

MEMORANDUM

TO: University Facilities Planning Board: Joe Fedock - Chair, Walt Banziger - Vice Chair, Jim Becker, Kurt Blunck, Allyson Bristor, Jeff Butler, ASMSU President, Michael Everts, Mandy Hansen, Jeff Jacobsen, Patricia Lane, Terry Leist, Tom McCoy, Martha Potvin, Jim Rimpau, Tom Stump, Jim Thull, Joe Thiel – ASMSU, Allen Yarnell, Brenda York

FROM: Victoria Drummond, Assoc. University Planner, Planning, Design & Construction

RE: **March 27, 2012**, meeting of the University Facilities Planning Board to be held in the **Facilities Meeting Quonset** at **3:30 pm**

ITEM No. 1 – APPROVAL OF NOTES

The draft notes from March 22, 2012 will be approved at the April 10, 2012 meeting.

ITEM No. 2 – EXECUTIVE COMMITTEE REPORT

Report on any current Executive Committee actions.

ITEM No. 3 – CONSENT AGENDA -

- A. **Antenna upgrades within existing MSU Agreements and using existing antenna mounts to increase capacity to serve university clients. (Staff report and attachments provided)**
1. Cellular One to use No. 8 Cutthroat mount – North Hedges Hall
 2. ATT – Leon Johnson Hall
 3. Verizon – Leon Johnson Hall
- B. **MSU LMP Website Location**
Presenter – Candace Mastel
- C. **Leon Johnson Hall Energy Improvement Project-Exhaust Fans on Roof**
Presenter – Dan Stevenson

ITEM No. 4 – RECOMMENDATION – **Family & Graduate Housing – Proposed Demolition of 50 Single-Family Units**
Presenter – Dennis Raffensperger

ITEM No. 5 – RECOMMENDATION – **Proposed Renovations to Hapner Hall and Langford Hall**
Presenter – Dennis Raffensperger

ITEM No. 6 – RECOMMENDATION – **Combined presentation.**

A. **Presenter – EJ Hook and Jeff Butler. Recommendation request to use Academic R&R Fund for replacement of classroom seating (one room in EPS and Leon Johnson Hall)**

B. **Presenter – Victoria Drummond. Discussion and/or Recommendation of draft Academic R&R Fund Application and Review Process**

ITEM No. 7 – RECOMMENDATION – **2012 and 2013 Registrar Classroom Renovations**
Presenter – Walt Banziger

HORIZON ITEMS

- External Building Signage Policy
- Staging Discussion
- Seminar Materials
- Master Planning Issues
- Revisit and Update Policies
- HBO5 Amendment for lab Facility
- Smoking Problems

VCD/lk

PC:

President Cruzado
ASMSU President
Bonnie Ashley Registrar
Jody Barney, College of Agriculture
Pat Chansley, Provost Office
Julie Kipfer, Communications

Victoria Drummond, Facilities PDC
Lisa Duffey, College of Agriculture
Heidi Gagnon, VP Admin & Finance
Diane Heck, Provost Office
Jennifer Joyce, Planning & CIO Office
Linda LaCrone, VP Research Office

Shari McCoy, Presidents Office
Becky McMillan, Auxiliary Services
Robert Putzke, MSU Police
JoDee Palin, Arts & Architecture

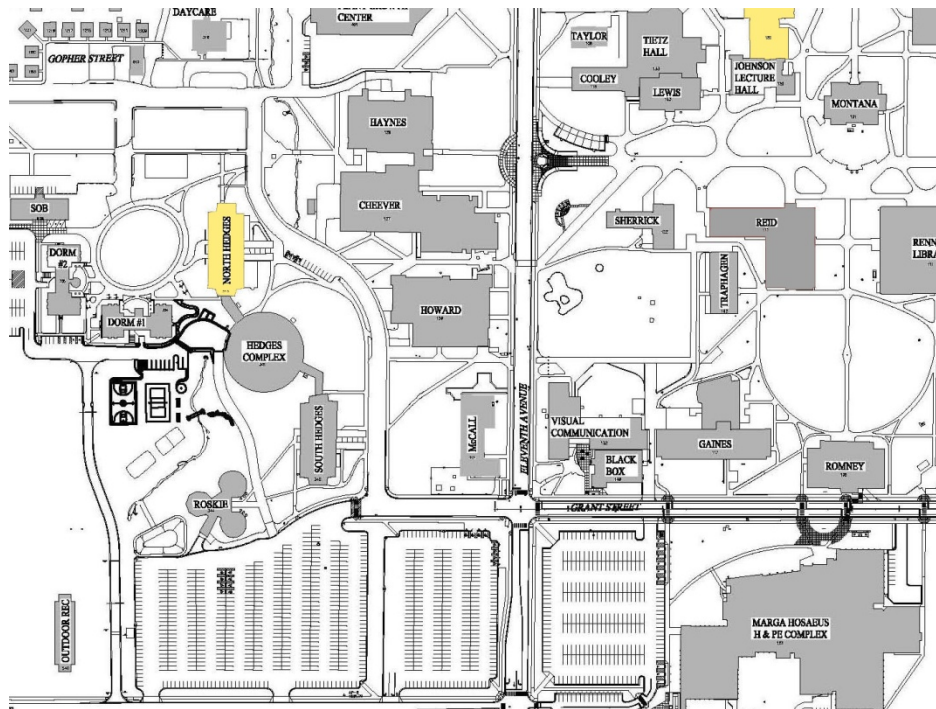
ITEM # Consent 3A	Three Antenna Agreement and Equipment Upgrades
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PRESENTERS:

Victoria Drummond, Associate University Planner

PROJECT PHASE:	PLANNING	SCHEMATIC	DESIGN DOCUMENTS	CONSTRUCTION DOCUMENTS	X
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VICINITY MAP:



STAFF COMMENTS:

Facilities Services, Facilities Planning and the MSU Telecommunications and Antenna Committee review requests from telecommunications providers regarding new and modifications to existing antenna agreements. These modifications typically are to install replacement equipment with improved or expanded technology. The three upgrade requests are from Cellular One, AT&T, and Verizon and affect North Hedges Hall and Leon Johnson Hall rooftop locations. The following comments are from the review of the requests, their agreements, and inspection of the sites proposed:

1. Cellular One – Hedges North Hall to receive former Cutthroat mount #8 (see Hedges North rooftop diagram)
 - a. Replace existing 1/2” coax cable with Ethernet cable

- b. Replace 4' PSC antenna with a 2 ½ microwave dish and radio, so smaller size (see DragonWave attachment)
 - c. Use existing antenna mount so no new construction
 - d. Use FCC licensed frequencies determined not to interfere with other frequencies
 - e. Benefits customers (MSU community) with reduced interference and improve the service level
2. AT&T – Leon Johnson Hall (see Leon Johnson rooftop diagram)
- a. Remove six panel antennas and six coax cable runs; remove microwave antenna
 - b. Replace with three new dual band panel antennas (same size as existing) and 12 coax cable runs; use existing fiber optic cable installed by Century Link (Quest) and co-locate with Verizon; install new, separate cable distribution trays (MSU ITC required to isolate MSU's from non-MSU vendors) - 8th floor
 - c. Use existing antenna mounts at same locations (three sectors - alpha, beta, gamma – see elevation drawings)
 - d. Use FCC licensed frequencies determined not to interfere with other frequencies; Add 1900 frequency
 - e. Improve communications between other AT&T cell sites
 - f. Benefits customers (MSU community) with additional capacity (bandwidth) for data and video (downloading and uploading files)
3. Verizon – Leon Johnson Hall (see Leon Johnson rooftop diagram – same as in 2 above)
- a. Replace four existing single type panel antennas at each of three sectors (alpha, beta, gamma – see attachment with specifications and simulated photos comparing existing and proposed) with three types of panel antennas at each sector, and two additional cables at each location
 - b. Use existing antenna mounts at the same locations
 - c. Use FCC licensed frequencies determined not to interfere with other frequencies; also have PCS Service, Digital Service and LTE Service in three frequency ranges
 - d. Install new, separate cable distribution trays (MSU ITC required to isolate MSU's from non-MSU vendors) - 8th floor
 - e. Benefits customers (MSU community) with upgraded existing wireless communications antennas to 4G LTE wireless technology and increased data capacity
 - f. NOTE; antennas proposed for all three sectors (alpha, beta, gamma) are an increase in antenna, but should not be discernible at pedestrian level (see attachment with specifications and simulated photos comparing existing and proposed)

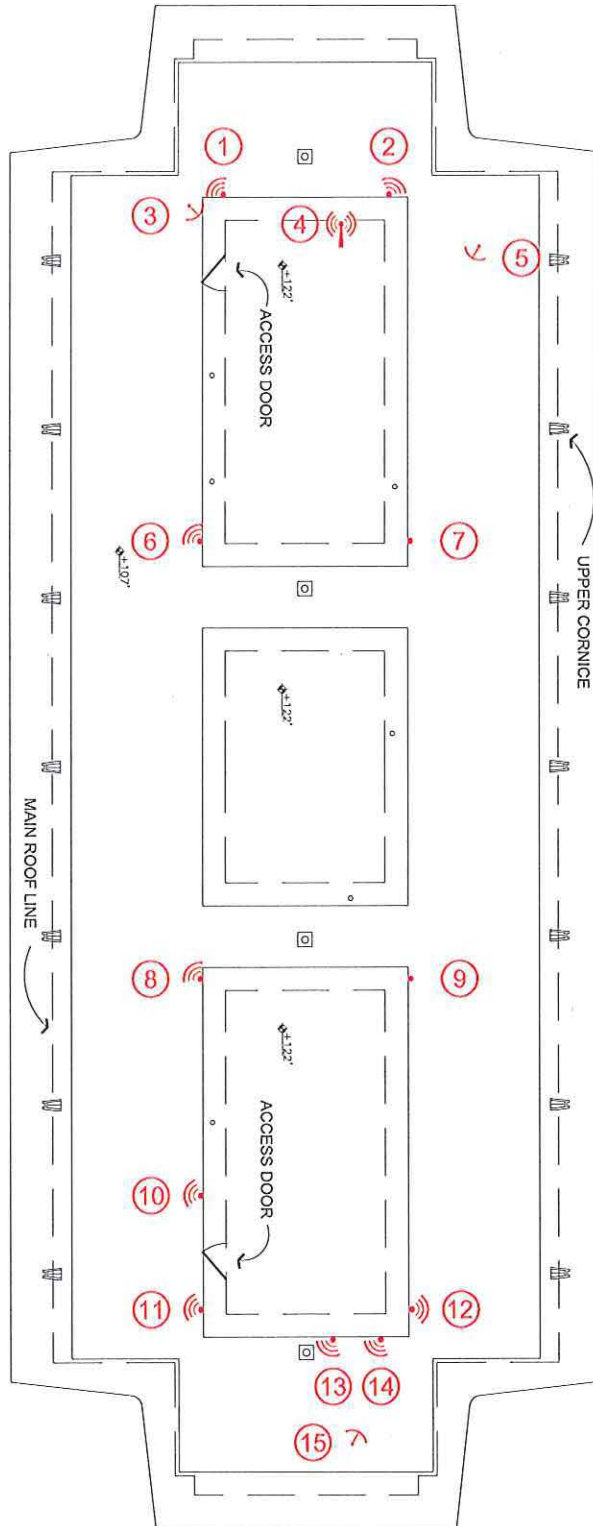
COMPLIANCE:	YES	NO
MSU POLICIES	X	
COMMITTEE OR APPROPRIATE REVIEW	X	
MASTER PLAN	X	
BOARD ACTION REQUIRED:		
Recommend approval as a Consent Agenda Item and to allow upgrade to the antennas as proposed.		

