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Red Rock Desert Learning Center Core Group Meeting: September 20, 2005

Red Rock Desert Learning Center

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The mission of the Red Rock Desert Learning Center is to instill stewardship and respect by increasing knowledge and understanding of the Mojave Desert ecosystems and cultures through a unique experiential discovery program.”

AGENDA

1. Introductions & Announcements (5 min.)
2. Approval of Minutes from August 16, 2005 Meeting (5 min.)
3. Discussion of Scope/Design Issues –Michael Reiland/David Frommer (30 min.)
4. Cost Update – Michael Reiland (15 min.)
5. Schedule Update – Michael Reiland (15 min.)
6. Standing Reports (15 minutes)
   A. Line and Space Architects – Les Wallach/Henry Tom
   B. BLM Capital Improvements – Michael Reiland
   C. Community Outreach – Nancy Flagg
7. Committee Reports (5 min.)
   A. Building Committee – Angie Lara
   B. Design Oversight – David Frommer
   C. Educational Programs – Paul Buck
   D. Fund-raising and Partnerships – Blaine Benedict
   E. NEPA – Michael Johnson
   F. Operations – Jackson Ramsey
   G. Other Uses – Pat Williams
   H. Wild Horse & Burro – Billie Young
8. Open Discussion / New Business (5 min.)
Meeting Minutes

RED ROCK DESERT LEARNING CENTER CORE GROUP
Bureau of Land Management Las Vegas Field Office
Tuesday, September 20, 2005

The meeting commenced at 10:35 a.m. with the following persons in attendance:
Loretta Asay, Kathy August, Blaine Benedict, Bob Clements, Nancy Flagg, Pat Fleming, David Frommer, Laurie Howard, Michael Johnson, Richard Leifreid, Alan O’Neill, Peg Rees, Michael Reiland, Henry Tom, Debbie Wright, and Billie Young.

1. Introductions and Announcements
The group welcomed Christine Brehm from the Las Vegas Valley Water District, Richard Cutbirth from the Master Gardeners, and local resident Steve Rypka.

2. Approval of Minutes
The minutes of the August 16, 2005, meeting were approved with no changes.

3. Discussion of Scope/Design Issues
Michael Reiland asked Building Committee member David Frommer to provide an overview of issues that were discussed in the most recent committee meeting, where design development plans were reviewed. David noted a series of items of importance to Core Group members, some of which require input and others of which are more informational in nature.

Bus Staging Area – The bus drop-off has been moved further away from the Friendship Circle to save some road length and reduce land disturbance. It now combines the entry road with the parking area. Three drop-off points have been retained, but they are more modest in scale. There is now a longer distance to get to the bathrooms at the dining hall (although it remains less than 1/10th of a mile) but the committee noted that students could use restrooms in the administration building if needed, and a trail is being added between the bus drop-off and the administration building. All told, the changes were viewed by the Building Committee as a better design with less cost. The core group had no comments or questions about the bus drop-off.

Route 159 Interchange – Line and Space is coordinating plans with the Nevada Department of Transportation (NDOT). The plans call for a hardened intersection above grade with box culverts or drainage below, constructed to NDOT design criteria. David noted this surface is not expected to require significant repair in storm events. The plan is to use hardened road up to the parking area, then switch to a stabilized surface. The core group had no comments or questions about the interchange.

Solar Bridge Utilities – The question is whether the utilities should run on the underside of the bridge or be buried underneath the existing channel directly below. It is an issue of cost versus disturbance, and the Building Committee was divided on the issue. David noted that running utilities under the bridge will cause less disturbance, but maintenance of the exposed lines may or may not have cost and serviceability issues. Pat Fleming said the biggest problem is with hanging sewer lines under the bridge. Peg Rees asked how deep the trench would have to be to withstand a 100 year flood. Michael Reiland noted the channel moves over time, and Bob Clements said some utilities require encasement in concrete. David Frommer asked about erosion over time. Bob said it would be an issue that a civil engineer would need to assess. Pat Fleming added that a hydrologist tried to predict the impact, and his assessment indicated that
the channel tends to bend just before the flex labs. The depth of the gully won’t change but its direction will over time. Estimates are that it would be 50-100 years before channel changes threaten the pilings for the flex labs.

Peg Rees pointed out that the utilities issue is predicated on the labs staying in the wash, now potentially cutting into the wash, with the addition of a road through a riparian area on the property. She said the siting of the labs results in a utility issue, a road issue, and a bridge issue. The alternative is to look at a different site for the flex labs, as she has advocated in the past. Steve Ripka asked about the rationale of running utilities to the labs instead of making them independent. He suggested there are opportunities to do it differently and avoid costs. Michael Reiland said other options have been investigated. Wireless is not possible because it is a government facility. Composting toilets were looked at, but there is not enough waste generated at the flex labs to justify a learning opportunity for students.

