DESIGN REVIEW COMMITTEE MEETING

Date: April 19, 2002

Meeting No. 35

ATTENDEES: Michael Arntz
          Pamela Burton
          Colin Gardner
          Bob Hailer
          Elvin Hatch
          Everett Kirkelie
          Brian McGuire
          Carol Pasternack
          Barton Phelps
          Bruce Tiffney
          Ric Williams

          ABSENT: Edson Armi
                    Dom Dal Bello
                    Buzz Yudell

OTHERS PRESENT

          Michael Bade
          Carol Baccash
          Catherine Boyer
          Erich Brown
          Willie Brown
          Jim Cooper
          Julie Cunningham
          Paul Gawronik
          David Gross
          Chuck Haines
          Sue Hawkins
          Ed Johnduff
          Susan Keefe
          Ilze Landfried
          Martie Levy
          Gene Lucas

          Jennifer Metz
          Duncan Mellichamp
          Brent Miller
          Roger Monte
          Mark Nocciolo
          Duke Oakley
          Glyn Pritchard
          Tye Simpson
          Deborah Storm
          Robert Venturi
          Alan Walker
          Dennis Whelan
          Jack Wolfever
          Harry Wolf
          Judy Wood
          John Woolley

ITEM DESCRIPTION

1. Minutes of March 15, 2002 meeting were amended to show that Pamela Burton was absent and on page 6, the first paragraph, Barton Phelps comment was changed from “workable solution that separates it from...” to “problematic solution that separates it from...”

2. Progress Review, San Clemente Apartments
   - Jack Wolfever said that it is important for the DRC to understand that criticisms of the San Clemente project have been taken seriously and, in response to OP and the County, the project design has been evolving since the last DRC meeting. There have been meetings
with OP and with the County and the project and the project cost estimate have changed
taking into account suggestions and requests. Bringing additional consultants on board has
resulted in finding additional cost savings and the project is now looking good relative to
statistics that OP uses to compare costs.

- Harry Wolf said he would quickly show some of the studies done to prove how seriously
they have taken all the comments from the County, Isla Vista Planning Team, and OP. He
showed a clustering of units back to back to get a more efficient vertical arrangement. He
said the issue of flat roofs and water penetration would be dealt with by greater quality
control during construction and funds have been set aside for that. In addition his firm is
keenly aware of the importance of very careful and thoughtful detailing and specifying first
rate products.

- They have looked at parking very carefully. One of the issues affecting cost is the fact that
we are building housing units on top the garage rather than parking on top of it; therefore it
costs more to park. Also there is not one but six garages. So alternate parking schemes have
been studied and carefully estimated. They are still studying and comparing to other
projects.

- Harry said that Michael Bade had felt that having stairs in the courtyards was valuable for
social interaction. At the Multipurpose Buildings with their balconies and roof terraces that
are accessed by the bridge network at the upper levels, there will also be spiral stairs that
can be used as a shortcut and will facilitate social interaction. The community spaces have
also been arranged with this in mind. At the meeting this week regarding landscape Harry
said they discussed not thinking about the project as paved space with landscape inserted in
it but as a landscaped space with pavers inserted in it.

- Harry said that one of Michael Bade’s points was that construction scheduling should not
overwhelm the market. This was the subject of a meeting this morning. Harry showed how
they are trying to make construction less complicated by getting some capacity for
repetition, even in the community buildings. To counter the feeling of anonymity that may
result from repetition, they have tried to maintain the scale of individual townhouse-like
units (even though they are stacked apartments) and have varied the fenestration and
balcony arrangements so the each unit is different.

- One of the concerns that the I.V. team had was the view to the mountains so Harry had a
photo taken 1 ½ blocks from the project site and then had a very accurate rendering done to
show what the view would be when San Clemente is built. The design team has agreed that
the hedge should be lower as was suggested and they are please with the way access at the
second level is on the opposite side of the building from access on the third level. The
movement of people will vitalize and activate the various spaces.

- The units are each different; there is no a continuous row but rather a series of pieces.
Harry said that Michael Bade rightfully pointed out that this creates a greater surface area
whose cost, having been studied, is known. The project can now judge, given Isla Vista
concerns that there not be a monolithic structure, whether to pay the increased cost.

- The project is in movement and the DRC may still see some radical changes. Parking under
the front row may go away to lower the height of the buildings. Harry wanted the DRC to
know that he is committed to the project. He is guided by and listens to what everyone says; he will try to accommodate all those things that he can, but he won’t present a project he is not proud of or he doesn’t think will do the job.

- Duncan Mellichamp spoke as special assistant to the Chancellor for long range planning and said he has seen a great deal of progress in working with the County and other local agencies in the last four years. The timing of the San Clemente project has been very unfortunate with respect to the Isla Vista master planning effort. It is important to note that the County and University are spending $1.3 million on the planning exercise that has just begun with the recently completed 8 day charrette. The County feels that the San Clemente project is important, as it will define the north end of the I.V. and be a keystone in the master plan. The campus and the County will need to have a joint exercise on this project.

- The I.V. charrette yielded a lot of information. Since it seems that approximately 60% of graduate student have cars, the County is willing to entertain some ideas about reduced parking requirements for San Clemente. The County is looking at what is needed at El Colegio Road and, in general, Duncan felt that the County and the University have the joint objective of wanting to do a good project and do what is best for the community. The County is willing to make some concessions and the campus could save money and space by working with them. Because the view to the mountains is so important to I.V. and the County we must take the time to sit down together talk constructively and work out a project everyone likes.

- Everett Kirkelie added that he has had a positive experience with the County Planning staff and foresees developing a good process with them for resolving all the issues associated with the San Clemente project. He said that he thinks the project has had a rough road, first with the precinct plan and then the I.V. planning process not being in sync with it. The challenge will be to have the project move along in a timely way so that we can realize a fall 2005 opening. He said he is optimistic that they will be successful in working out changes to the scope and keeping the momentum.