Hedges North



Antenna Legend

- ① Cutthroat Flat Antenna (Contract #2)
- ② Cutthroat Flat Antenna (Contract #1)
- ③ (3) Cutthroat Parabolic Antennas (Contract #11)
- ④ Residence Life Paging Antenna
- ⑤ (2) Cutthroat Parabolic Antennas (Contract #9)
- ⑥ Cutthroat Flat Antenna (Contract #4)
- ⑦ Empty Cutthroat Antenna Mount (Contract #3)
- ⑧ Cellular One Flat Antenna (Cutthroat Contract #6)
- ⑨ Empty Cutthroat Antenna Mount (Contract #5)
- ⑩ Cellular One Flat Antenna
- ⑪ Cutthroat Flat Antenna (Contract #8)
- ⑫ Cutthroat Flat Antenna (Contract #7)
- ⑬ Cellular One Flat Antenna
- ⑭ Cellular One Flat Antenna
- ⑮ Cutthroat Parabolic Antenna (Contract #10)



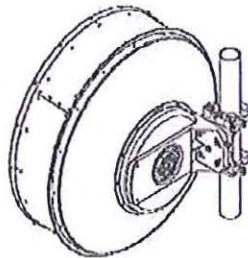
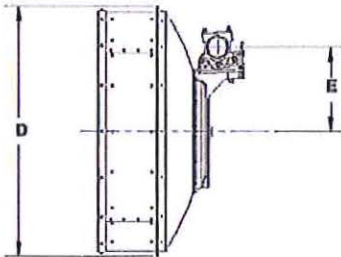


HIGH PERFORMANCE ANTENNAS DIAMETER: 0.75 m

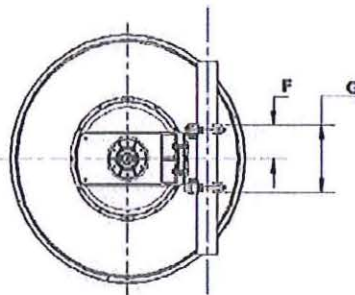
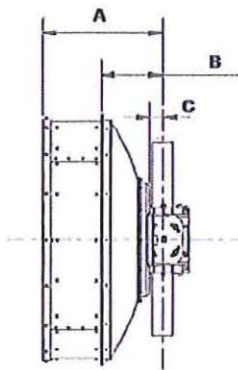
ELECTRICAL SPECIFICATIONS

	A-ANT-11G-2.5-C	A-ANT-13G-2.5-C	A-ANT-15G-2.5-C	A-ANT-18G-2.5-C	A-ANT-23G-2.5-C	A-ANT-26G-2.5-C
Frequency Band, Hz	10.7-11.7	12.7-13.25	14.25-15.35	17.7-19.7	21.2-23.6	24.25-26.25
Bottom Band Gain, dBi	36.8	38.2	39.3	40.5	42.5	43.7
Mid Band Gain, dBi	37.5	38.4	39.7	41.0	43.0	44.1
Top Band Gain, dBi	38.1	38.6	40.1	41.4	43.4	44.5
Beamwidth, degrees	2.1	2.1	1.8	1.5	1.2	1.0
Front/Back, dB	63.0	65.0	68.0	69.0	72.0	72.0
XPD, dB	30.0	30.0	30.0	30.0	30.0	30.0
Return Loss, dB	17.7	17.7	17.7	17.7	17.7	17.7
Pattern						
ETSI EN201217 Class	R1C3	R1C3	R2C3	R2C3	R3C3	R4C3
FCC Part 101	Cat B	-	-	Cat A	Cat A	Cat A
Antenna Pattern	RPE-74-000119-06-01	RPE-74-000120-06-01	RPE-74-000121-06-01	RPE-74-000066-06-01	RPE-74-000067-06-01	RPE-74-000068-06-01

OUTLINE DIMENSIONS



Antenna Dimensions, mm (in)	
A	485.30 (19.1)
B	244.75 (7.2)
C	57.60 (2.3)
D	889 (35.00)
E	418 (16.5)
F	91.70 (3.6)
G	184 (7.2)



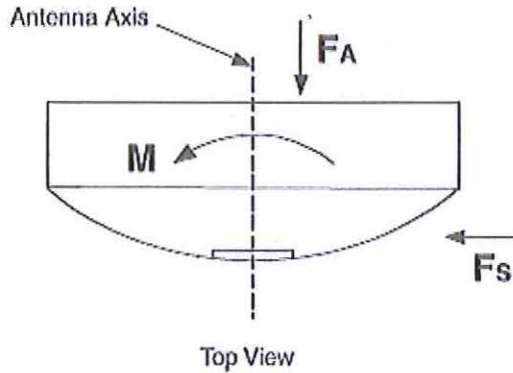
Antenna Fine Adjustment	
Fine Azimuth	± 10°
Fine Elevation	± 25°

Actual antenna appearances may differ from shown.

HIGH PERFORMANCE ANTENNAS –DIAMETER: 0.75 M

WIND FORCES

The axial, side and twisting moment forces provided are maximum loads applied to the tower by the antenna at a wind survival speed of 200 km/h (125 mph). In every instance they are the result from the most critical direction for each parameter. The individual maximums may not occur simultaneously. All forces are referenced to the antenna mounting pipe.



Axial Force	F_a max	1500 N
Side Force	F_s max	743 N
Moment	M_T max	673 N

Antenna Weights Including Mount

Net Weight, kg 21.6

Antenna Packed Weights (Gross)

Gross Weight, kg 30

Antenna Dimensions (Single Unit Pack)

Dimensions, cm (in) 90 x 90 x 65 (35.5 x 35.5 x 25.0)



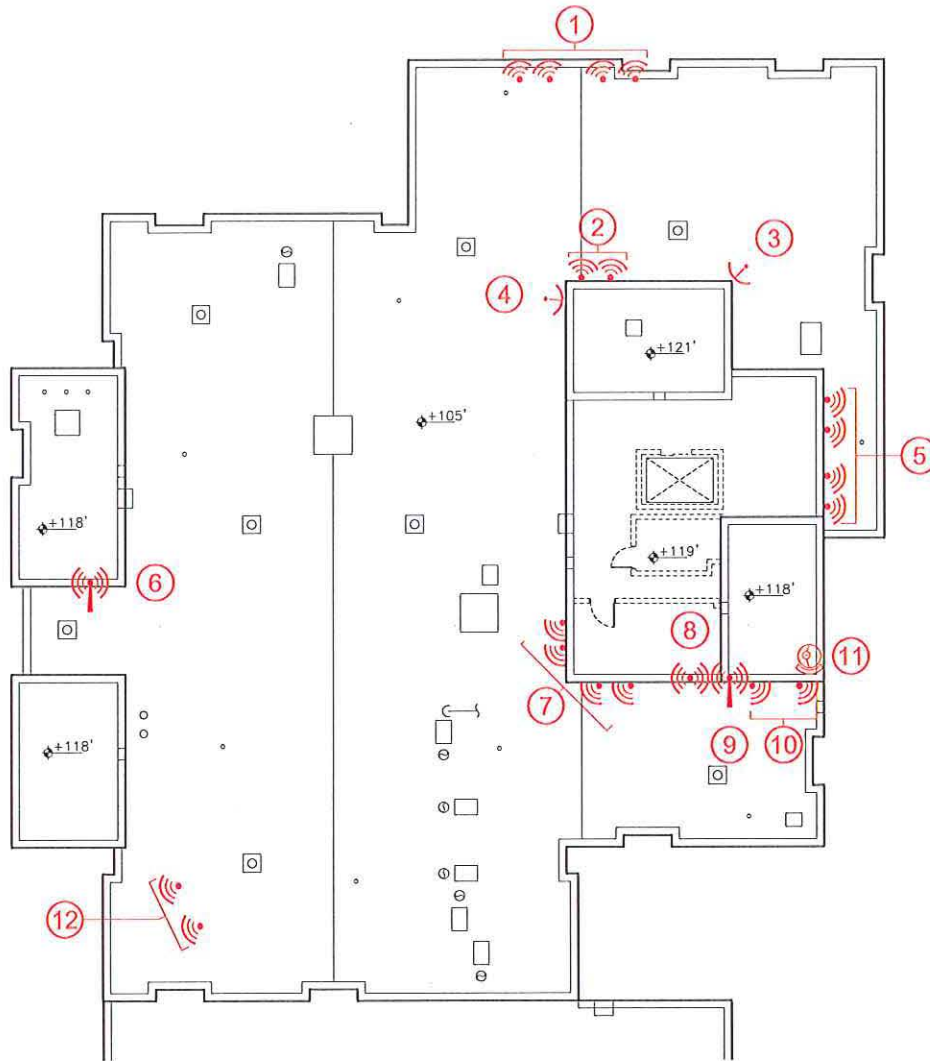
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www.dragonwaveinc.com

Leon Johnson



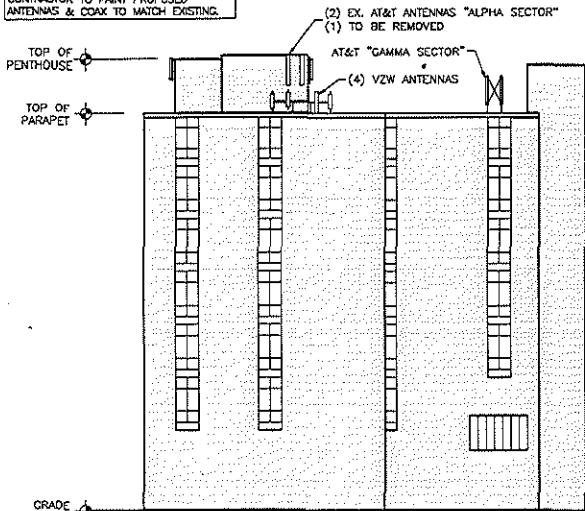
Antenna Legend

- | | |
|--|--|
| ① Verizon Wireless Panel Antennas (4) | ⑦ Verizon Wireless Panel Antennas (4) |
| ② AT&T Panel Antennas (2) "Alpha" | ⑧ MSU Dept. of Land Resources & Environmental Sciences GPS Antenna |
| ③ MSU Information Technology Center 80GHz Gigabit Ethernet Wireless Dish Antenna | ⑨ MSU Dept. of Land Resources & Environmental Sciences UHF Antenna |
| ④ AT&T Dish Antenna | ⑩ AT&T Panel Antennas (2) "Beta" (Note: GPS Antenna on west mount) |
| ⑤ Verizon Wireless Panel Antennas (4) | ⑪ MSU Office of Admissions CatEye Webcam |
| ⑥ MSU Facilities Services VHF Repeater | ⑫ AT&T Panel Antennas (2) "Gamma" |

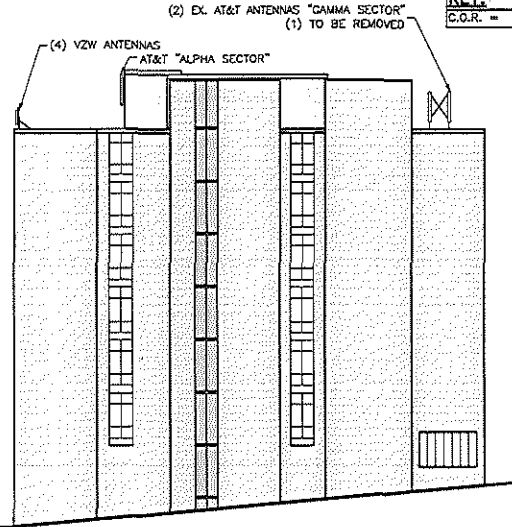


PAINT NOTE:
CONTRACTOR TO PAINT PROPOSED ANTENNAS & COAX TO MATCH EXISTING.