Instructor Housing – David noted concerns with being able to build instructor housing because of budget. The Building Committee favored building some housing of a more modest design. They discussed reducing the units from apartment-style to suite-style, with private bedrooms and bathrooms but consolidated dining and kitchen in a common area, which reduces approximately 40% square footage. Michael added that the agency is now looking at constructing half the proposed instructor housing with the remainder as an additive alternate. He noted BLM plans to talk to the State of Nevada about the possibility of using a structure at Spring Mountain State Park that was once used for housing; an option might be for BLM to fund some restoration and use that structure for instructor housing. The downside is that the instructors would not be on-site, although they would be nearby, and the responsibility for maintenance of the housing would need to be settled. In general, the core group agreed that some instructor housing should be constructed on site, but the more modest design was deemed appropriate.

Flex Labs – The total number of labs is under discussion. Currently, the plans call for one research lab plus 4 flex labs, but the curriculum appears to warrant only 3 teaching labs. Bob Clements said the architects looked at the total number of available teaching venues during programming. The size of the labs do not support an entire classroom, but rather smaller groups of 10-12. Having indoor facilities for inclement weather was also an issue. Alan O’Neill didn’t see any problem reducing the flex labs to three. Nancy Flagg said she was concerned about deciding that issue without Paul Buck and Jeanne Klockow in attendance to make sure the curriculum supports a reduction in labs. Bob pointed out that he has an upcoming meeting with Jeanne and Paul and would discuss this issue with them.

Art Pavilion – There is some discussion about combining the art pavilion and the observatory into one facility, especially since area is designed primarily for day use while the other is for night use. The flex labs could also be used for art activities. Kathy August pointed to the need to consider people movement for night-time activities for three groups. Michael Reiland agreed and said another option is to retain the pavilion but reduce its scope.

Central Plant – The Building Committee has determined the central plan should be sized appropriately for the facilities at build-out as currently programmed, but it should not be sized for future improvements and additions. The committee discussed taking out the viewing platform because it is not a core element of the curriculum. A viewing window could remain and tours could be arranged by individual instructors. The core group had no comments or questions about the plans.
Wild Horse & Burro Facility – The Building Committee is discussing whether two restrooms – one for the public and one for staff/public – is sufficient. Peg Rees asked if the total scope of the wild horse and burro facility has been considered for any reductions. Michael Reiland said some cuts have been made, especially to the size of the arena roof and the number of restrooms. Billie Young noted there are some limits to the design even now. Loretta Asay asked about placing the photovoltaics on the walkway instead of on the roof. She also noted the need for emergency exits off the elevated walkway, which could add costs. Some concerns have been expressed about ongoing maintenance of the photovoltaics given the dust generated by the horses.

Loretta asked about usage of the administration building. Michael said a staff person will be there 7 days a week. They hope to grow to 12 adoptions per year, host rodeos, and eventually have the operator allow daily adoptions, in addition to having students visit every day from the learning center. Billie also pointed to the need to support the visitor center operations. Loretta questioned Michael’s assertion that every child at the RRDLC will visit the wild horse facility. Her understanding was that teachers were being given an option. She has concerns about this that she would like to discuss with BLM.

Dormitories – David said the current plan is to include all 3 dormitories in the base bid, with instructor housing as an alternate. Another option is to build half now and half later. Is it a better strategy to build two-thirds of the dorms and some instructor housing versus all 3 dorms and no instructor housing? Kathy August clarified that chaperones and one on-site administrator would still be housed on-site in the dormitories even if no instructor housing were built. The answer was yes. Richard Cutbert asked if any of the housing could be built given inflationary increases. He asked if there was an option for day-trips only. Michael Reiland said the SNPLMA nomination calls for a residential program and pointed out that cutting the dorms by a third reduces the total number of students that can be served. Blaine Benedict said tradeoffs are hard to decide when it isn’t known how much one dorm costs versus one instructor housing unit. He asked if there wasn’t perhaps another tradeoff instead of a dorm. He’d rather plan for what we can afford rather than what we want. He thought a financial framework was needed for the discussion.

David Frommer said that based on current inflationary increases, there is concern the agency won’t be able to build everything based on the fixed budget, but it is difficult to predict how much inflation can be absorbed. He suggested that only certain portions of the facility make sense to bid as alternates from a price-point line. Henry Tom noted that instructor housing was not part of the original nomination but was added during initial programming.

Peg Rees said an important issue is the number of employees – well trained and on site for any given situation – and retaining those employees. It is critical to have people who know the property like the back of their hand. Residential schools have residential instructors. You want a bonding between students and instructional staff. What message does it send to have the instructors leave at night? Loretta Asay agreed and pointed to operator liability, as well, for not having staff on site. Safety and liability are key issues. Another issue is affordable housing for low-paid staff. Alan O’Neill agreed with Peg and thought it acceptable to build one of the dorms later. Christine Bendel said just one minor mishap could derail the entire concept.