- Michael Arntz asked if there should be a meeting to get everyone together. Michael Bade said it is better to have internal talks and not involve OP or the County. Everett said they are still thinking about the working process. Because some groups were not represented at the workshop and because of the many issues that came up during the workshop, Duncan said he has talked to the County about bringing some of the experts back to at least get everyone informed about what is going on in I.V in regard to affordable housing, parking, etc.

- Jack Wolever said that the County process has been a challenge for the project and Harry has been and will continue to respond to it with design changes to the project. Everett said that there will be another level of complexity with the selection of a planning consultant to bring together the area plans and there probably needs to be a strategy where all of these come together. But, as Martie Levy said, the issues must be worked through in give-and-take situations or some kind of process that Everett works out, rather than trying to do this at some large gathering that involves all the DRC. Michael Arntz said that he would not like to see a compromised project brought back before the DRC. Jack said that everyone is committed to not compromising the project.
• Bruce Tiffney said he does not see the rationale for eliminating some of the parking. Even if all of the parking is not needed for the residents, it could be rented to other students in I.V. and thereby recoup the cost of building. Jack Wolever said that were two issues: one, that people shouldn’t be driving to campus and not building parking makes it more difficult for people to have cars and drive to campus. The other issue is that there is an advantage in not having parking under the units in that the building can be lowered. Bruce said that students will bring their cars and if there is no parking, they will park in I.V. It would be better to make parking on campus so unpleasant that they will not want to drive.

• Tye Simpson said that if the parking could be made invisible there would be less concern but parking under them raises the units making the planners believe they would not get the type of relationship to the street that they had in mind. Tye agreed with Bruce that there are a number of ways to accommodate parking without having a “plinth” and he reminded the DRC that the issue of relationship to the street had been brought up at the Feb. 15 DRC meeting and discussed his other comments at that meeting. He was concerned then about what the County’s response would be and he went on to outline some of the issues that were discussed at the workshop such as repetition/uniformity of many aspects of the design. There was a sense that the building should be more residential in appearance and quality and that the zen garden should be rethought and integrated into the plan so that it is more active, social and less linear.

• Carol Pasternack suggested that specific input by the DRC could be handled via e-mail since the committee would not have time to work out a consensus on how the project should be handled. She applauded some of the design changes that Harry has made. She thought that input would benefit the project and that the DRC will like Harry’s solutions. She thought part of the process would be for the university to decide which aspects of the design are most important and to work with the County. Michael Arntz asked that Jack Wolever coordinate the communication keeping in mind that the DRC does not want any surprises. Everett said that the process he envisions involves some of the DRC committee members and consultants.

• Barton Phelps asked about schedule. Jack said that the Friday meetings that have been occurring on the project will continue and he hoped that within a month the DRC would be presented a design evolution that address everyone’s concerns without compromising the things that the DRC and Harry think are important. Barton said the project has enormous complexity that perhaps has not been really discussed. Harry has shown the DRC some solutions but Barton would like the DRC to see more clearly how some of these solutions would work. Perhaps some diagrams or models would raise the level of complexity of the presentation and facilitate understanding of such issues as social interaction. It would also be of interest to compare the way Harry is working to the aesthetic the MRY was using on Manzanita Village.

• Michael Arntz said he thought that there had been a paradigm shift from Manzanita Village to this project, a shift from a rural environment to an urban environment and that I.V. is not there yet. Duncan Mellichamp disagreed. He thought that the I.V. urban planners were out ahead of UCSB in that they believe that the project would sit nicely out on a promontory to be viewed from afar. To them the massive building set back twenty feet from the sidewalk and with a big hedge is not urban planning. Catherine Boyer said she thought that I.V. residents feared more density and the growth of the University.,
3. **Action Item: Design Approval California Nanosystems Institute and Parking Structure**

- Duke Oakley discussed some of the changes made to the interior of the building since it was last before the DRC. The only significant exterior manifestation of the change is that the lab block is 4 feet narrower. Bob Venturi said that changes have resulted from value engineering and from refinement of the design. In regard to site plan, one change has been to the drop-off element. There are metal panels now leading up to the electronic mural that is not currently in the project. He showed other changes such as concrete panels and lattice panels in the openings of the garage. He said that the vertical element at the entrance might be a cell phone tower, what they call a technological obelisk. The end of the interior court is a glass wall. There would be vines on the garage facade and there is some tile ornament. The digital auditorium is still an alternate. He showed samples of the materials.

- The designers left material regarding the digital wall (attached) for the committee to better understand the justification for this element. Bob Venturi said he is worried that the digital wall is a delicate element, rather low to the ground and could be accessible for vandalism. They will be studying it further and may raise it or lower the grade by it.

- He showed the changes in the planter element in the plaza between CNSI and ITP so that there is no focus on the entrance to Kohn Hall. There are still citriodora in front of Kohn Hall and the syncopation of the palms and vertical stripes leading to the digital wall has not changed.

- David Gross said the process has been extremely painful from the view of ITP. As a seriously impacted neighbor, they have tried to interface with the project and the only means has been DRC meetings where they have been presented a fait accompli. Attempts to have discussions with the architect were reduced to a 2-3 hour meeting two weeks ago with Duke Oakley at the end of which they were informed that no further discussions would take place before final approval and no changes would be made.

