Section 1: Introduction

- The Institute of Museum and Library Services (IMLS) has awarded a grant to the Museum of Natural History and University Libraries. Part of the grant is a media redesign of the museum’s existing Educational Center. This redesign is part of the dissemination section of the IMLS grant project:

  “DVD-based presentations to be incorporated into Museum exhibit space, in multi-use media room. The museum will renovate an exhibit area to serve the Don Hunter Archive. This part of the museum will be dedicated to showcasing Don Hunter’s programs to small and large groups and will utilize the latest presentation equipment and technology. In addition to a group presentation area the museum has designed a “stand alone” kiosk system, where the public will also be able to watch segments of each program. All programs will be closed captioned for the hearing impaired and the museum exhibit area will have the appropriate equipment for both closed captioning and assisted listening devices that meet all ADA standards.”

- The redesign is scheduled during Year 2 of the grant allocation.

• The budget justification and equipment totals are as follows:

  Exhibit Equipment (total for components) $11,850 year 2 (see below for a budget allocation update)
  We request IMLS support for dedicated public display equipment, installed in the Museum. Price estimates based on recent purchases and current street price. Please note that no individual component exceeds the $5,000 capital equipment threshold:
  Video projector $4,000
  DVD/VCR $750
  Sound system – Surround Sound $2,000
  System controller* $3,000
  Assisted listening devices $800
  (as well as closed captioning on the DVDs)
  Electronic (motorized) screen $1,000
  Cables and Misc. $300

  *Crestron System

  Electrical / data cabling for exhibit $3,000 year 2 (see below for a budget allocation update)
  We request IMLS support for electrical and data-cabling required for permanent exhibit installation. This work will be performed by UO facilities staff &/or outside contractors. The cost estimate is based on recent experience with comparable installations in campus classrooms.

- In year 2 there is an additional $4,700 budgeted for a Kiosk Viewing Station. These funds have been transferred into the above category (electrical/data cabling) and reallocated for Year 1. This reallocation has taken place to utilize the overall museum redesign, and contractors for a full lighting and electrical upgrade. The total budgeted amount for the
lighting and electrical upgrade, taken from Balzhiser & Hubbard Engineers’ “Total Anticipated HVAC Systems Upgrade Construction Budget Estimate”, is $6,500. The museum and libraries came an agreement to reallocate the funds at the IMLS 1st Quarter meeting held on February 9, 2004. There is an additional $4313.65 budgeted for the architectural work which includes:

- Casework for the control case @ $600
- Wood trim for soffits @ $1,000
- Soffit framing and finish @ $810
- Painting @ $400
- Projection screen installation @ $600
- Architectural Contingency (15%) @ $511.50
- Construction Contingency (10%) @ $392.15

It has been discussed to roll this architectural work into the UO Facilities budget for the museum exhibit redesign project, but as of April 22, 2004 there is no set agreement.

Robert Voelker-Morris and Nancy Slight-Gibney revised budget breakdowns to reflect the reallocation, and forwarded them to Lin Reilly at the Office of Research Services and Administration. The new budget breakdowns reflect the transfer of the kiosk funds, $6,500, into the Year 1 ‘Other Direct Costs’ category, which will be utilized for the Educational Center media lighting and electrical redesign. Additionally, $1,200 for electrical/data cabling was moved into the ‘Supplies’ category for Year 2. (A copy of the revised budget is available upon request.) Lin Reilly addressed original concerns about:

- The IMLS’ 10% restriction of fund transfers, which states that any transfers over 10% of the operating budget has to receive prior approval from IMLS. The answer is the transfer of funds does not meet the requirement of having to contact the IMLS for approval, and can proceed through the university.

- Whether the Kiosk Viewing Station is a piece of capitalized equipment, i.e. not over $5,000. The answer was no and as such it would still have F & A (Facilities and Administrative costs, overhead 32%) attached to it. The main problem would have been the added 32% appearing out of nowhere and taking away from the grant funds. Equipment over $5,000 is excluded from F&A.

- The account code would be same, which means everything is the same on paper. In addition, we will not need pre-award spending authorization to transfer funds from Year 2 to Year 1, as long we provide full detail for both years, so Lin can set up the budget accordingly (this was submitted by Robert on February 16, 2004).

Additional budget questions include:

- Where will the money for the construction of a platform to hold the projector come from? How much will this cost?

- Where will the money for speaker installation come from? How much will this cost?

- Where will the money for equipment cabinet construction come from? How much will this cost?
Section 2: Plans for the space, as of April 22, 2004 (see Appendix A for design drawings):

- Motorized screen (with the possibility of three plasma screens placed behind) will be located on the South wall (see Figure 1 below).

![Figure 1](image1.png)

- Projector unit will be placed on the crossbeam (located in the center of the room running east to west) (see Figure 1 above). A shelving space will be constructed and 2” conduit will run from the projector to the centralized equipment cabinet. This main conduit will run through the ceiling area above the entrance doors and the light may be replaced to match overall lighting redesign (see Figure 2 below). Other conduits, to the screens, speakers, and lights will be 1”.

