion: The committee initiated its review of the project but did not have time to complete its discussion or take action. Members asked the design team to address the initial comments listed below at a follow-up meeting, at which time the committee will complete its review of the project and take action.

Committee's initial comments:

- Strive to design the building at or below 50% of the Architecture 2030 Challenge's Energy Use Index for the regional average for this building type.
- Take full advantage of the surrounding open space by integrating natural daylighting and ventilation into the building design as much as possible.
- Ensure the negative effects on Streisinger Hall are minimized (e.g., blocked views and compromises to key design elements such as the stairwell).
- Assess the entire pedestrian route between Deschutes Hall and Oregon Hall (13th Avenue to the Science Walk) and make the improvements necessary to ensure it serves as a primary pedestrian route.
- Reduce the penthouse's scale and industrial nature to the greatest degree possible.
- Consider options to reduce the building's overall sense of scale to make it more compatible with adjacent buildings.
- Modify the main entrance design so that the entrance is more dominant and responds to the Main Entrance pattern.

Action: The CPC provided initial comments and asked the design team to address them at a follow-up meeting, at which time the committee will complete its review and take action.

Please contact this office if you have questions.

- cc. Vicki Arbeiter, Geological Sciences (Cascade Annex Bldg Mgr)
Vince Babbirk, Facilities Services
Leah Blackburn, First Year Programs (Oregon Hall Bldg Mgr)
Paul Bloch, CIS (Deschutes Bldg Mgr)
Ariel Bordenave, Biology (Streisinger Bldg Mgr)
Mary Bradley, Information Services (Klamath Bldg Mgr)
Jan Brady, Human Physiology (Klamath Bldg Mgr)
Mark Brown, Academic Advising (Oregon Hall Bldg Mgr)
Jane Brubaker, Facilities Services
Becca Cavell, THA Architecture Inc.
Kathy Cashman, Geological Sciences (Cascade Annex Bldg Mgr)

Herb Chereck, Enrollment Services
Kay Coots, EH&S (Onyx Bridge Bldg Mgr)
Erik Dahl, AAA (Lawrence Hall Bldg Mgr)
John Donovan, CAMCOR (Lokey Labs Bldg Mgr)
Shelley Elliott, Biology (Klamath Bldg Mgr)
Don Elting, EH&S (Onyx Bridge Bldg Mgr)
Emily Eng, CPRE
Lisa Gardner, Eugene Planning
Hilary Gerdes, Disability Services (Oregon Hall Bldg Mgr)
Stephen Golledge, CAMCOR (Lokey Lab Bldg Mgr)
Keith Gonzalez, Biology (Klamath Bldg Mgr)
Dan Graham, Molecular Biology (Onyx Bridge Bldg Mgr)
Bonnie Grimm, Physics (Onyx Bridge Bldg Mgr)
Sandi Gussenhoven, Admissions (Oregon Hall Bldg Mgr)
Julie Haack, Chemistry (Klamath Bldg Mgr)
Terri Harding, Eugene Planning
Thomas Hacker, THA Architecture Inc.
Clarisse Heinhorst, Science Stores (Cascade Annex Bldg Mgr)
Kayla Hinds, Human Resources (Oregon Hall Bldg Mgr)
Herb Horner, DPS
Jim Hutchison, Chemistry (User Group co-chair)
Darren Johnson, Chemistry (Lokey Lab Bldg Mgr)
Emma Kallaway, ASUO
Kurt Langworthy, CAMCOR (Lokey Lab Bldg Mgr)
Chris Larson, Materials Science (Lokey Lab Bldg Mgr)
Donna Logan, Admissions (Oregon Hall Bldg Mgr)
Mark Lonergan, Chemistry (Lokey Lab Bldg Mgr)
Rebecca Lynn, Disability Services (Oregon Hall Bldg Mgr)
Monte Matthews, Veterinary Services (Streisinger Bldg Mgr)
Ellen McCumsey, Neuroscience (Huestis Bldg Mgr)
Lou Moses, Psychology (User Group co-chair)
Lara Nesselroad, Science Library (Klamath Bldg Mgr)
Susan Plummer, Affirmative Action (Oregon Hall Bldg Mgr)
Bruce Powers, THA Architecture Inc.
Sara Nash, CEEB (Onyx Bridge Bldg Mgr)
CJ Nelson, Business Affairs (Oregon Hall Bldg Mgr)
Greg Rikhoff, Public and Government Affairs
Donna Schimmer, Financial Aid (Oregon Hall Bldg Mgr)
Michael Smith, AAA (Lawrence Hall Bldg Mgr)
Roger Snyder, HDR Inc.
Greg Soderstedt, CEEB (Onyx Bridge Bldg Mgr)
Denise Stewart, Facilities Services
Jessica Stark, Veterinary Services (Streisinger Bldg Mgr)
Mike Strain, CAMCOR (Lokey Lab Bldg Mgr)
Susan Stumpf, Admissions (Oregon Hall Bldg Mgr)
Fred Tepfer, CPRE
Holly Thaxton, Business Affairs (Oregon Hall Bldg Mgr)
Doug Tripp, DPS
Zach Vishnoff
Linda Walton, Continuation Center (Oregon Hall Bldg Mgr)
Bruce Wilson, Molecular Biology (Huestis, Klamath, and Streisinger Bldg Mgr)
Vivian Wright, Affirmative Action (Oregon Hall Bldg Mgr)
Lev Zakharov, CAMCOR (Lokey Lab Bldg Mgr)