There was concurrence among the core group to favor building 2 dorms and some modest instructor housing.

Pat Fleming reminded the group that BLM will undertake a formal value analysis at the end of design development. This will determine where the budget stands, will look at functional
aspects, and determine recommendations for coming within budget. He is still open to ideas for who should best participate in that study. Peg Rees asked if the agency has a general contractor in those discussions to review constructability as well as materials. Pat agreed it might be good to include such a person for this project.

4. **Cost Update**
Michael Reiland provided a brief update on the impact of inflationary cost increases on the project. Some contingencies have been built into the budget already, but inflation is outpacing what was originally predicted. That’s why the agency is looking at base bid versus alternates.

5. **Schedule Update**
Michael Reiland provided on update on the overall project timeline. Peg Rees asked Michael to walk the group through the project schedule. Solid black lines within shaded blue lines indicate items that have been completed. Peg asked how the schedule shows when items are delayed. There is no use of another color to track that. Michael replied that he updates the schedule every month. When an item is delayed, everything on the chart pushes back. The software does not record changes over time.

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*Cultural Treatment Plan* – the agency hopes implementation of the treatment plan will start around October 1.

*Geotechnical Studies* – Line and Space will coordinate with the treatment plan to determine where drilling can take place for footings, etc. A major issue is to study the soil. The studies need to happen as quickly as possible.

*Fire Control* – Line and Space is meeting with Clark County tomorrow (September 21), since fire control of structures falls under their jurisdiction. Nancy Flagg asked about the costs for Clark County fire control. Michael said the meeting would determine what will be needed. Peg Rees clarified that the school district follows county fire codes and there are no school-specific codes to address.

*Water Line* – Michael said discussions are continuing to secure special account reserve (SAR) funding for the municipal water line.

*NDOT Coordination* – Line and Space will coordinate the Route 159 entrance with the Nevada Department of Transportation and determine the timeline and costs. Peg Rees asked if the project has funding to cover these costs and the answer was yes.

*Operator* – The statements of work for both facilities are at the state office for review. The plan remains to go out around November 1 with a Request for Information (RFI) for a 30-day response. That will be followed by the request for competitive bids, ideally out for 90 days with a 30-day selection process.

*NEPA* – The contractor, Otak, still predicts the EA will continue into the spring but is looking at ways to squeeze it some to accommodate the overall schedule. The first preliminary draft of the EA has been received, and the cultural treatment plan is scheduled to begin October 1. Peg Rees suggested there needed to be a critical pathway between NEPA and construction documents on the project schedule.

Blaine Benedict asked if the resource management plan had been executed. Michael said it had not been but was anticipated soon.
6. **Standing Reports**

A. **Line and Space Architects**

Henry Tom of Line and Space Architects provided an update on recent activities (*on file in UNLV Public Lands Institute office and BLM office*). Many of the design development issues were covered earlier in the meeting. The firm has meetings scheduled with Dale Etheridge on the observatory, with Paul Buck and Jeanne Klockow on the curriculum and instructional venues, with the Clark County Fire Department, and with the Clark County School District on the kitchen design and dormitories. The design development timeline is still on track for December 2005. Value analysis may be delayed to January 2006 to accommodate participants’ schedules. Michael Reiland noted there may be good reasons to hold off until January to accommodate critical pathways, including water, NEPA, and the operator selection. Pat Fleming said the second week of January seemed acceptable for the value analysis, but Henry Tom pointed out that Les Wallach will be unavailable during that period.

B. **BLM Capital Improvements**

Michael Reiland provided an update on BLM capital improvements at Red Rock Canyon National Conservation Area. The environmental assessment for the visitor center has just started, and Otak is conducting surveys now. The agency expects some preliminary data next week to allow some emergency repairs to be made at the visitor center. The renovated Red Springs area is almost ready to be opened.

C. **Community Outreach**

Nancy Flagg provided an update on community outreach activities. Angie Lara made a presentation to the Clark County School District Board of Trustees on September 8. The presentation was very well received, with several trustees testifying to their own childhood experience at science camps and the impact it had upon their lives. Interim Superintendent Orci indicated to the board that he would work with the agency on a transportation plan and bring it back for their review in the future. The board invited BLM to make periodic updates to them on the center’s progress, and they asked for site tours to be arranged. Loretta said the trustees’ staff has since clarified that the next update should occur in February 2006 at approximately 6-month intervals. The update could be a packet of information rather than a formal presentation. She is working with district staff to set up a site tour for the first week of November. The next step will be to present a resolution for the trustees’ approval, which Michael, Loretta and UNLV are working on.

Nancy informed the group that Jeanne Klockow, Billie Young, and Laurie Howard manned booths at the Clark County Farm Festival in September. Information about the RRDLC was provided to teachers to get them excited about the curriculum and opportunities for their students. Interactive activities and giveaways were provided to both students and teachers. Billie Young added that the Red Rock Canyon Interpretive Association and the Friends of Red Rock Canyon provided materials for the teachers’ packets.