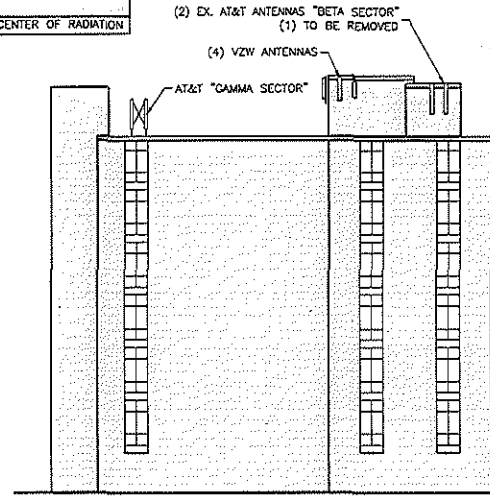
KEY:
C.O.R. = CENTER OF RADIATION



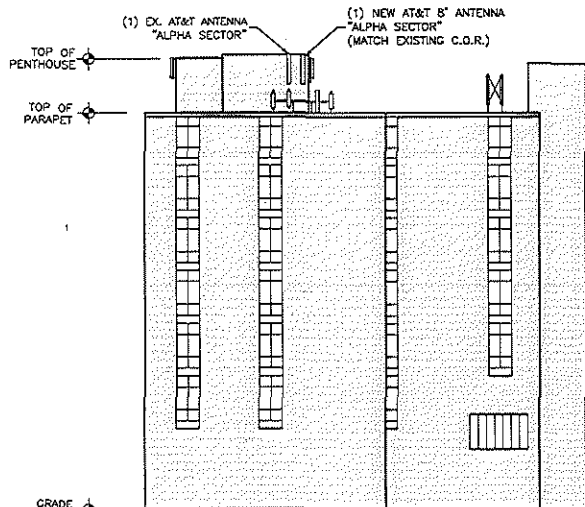
EXISTING NORTH ELEVATION
SCALE: N.T.S.



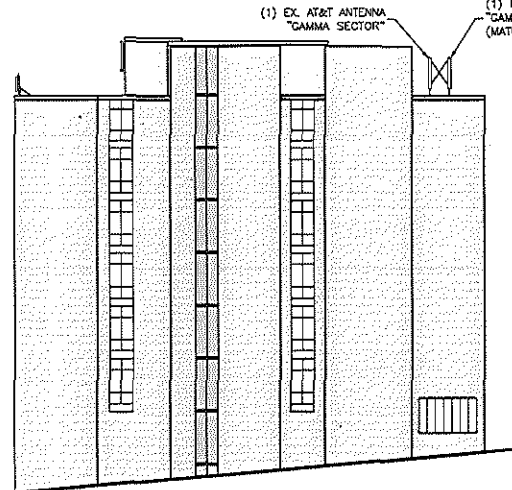
EXISTING WEST ELEVATION
SCALE: N.T.S.



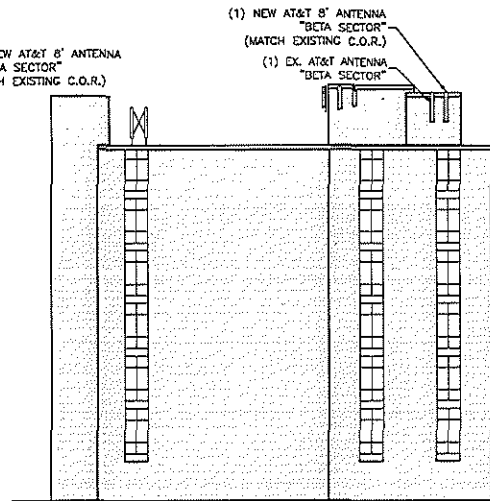
EXISTING SOUTH ELEVATION
SCALE: N.T.S.



PROPOSED NORTH ELEVATION
SCALE: N.T.S.



PROPOSED WEST ELEVATION
SCALE: N.T.S.



PROPOSED SOUTH ELEVATION
SCALE: N.T.S.

APPROVED FOR CONSTRUCTION

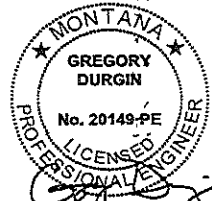


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REV	DESCRIPTION	DATE	BY	CHK
1	PRELIMINARY NOT FOR CONSTRUCTION	3/7/08	JK	CCB
0	APPROVED FOR CONSTRUCTION	3/22/14	CCB	CCB



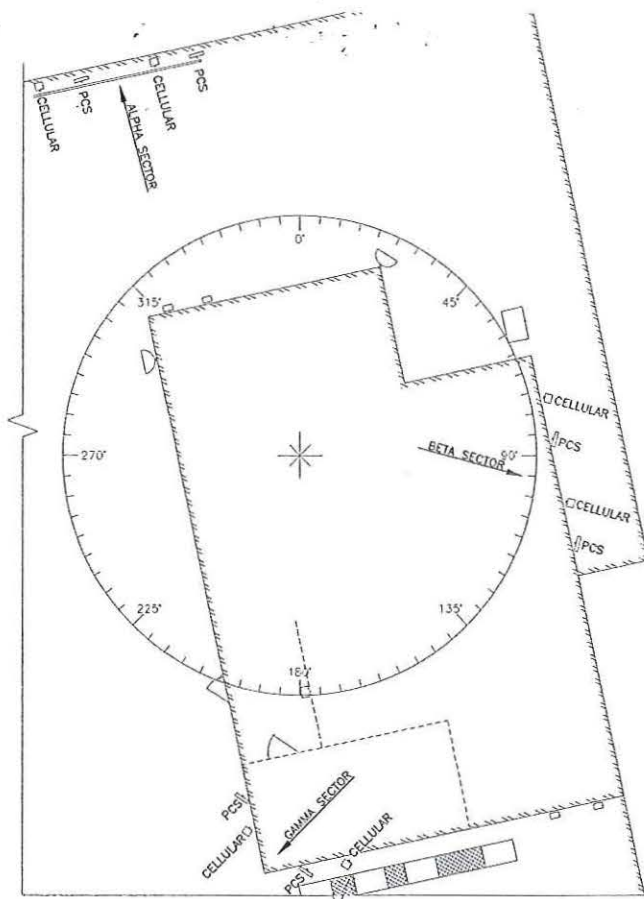
PROJECT NAME:
**MT08 BOZEMAN COLLEGE
MTU2808
ANTENNA INSTALLATION PROJECT
EXISTING COMMUNICATION SITE**

PROJECT ADDRESS:
**LEON JOHNSON HALL
MONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
GALLATIN COUNTY**

SHEET TITLE:
ELEVATIONS

DATE:
2/29/2012 9:04 AM

SHEET NUMBER:
C2



EXISTING ANTENNA LAYOUT



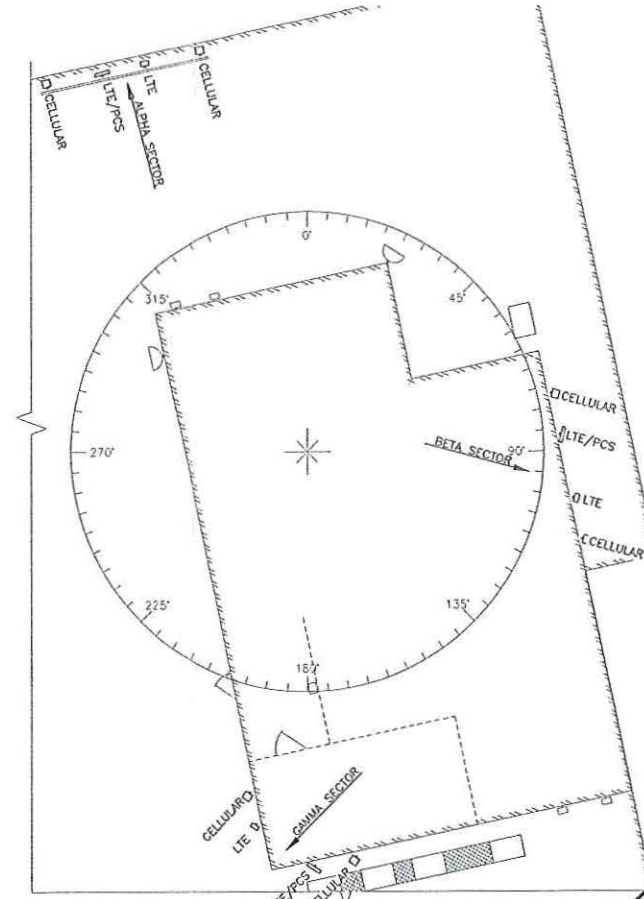
ALPHA SECTOR



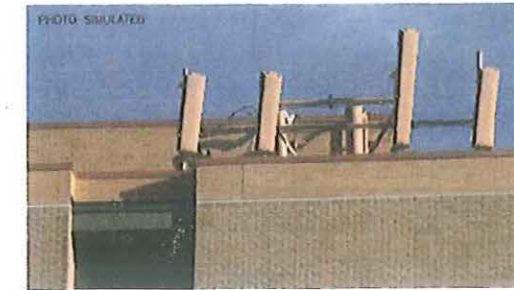
BETA SECTOR



GAMMA SECTOR



PROPOSED ANTENNA LAYOUT



ALPHA SECTOR



BETA SECTOR



GAMMA SECTOR

APPROVED FOR CONSTRUCTION

PAINT NOTE:
CONTRACTOR TO PAINT PROPOSED ANTENNAS TO MATCH EXISTING.

EXISTING VERIZON WIRELESS ANTENNA SCHEDULE:

ANTENNA FUNCTION	ATTACH LEVEL (COR)	AZIMUTHS (DEG., TN)	ANTENNA TYPE	ANTENNA QUANTITY	MOUNT TYPE	COAX (QUANTITY) SIZE (NOMINAL)	NOTES
CELLULAR	110'-0"	105' 225'	RFS APL866513-42T0 4' PANEL ANTENNA	4	WALL MOUNT	(6) 1/2"φ	TO BE REMOVED
PCS			ANTEL BXD-63406380CF 4' PANEL ANTENNA	4		(6) 7/8"φ	
CELLULAR	100'-7"	345'	RFS APL866513-42T0 4' PANEL ANTENNA	2	ROOF MOUNT	(6) 7/8"φ	
PCS			ANTEL BXD-63406380CF 4' PANEL ANTENNA	2		(6) 7/8"φ	

GENERAL ANTENNA NOTES:

- DUAL POLAR ANTENNAS REQUIRE TWO RUNS OF COAX PER ANTENNA.
- LENGTHS GIVEN ON THIS CHART ARE ESTIMATED FROM AVAILABLE INFORMATION.
- TYPES AND SIZES OF THE ANTENNA CABLES ARE BASED ON THE ESTIMATED LENGTH OF THE CABLES. CONTRACTOR TO VERIFY ALL ACTUAL LENGTHS IN FIELD PRIOR TO INSTALLATION AND NOTIFY THE FIELD ENGINEER FOR VERIFICATION OF SIZES OF CABLES.
- CONTRACTOR TO PROVIDE AS BUILT FOR THE LENGTH OF CABLES UPON COMPLETION OF INSTALLATION.
- CONTRACTOR TO PROVIDE FINAL CABLE LENGTHS AND RETURN LOSSES FOR ALL CABLES.
- ALL AZIMUTHS REFERENCE TRUE NORTH. CONSULT REQUIRED QUADRANGLE MAP FOR NECESSARY MECHANICAL DECLINATION.