Tiny's big promise

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Tiny's big promise

Back Story • Nanotechnology rises; some want a pause

BY LEE VAN DER VOO

The Portland Tribune, Oct 30, 2007, Updated Oct 30, 2007

For seven years, Dr. Ed Neuwelt of Oregon Health & Science University has used tiny particles of rust to help locate tumors in people's brains.

In a clinical trial that has involved an estimated 150 patients to date, Neuwelt has injected iron oxide into people's bodies intravenously, then watched via brain scans as the particles percolate across the blood-brain barrier.

The rust particles – so tiny they're called nanoparticles, 1/100,000th the width of a human hair or smaller – adhere to inflamed cells, allowing Neuwelt to learn more about conditions like multiple sclerosis, tumors, strokes and other trauma.

"They are remarkably safe, and they're very effective, easy to use, and give us incredible information," Neuwelt said.

But the effect on human health and the environment of the type of particles Neuwelt and thousands of other scientists are working with is lately the subject of much discussion.

The Environmental Protection Agency is beginning an inquiry into the effects of nanomaterials, asking companies to explain how and how often they use nanoparticles and to turn over any information they have about their toxicity.

To talk about the promise of nanotech, manmade design on its smallest scale, sounds at first like something cut from a science-fiction film: windows that will someday clean themselves, texturized pants that let a coffee spill run right over the legs.

In this future defined by the smallest particles known, nanoparticles may be the catalyst to degrading old environmental spills, filtering contaminants out of air and water, or finding and diagnosing cancers, and then treating them.

And it isn't fiction.

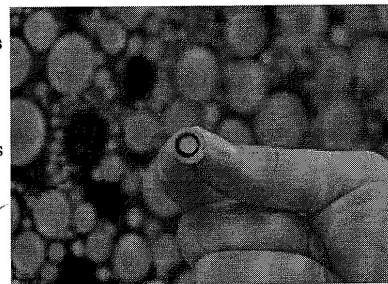
Nanotechnology today is a huge player in industry. Already there are more than 500 nanotech products on the market – products that use nanoparticles to create unique properties.

Carbon nanotubes, or microscopic tubes made of carbon, are used to strengthen tennis rackets and golf clubs. Other nanoparticles are used to make antibacterial coatings on surgical tools, create stain-resistant clothing and furniture, build cosmetics, even protect your feet in antibacterial socks.

While it's predicted that nanotech will touch a significant percentage of the world's economic products within a few years, Oregon taxpayers are pouring millions into laboratories and research statewide, carving out the state's unique niche in the growing industry, from Portland to Corvallis.

But nanotech is not without controversy.

Some environmental groups have pressed the EPA to ban the use of untested nanoparticles in consumer goods. Others want the the federal government to develop regulations for the particles and



L.E. BASKOW / TRIBUNE PHOTO

At Portland State University, Erik Sánchez shows a calibration sample covered with nanoparticles that are shown magnified on a screen behind him. The sample is used to calibrate one of Sánchez's many microscopes prior to use. His microscopy lab has an eye on the world of nanotechnology, which is growing steadily in Oregon and the nation.

their handling. Industry advocates have pushed the EPA to collect more information about nanoparticle use before making decisions about regulation.