Nancy said an informational newsletter about the RRDLC project is in progress. It will be used as a general handout at events and presentations. The university is awaiting approvals from BLM. Loretta Asay said she was looking at an outreach activity with Clark County teachers on October 15 and would like to have the handout available by then. She and Michael have discussed holding an open house in this same time period so that Les Wallach could do both on one trip. Nancy pointed to the need for the university to be involved in outreach efforts, as that is part of their task agreement with BLM. If an open house is delayed, Loretta will find a way to pay for Les’s travel for her event.
7. Committee Reports

A. Building Committee
Minutes of the August committee meeting were provided to the core group (on file with BLM and UNLV Public Lands Institute). As noted earlier in the meeting, the committee spent August 16-17 conducting an in-depth review of the design development drawings.

B. Wild Horse and Burro Committee
Chair Billie Young reported that the committee has developed a working group to determine needs between the Red Rock Canyon Visitor Center and the wild horse and burro facility.

There were no other committee reports.

The meeting adjourned at 12:30 p.m.
Agenda
Red Rock Desert Learning Center and WHB – CORE Meeting
Line and Space. LLC.

BLM Las Vegas Field Office 10:30am
Design Development Progress Report

1.) Update on RRDLC/WHB Progress for Design Development Phase
   - Design Development Revisions
   - Meetings

2.) Schedule Update
   - Design Development 70% Complete Progress Review August 16-17, 2005
   - Design Development Progress Review September 20, 2005
   - Design Development Complete December 2, 2005
   - Design Development Value Analysis December 5-9, 2005 (may change to early January)
   - Design Development BLM Review and Approval December 12, 2005- January 6, 2006
   - Design Development Review with Line and Space January 9-11, 2006
   - Construction Documents Complete October 2006
   - Bidding Phase October 2006 – February 2007
   - Construction February 2007- March 2009 **

** Please note the schedule listed does not show the possibility of completing the utility infrastructure prior to the commencement of the building construction, this may trim a few months off the schedule. This reflects BLM's concern with the schedule for project completion

Possible date change for Value Analysis

3.) Minutes from August 16-17, 2005 Building Committee Meeting are included for your information.
Building Committee Meeting Minutes
Red Rock Desert Learning Center
Wild Horse and Burro Facility

Subject: Design Development 50% Progress Review with Building Committee
Location: BLM Las Vegas Field Office
          Las Vegas, NV
Date/Time: August 16, 2005 2:00pm – 5:00pm
          August 17, 2005 8:30am – 4:00pm.

Attendees: August 16, 2005 – Henry Tom, Billie Young, Debbie Wright, David Frommer, Pat Fleming, Blaine Benedict, Tom Busch, Gwen Moore, Michael Reiland, Les Wallach, Bob Clements, Erin Moore, Mike Anglin and Savannah Gammon

          August 17, 2005 – Henry Tom, Billie Young, David Frommer, Pat Fleming, Blaine Benedict, Tom Busch, Gwen Moore, Michael Reiland, Les Wallach and Bob Clements,

Meeting Notes
1.) Henry Tom reviewed the agenda and reported that Line and Space is making progress towards the completion of the Design Development Phase.

2.) There were no comments for the July 19, 2005 Building Committee meeting minutes (copy of minutes included with agenda).

3.) A complete set of 11x17 drawings were presented to everyone in attendance and a 24” x 36” set was given to Michael Reiland. The drawing set for both the DLC and WHB facility included approximately 325 pages. Henry also noted that the drawings are completed beyond the titled 50% Design Development designation, this was due to the postponing of the meeting scheduled for July 27-28 and the continuation of progress by Line and Space to the August 16 meeting date. Site models and models of each individual building were also presented. The Las Vegas Field Office kept the site model for both the DLC and WHB.

Bob Clements lead the presentation for the Design Development progress. The following were presented; comments and explanations as noted:

- Site Plan. The overall site plan showing the location of roads and where buildings are located was reviewed with the group. The sequence for students arriving on site and movement from the Bus Drop-off area to other areas of the campus was explained.
  - The entrance road with Highway 159 needs to be reviewed with NDOT to verify requirements/design for this intersection.
  - A gate at the entry road with intercom/keycard capability will be provided to control access onto the site.
  - The entry road/ access through the wash needs to be designed. This will be designed, under flood conditions, to allow water to flow over the top like a typical dip section.
  - The parking lots are planned to be constructed with a permeable surface such as “Gravel Pave”. Most roads will also be a permeable surface, where a hard surface is required it will be either concrete or asphalt paving. Les questioned how permeable surfaces such as “gravel pave” really are, since compaction of the sub-grade is required.
A concern that we may have more parking spaces than needed was discussed. Line and Space mentioned that the number of spaces provided is per the program. Line and Space and Pat Fleming will review to see if parking can be minimized.