PROPOSED VERIZON WIRELESS ANTENNA SCHEDULE:

ANTENNA FUNCTION	ATTACH LEVEL (COR)	AZIMUTHS (DEG., TN)	ANTENNA TYPE	ANTENNA QUANTITY	MOUNT TYPE	COAX (QUANTITY) SIZE (NOMINAL)	ESTIMATED COAX LENGTH
CELLULAR	110'-0"	105' 225'	ANDREW LBV-6513LS-VTM 4' PANEL ANTENNA	4	(8) WALL MOUNTS (EXISTING)	(6) 7/8"φ + (6) 1/2"φ (EXISTING)	VARIES
LTE/PCS			ANDREW DBXNH-6565B-VTM 6' PANEL ANTENNA	2		(2) 7/8"φ + (2) 1/2"φ (PROPOSED)	
LTE			ANDREW LNX-6512DS-VTM 4' PANEL ANTENNA	2			
CELLULAR	100'-7"	345'	ANDREW LBV-6513LS-VTM 4' PANEL ANTENNA	2	ROOF MOUNT	(6) 7/8"φ (EXISTING)	~95' (EACH)
LTE/PCS			ANDREW DBXNH-6565B-VTM 6' PANEL ANTENNA	1		(2) 7/8"φ (PROPOSED)	
LTE			ANDREW LNX-6512DS-VTM 4' PANEL ANTENNA	1			

- FOR EXACT ANTENNA INFORMATION REFER TO THE RF DESIGN.
- ALL PROPOSED COAX SHALL BE INSTALLED ON EXISTING COAX RUNS.
- CONTRACTOR TO INSTALL DIPLEXERS AND/OR DUPLEXERS IN SHELTER AND ON TOWER AS REQUIRED BY RF DESIGN. (IF APPLICABLE)

ANTENNA COLOR CODES (HELENA MARKET) (CELL SITE COAX LABELING)

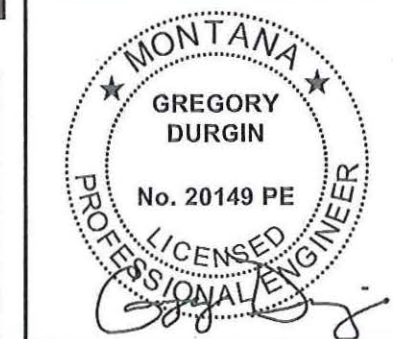
ANTENNA FUNCTION	ANTENNA SECTOR					
	ALPHA		BETA		GAMMA	
	FIRST STRIPE	SECOND STRIPE	FIRST STRIPE	SECOND STRIPE	FIRST STRIPE	SECOND STRIPE
800 VOICE	WHITE/RED	WHITE/YELLOW	BLUE/RED	BLUE/YELLOW	GREEN/RED	GREEN/YELLOW
800 EVDO	WHITE/2 RED	WHITE/2 YELLOW	BLUE/2 RED	BLUE/2 YELLOW	GREEN/2 RED	GREEN/2 YELLOW
800 LTE	WHITE/3 RED	WHITE/3 YELLOW	BLUE/3 RED	BLUE/3 YELLOW	GREEN/3 RED	GREEN/3 YELLOW
1900 EVDO	PURPLE/RED	PURPLE/YELLOW	ORANGE/RED	ORANGE/YELLOW	BROWN/RED	BROWN/YELLOW
1900 VOICE	PURPLE/2 RED	PURPLE/2 YELLOW	ORANGE/2 RED	ORANGE/2 YELLOW	BROWN/2 RED	BROWN/2 YELLOW

DESIGNED FOR:
verizon wireless
2730 BOZEMAN AVE.
HELENA, MONTANA 59601
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REV	DESCRIPTION	DATE	CHK BY	DATE	CHK BY
A	PRELIMINARY - NOT FOR CONSTRUCTION	09/28/11	JCM	GGD	GGD
B	REVISED PER RF COMMENTS	11/15/11	DTB	GGD	GGD
C	REVISED PER REAL ESTATE COMMENTS	11/21/11	GGD	GGD	GGD
D	APPROVED FOR CONSTRUCTION	11/22/11	DTB	GGD	GGD



PROJECT NAME:
MT8 BOBCAT "LTE" INSTALLATION PROJECT EXISTING COMMUNICATION SITE

PROJECT ADDRESS:
LEON JOHNSON HALL MONTANA STATE UNIVERSITY BOZEMAN, MONTANA GALLATIN COUNTY

SHEET TITLE:
ANTENNA INFORMATION
SAVE DATE:
11/22/2011 8:11 AM
SHEET NUMBER:
RF1



UNIVERSITY FACILITIES PLANNING BOARD

March 27, 2012

ITEM # Consent 3B		Landscape Master Plan Distribution and Website Location				
PRESENTERS:						
Candace Mastel, Assistant Planner						
PROJECT PHASE:	PLANNING		SCHEMATIC		DESIGN DOCUMENTS	CONSTRUCTION DOCUMENTS
VICINITY MAP:						
Campus wide						
STAFF COMMENTS:						
<p>On December 20, 2011 UFPB formally recommended approval of the Landscape Master Plan to the university president. On March 7, 2012 President Cruzado signed the recommendation letter. The plan has since been printed and distributed. It is also available on-line. The link to the on-line version is: http://www.facilities.montana.edu/pdc/planning/files/landscape_master_plan.pdf</p>						
COMPLIANCE:					YES	NO
MSU POLICIES					X	
COMMITTEE OR APPROPRIATE REVIEW					X	
MASTER PLAN					X	
BOARD ACTION REQUIRED:						
None.						

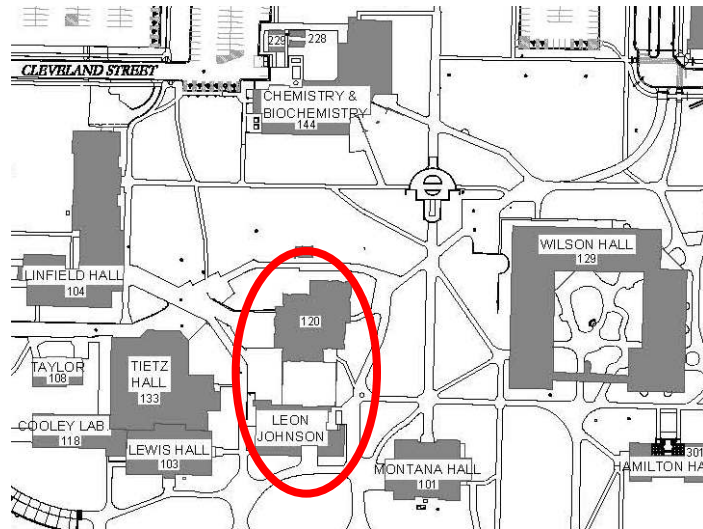
ITEM # Consent 3C	Leon Johnson Hall Energy Improvement Project-Exhaust Fans on Roof
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PRESENTERS:

Dan Stevenson, PE, LEED AP
Assistant Director of Facility Services

PROJECT PHASE:	PLANNING	SCHEMATIC	DESIGN DOCUMENTS	CONSTRUCTION DOCUMENTS	X
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VICINITY MAP:



STAFF COMMENTS:

The Leon Johnson Hall Energy Upgrade project is currently under construction. This project replaces the heating and cooling systems in Leon Johnson and provides a district energy plant capable of expansion to buildings in the vicinity of Leon Johnson. New exhaust fans will replace the existing fans on the roof of the building.

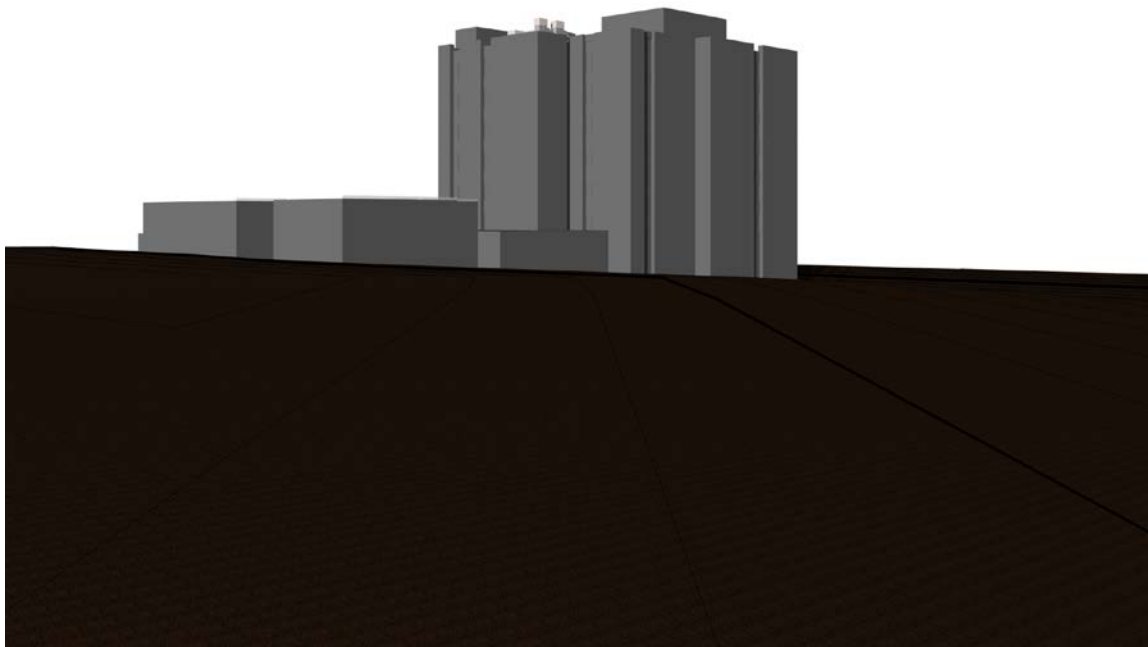
Big Sky Acoustics, LLC completed an analysis of the new exhaust fans, which concluded that they meet the UFPB approved Noise Criteria (approved on May 11, 2010 (agenda item 7)). According to the Campus Criteria, the total noise levels (i.e., the combination of the new fan noise plus the existing ambient noise) should not exceed 50 dBA at the façade of the nearest buildings, and in frequently used outdoor common areas. The table below, from the noise analysis, shows the total noise level at each location is not predicted to exceed 49 dBA, which meets the Campus noise criteria:

Table 2-2: Predicted Noise Levels

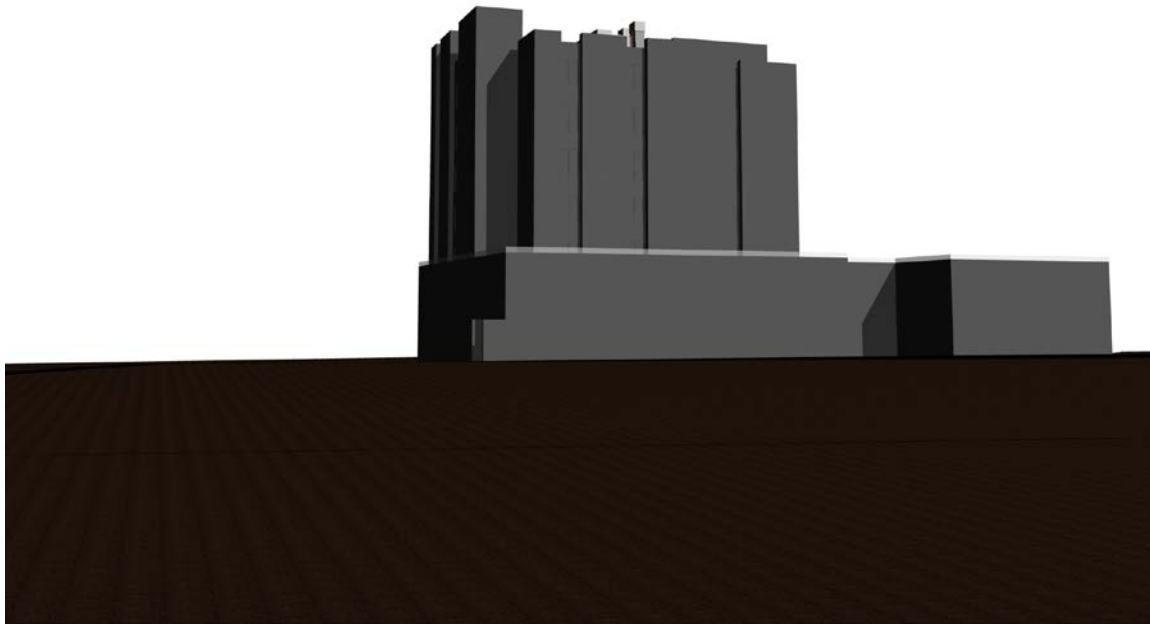
Location	Predicted Leon Johnson EF Noise Level	Estimated Existing Ambient Noise Level	Estimated Total Noise Level
Montana Hall	46 dBA	46 dBA	49 dBA
Linfield Hall	39 dBA	47 dBA	48 dBA
Wilson Hall	36 dBA	48 dBA	48 dBA
Lewis Hall	44 dBA	48 dBA	49 dBA
Mall at Renne Library	41 dBA	47 dBA	48 dBA
Mall at Sherrick Hall	37 dBA	48 dBA	48 dBA

The new equipment on the roof was positioned to minimize the view from campus. The new exhaust fans will be light grey in color, and all other ductwork on the roof will be of a similar color.