Some companies, like DuPont, have developed their own handling guidelines and pressed for academics and industry alike to embrace them.

"I can only tell you that these nanoparticles are very important in terms of what they can do. It's not even a close race between what they can do versus any toxicity," Neuwelt said. "Most of my patients have serious neurological disorders, and they're happy to learn what's going on in their brain."

Need it? Build it

It takes only a few minutes in Erik Sánchez's laboratory in the Science Building II at Portland State University to understand the excitement surrounding nanotech.

Sánchez himself has the kind of enthusiastic brilliance that's been the hallmark of so much breakthrough science.

He built his first laser after leaving a career in the arts, and designed a breakthrough microscope while doing postdoctoral work at the Department of Energy and then at Harvard University. He now spends nine to 12 hours a day on the PSU campus, acting as assistant professor in the physics and electrical and computer engineering departments.

In addition to teaching courses, Sánchez runs a laboratory dedicated to microscopy, the study of microscopes.

The lab, home to about 11 dedicated students, spills over with computers and gadgets. At first glance, its shelved walls look like a high-tech graveyard, loaded with discarded computer equipment, PC towers and monitors.

In fact, some of these old computers are running microscopes. Some don't have a use yet, instead awaiting a kind of Transformers future, destined to evolve into the next best eye into the nanotech world.

The monitors around the room and microscopes that stand, in some cases, nearly as high as the ceiling are the industry's window into the smallest particles humans have learned to see.

"We put a lot of these together from little parts and pieces, everything from eBay to parts stores," Sánchez said. "If I want a particular item, I have to make it."

It could be in this room that science makes its next technological breakthrough, seeing the next smallest object. The state of Oregon, seizing that potential in its resident scientists, has placed its bet.

State makes a move

The first capital investments came in 2003, when the state funneled \$20 million toward expanding nanotech studies at PSU, the University of Oregon and an Oregon State University lab at Hewlett-Packard Co.

At the same time, the Oregon Legislature invested \$1 million in the state's first signature research center, called ONAMI, or the Oregon Nanoscience and Microtechnologies Institute, based in Corvallis.

The intent of ONAMI was to create jobs, so the agency's two-man staff does not own its own research equipment or employ scientists. Instead, ONAMI works with partners to promote innovation and growth in Oregon's nanotech sector.

The result is a unique collaboration between universities and the private sector that expands Oregon's foothold in nanotechnology.

Four organizations – PSU, OSU, UO and the U.S. Energy Department's Pacific Northwest National Laboratory, in Richland, Wash. – join with companies like Hewlett-Packard, Intel Corp. and Xerox Corp., as well as with educational affiliates like OHSU, to network through the institute.

They share the state leaders' goal of creating jobs and growing the nanotech industry in Oregon.

Between 2005 and 2007, ONAMI received another \$16 million in operating funds from the state, investing most of the money to bridge the period between exploration and creating a fundable company.

One example is Crystal Clear Technologies Inc., which has developed a new water-filtration system now being shopped to private investors.

Tiny's big promise

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Scientists, fearful of a debate that could end, like stem cell research, in a deadlock, are taking heed.

In this brave new world, Jim Hutchison proposes a solution.

Hutchison, a chemistry professor and the director of the Materials Science Institute at the University of Oregon, is at the forefront of a green nanoparticle movement in which Oregon has become a key player.

He and UO colleagues are advocating building nanoparticles from naturally occurring elements and keeping nanotech designs green. Hutchison also suggests building libraries of different nanoparticles and testing their toxicity.

"If people want to drink Kool-Aid and they want a red dye that's not toxic, there's nothing that says red dye has to be toxic," he said.

Basic design rules already exist. For example, Hutchison said, scientists know to avoid the use of materials in nanoparticles, such as lead, that are known to be problematic.

But trickier issues do emerge. The size and shape of nanoparticles of any material may have different effects on humans and in the environment than the same materials in larger form.

While regulations move forward, Hutchison and colleagues at Oregon and Oregon State are suggesting that scientists design nanomaterials using only those particles that prove safe. They are developing a database of nanoeffects – available to anyone in the world via the Internet – and documenting what they know.

Oregon State secured \$600,000 in the first round of nanotech safety grants issued by the EPA and already is getting a jump on toxicity testing.

The experiments, led by Robert Tanguay, plan to screen a wide range of manufactured nanomaterials to determine their potential interaction with living things.