![Figure 2](image2.png)
• A centralized equipment cabinet will be constructed to house the DVD and VCR players, resident computer, and other Crestron equipment (see Appendix B). This will be constructed into the alcove space near the main entrance doors (see Figure 3 below).

![Figure 3]

• Ceiling space will include both HVAC and conduits designed by Balzhiser & Hubbard Engineers. The current lighting will be replaced as part of the museum exhibit redesign (see Figure 4 below).

Replacement of lighting will entail:

  o Remove the one (forward) pendant light (A) and place in the back bay (behind the crossbeam).
  o Leave the 2nd pendant light (B) in place.
  o These pendent lights will be retrofitted – remove hum, color rendering will be more humid (80s) remove harsh blue light affect will also remove flicker.
  o Lights will all be on a dimmer control system.

![Figure 4]
- Possibly placing track lighting (that will match the main museum exhibit hall) the soffits that run on the crossbeam and south wall to provide more indirect light.
- The lighting control system will be part of the overall museum control unit.
- (At one point there was the discussion to add in ceiling paneling to hide the HVAC and conduits, but this has been decided against.)

- Speakers will be installed to accommodate stereo surround sound (see figure 5 below).
  - Three speakers will be located on the south wall (A, B, and C). These speakers will most likely be recessed into the wall, and there is the possibility of purchasing a screen from which the sound can filter from behind the screen.
  - Two additional surface mounted speakers will be located on the crossbeam (D & E), and will provide multi-directional sound in order to direct sound both front and back.
  - There is a proposed speaker for the north wall (F) (this speaker will be decided upon when the sound engineer designs the space).
Section 3: Museum Multi-use Needs for New Media Space

An email was sent to Museum of Natural History staff (see Appendix C) asking for feedback about what their needs would be for the Educational Center. The museum staff responses were tabulated in Appendix D. The space will be a multi-purpose room, beyond the dissemination of the Don Hunter DVDs that will involve after school programs, volunteer presentations, research division presentations, and other events.

Before the space is designed, certain topics will have to be addressed. These additional concerns and questions for the space are listed below:

1) With the new overall museum exhibit redesign the museum plans to double attendance. Part of this attendance increase will be to manage larger student tours. 60 on a tour that would be split 20 in the Education Center, 20 in the museum exhibit area, and 20 on walking tours. This equates to the Education Center having enough space to serve 20 to 25 individuals at a given time.

2) Seating - How to utilize the space so it accommodates both a ‘movie theater’ environment with seats that are in place for showings and a classroom space where the seats and tables can be mobile?

3) Connect to the ‘Geological Theater’ (main museum redesign) for overflow simulcast showings. Go both directions? Balzhiser & Hubbard Engineers have proposed that the ‘Geological Theater’ controls be tied into the Don Hunter Crestron unit. At first the ‘Geological Theater’ can be tied into the main exhibit lighting control unit, with the possibility in the future to tie into the Crestron unit once it is installed. This will cut down on the main exhibit redesign costs.

4) Storage space - Can any be added? More important is saving the precious small amount of storage already available in the space. There has been an expressed need, by museum staff, to leave open the closet and cabinets for educational programming storage.

5) Making sure there are both a resident computer and an additional plug-and-play port for laptops that could be accessed by presenters and staff.

6) Need Ethernet connection for the Crestron system.

7) Can we accommodate a Samsung Digital document camera to project 3-D objects onto the screen? (Cost? $2,000 - $3,000 (other brands?))

8) Keep presentation white boards available. Can anything be built in?

9) Tom Matney, Head of Media Services, mentioned the need for the projector and screen to be controlled by one Crestron control button. One button may be enough since some of the presentations will utilize slides and the digital projection unit would always override the screen paces with its projection. There is simplicity to the one button approach that is a benefit, but if the projector and screen buttons are well labeled it should not be a problem having the screen and projector buttons separate.

10) How many control panels will be available in the room? One main unit placed in the wall by the main entrance door, or an additional panel on the south wall next to the screen? There will be 2” conduit installed so that a main control panel will be located next to the equipment case, and another panel for computer plug-and-play and lighting presets will be located on the south wall next to the projection screen.
11) Three plasma screens have been discussed, but these will fall out of the budget range of the IMLS grant (even in the second year if prices come down). If funding can be arranged there is interest for being able to present Don’s presentations as close to the original as possible. A major concern is the life span of plasma screens. The production team for the redesign of the museum’s ‘Geological Theater’ stated “the plasma may offer a slightly sharper image, but the life expectancy on them in a museum environment can be as low as 2-4 years” (UOMNH Media Production Update – 12/2/03).

12) Lighting upgrade that addresses dimming issues and what zones will be created for control through the Crestron system.

13) Speaker/sound system requirements need to be addressed (see Figure 5). Chris Lundberg, of Media Services will help on this. Right now surround sound with at least six speakers is being considered. The speakers will most likely inset into the walls instead of being mounted. 1” conduits to each of the speakers will be needed. There is some concern about sound bleeding into all the other areas of the museum. Solutions might include double walls, more insulation, other (?)