- The five issues that he believed should be resolved before the project is approved were: (1) The drop off was reduced which is good but the site still require heavy landscaping to protect the area by the large auditorium that is used by ITP and other departments for spill out during conferences. It needs to be protected from traffic and people. ITP should not foot the bill for the landscaping. (2) The ITP does not want the trees shown on the north planted in their space. They do not go with the design of the building. Michael Graves objects to the trees. The trees have rats and ITP has windows that will open by those trees. There is no purpose to the trees besides to block the view of the building. (3) The raised esplanade/lawn is pushed into their face. The cafe will spill over and people will sit and eat on the 18” raised planters 10’ from the ITP. ITP does not want the raised esplanade; they feel crowded and they want as much space as possible. (4) The cafe originally seemed appealing when compared to the paean to the American automobile. Now it seems to be a noisy, crowded fast food joint. ITP would like the cafe moved closer to and facing the other courtyard and enlarged. This is the one opportunity remaining for an eating facility in this area of campus and it should be designed to accommodate at least 60 people. It will require redesign/reconfiguration into a square shape but will not need that much more space. It should be equal or better quality than the Coral Tree Cafe and should have long hours of service. (5) How will ITP function for the two years of CNSI construction when service/delivery access, emergency access, disabled peoples’ access and the main entrance
to the building are restricted. How will these be handled during the period when ITP builds its expansion? The main entrance will need to be moved to the back by Engineering and MRL and will need to be redesigned. ITP will need Engineering to give them some space by MRL and will need to move bicycle parking, etc. They would like the cost of this work covered in the CNSI project and the solution to access should be solved before CNSI goes ahead. Until these issues are resolved, approval should not be granted the CNSI project.

- Michael Arntz said he did not see any issues that could not be resolved. A number of people agreed that the cafe should be reworked. Jack Wolever said that issues of access and construction fencing would be worked out with consultation with a lot of people on campus, including adjacent tenants and the fire marshal. David Gross felt that ITP has not been listened to and feared that these issues would not be addressed. Marty Levy said that perhaps it has not been clear who will respond to the issues. The burden is shifting to Jack Wolever on access. Gene Lucas said he thought David's concerns are valid regarding the cafe and the landscaping and he does not want the plaza to become a skateboard park. Sue Hawkins said that the UCen wants the same square footage (2,000 sf) for the cafe but does not want the long linear shape. Duke Oakley said it could be done but might reduce the number of parking spaces.

- There is 35' between Kohn Hall and the raised planter. Bob Venturi and Duke Oakley said that the raised areas are for incidental interaction, they will not contribute to litter, they integrate the landscape and buildings, they are an enriching element and an integral part of the design. Pamela Burton said that the scale of the space is important and ITP, as a member of a community, has a responsibility to contribute to the quality of life on campus and should think of how the space in front of their building will contribute to the character of the campus. David Gross said the trees in front destroy the ITP facade and do not contribute to the campus. Barton Phelps said the difficult, complicated project that the designers were attempting would probably be of benefit of ITP, not to its detriment. Robert Venturi said that the trees were for balancing out the heights of the buildings and will help Kohn Hall. Carol Pasternack said her personal experience with these kinds of trees has been favorable and she reminded everyone that at this stage the DRC is approving only the building. The approval of landscape will follow at a later time so that the issue of the trees can remain a subject for discussion. Michael Arntz suggested that the landscape architect for ITP's addition and the landscape architect to for CNSI work together and consult with the landscape subcommittee to resolve the landscape issues. David Gross said that as long as ITP is consulted he is in agreement with this.

- Carol Pasternack asked about whether the metal panels will be one color or have some kind of pattern or texture for interest. Robert Venturi thought they should be kept neutral to indicate that they are temporary. After some discussion, Marty Levy suggested that the architects be asked to develop at design for that area of the building that is as beautiful and as acceptable to the committee as the LED. Robert Venturi said that if it is looking like the LED won't happen before the building is finished they will do that. The prioritization of the digital auditorium and the LED will be worked out later.

- Carol Pasternack said she is looking for a more developed view of what the landscaping on the north will be like Bruce Tifftney suggested some planting wells and it was agreed that if the auditorium is not built there will be lawn there, not mechanical equipment.
• Carol Pasternack spoke for the committee when she said that a cell phone tower would not be acceptable for the vertical element. Duke Oakley said that what was shown previously (two elements) is in the budget. The idea of a technology pylon or something like it came out of thinking about what is unique to the engineering part of campus or how the university might be represented in modern times. Ric Williams said he understood the thinking but the execution worried him since he did not want to be known as the campus that is all about cell phones.

**ACTION**

The building was approved with the proviso that the cafe be redesigned to work as discussed and that the LED facade be designed with a level of interest comparable to the rest of the building.

4. **Action Item: Site Approval Academic Building**
   - Mark Nocciolo presented the project. He said that the DRC had directed KMW at the previous presentation to assume that Ocean Road will stay open, that building be distributed on both sides of the view corridor, that they should explore the orthogonal and non-orthogonal geometry on the site. Mark showed the disposition of buildings that has resulted from the work being done during the DPP stage.

   • There was some discussion about the where various building elements were located but it was pointed out that the issue before DRC is site approval and that the scheme would be changing as the architects do their work. Barton said that the graphic was to be understood as a chart using the device of an architectural plan to show responses to certain site conditions and in a sense it is a kind of a ranking but it is not necessarily going to be developed as a building plan. Mark Nocciolo said that it represented some of the ideas the architects discussed with the committee such a not lining up on a straight line along Ocean Road, providing some on site parking, and preserving critical trees. There was some discussion about the importance of the location of the Film Theater which is placed so that it enlivens the space around it, relates to HSSB and is less constrained than it was at the corner knuckle position which was also considered. The project is getting some cost estimating that will help determine what is affordable. John Woolley said he thought Mark had done a good recap of lengthy discussions in building committee meetings nd everyone is pleased with what was shown. The size of the courtyards and their exposure will be a point for discussion at a later date.

   Site was approved.

5. **Trailer for Letters and Science**
   - Jim Cooper presented the case for an additional triple-wide trailer for Chemistry/Bio-Chemistry to be located near existing trailers by Phelps Hall in the area currently used for bike parking. It has been approved by the Small Projects Committee and it is going to AS Bike Committee. Traffic analysis indicates this is an under-utilized bike parking area and it is proposed to move the parking racks to other areas of campus to mitigate need. It will be used 3 to 5 years to alleviate chemistry department space needs by moving the financial office into the trailer to free up space for new faculty hires. The site is out of view from
roadways and there are no bikepath crossing issues. Five trees would need to be removed. Pamela Burton said the landscape subcommittee would require that the trees be replaced somewhere else on campus at the time the trees are removed.