CTA Architects and Engineers has prepared the following exhaust fans' view shed impact renderings:



[Leon Johnson from Renne Library](#)



Leon Johnson from Reid Hall N. Entrance

COMPLIANCE:	YES	NO
MSU POLICIES		
COMMITTEE OR APPROPRIATE REVIEW		
MASTER PLAN		
BOARD ACTION REQUIRED:		
<p>Recommend approval for the installation of the new exhaust fans on the roof on Leon Johnson Hall as proposed.</p>		

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UNIVERSITY FACILITIES PLANNING BOARD
(March 27, 2012)

ITEM # 5		HAPNER & LANGFORD HALL PUBLIC IMPROVEMENTS PROJECTS				
PRESENTERS:						
DENNIS RAFFENSPERGER, UNIVERSITY ARCHITECT						
PROJECT PHASE:	PLANNING		SCHEMATIC		DESIGN DOCUMENTS	CONSTRUCTION DOCUMENTS X
VICINITY MAP:						
N/A						
STAFF COMMENTS:						
<p>HAPNER & LANGFORD HALLS PUBLIC AREAS IMPROVEMENTS PROJECT WAS PRESENTED TO THE UFPB COMMITTEE ON JANUARY 31, 2012 AND SUBSEQUENTLY APPROVED BY THE PRESIDENT.</p> <p>THIS PRESENTATION IS TO PROVIDE FEEDBACK ON CORRESPONDENCE BETWEEN THE STATE HISTORIC PRESERVATION OFFICE (SHPO) AS BOTH BUILDINGS ARE OVER 50 YEARS OLD AND LANGFORD HALL IS VIEWED AS A HERITAGE PROPERTY.</p> <p>WE WOULD ALSO LIKE TO TAKE THIS OPPORTUNITY TO PROVIDE INFORMATION ON THE EXTERIOR BUILDING FINISHES PROPOSED FOR THE PROJECT.</p>						
COMPLIANCE:					YES	NO
MSU POLICIES						
COMMITTEE OR APPROPRIATE REVIEW						
MASTER PLAN						
BOARD ACTION REQUIRED:						
<p align="center">APPROVAL TO PROCEED WITH CONSTRUCTION</p>						

To: Pete Brown, Historic Architecture Specialist
State Historic Preservation Office

From: Dennis Raffensperger, University Architect
Montana State University

Date: February 07, 2012

Re: MSU Langford Hall & Hapner Hall Public Improvements Projects

MSU is undertaking a series of student funded enhancement projects in its residence hall buildings on the Bozeman campus. Phase 1 of these projects,

an interior renovation of student bedrooms in Langford and Hapner Halls, was completed in 2011. For Phase 2, MSU is planning to renovate the interior public spaces within the two residence buildings; including upgrading restrooms, and interior finishes in student study spaces and recreational lounges, and entrance lobby modifications. Students and residence hall administrators participated in design charette sessions to prioritize needed enhancements, in order to create student residences which (a) accommodate

the increasingly different student expectations of campus housing than those of earlier decades, and (b) offer comparable facilities as other universities in a highly competitive market place. The projects will also incorporate energy and water conservation measures including replacing water fixtures and windows, in line with the Governor's 20x10 Initiative and MSU Climate Action Plan. The planned enhancements are entirely student funded and have been approved in principle by the Board of Regents.



Hapner Hall is a women's residence hall (current photograph: upper right) and was built in 1959 designed by Cushing, Terrell, & Associates of Billings, Montana. The building is located on Cleveland Street and comprises two blocks of 3-storey, flat roofed sections with a 2-storey interconnecting flat roofed structure, all of red brick clad concrete block. The lower right photograph on the previous page possibly shows the building under construction circa 1958.



**Facilities Planning,
Design & Construction**

Plew Physical Plant
P.O. Box 172760
Bozeman, MT 59717-2760
www.facilities.montana.edu/pdc

Tel 406-994-5413
Fax 406-994-5665

Langford Hall (photograph: right) is a men's residence hall and was constructed in 1960, designed by McIver, Hess & Haugsjaa of Great Falls, Montana. The building is located on Harrison Street and comprises a double cross plan form of 4-storey flat roofed red brick clad concrete structure, with recessed green glazed brick infill panels below the windows. The main entrance is single storey and comprises the resident director apartment and main entrance lobby and offices. The reinforced concrete walkway, which linked Langford Hall with the Johnstone Center residence hall complex to the east, shown in the above photograph, was demolished in 2010 due to structural instability.



The halls were 2 of 35 new structures built on the MSU Bozeman campus between 1957 and 1970, the locations of which in most cases departed dramatically from the original 1917 George Carsley/Cass Gilbert campus development plan, in order to accommodate the surge of new students after World War II. Due to a combination of poor construction and expansion of the campus academic core, a number of the buildings of this period have been identified for removal in the MSU Long Range Campus Development Plan (LRCDP) in the long term, 50-75 years.

Housing on campus has been slowly adapting to current market trends and will continue to do so in the future. Whilst we seek to conserve and strengthen the historic character of our campus, the buildings must remain viable in the face of a competitive market. As noted in the LRCDP, on-campus housing provides certain intrinsic characteristics, such as accessible gathering venues for socializing, studying, recreation and dining; that are not present in private sector housing in the surrounding community. The planned improvements to Hapner and Langford Halls consist principally of interior renovations however it is proposed to expand both main entrance lobbies to accommodate these gathering spaces, in line with the expectations of our incoming students. All housing facilities on campus are financially self supporting and do not receive support from the state, and so it is imperative for us to meet these demands and continue to adapt.

The proposed additions to both buildings have been designed as sensitive adaptations of the existing modern post-war architecture, strengthening the identities of the buildings without violating the sense of place and tradition which exists with buildings associated with student life for over 50 years. In both cases, the proposed new additions, exterior alterations, and related new construction will not destroy historic materials, features, and spatial relationships that characterize the properties. The new work has been

designed to differentiate from the old but will be compatible with, and complementary to the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

The new entry and public space at Langford Hall, although taller than the existing single storey entry piece, maintains the juxtaposition of single storey public space with the flanking 3-story residence wings. The newly designed space is contained within a simple geometric form, consistent with the mid-century design esthetic of the original. The new entry has a column-supported horizontal canopy which mimics the existing use of a column-supported canopy at the entry. The new entry block is clad with glazed brick extending the vocabulary of existing glazed brick panels, both green to match the existing and a contrasting black.

The new entry and public space at Hapner Hall is simply an extension of the existing projected single storey entry block, fronted with a horizontal canopy designed as an extended rendition of the existing canopy. This entry block also has larger amounts of storefront glazing very similar to the storefront glazing of the original entry piece and is clad with red brick to match the original.

Inside of both buildings the newly expanded and remodeled public spaces use materials and details which expand upon and/or reference existing finish materials and finishes consistent with the mid-century design vocabulary. Specifically, fir plank wall paneling in both buildings will be retained, reused, and refinished as a primary design element.

Pursuant to the above information I respectfully request that SHPO review and approve the proposed modifications and additions to Montana State University's Hapner Hall and Langford Hall.

Cc: Walt Banziger, Director
Facilities Planning, Design & Construction

Attachment: Architect's plan and elevation drawings for Hapner Hall
Architect's plan and elevation drawings for Langford Hall

March 12, 2012

Mr. Dennis Raffensperger, AIA
University Architect
Montana State University
Facilities Planning Design & Construction
Plew Physical Plant
PO Box 172760
Bozeman, MT 59717-2760

FACILITIES PLANNING
DESIGN & CONSTRUCTION
RECEIVED

MAR 14 2012

MONTANA STATE UNIVERSITY

Ref: Proposed Entry Renovations for Hapner and Langford Halls

Dear Mr. Raffensperger:

We reviewed the information you submitted regarding the above referenced undertaking involving State Owned Heritage Properties. Based on this SHPO concurs with MSU Bozeman that the work would have adverse effects on Langford and Hapner Halls, which retain their original materials and designs. MSU Bozeman's proposed mitigation includes:

- A photographic record of the original entries to be housed in the MSU archives;
- Documentation of existing and original floorplans to be housed in the MSU archives;
- Interpretive displays in each building lobby documenting the history of the building and interpreting mid-century modern architecture on campus.

We anticipate that interpretive materials would be professionally written and substantial in content and size. Please provide SHPO with a draft version of the interpretive displays for our review and comment prior to finalizing them.

Considering the time it has taken MSU and SHPO to develop a Historic Property Record Form documenting Hapner Hall, SHPO strongly recommends that MSU commit funding to document historic properties on the Bozeman campus and determine which sites have Heritage values. Such work would simplify consultation under the State Antiquities Act for MSU and SHPO personnel.

Sincerely,



Pete Brown
Historic Architecture Specialist

File: MSU-Boz-20120312

225 North Roberts Street
P.O. Box 201201
Helena, MT 59620-1201
(406) 444-2694
(406) 444-2696 FAX
montanahistoricalsociety.org



February 10, 2012

FACILITIES PLANNING,
DESIGN & CONSTRUCTION
RECEIVED

FEB 21 2012

MONTANA STATE UNIVERSITY

TO: Dr. Waded Cruzado, President
Montana State University

FROM: Dr. Joe Fedock, Chair
University Facilities Planning Board
Walter Banziger, Director
Facilities Planning, Design & Construction

RE: University Facilities Planning Board Recommendation
Hapner and Langford Halls Public Area Improvements

In accordance with the affirmative recommendation [14 YES: 1 ABSTAIN (Troy Duker, ASMSU)] of the University Facilities Planning Board on January 31, 2012, we request that you approve the design concept of the Hapner and Langford Halls Public Area Improvements.

This project is Phase II of a series of planned student enhancement projects. The first phase, completed in 2011, consisted of renovation of residential student rooms in both buildings.

Hapner Hall was constructed in 1959 and Langford Hall in 1960 and over time have had minimal interior or exterior improvements. The project consists of interior renovation of public areas including modification of the main entrance lobby of both halls. The lobbies are being expanded to incorporate enlarged student community spaces and amenities such as fireplaces, lounges, a community kitchen, laundries, workout spaces and improved reception desks with integral storage and mail sorting.

The lobby additions are designed to be lively contemporary spaces that improve accessibility and enhances the attractiveness of these buildings to students, while retaining the buildings' historic identity.