Entry road and parking at WHB is asphalt paving. A suggestion was made to use a concrete apron at the edges of driveways instead of curbs. Parking and roads are design for tractor-trailer turning radiuses. Please note: this will be a cost issue, BLM to advise if curbs and aprons can be omitted.

All new structures at the DLC will have fire sprinklers.

It was suggested that Joel Noble of the Clark County Fire Department be contacted to discuss fire protection requirements, such as the type of fire hydrants. It was also mentioned that the fire hydrants would provide a means to fight off a brush fire.

Utilities will follow trails and roads as much as possible to avoid additional disturbance to the site, Bob indicated that the consultant drawings have not been reviewed for this.

Water brought onto site from a municipal source will follow Bonnie Springs Road to the WHB location. This item is still in the planning stage by the BLM. Line and Space will continue to design the water system from the storage tank point and on.

Pat Fleming suggested using a Re-circulating Sand Filter system for the treatment of wastewater. The water from this system is suitable for flushing toilets and landscape use. This system suggested by Pat uses mush less energy than the proposed Xenon System, since it will not require an aerobic Biological process. The sand filter system should also have a smaller required footprint for equipment. Pat would like the system to be sized per established flows and without the typical engineering conservative extras.

A discussion was held regarding whether the utility lines should be buried or hung at the Solar Bridge. Pat Fleming felt that hanging the utility lines may not be as cost effective as burying and did not have a problem with this even though we would have to cross the wash. Line and Space mentioned that the reason they hung the utility lines (must be armored) from the bridge was to avoid having to contend with crossing below grade/wash and disturbing the natural area; it was mentioned that the bridge spanned 40’ between support columns. Pat Fleming mentioned that site disturbance was probably not that big of an issue since every time water flows the natural area changes and scars are covered. Line and Space will review which solution is most cost effective and report to the BLM for direction.

A question was brought up on whether a berm was required at the central plant. It was explained that the berm and existing vegetation would help alleviate the visual impact looking at the building from Highway 159. It was mentioned that the central plant was about 15’ to 16’ tall. A section will be drawn from highway 159 to study this issue and forwarded to Pat Fleming. There was also question on whether the parabolic array for the hot water system should be kept on the berm.

For the WHB/RV Site, discussion was held regarding the 3 septic systems. A decision was made to leave the septic system at the RV site vs. a holding tank and Line and Space will look at combining the two septic systems at the WHB site.

Soils testing have not been obtained for either the DLC or WHB sites. Line and Space and it’s contracted testing agency has not been able to start this portion of the work due to the restrictions placed on the site until the
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preliminary "Environmental Assessment (EA)" has been reviewed and approved by the BLM. Michael Reiland indicated that Stan Rolf would not approve any work on site until the EA is complete. Pat Fleming was very concerned that until soils testing information is provided, the structural engineering is based on assumptions that may not be indicative of the actual site conditions. To move forward on this issue, Line and Space will provide a plan indicating the approximate areas where testing will take place and the path for which testing vehicles will travel for approval by Stan Rolf of the BLM. Drawing will be sent to Michael Reiland and Pat Fleming.

- Bus Drop Off. Progress drawings for the bus drop off were presented.
  - Discussion on whether lighting was needed at the bus drop off area. It was decided that conduit for future lighting be provided in landscape areas, if needed, flashlights could provide lighting. Provide lighting for flags. Added Note: After further evaluation by Line and Space, the minimal lighting required by code will be provided at the bus drop off area. To clarify, the minimal lighting required by code will be provided for all parking lots, all trails will be lit, and lighting will be provided at the security gate and at the intersection of the entry drive and Highway 159. No lighting will be provided at the entry road between the parking lot and Highway 159 and the bus drop off and Highway 159.
    - Public announcing system is not required.
    - Footings for walls are shown deep on the sections to allow for planting of trees.
  - Tom Busch suggested that after review by himself and a BLM Landscape Architect that they thought the Bus Drop Off penetrated too deep into the site and that perhaps it should be moved west and reoriented to align north south. Les Wallach explained that the road was designed to weave between existing trees and utilizing existing road alignments as much as possible. It was also explained that the bus drop off area was located in an area that would allow the kids to be dropped off without having to walk too far but also have the ability to decompress prior to arriving at the friendship circle.
  - Tom Busch's comments lead to further discussion the following day. Les explained that the bus drop off would probably have to be reduced in size to fit in the area that Tom suggested. That lead to a discussion on whether the bus drop off could work with a one-bus area; a solution would be to provide a bus pull out area prior to the parking lot that would allow an area for two busses to stage. After much discussion, it was determined that this could work; Dave Frommer suggested we study whether a three-bus drop off area would still work. Line and Space will look at this.
  - The building committee also decided that by allowing the circulation of all traffic to flow through the parking lot, a section of road could be eliminated. Line and Space noted that the parking lot and the main entry drive were separated for safety and to avoid conflict between the busses and cars. The committee felt that because this is a relatively low use area, conflict and safety was not an issue.