- Carol Pasternak asked if anyone had talked to the occupants of Phelps. Jim did not know if Ed Blaschke has consulted with them yet but it was planned that he would. Carol said it would be a requirement before approval. She said she was reluctant to approve trailers because they tend not to go away so would want a knock down date.

- There was discussion about previous attempts at finalizing a policy regarding temporary buildings/trailers. When Elvin Hatch suggested that the site proposed is one of the few spaces that would be improved by a trailer, there was discussion about improving the appearance of the area around it with landscape. Jim Cooper agreed it could be done. Where and how much landscape can be put in must be studied. Brian Maguire agreed that the bike racks should be moved to other areas.

- Carol Pasternak said that, if the trailer were to be approved, the committee would again be responding piecemeal rather than thinking of the campus as a whole. She was not comfortable making the decision right at the moment because there are always legitimate requests and the campus must consider that, as space runs out, it must work out how it will say no. Jim Cooper discussed the very real needs that are impacting the sciences especially since health and safety regulations have changed the way space can be used. Michael Arntz said the ideally there should be a comprehensive plan for dealing with trailers but he does not see how it will come about. Glyn Pritchard spoke from the prospective of a long time on campus concluding that it had seemed that the trailer and its sitting was an ideal solution for tidying over the department. Carol said she wanted a reasonable amount of time to think about it and to consider how serious the DRC is about the trailer guidelines worked out previously.

- It was decided to circulate the latest policy (attached) and have Ed Blaschke come back at the next meeting to discuss this project. He should include landscape in the project. It seems that there should a plan that in three years the metaphorical lease on the site would run out and there should be a plan for permanent space. Everett Kerkelie said there should be a plan to use these trailers for permanent surge space.

6. **Action Item: Approval of Lease Extension for College of Engineering Trailers 935 and 936**

- Gene Lucas gave the committee background on the complicated surge space problem that led to the need for these trailers. The department wants to retain the trailers until June 2006 while they sort through surge space issues that have arisen since the trailers were approved 3 years ago. They were approved with a 3-year sunset clause.

- It was suggested that there be an annual permit/review for trailers. Elvin Hatch proposed approving the trailers for a three-year period at which time they could be reconsidered on a year by year basis. Tye said that there is a database of all buildings, including trailers. He said it would be possible to keep a list of trailers with their period of occupation and review it biannually but he questioned whether institutional memory would be enough. Everett Kerkelie suggested that Martie Levy present surge space needs with the capital plan so that we can start looking at managing surge space.
• There was discussion of alternate ways of handling surge space such as building a surge space structure, or grouping temporary buildings and the problem of proximity of surge space to the associated department.

**ACTION**

It was agreed to approve the trailers for a three-year period. Trailers list will be reviewed annually.

7. **Update: Isla Vista Master Plan**

• Because of the late time, Tye Simpson quickly summarized the last 8-day workshop that was attended by about 200 people. The various constituencies had definite notions about Ocean Road and development on the West Side of campus. The Storke and West Campus Plan figured well in their thinking about the edges of I.V. He thought there was substantial community agreement with the location of San Clemente Housing and in the next few weeks they will work carefully on the road (he will say more next meeting). He thought they are ambivalent about keeping El Colegio Road narrow. They do not want traffic congestion but they are struggling with the role of the automobile in all of I.V. and the extent to which the automobile has taken over all of the public spaces. They would like the automobile subordinate to the bicycle and pedestrian nature of the community. They are discussing parking permit programs to reduce auto ownership and encouraging bikes and public transit. There was also discussion of on-street parking on El Colegio and roundabouts to keep cars moving to increase capacity without increasing the size of road. The solutions adopted will depend a lot on the relationship between the campus and I.V.

Minutes were prepared by:

Ilze Landfried

Date: 4/8/02

Attachments

cc: Committee and Attendees
DRC Guidelines for Approving Trailers and Other Temporary Structures

Preamble: The goals of guidelines are to enable the campus community to enjoy a planned architectural environment in our uniquely beautiful setting and to accommodate the immediate needs of instructional, research, and other university programs. Both of these goals will be served by strictly limiting the use of temporary structures on campus. While the following provisions are intended to apply to new structures, most existing temporary structures will be removed as possible.

Guidelines

1) Temporary (mobile or fixed) structures may be approved to meet the following needs:
   a) To provide necessary support services during construction or alteration of campus buildings, either for the work itself or to provide temporary space for units displaced by the construction or alterations.
   b) To provide interim space for a new or expanded program for which permanent space is planned and for which possible funding sources for the permanent space have been identified.

2) In all cases, the temporary structure will be removed after serving its original purpose and its site restored.

3) Requests will be submitted to Budget and Planning via the appropriate Control Point and will be forwarded, as appropriate, to the Design Review Committee and the Campus Planning Committee. Any such request must include:
   a) Detailed site plans and elevations which show the impact on the surrounding areas of the campus and describe mitigation measures that the applicant will undertake to reduce the negative visual or environmental impacts incurred. The applicant is required to consult with staff at Budget and Planning regarding design guidelines.
   b) A plan, including timetable, for decommissioning the structure and restoring the site.
   c) An agreement that designates financial responsibility for construction and removal of the structures and restoration of the site and specifies funding sources.

4) In the case of requests for interim space for a new or expanded program, the request must also include a plan for the development and occupancy of permanent space. Target date for moving into permanent space should be no more than three years.

   N.B.: Changes in the timetable for occupying permanent space require application and review.

5) A list of existing mobile and temporary structures (including outdoor storage units) will be compiled as part of the Campus Space Plan inventory. Removal of these structures from the central campus will be determined on an individual basis with the aim of eliminating them as soon as possible in accordance with long-range campus planning.