VCD/lk
Attachment

cc: Robert V. Lashaway, Associate VP
University Services

APPROVED:

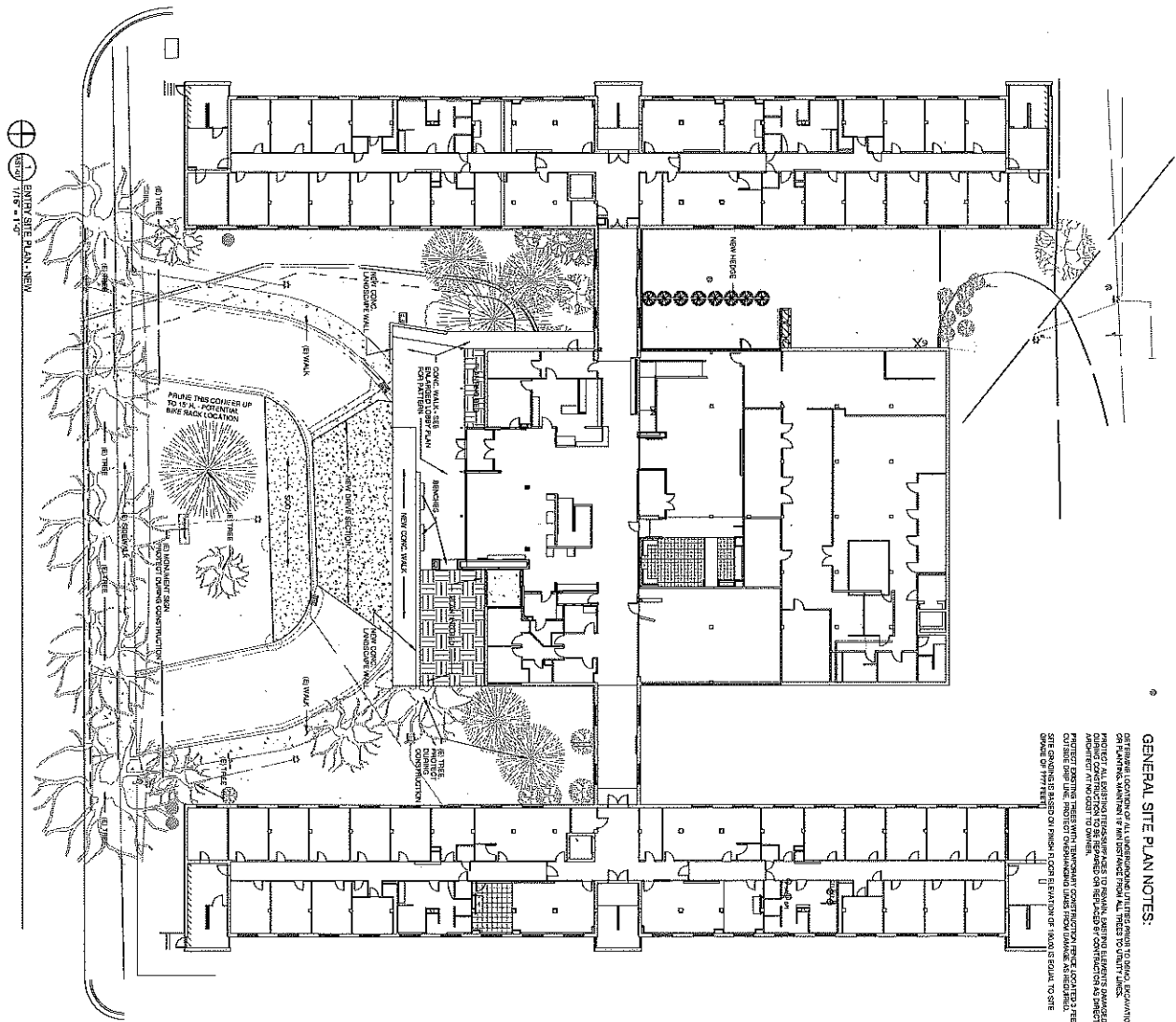

Waded Cruzado, President

Feb 17, 2012
Date

**Facilities Planning,
Design & Construction**

Plew Physical Plant
PO. Box 172760
Bozeman, MT 59717-2760

Telephones (406)	
Administration	994-2001
Planning	994-4131
Architectural Services	994-4131
Fax	994-6572



GENERAL SITE PLAN NOTES:

GENERAL LOCATION OF ALL IMPROVEMENTS REFERRED TO IN THIS PLAN SHALL BE SHOWN ON PLANS AND SCHEDULES. THE LOCATION OF ALL IMPROVEMENTS SHALL BE SHOWN ON PLANS AND SCHEDULES. THE LOCATION OF ALL IMPROVEMENTS SHALL BE SHOWN ON PLANS AND SCHEDULES.



NOT FOR CONSTRUCTION

DATE: Issue Date	AS1-01	SHEET:	FPFA11-0004H
		A/E/P:	

DESIGNED BY	DATE
REVIEWED BY	
DATE	

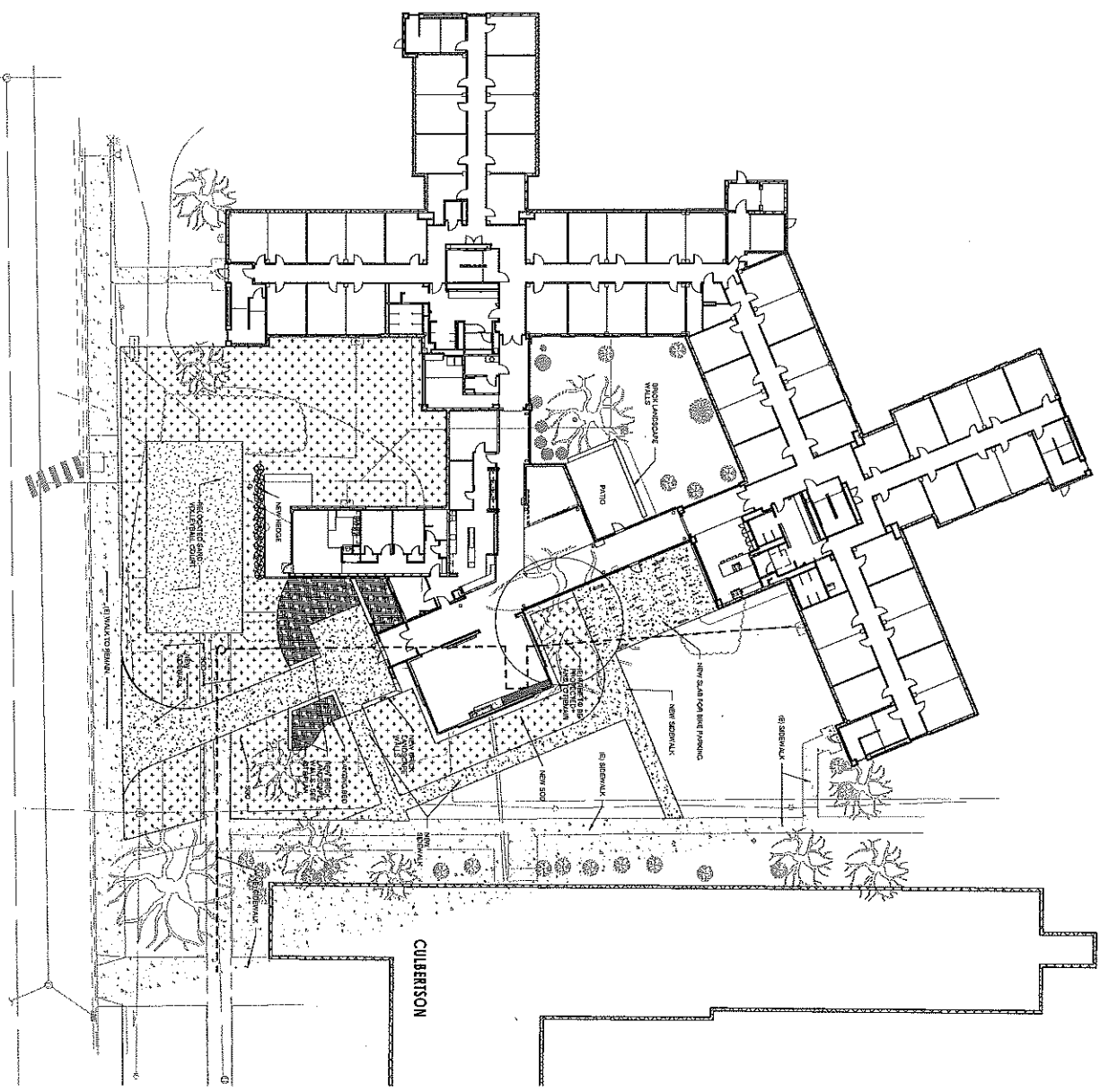
**FACILITIES PLANNING,
DESIGN & CONSTRUCTION**

MONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
PHONE: 406.994.4131 FAX: 406.994.6572

HAPNER HALL
HAPNER & LANGFORD HALLS PUBLIC
SPACE IMPROVEMENTS



LANGFORD HALL SITE & LANDSCAPE PLAN
 SHEET 1 OF 10



NOT FOR CONSTRUCTION

FACILITIES PLANNING,
 DESIGN & CONSTRUCTION

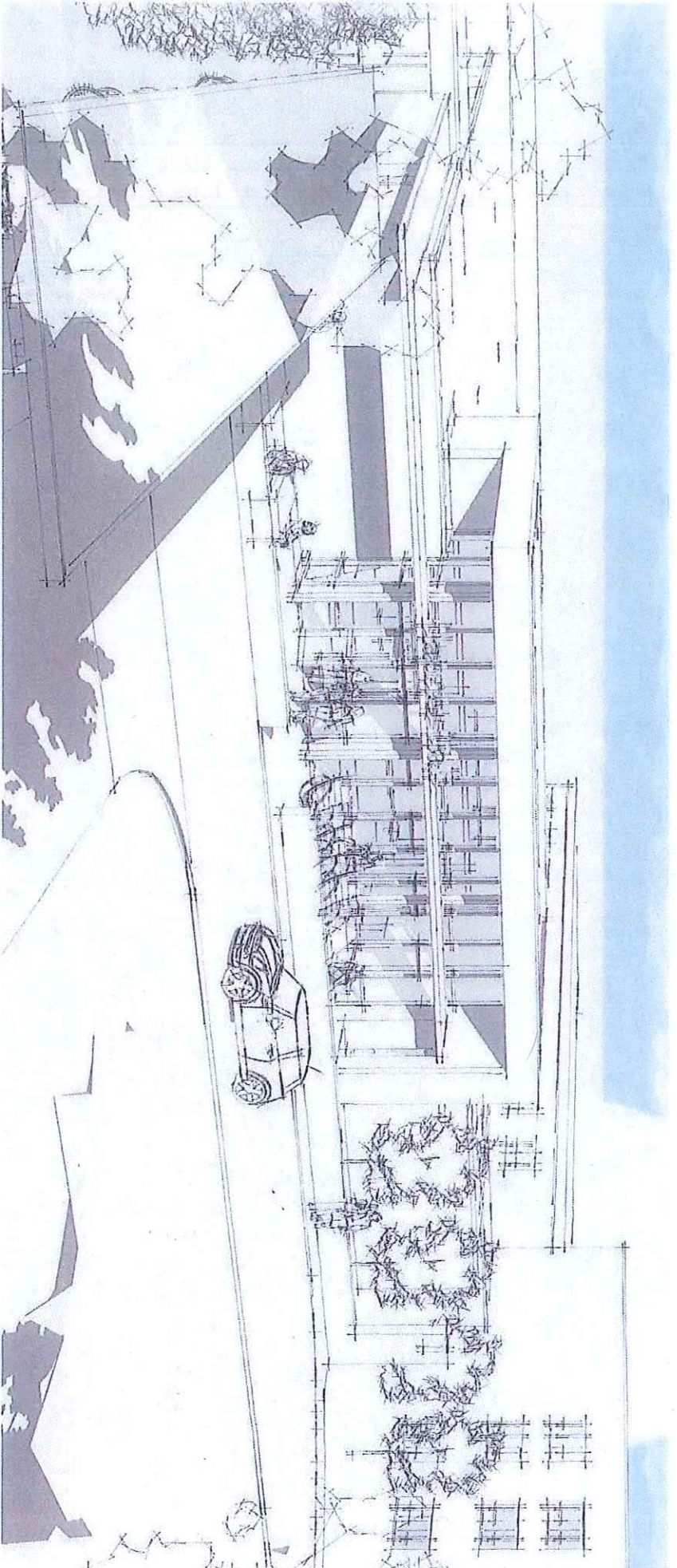
MONTANA STATE UNIVERSITY
 BOZEMAN, MONTANA 59717
 PHONE: 406.994.4131 FAX: 406.994.6573