- Friendship Circle. Progress drawings for the Friendship Circle were presented.
  - Stone veneer finish is planned for the Friendship Circle.
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- Lighting for this area will be minimal, the intent of the lighting is to provide for a soft glow and safety. Step lights and electrical outlets will be provided.
- Propane tank will need to be located for the gas fire pit.
- A concern was brought up during a past meeting that we may have heat radiating from the metal roof onto the seating area. Line and Space proposed that a layer of foam be installed on the top of the metal to shield this area. After further review the foam may not work since it would effect roof drainage; Line and Space will look at the design to see if heat radiation is really going to be a problem, if so, a solution will be designed.

- Administration. Progress drawings for the Administration building were presented.
  - The finished floor elevation was raised 2'. This effectively improved areas such as the exterior patio space and exit out of the conference room, which is now on grade rather than in a sunken space. The retaining wall along the instructor workroom was also reduced in height. Raising the floor level also help with flood issues.
  - Roll down door at sales area has been changed to a glass storefront. This provides for improved physical and visual access to the sales area and noise control. A glass door has been added between Hall 111 and the reception area for security.
  - Pair doors have replaced a single door at the west exit. The supply area did not work code wise for a Vestibule (however, concept applied to Dining entry). The exterior of the west exit area was also reconfigured to work more efficiently.
  - The overnight area in the Director’s Office is needed based on the experience of other similar facilities.
  - Solar Tubes are planned for the Hall 113 area.

- Dining and Central Restrooms. Progress drawings for the Dining and Central Restrooms were presented.
  - Bob explained that the roof of the Dining Facility will capture rainwater and be piped to storage tanks at the Greenhouse. A vestibule has been added to the entry of the Dining Room.
  - Pair doors have been provided to the Gear Room and Gear Storage. A flip up counter is provided to control student access into the Gear Room. Size of the flip-up counter should be increased for ease of access and moving items in.
  - Cabinets in Gear Storage and Gear room will be adjustable shelving. Show location for washer/dryer and include a drip/dry area. A counter sink and a slop sink are also needed. Look at providing solar tube type skylights in Gear Storage.
  - Pair doors have been provided at Storage 116. Pair doors were not provided at Storage 118 because this room will be used for AV storage.
  - The video projection screen location has been moved for improved visibility. Provide for AV capability at the presentation area (could plug in a laptop or other source at this location) and recessed speakers in the ceiling for the sound system. The AV system should be usable from both the presentation area and the AV storage closet. Projection will be from a ceiling mounted projector.
  - Verify that a grease trap will be provided.
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- It was confirmed that the kitchen equipment has been specified and designed for flexibility in food preparation (not just 5th grader food). Line and Space will confirm if prep sink area is large enough, are more prep sinks needed? Blaine Benedict suggested that the kitchen will need a private office for the executive chef/manager.
- The serving area could be converted into a waiter station for a sit down type dinner event. Currently the kitchen is not designed with a food pick up area or waiter station. Line and Space will look at a providing a barrier/screen for this area. The counter along the east wall may also be extended into the entry foyer.
- Provide double door access into the Kitchen, also look at providing pair doors at Service Entrance 111A.
- A copy of the specified kitchen equipment was presented for review. No comments were made.
- Study the size of the Janitor Closet in the kitchen; size may need to be increased. Also look at the proximity of the closet to the main dining room an additional closet may be needed near the dining room.
- Line and Space will look at providing Solar tube type skylights in Kitchen.
- The wall finish material in the dining room should be a durable and easily cleaned surface. The issue of chairs and tables running against the walls were brought up. It was suggested that ceramic tile be used and possibly a chair rail.
- The Central Restrooms are modified so that the entry doors are visible.

- Dormitories. Progress Drawings for Dormitories were presented.
  - The building committee was reminded that a play area for the students has been developed between dorms.
  - Pair doors have been added for the Mechanical and Storage Rooms. This will help with moving items in and out of these spaces; large items being moved into the building can be brought through the sliding glass windows located at the Entry Deck area.
  - Showers have been modified to include an area for dressing (shower heads will be moved to adjacent wall). Walls in the shower and toilet rooms will be tile.
  - Tom Busch questioned whether the sleeping loft design was conducive for other users such as corporate retreats. He felt that other users might not be receptive to the idea of sleeping bags on mats. It was explained that the design was to provide an interesting space and unique experience for the student users, providing for other users was secondary. Other users would have to be receptive of the philosophy and ideas of this facility, such as tuning their environment by opening and closing insulation panels. It was explained that the design allows for flexibility; user could have private rooms if wanted. Blaine Benedict expressed that this item has been discussed many times and that they understand that some users may not find this arrangement suitable, but they were firmly supportive of this design.
  - Line and Space will design a divider between each sleeping space in the loft area. Michael Reiland suggested that temporary foam dividers be used and could be inserted if the situation requires.
  - Pat Fleming asked what is the optimal orientation for the Dorms and did Line and Space do any energy modeling to determine this? He was also concerned with the amount of excavation that would be required for the dorm
construction; what would happen if the dorms were shifted to work parallel with the contours. Les explained that a study was done, with GLHN, to determine the optimal shape with orientation (concave, convex and straight configurations were studied), a copy will be sent to Pat. The convex shape was determined to be most efficient for heating in the study. It was decided, for ease of construction and the minimal payback of the convex shape, the straight configuration would be best. Orienting the building parallel with the existing contours did not work well with the solar orientation, since the building would be exposed towards the west.