6) Short-term siting (for one year or less) of mobile units, such as those used for field work by Academic Departments, is excluded from these procedures, but must be approved by the Campus Planning Committee if the units are not located in parking spaces under the jurisdiction of Parking Services. If a department wishes to use parking spaces, it should make arrangements with Parking Services regarding such use and related charges.

7) Budget and Planning will be responsible for managing the policy and will advise the Chancellor after consultation with the Campus Planning Committee and the Design Review Committee on all requests for the use of temporary structures and on removal of non-compliant structures.

8) Exceptions to this policy can be made at the discretion of the Chancellor.
CNSI
JoAnn Kuchera-Morin
April 18, 2002

The California Nanosystems Institute embodies the intersection and thus the integration of science, engineering and the arts. The two application areas that will drive the core of engineering research, beginning at the macro level and pushing these technologies to the nano scale, the biosciences and the arts, bring two complimentary as well as a multitude of similarly complex research problems that push both the computation engine as well as the interface design of information technology systems beyond current boundaries of what is possible with the current materials used. On the science/nano side, representing massive amounts of data needed in nanoscale research demands the largest computation engines and the most intricate multi-layer stratification of representing data on a multi sensory level; visual, aural, and haptic. The arts, particularly, visual and audio, have pushed the envelope in research which stretches the limits of abstract visualization and auralization of data in large scale immersive environments stretching every area of the interface. Examples include pixel definition for 3D immersive visual representation, 3D spatial sound as well as haptic and interactive gestural control. This last area mentioned will be vastly needed for nano science and systems research but has yet been defined in the representation of that data, due to the massive amounts of data that need representation. Interactive control and manipulation of that data is the next step for nano science research and is driven by the arts application. Both artists and scientists will bridge ways in which they view and manipulate their data. Thus, fully integrated multimedia systems will be constructed and used for a number of applications in the arts, sciences and engineering, which will test the limits of manipulating complex data sets and suggest new solutions in designing new materials for nanosystems. An example of testing the limits for interface design which has led to new solutions involving the uses of new materials based on nano structures points to current research in designing new large scale flat panel visual and audio display devices.
Thus the building design, in and of itself, can function as part of the research/production palate, the large LED display connecting to a network of panels within the facility acting as a viewing portal into the sphere and auditorium, as well as a display for arts/sciences information and exhibition. But even further, could be considered the research/production palate for the large screen display research expertise at UCSB.
MEMORANDUM

DATE: April 16, 2002
TO: UCSB team
FROM: Jeff Hirsch
CC: file

SUBJECT: NOTES ON LED SIGNS, DERIVED FROM SEVERAL SOURCES

1. Vandalism

- most large LED signs are mounted above head-height.
- LED modules are resistant to damage from eggs, rocks, ink and baseballs.
- Spray paint damages the LED's.
- the sunshades above each LED module are vulnerable to impact but can be replaced (individually) in the field.
- gunshots can damage a module, although the remainder of the sign will continue to work.
- Individual LED modules can be replaced if damaged. One strategy is to choose a manufacturer that uses smaller modules to minimize the amount of LED's that must be replaced if a module is damaged.

OPTIONS FOR ADDITIONAL PROTECTION OF LED SIGN
- **ha-ha**: keeps people away from the façade. This option requires a retaining wall in front of the sign.
- **projection/ledge below sign**: keeps people away from LED modules. A ledge might attract climbers and breaks the continuity of the wall.
- **window wall with glass or plexi-glass**: can create reflections from the LED onto the inside surface of the glass, which distorts the sign. The result will appear to be a sign inside the building, not an electronic façade. Also, from oblique views, reflections on the glass will obscure the sign.
- **mesh screen**: from oblique views, will obscure the sign.

2. Installation options

*Front access: sign is applied to exterior wall*
- allows installation after the rest of the building is complete.
- the wall behind the sign must be water-tight.
- ventilation and controls would be located in an enclosure installed along with the LED's.
- service and maintenance would require a supplemental lift.
- replacement of the sign components would not affect the operations of the building.
Cavity/Catwalk access: sign is part of the exterior wall
- installation and maintenance do not require a lift.
- one manufacturer believes this method provides a better weather seal for the sign components.
- if the sign is purchased later, this installation method would require an additional, temporary wall constructed with the rest of the building.

3. Viewing angle
- most manufacturers allow for a 140 degree viewing angle.
- at the extreme angle, the brightness is reduced by 50%.

4. Brightness
- brightness adjustments accommodate day and night viewing at different light levels.
- dimming increases the life of the LED modules.

5. Ventilation
- cooling the space behind the LED modules prolongs their life.
- fresh air will have to be drawn into the bottom and exhausted at the top and sides of the sign.
- the acoustics of this system will have to be considered.

6. Controls
- the electronic façade will require space PC, a desk and two racks of equipment.
- content on the large sign can be duplicated on a plasma screen in the lobby around campus.
- soft-ware controls allow the screen to be sub-divided into smaller areas with individual content.

7. Resolution/Manufacturer
- modules with larger pixels are cheaper but have lower resolution and are viewed from further away.
- both pixel size and manufacturer affect the size of the modules that comprise the electronic façade. Some tolerance in the design of the façade for the length and width of the LED portion of the wall will allow flexibility in choosing manufacturers and equipment.

8. Content
- designing the content of the electronic iconographic medium will be critical in making this façade a source of information and symbolism and an aesthetic element for the entire community.
- the system for controlling the sign – the method of organizing graphic images and text – will have to allow for variation in programming and display.
- a mix of repetitive, iconographic symbols and timely information creates a balance between the wall as architectural façade and the wall as media.
- the façade is a medium of communication that acknowledges both the communal and the scientific nature of the Institute at the edge of campus.
• the architects of the Morgan Stanley Building in NYC studied hundreds of test content packages that were animations of content on three-dimensional models of the facade. Studying the animations led the team to see how the variety of scales of the sign influenced the design of both the content and the controls in the software.
Robert Venturi
March 26, 2002. revised 3/27/02

THE ELECTRONIC SCREEN AS FAÇADE

- 1. Could this university and its community be the most appropriate in the world for an architectural and planning kind of combining and integrating of digital art and digital science – this via essential characteristics and policies of its various academic and research components – its departments and programs, faculties and student body?