LANGFORD HALL
 HAPNER & LANGFORD HALLS PUBLIC
 SPACE IMPROVEMENTS



DATE: 1-30-2012	SHEET: SITE	A/E# PPA#11-00401
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NO.	DESCRIPTION	DATE



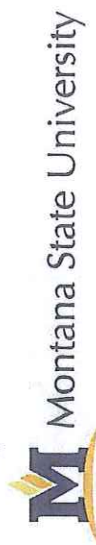
HAPNER HALL RENOVATION
New Entry



mosaic
architecture | planning | design



LANGFORD HALL RENOVATION
New Entry



mosaic
architecture | planning | design

HARRISON

HAPNER
HALL
336

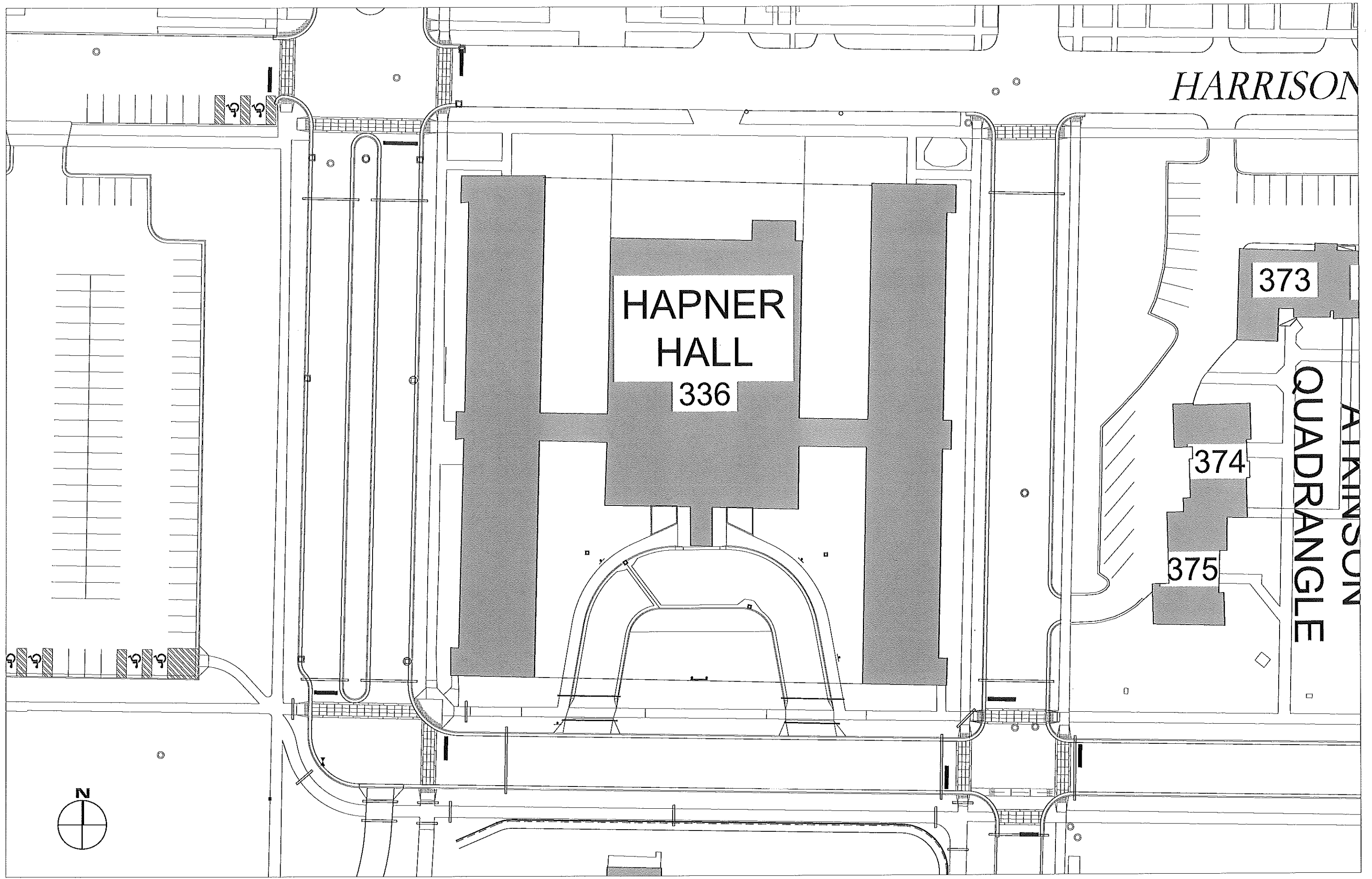
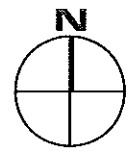
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374

375

QUADRANGLE

ALAMSON





COLLEGE STREET

LANGFORD HALL

338

CULBERTSON

136

MULLAN

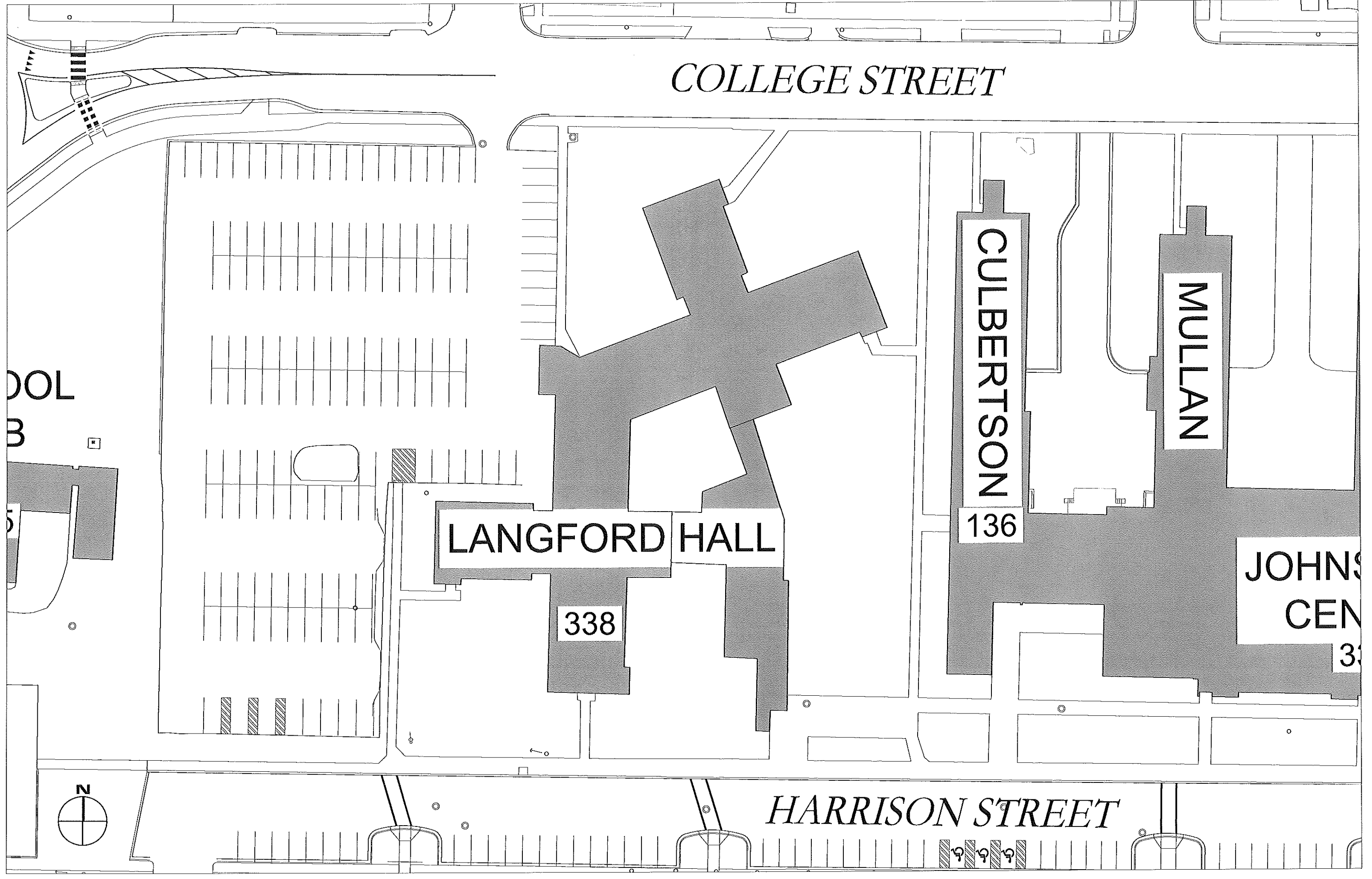
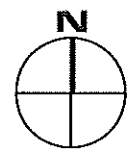
JOHNS
CEN