- Solar Bridge. Progress Drawings for Dormitories were presented.
  - The group was reminded that the original solar bridge design was curved and integrated along the front entries of the Flex Lab. The new bridge is straight (curve less) with provided places for observation (shaded by the PV panels) and separated from the Flex Lab. The Flex Labs are paired and connected by a common link to the Solar Bridge.
  - Line and Space will check with Frank Ceisel to see if a wheel chair lift is an acceptable method for access to the lower level at the west end of the bridge. The committee preferred the wheel chair lift solution.
  - Pat Fleming is concerned that the slope of the sewer is effecting the finish floor elevations of the Flex Labs; the end lab is higher than was expected. Pat felt that a 0.25% slope may be used for the sewer line; Line and Space will confirm this with GLHN to see if this would be advisable in this situation. Bob Clements feels that the height may be lowered even if the slope of the sewer was not changed.
  - Line and Space will investigate the bridge material. It was suggested that fiberglass, aluminum or galvanized metal could be used. Recycled material should also be considered. A galvanized finish would be preferred for the bridge.
  - Line and Space will compare cost of armoring/insulating pipes hung from the bridge vs. burying them in the ground. See Site notes for additional comments.

- Flex Labs. Progress Drawings for Dormitories were presented.
  - Line and Space will review the sewer slopes and work on lowering the finish floor levels for the last two flex labs. See Solar Bridge notes for additional comments.
  - The group also asked Line and Space to review the Flex Labs with Paul Buck and Jeanne Klockow for coordination with the curriculum.
  - A under counter refrigerator will be included at each lab.

- Art Pavilion. Progress Drawings for Art Pavilion were presented.
  - The plan was modified to function more efficiently. The group was reminded that the toilet is a "vault toilet" and will require periodic pumping. The room is oriented to views of the Wilson Cliffs.
  - The group would like to reduce the size of the roof and deck area. The roof may be reduced by 12' on the west edge; Line and Space will look at this.
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- Central Plant and Maintenance Facility. Progress Drawings for Art Pavilion were presented.
  - A less elaborate method to provide viewing of the central plant was discussed. It was determined that the observation platforms and the east screen wall could be deleted; it was not necessary to bring the students into the space.
  - The earth berms should take on a more natural form with planted vegetation and Limestone rocks. See Site notes for additional information.
  - It was explained to the group that the Central Plant may take on a different footprint once the equipment design is finalized, certain pieces are shown as placeholders at this time.
  - Roof overhangs on the north may be reduced.
  - Provide pair doors at Electrical Room 106 and Water Room 106.

- Instructor Housing/ Facility Manager Housing. Progress Drawings for Instructor Housing were presented.
  - After the design was presented, a question was asked on whether or not the program for the Instructor housing should be reassessed. It was felt that with our budget problems, the instructor housing might be scaled back so that users share a living space and kitchen vs. individual apartment type units. The group was reminded that the housing was already excluded from the previous estimates and would be included as alternates during bidding. The Facility Manager Housing would be included in the Base Bid.
  - The BLM will provide direction on this item. Please note that the Instructor Housing as presented was based on the approved program.

- Green House. Progress Drawings for Green House were presented.
  - The group was reminded that the greenhouse is not your typical off the self greenhouse, but a greenhouse designed for the desert. The greenhouse is integrated into the earth on the west. Rainwater is collected from the Dining Room roof and stored here.
  - It is estimated that approximately 8000 gallons of harvested water could be stored here.
  - Access to composting area will be reviewed for function.
  - Replace concrete slab north of entry and at south window wall with gravel.
  - Provide area to circulate between tanks and service yard.
  - Schedule a time to review plan with Master Gardeners.