**Section 4: Conduit and HVAC Design**

The schedule for the Education Center redesign is a year out from formalizing the technology to be purchased. Tom Matney, Head of Media Services, wants to wait until pricing will (most likely) come down. Additionally, the creation of the media space is scheduled in the IMLS grant budget for the second year. But we want to identify the electrical/conduit needs at this time in order to coordinate with the new HVAC installation, so the electrical conduit can be installed at the same time (for later media wiring to be installed as needed).

The HVAC system is an upgrade of the mechanical system. In the Education Center of the museum, this is an entirely new addition since no HVAC system exists there now. It will (most likely) be exposed ‘soft sock’ material. There should be no conflict between the HVAC and AV systems because of having both under one department’s (Balzhiser & Hubbard Engineers) design plan. The conduit design for the AV systems will be roughed in, and designed by Balzhiser & Hubbard (BH) Engineers.

It was decided that the lighting would be installed along with the other lighting changes in the lobby and exhibit areas, so we will not have to wait until the Crestron system is installed. BH and the University of Oregon will be working on the lighting rebate project with EWEB.

Lead engineer is John Spruance, Electrical Designer, Balzhiser & Hubbard Engineers.
APPENDIX A

Don Hunter Center Check Set Drawings 3/08/04
Submitted by Balzhiser & Hubbard Engineers and Berry Architects

FLOOR PLAN - POWER

SCALE: 1/8"=1'-0"
AUDIO VISUAL / LIGHTING CONTROL

No Scale

Audio Visual/Lighting Control General Notes:
1. All equipment shown is provided under this contract unless otherwise noted.
2. All lighting and lighting control wiring provided by electrical contractor. Audio visual wiring in exhibit room by exhibit room contractor.
3. Verify exact quantity of luminaires, occupancy sensors and lighting control equipment on plans and in specifications.

Control Diagram Notes:
1. Equipment provided and installed by university.
2. Equipment provided and installed by exhibit contractor.

Cabinet Elevation

Scale: 3/4" = 1'-0"
APPENDIX B

Equipment Cabinet Dimensions (designed and submitted by Stan Hall, Instructional Equipment Manger, Media Services, 346-1944, shall@uoregon.edu)

Small equipment cabinet

36" cabinet height

A door or panel should cover these units. No need for public contact.

Each rack unit is 1 7/8" high.
4 rack units = 7.5"
Subject: Need Your Feedback about Ed Center Redesign

Hi,

I am emailing everyone about the IMLS grant plans for the Education Center. The reason why is we have planned a large renovation of that space to create a cutting edge multi-media center, and I want to receive feedback from museum personnel about your needs for the space.

Below, is a list of possible media that would be needed in this space. If you can email me back the list with priority rankings (0 = none, 1 = low, 2 = somewhat, 3 = medium, 4 = high, 5 = very high).

1. Video
2. DVD
3. Computer (example = PowerPoint)
4. Slides
5. Other (please explain)

Finally, below is an outline of the proposed Media Services’ plan for the Ed. Center. This renovation process is planned to begin in October 2004. Please take a look at it and respond to me with feedback.

DVD-based presentations to be incorporated into Museum exhibit space, in multi-use media room. The museum will renovate an exhibit area to serve the Don Hunter Archive. This part of the museum will be dedicated to showcasing Don Hunter’s programs to small and large groups and will utilize the latest presentation equipment and technology. (The proposed space is to be designed like many of the newer university classrooms with a centralized control unit where one can raise and lower the screen, raise and lower the lights, run the DVD or VCR, plug in a computer, etc.)

Dedicated public display equipment, to be installed in the Museum include:

1. Video projector.
2. DVD/VCR.
3. Sound system (including surround sound speakers and amplifier).
4. System controller.
5. Assisted listening.
7. Lighting that will be able to dim and brighten.

Additionally, there has been proposed adding plasma screens to this display area, if funding and staff time needs could be met within the grant parameters or if additional funding can be arranged. The plasma screens will compose of three screens behind a regular screen, and slightly recessed into the wall behind. These will allow us to reproduce Don’s shows closer to the originals.

Best

Robert Voelker-Morris

Project Coordinator – Don Hunter Archive
Museum of Natural History
University of Oregon
rmorris1@darkwing.uoregon.edu
541-346-3987

4/22/04

Educational Center Media Redesign
### APPENDIX D

#### STAFF FEEDBACK TABULATIONS

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<th></th>
<th>Video</th>
<th>DVD</th>
<th>Computer</th>
<th>Slides</th>
<th>Other</th>
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<td>Cindi Budlong, Exhibit Designer</td>
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<td>Pam Endzweig: Collections Division Director</td>
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<td>Linda Yoder: Museum Store and Volunteer Coordinator</td>
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<td>Judi Pruitt: Assistant Program Coordinator</td>
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<td>Tom Connolly: Research Division Director*</td>
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<td>2</td>
<td>4</td>
<td>5</td>
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</tbody>
</table>

*listed in priority ranking 1, 2, 3, 4, 5 (1 highest)

0 = none
1 = low
2 = somewhat
3 = medium
4 = high
5 = very high

**FIGURE 1.0:** Above feedback was collected by sending out an email (see appendix B) to Museum of Natural History staff and student employees. The above 8 staff members responded out of 13 total.