- 2. Could this building for this institute, the NanoSystems Institute, combining scientific research laboratories, the “Sphere” as a virtual visual and audio environment, and the Digital Media Auditorium as an artistic component be not the most appropriate place for this element of communication – for the community and the world – for the Information Age in the Electronic Age?

- 3. Could this site at the major entrance – a vehicular entrance – to this campus be not the most appropriate place for this element as an iconic representation of the institution as a whole?

* * *

General detailed thoughts and questions derived from general thinking and from meetings with members of the University community – in no particular order:

- It is important that the particular medium of this electronic mural be LED – to make it a digital façade – for aesthetic reasons – to create boldness of effect appropriate for a mural really as a billboard in its auto-scale setting – to be visible for only 10 seconds as approached at 25 mph. Also the pixel-surface like that of the tessera-surface of a Byzantine mosaic enhances the aesthetic effect by accommodating a certain degree of aesthetic abstraction and emanating brilliance.
• Reference here to the mural as billboard is not inappropriate because of the issues of scale and perception accommodating distance and speed in the auto-environment of Southern California.

• Also we must acknowledge and accommodate the hype-sensibility of our time to media that are sensitive and bold.

• Viva changing imagery for our time that can enliven effect of communication and enrich the range of content!

• Viva engaging science and art – and entertainment!

• Viva communication to enhance community!

• Viva the "extension of the museum"!

• Viva: inform and entertain!

• Viva architecture engaging meaning rather than space!

• Range involves also architecture and campus planning as well as everything else.

• Viva George Legrady whom I call George the Great whose contributions are and will be most significant in planning and implementing and Shuji Nakamura whose contributions to LED technology will enhance our project and whose reputation is most relevant.

• And viva Evelyn Hu, Gene Lucas, JoAnn Kuchera-Morin, and others who are understanding and contributive.

• This imagery should appear via plasma-screen within the Institute lobby and on the Internet?

• We can learn from Times Square and Shinjuku art and technology.

• As we discussed at the last meeting we must go into the idea for the twin "columns" for the "piazzetta" that of cell phone towers or some other form of working technology towers!
• Vandalism Issue: commercial precedent involves signs placed high (as in Times Square) and so we have the problem of a "sign" that is about six feet high above grade: we are looking into 1. the vulnerability of the LED surface in general, and 2. ways of protecting the surface via a glass plane layer – floating or attached – and how this relates to the architectural façade as a whole.

• – Also the issue of space required for mechanical equipment.

• The Sign Word: let's not be afraid of it.

• Very important issues involving: management, scheduling, administration, curatorial programming, process planning, content(s) of info – scientific, aesthetic, announcements – and COST – first/construction and maintenance!

• Please refer to the essays (attached) on this subject written earlier by RV focusing on the architectural planning dimensions.

• Please refer to the brilliant analysis (attached) by George Le Great-ee.

• Should we not speak to the Chancellor and get him involved in the system of process?
Thoughts on the CNSI Nanotech Institute Electronic Architectural Mural
George Legrady, Media Arts & Technology
March 23, 2002

The Venturi CNSI Nanotech building will house state-of-the-art research institutes which will have widespread state and national visibility for the UC Santa Barbara campus. The Venturi proposal for an Electronic Outdoor Architectural Mural is an insightful concept that addresses the transformation of architecture from container and surface environment to a spatial, time-based construct as a consequence of architecture's relation to the automobile (Venturi's "Learning from Las Vegas") and the influence of digitization technology on design and conceptualization of architectonic spaces. Buildings are now seen in terms of their relation to time and space, local and virtual.

Building surfaces have become sites for communication and expression through time-based visualization (see Shinjuku, Japan, Times Square, NYC, etc.). The Venturi mural proposal consists of a 45 feet by 45 Feet electronic mural that is to be situated on the surface of the new CSNI building facing the entrance road so that it will be seen by time based travelers such as air commuters at a distance, and automobile drivers entering the campus towards the main administrative buildings. The proposed mural embodies a multitude of functions and services for a diverse array of campus needs. On a local basis, the mural can inform current university events and showcase Nanotech institute and other research activities. From the perspective of the arts, the electronic mural can be understood as an extension of the art gallery/museum environment. It is a cultural and content programmable time based environment, ideal for artistic commissions that would continuously rotate according to a curatorial program and integrated with other forms of information communication serving the academic community. From this perspective, UC Santa Barbara would be at the forefront of new forms of artistic exhibition and production addressing the impact of digital technologies on an, at this time, unparalleled social, cultural and technological basis.
Local and Global Visibility. The CNSI mural will have multiple viewing audiences as a consequence of its broadcast flexibility. The visualization seen on the billboard will also be simultaneously be broadcast on large plasma screens inside the Nanotech building and possibly other places on campus. In addition, it will be broadcast on the web so that anyone, anywhere on the globe will be able to access the information. As a cultural presence on campus, the mural will have high value as spectacle, information center, art gallery, and campus identity.

Management of the mural's content will require programming orchestration of university information, public relations material, interspersed with artistic commissions, cultural content from the Humanities and Social Sciences, and technological content from the College of Engineering. The programming of the mural can be conceptualized in terms of an extended university radio station, or information page on a website. The content selection will be determined by the program manager. The manager's function will be to make sure that scheduling takes place as determined by the curatorial committee. Invited guest "dj"s may be considered as part of the programming practice.