- Observatory. Progress Drawings for Observatory were presented.
  - The plan includes a vault toilet, telescope pad, gathering area and the observatory space.
  - The finish for the floor area at the Gathering Area will be investigated. It was suggested that the area might be dirt or gravel; issues with dust and accessibility will be reviewed. Drainage will also be reviewed. Power should also be provided for telescopes.
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- WHB Administration. Progress Drawings for WHB Administration were presented.
  o Delete Clerestory window.
  o Provide a door between space 105 and 114. Door at entry 110 should have the ability to be locked for no entry from the exterior.
  o Windows on the southeast corner will be reviewed in regards to the sun angles.
  o A discussion was held on whether the restrooms as designed would handle the anticipated periodic large crowds. It was explained that the previous design had more capacity, but was scaled back due to the recommendation of the Value Analysis. For the large crowds Portable Restroom facilities would be brought in. The current design would handle the staff, visitors and the students.

- WHB Resident Animal Stalls. Progress Drawings for WHB Resident Animal Stalls were presented.
  o The number of stall could be reduced from 8 to 10.

- WHB Arena. Progress Drawings for WHB Arena were presented.
  o Billie Young made a comment, that the arena should be completely covered. It was explained that the budget did not provide enough funds to cover an arena this size. However, by locating the PV panels over the Arena, additional funds from the DLC were shifted to the WHB budget to help pay for the structure that would support the PV panels; this gave us our roof as designed. Money may have to be raised by other sources to fund complete covering of the arena.
  o Pat Fleming suggested that we look at locating the PV panels over the maintenance/infirmary roof; this may allow the arena roof to be a tensile fabric type system, which may be less expensive. Line and Space will look at this idea. Pat Fleming will also contact Andy Walker to discuss if there are other methods for supporting PV panels. It was also mentioned that the PV panels are angled at 5 degrees, this allows rainwater to clean the surface. It was also mentioned that we might want to provide other methods for cleaning the panels, such as a sprinkler system.
  o No lighting is provided for the arena. Conduit will be provided to the arena roof to allow for future lighting. It was noted that the arena was not planned for nighttime use.

- WHB Holding, Handling and Sorting. Progress Drawings for WHB Holding, Handling and Sorting were presented.
  o No comments.

- WHB Infirmary. Progress Drawings for WHB Infirmary were presented.
  o Infirmary will be evaporative cooled. Provide a refrigerator.
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- WHB Maintenance and Feed. Progress Drawings for WHB Maintenance and Feed were presented.
  - Maintenance will be evaporative cooled. Bob Clements will review the function of this area.
  - Delete the pull through and the storage of vehicles in the maintenance area.
  - Feed area is not enclosed; pellets and grains will be stored in bins with lids.
  - Restroom location is okay as designed.

- WHB RV Site. Progress Drawings for WHB RV Site were presented.
  - Reduce paved area and replace with gravel; concrete area will be limited to area at RV awning only.
  - Provide septic system.
  - Provide containers for recycling and a gas BBQ.

4.) Other items discussed.

- Inflation. A discussion was held regarding inflation. Dave Frommer mentioned that at UNLV and Las Vegas they are experiencing a 12-18% yearly inflation rate. Les mentioned that in the last issue of ENR they list the national rate at 4.5%. This is a real concern, since the project budget did not account for an inflation of this magnitude. Dave Frommer warned that we are in an unusual inflationary environment and there will be additional scope reduction/change; at UNLV they have had to increase budgets or reduce scope to allow projects to be built. It was also brought up that any stops or delays in the project would affect the budget.

Line and Space was asked to review the design and write a brief narrative/list that would outline what would be the minimal requirements (buildings, spaces) for the DLC to function as an environmental education facility.

- Mechanical and Utility Systems. Line and Space was directed to design mechanical and utility systems with no capacity for future expansion; the BLM wants to discourage future expansion. A narrative with design criteria should also be included on the drawings.

- Environmental Assessment Report. Michael reported that this report is in the internal BLM review phase. The initial schedule presented by the BLM's EA contractor showed a June 2006 completion; Michael said that this was not acceptable and that an earlier completion is requested (most likely February or March). A discussion was held on whether the Contract Documents (CD) Phase will start before the EA is approved; if not, this may delay the project since the CD Phase is scheduled to start in early January. Henry Tom was very concerned with the delay since Line and Space has staff dedicated to this job. Gwen Moore also commented that the BLM should have their act together to allow the project to flow uninterrupted and that this was the expectation from all working on the project.
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- Construction Administration. A short discussion was held on this subject. It was mentioned by Gwen Moore that this project, because of its special nature, would require more than the once a month construction site visit from the architects. She thought that full time CA is warranted for this job, this would be in addition to the BLM inspector.

- Equipment and Furnishings. A discussion was held on what equipment and furnishings will be provided by the BLM. Line and Space mentioned that an extensive list is included in the schematic budget. The list will be sent to Michael and he will give direction on what items will be specified by Line and Space.

5.) Project Schedule Update. The next Building Committee meeting will be held on September 20, 2005 prior to the CORE Meeting at the BLM Field Office. Starting at around 8:30am or so.

The 100% Completion of Design Development date scheduled for December 2, 2005 will remain.

End of Report.