Despite concerns, Hutchison said he's confident that nanotechnology can have a positive impact on every industrial sector.

"My opinion about how to do that is we need to be open about the process," Hutchinson said. "I think we need to develop screening methods like we do here within the University of Oregon and OSU teams, because we can't make any decisions about how to regulate nanomaterial without that information."

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Nanotech minds meet at OMSI

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Nanotech minds meet at OMSI

Participants: Oregon needs to turn out more doctoral-level graduates in math and science

BY RYAN GEDDES

LocalNewsDaily.com, Apr 4, 2007, Updated Apr 4, 2007

PORTLAND — When U.S. Commerce Department Undersecretary for Technology Robert Cresanti toured China recently with a group of American scientists and businesspeople, an eager young Chinese entrepreneur thrust a bag of nanomolecules at them, along with a couple of questions.

The scientist had created the tinier-than-tiny structures at the behest of his government, which has been throwing money at all things nano of late. What the man wanted to know from the visiting American researchers, bureaucrats and corporate types was, what do I do now? Oh, and are these things safe?

Cresanti says the group took a collective step back from the man who was waving the bag of nanopowders in their general direction. They were good questions.

On Tuesday, Cresanti joined Sen. Ron Wyden (D-Oregon) and some of Oregon's top nanotechnology experts at the Oregon Museum of Science and Industry in Portland for a regionally focused roundtable discussion about the challenges facing the burgeoning scientific field.

Nanotechnology is performed at the atomic, molecular or macromolecular levels, at a scale of about 1 to 100 nanometers. A nanometer is a billionth of a meter, too small to be seen by conventional microscopes. It's a field that has potential applications in the chemical, medical, manufacturing and electronics industries, and state leaders are eager to be part of nanotech's promising future.

In February 2006, senators Gordon Smith (R-Oregon) and Wyden, who co-chairs the Congressional Nanotechnology Caucus, helped secure \$8 million federal funding over the next three years to help achieve that goal, and they're pushing for more. President George W. Bush's proposed national nanotechnology research budget for fiscal year 2008 is \$1.4 billion, three times what was budgeted in 2001.

"Our goal is to make Oregon the place to come to see nanotechnology done right," Wyden said at the roundtable, titled "Nanotechnology Commercialization: Where are we now?"

Although no one at the meeting expected to answer that question in full Tuesday, the 25 participants shared their challenges and suggestions for moving the state's efforts forward.

Robert "Skip" Rung heads the Oregon Nanoscience and Microtechnologies Institute, a public/private cooperative that pairs the state's research institutions — Oregon State University, the University of Oregon and Portland State University — with local nano-focused companies like Intel Corp. and FEI Co. and federal labs like the Pacific Northwest National Laboratory.

Rung said Oregon needs to increase its overall competitiveness and turn out more Ph.D-level graduates in mathematics and science if the state wants to match U.S. nanotechnology centers like New York, Massachusetts and California.

Many of the roundtable participants, including representatives from OSU, UO, PSU, Intel, FEI and PNNL, echoed Rung's concerns and added some of their own. The U.S. Patent Office is slow to process nanotech innovations, they said, and access to high-end federal and state-funded nanotechnology measurement equipment is scarce and expensive.

FEI, the world's largest supplier of nanotech tools, is based in Hillsboro and is one of Oregon's recent nanotech success stories. Don Kania, who took over as CEO as FEI began a financial turnaround in 2006, said the U.S. needs to ramp up its investment in nanotech or risk being overtaken by Asian and European countries.

Nanotech minds meet at OMSI

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"The world is spending more than we are, and that's a dangerous thing," Kania said.

Sam Angelos, vice president of technology development at Hewlett-Packard, put it more plainly. "Let's make no mistake. China wants to eat everybody's lunch."

Wyden, who has in the past compared the importance of nanotechnology to the Apollo moon landing, said the barriers discussed at the roundtable were sizable but not impossible to overcome.

"These are manageable challenges," Wyden said. "There are areas where government and the private sector can work together and where the President and Congress can work together."

The Oregon Nanoscience and Microtechnologies Institute will host its fourth annual Micro Nano Breakthrough Conference at the Doubletree Hotel in Portland's Lloyd Center Sept. 10-12 to discuss many of the same issues raised at Tuesday's meeting. Rep. David Wu, chair of the U.S. House Subcommittee for Technology and Innovation, is scheduled to attend.

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