Technical production and maintenance can become part of the MAT (Media Arts & Technology) program which will be housed in the CNSI building through staff supervising technically skilled students.
A FURTHER ANALYSIS OF THE DESIGN OF THE EAST ELEVATION OF THE NANOSYSTEMS INSTITUTE COMPLEX AT UCSB

Robert Venturi
March 11, 2002. revised 3/27/02

I have already written of the importance of acknowledging and accommodating within its design the varying contexts of the NanoSystems Institute complex as perceived from different sides – especially considering the south and east sides.

The south elevation is designed to acknowledge and accommodate the essentially enclosed space it fronts and pedestrian scale it engages – to be seen from close up and promote communal amenity within a relatively dense campus complex.

On the east side the elevation design expresses the relatively consistent interior program of the building as a laboratory complex at the edge of the campus and at the same time promotes an exterior imagery of the building as an iconic symbol at the entrance to the campus and identifies thereby the campus as a community. And then via its electronic iconographic medium at its end this façade disseminates information as well as engages symbolism and enriches the sense of community via communication.

And there are other elements of this east façade that work to identify the east entrance as well as enhance the architecture – those of scale, rhythm, juxtaposition, and inflection – and the electronic-digital-technological signage.

- **Scale**: While the sizes of the major elements of the south elevation can be said to be pedestrian in scale, those of the east elevation can be said to be related in scale to the automobile – readable from a car moving
at 35 miles per hour, plus or minus – for an entrance for a remote campus approached by car.

- **Rhythm-Juxtaposition-Inflection**: From the moving car you perceive the façade not straight on but obliquely so the rhythmic elements of the façade are seen over time as you drive along, rather than up to, the façade. And the rhythmic elements are juxtaposed – that of the appropriately evenly spaced windows juxtaposed upon that of the unevenly spaced decorative stripes and “shadows” and line of palm trees – each unevenly spaced to create rhythmic inflection as a whole to create compositional climax – as you approach the end of the façade with its iconographic-LED signage.

- **Electronic-Digital-Technological-Signage**: Here evolves architecture as communication as well as space – as symbol as well as form. Here is architecture that engages electronic technology for the Post-Industrial Age – for the Electronic Age – for the Information Age – for an institution that uniquely engages art and electronics in its curricula and digital electronics in the Institute. Here can be architecture and technology that engages, informs, and enhances the institutional community.
DESIGN OF THE EAST ENTRANCE: UCSB: PRELIMINARY IDEAS

Robert Venturi
November 28, 2001

Perhaps the most important thing to remember in the redesign of the east entrance to the UCSB is its context – its natural/rural setting, varied and rich, embracing the shore of the Pacific Ocean to the east and the Ynez Mountains to the north. The campus is not at the edge of town as at Princeton or within a town as at Harvard or Yale. And you approach it mainly by auto rather than as a pedestrian so there is no need literally for a gate as an opening in a fence enclosing and identifying the institution beyond.

Identity here derives not from a single perception at a single moment but from a sequence of impressions as you drive through the landscape approaching the institution as a place. The sequence involves both variety and consistency as it leads to a climax – variety engaging the plain and the mountains to the right, the sea-coast to the left and the architectural and iconographic complex as climax – consistency deriving from the axes.

Elements that work for identity within this setting include the constant rhythmic series of palm trees to the left that frame the ocean view and the varyingly rhythmic series of signs that work to identify the place and direct you toward it. The sequential experience is then terminated via the combinations of the architectural complex of the NanoSystems Institute and Digital Media
Auditorium and its iconographic-electronic signage. This latter element creates sparkle and promotes information for the Information Age of the 21st century via the changing content of its imagery and enhances the institution as community. There is also within this final composition the focus on the tower of the Kohn building. And then the ultimate part of the climax within the entrance sequence is the vertical sculptural element – perhaps analogous to an obelisk in Rome or one of the free-standing columns that frame the Piazetta of the Piazza San Marco in Venice – as a flag pole with a colorful metal banner which works to conclude two axes as they intersect – that of the automobile entrance drive and that of the east-west pedestrian way within the campus defined by the Kohn building on one side and the new NanoSystems Institute complex on the other.

So here is an entrance experience that identifies the entrance to the institution within its natural context via sequential perceptions, varied and rich in their effects.
Robert Venturi  
July 24, 2001, revised November 16, 2001  

FROM THE OUTSIDE AND ON THE INSIDE  

FROM THE OUTSIDE: CONTEXTUAL DEVELOPMENT  

On the South:  

- Acknowledge and reinforce the east-west axis extending from the central campus to the East Gate and Pacific Ocean.  

- Maintain this space between Kohn Hall and the parking structure/Nanosystems Institute complex as essentially a directional space, an evolving way, rather than a conclusive piazza: the conclusion is then the Pacific Ocean whose presence identifies this institution and whose horizon exemplifies infinity.  

- On the south side of the way respect/enhance the Kohn façade via complementary treatment on the north side and by the landscape design including rhythmic rows of trees and carefully designed paving along the building.  

- On the north side of the way create a complementary architectural design that includes a rhythmic arcade whose consistency unites via juxtaposition the parking structure, the laboratory façade and the landscaped courtyard behind and whose activities under and within — entrances, café, shops — create activity along the way and vitality for this part of the campus as a whole. The arcade façade is partially set forward of the total façade it is part of to diminish the scale of the complex as a whole within its context.  

- A slight inflection of the arcade in plan toward the east works to acknowledge the opening toward the ocean and perhaps column-like elements in the manner of those at the south end of the Piazzetta toward the water in Venice would further acknowledge via framing the opening toward the ocean.
• All of these elements should make of this space a way and a place at the same time which works to connect with the whole campus, to create communal activity, to enhance Kohn Hall and acknowledge the water edge.

On the East:

• Here is an entirely different context facing the ocean and mountains beyond and engaging the main auto entrance to the campus in the foreground. And here the architecture must, of course, accommodate the configuration of uses inside deriving from a complex and varied program but also look good on the outside - look good as an exemplification of the institution as a whole. Here is involved iconic challenge: the building complex as an icon -- symbolic as a whole and memorable. This means also it must be big in scale to be seen from moving cars and to identify a whole institution as well as little in scale deriving from the rhythmic modular façade acknowledging the laboratory spaces within. And then that façade complements the windowless façades of the Digital Media Auditorium and the Sphere -- and here the scale, implemented by electronic-digital technology, can be engaged via consistent and changing imagery explicitly to create identity for this institute in particular and for the institution as a whole. Viva iconography!

• Toward the east of course exists the present complex of roads leading north and south that have to be modified to work well and to accommodate auto drop-off especially. This can work via the inclusion of a traffic circle.

On the North:

• Here the architectural configuration can derive essentially from interior programmatic determinants as it is perceived from moving cars along Mesa Road. Also, parking structure entrance and exit elements and service elements will dominate the view of the building from the north and the landscaping design is
important here to qualify the architectural effect of the whole.

- Here roads must accommodate the new parking structure and its entrance and exit ways.

On the West:

- The effect here derives essentially from the extended façade of the parking garage and from a row of trees extending within the approximately 55-foot-wide area between Engineering II and the new complex. The Engineering Sciences Building will at its base accommodate extensive service uses.

* * *

FROM THE INSIDE:

The California Nanosystems Institute:

General approach in merging program and architecture:

- Accommodate flexibility – spatial, mechanical, and electronic – appropriate for complex research facilities – via architecture as generic loft rather than sculptural articulation.

- Acknowledge community – an element essential to an academic complex – where connection and communication can work in explicit and incidental ways – where focus and interaction are accommodated – not via grandiose/dramatique architectural atria but via nooks along attractive ways within the whole.

- Acknowledge communication - where the lobby can be a flexible display/exhibition space/place as can be the corridor-ways.
• Concentrate the group of loft-like spaces for the Core Labs and offices and conference rooms, and the Modular Labs and offices and conference rooms, and then the group of computing classrooms, multi-purpose rooms, administrative suites and M.A.T.P. Labs proximately for interaction. The latter, the M.A.T.P. Labs, are also proximate to the Sphere. The Sphere and the Digital Media Auditorium with their multi-story sections are located at the far end of the complex, close to the service entrance.

• The lab building footprint is an extruded bar, approximately 100’ wide, with offices on one side of the circulation corridor and labs/lab support on the other. Offices are directly across the corridor from the labs, not remote. Views from labs and offices are maximized.

• Service entrance at the far north end with direct connection to the Digital Media Auditorium, close communication to the Sphere and connection to the Core Labs and other loft areas via a basement tunnel of limited length and two freight elevators. (Otherwise there is minimal underground-basement space as appropriate for a building next to an ocean.)

• Mechanical spaces in penthouses on roof and throughout complex to be determined at a later stage of planning.

• Interior circulation hierarchically divided between more open spaces as ways for general circulation and more private, secluded spaces as corridors within the laboratory complexes – also admitting light via windows perceived at the ends of the corridors and ways to enhance amenity.

• At the ends of the lab bar are gathering spaces – lounges, informal and formal gathering spaces, office suites, conference rooms, the Digital Media Auditorium and related spaces.
• Interaction spaces for incidental meetings as nooks at the ends of ways with the windows: if you designate interaction spaces as rooms that are explicit - students, researchers, and faculty will not use them: implicit is better than explicit.

• The courtyard works in several ways – as an amenity for the laboratory spaces to look onto, as a communal place for Institute and campus gatherings within it, as an entrance court to enhance the identity of the complex as a place as well as a building – whose entrance arcade allows the entrance to the institute to be centrally located within the whole.

• Such an arcaded, exterior landscaped outdoor court, rather than an indoor atrium, can be shared by the CNSI, Kohn Hall, College of Engineering, and a broader UCSB and regional community for programmed and informal activities.

• The general architectural quality of the façades has been described above: the form of the architecture is such that the essentially consistent three-story height of the southeastern sides of the building accommodates the height limitation prescribed by the Long Range Development Plan and corresponds to the height of the parking structure to enhance unity among the parts. The northeastern part of the complex may contain varying somewhat lower heights deriving from the specifically organized interior spaces of the Digital Media Auditorium and the Sphere as opposed to the generic loft spaces otherwise in the complex.

• The plan of the complex works to fit within the limitation established by the California Coastal Commission.

• The eucalyptus hedgerow may not be able to remain during and past construction, but careful analysis of their anticipated lifespan should occur. If removed, replacement trees and landscape should be planned.
- Vehicular drop off, incorporated into a reconfigured Mesa/Lagoon intersection, would occur at the east end of the campus east/west spine.

* * *

The Parking Structure:

- We have frequently expressed our dedication to acknowledging the original programmatic requirement to accommodate a large parking contingent at this end of the campus and on this site – but not to take the easy way out by shoving it underground on a site with a water level deriving from immediate proximity to the largest body of water in the world – but to realistically and economically create a large parking garage and somehow trying thereby to accommodate Americans' love of parking that is convenient and hatred of parking that is evident! We have at this stage accommodated 860 cars on six levels – with only one underground level – approached conveniently from Mesa Road on the north.

- Parking is separated from other programmatic elements. This ensures all areas of the lab and MATP building are inherently flexible in terms of vibration and acoustical isolation. Also, with the parking separated from the lab, phased construction could allow parking on line earlier than the lab building completion.

- The challenge of the façade design of the parking structure: same finish materials as those of the adjacent academic institute to create harmony; careful design of openings so their size, rhythms, and scale relate to the Institute façade composition with its windows appropriate for an academic building.

- The ground level arcade along the west side of the courtyard will correspond to the arcade of the research wing (south side) and will thereby create harmony via analogy and continuity as well as amenity.
Challenge:

What a wonderful challenge to combine and juxtapose such varying elements in one composition within a varied context -- architectural and natural -- in a way that is agreeable in terms of program and that acknowledges a valid direction as the campus evolves to accommodate density -- and whose overall design modesty accommodates budget limitations!