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HARRISON STREET

DOL
B

5

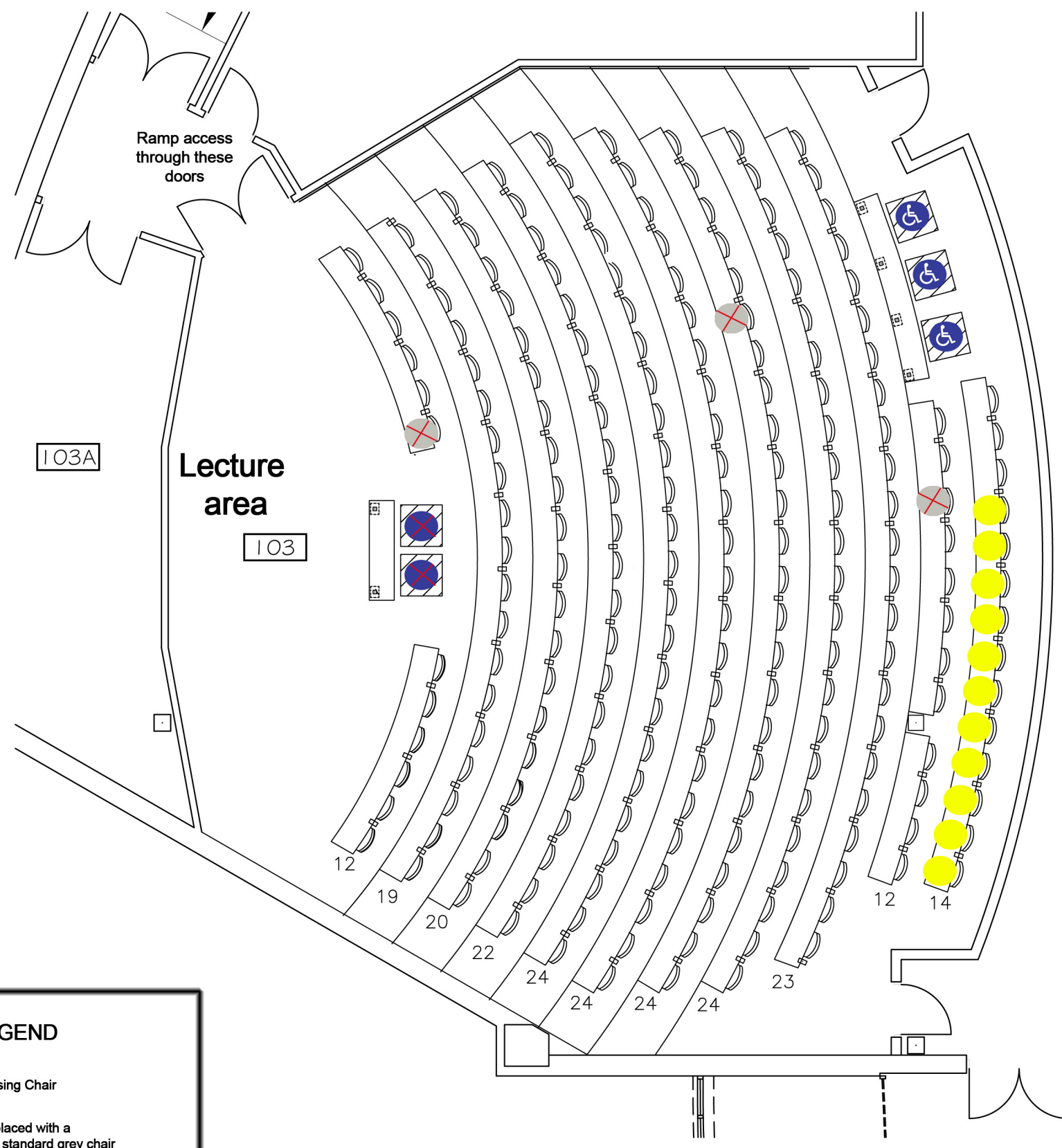




ITEM # 6A		Facilities Services Proposal Request for Academic R&R Fund Use														
PRESENTERS:																
Jeff Butler, Facilities Services Director and EJ Hook, Facilities Environmental Services Manager																
PROJECT PHASE:	PLANNING	X	SCHEMATIC	DESIGN DOCUMENTS	CONSTRUCTION DOCUMENTS											
VICINITY MAP:																
STAFF COMMENTS:																
<p>Leon Johnson Hall Room 339 and EPS Room 103 Upgrades through MSU Work Control</p> <p>EPS 103- (see attached pdf drawing of the room) The seats currently in use have been discontinued by the manufacturer. Retro fitting is the current maintenance strategy though this creates two additional issues. <ul style="list-style-type: none"> • Safety is compromised because the retrofits are not manufacturer recommended repairs • The aesthetic degradation over time as repairs occur. There are currently three missing seats in this room. Fully carpeting the room should improve sound attenuation. Costs- <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 40px;">Replace 218 seats with 223 new</td> <td style="text-align: right;">\$129,512</td> </tr> <tr> <td style="padding-left: 40px;">Install 3020 sq ft of carpet (including area currently carpeted)</td> <td style="text-align: right;"><u>\$ 16,610</u></td> </tr> <tr> <td style="text-align: right;">TOTAL</td> <td style="text-align: right;"><u>\$146,122</u></td> </tr> </table> <p>Leon Johnson 339-(see attached pdf drawing of the room) There are two main issues with these seats. <ul style="list-style-type: none"> • The seats currently in use are mounted to vertical services and this is the primary source of failure. Each subsequent repair requires longer anchor bolts and concrete patchwork. Point of attachment options are limited and becoming more so. There is a finite limit to how many times this can be done. • The seats feature an integral spring allowing movement to the top of the seat back. Over time these springs begin to “squeak” causing a noise distraction. Because of the manufacturing technique there is no way to service these springs. Facilities Services is currently able to keep up with the repairs caused by point of attachment failure keeping the room operational. Proactively addressing this maintenance issue will avoid a situation such as exists in EPS 103. Carpeting the room should improve sound attenuation. Cost- <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 40px;">Replace 220 seats with 222 new</td> <td style="text-align: right;">\$100,883</td> </tr> <tr> <td style="padding-left: 40px;">Install 4300 sq ft of carpet (including stairs and risers)</td> <td style="text-align: right;"><u>\$ 23,650</u></td> </tr> </table> </p> </p>							Replace 218 seats with 223 new	\$129,512	Install 3020 sq ft of carpet (including area currently carpeted)	<u>\$ 16,610</u>	TOTAL	<u>\$146,122</u>	Replace 220 seats with 222 new	\$100,883	Install 4300 sq ft of carpet (including stairs and risers)	<u>\$ 23,650</u>
Replace 218 seats with 223 new	\$129,512															
Install 3020 sq ft of carpet (including area currently carpeted)	<u>\$ 16,610</u>															
TOTAL	<u>\$146,122</u>															
Replace 220 seats with 222 new	\$100,883															
Install 4300 sq ft of carpet (including stairs and risers)	<u>\$ 23,650</u>															

TOTAL		\$124,533
COMPLIANCE:	YES	NO
MSU POLICIES	X	
COMMITTEE OR APPROPRIATE REVIEW	X	
MASTER PLAN	X	
BOARD ACTION REQUIRED:		
Recommend Approval to use Academic R&R Funds as proposed.		

Dec 15, 2011 - 11:14am - seat pricing.dwg
 C:\Documents and Settings\jill.bowers\My Documents\seat_pricing



LEGEND

- Missing Chair
- Replaced with a non standard grey chair
- ADA Designated space with desk space
- ADA Designated space but student chairs are in the way

1 EPS 103
 A-1.1 1/8" = 1'-0"

NOTES:

- ROOM HAS (218) SEATS THAT UTILIAE A SUPPORT PEDESTAL
- ROOM ACCOMODATES (5) ADA STATIONS. (3) AT UPPER TIER LEVEL AND (2) AT LOWER TIER LEVEL



EXISTING SEATING AND TABLES

PRELIMINARY - NOT FOR CONSTRUCTION



SEATING REPLACEMENT

FACILITIES PLANNING,
 DESIGN & CONSTRUCTION
 MONTANA STATE UNIVERSITY
 BOZEMAN, MONTANA
 PHONE: 406.994.4131 FAX: 406.994.6572

DRAWN BY:		
REVIEWED BY:		
REV.	DESCRIPTION	DATE

PPA#00-0000
 A/E#00-00-00
SHEET A-1.1
 DATE 00-00-00

**SEATING
REPLACEMENT**

PRELIMINARY - NOT FOR CONSTRUCTION

FACILITIES PLANNING,
DESIGN & CONSTRUCTION
MONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
PHONE: 406.994.4131 FAX: 406.994.6572

DRAWN BY:
REVIEWED BY:

REV.	DESCRIPTION	DATE

PPA#00-0000
A/E#00-00-00

SHEET
A-1.2

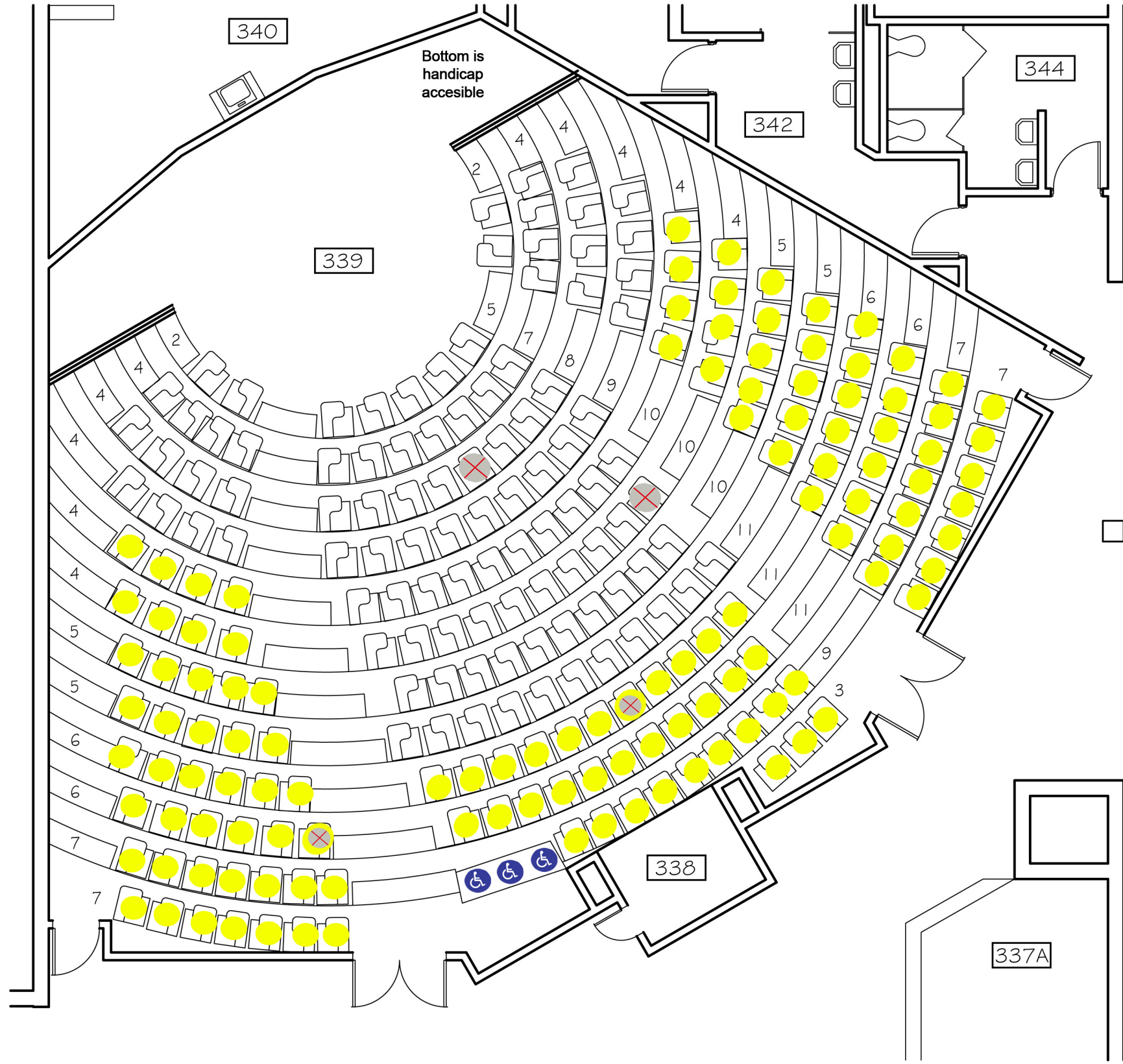
DATE
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NOTES:

- ROOM HAS (220) SEATS WITH RETRACTABLE TABLET ARM
- ROOM ACCOMODATES (2) ADA STATIONS.T UPPER TIER LEVEL



EXISTING SEATING AND TABLES



Bottom is
handicap
accessible

LEGEND

- Broken Table (no missing chairs)
- Replaced with a non standard grey chair
- ADA Designated space with desk space
- ADA Designated space but student chairs are in the way

1 LEON JOHNSON 339
A-1.2 1/8" = 1'-0"

ITEM # 6B		DRAFT – MSU Academic R&R Fund Proposal Process				
PRESENTERS:						
Victoria Drummond, Associate University Planner						
PROJECT PHASE:	PLANNING	X	SCHEMATIC	DESIGN DOCUMENTS	CONSTRUCTION DOCUMENTS	
VICINITY MAP:						
None required						
STAFF COMMENTS:						
<p>The following as a proposed process for applying for Academic R&R Fund consideration and the UFPB review and recommendation process. It was developed according to information provided to UFPB from Admin & Finance staff and comments and suggestions discussed during UFPB meetings (7/5/2011, 7/19/2011, 8/30/11, 9/13/2011, 9/27/2011, 2/14/2012, 2/28/2012) and modeling the MSU CFAC – Computer Fee Allocation Committee Proposal requirements.</p> <p><u>MSU Academic Building R&R Fund Proposal Process - DRAFT</u> <i>Approved by UFPB on XXX, 2012. Scheduled for review on XXX, 2015.</i></p> <p>INTRODUCTION Building fees are collected through student registration of courses. Administration and Finance manage the fund. Building fees are pledged to pay debt service as a first priority first and as a lump sum it has the potential to sufficiently pay bond debt payments as a single source found. In 2011 the building debt service commitments were reduced and the funds can be used on an annual basis for other needs. The accrued funds vary however in 2011 approximately \$325,000 was available for academic needs.</p> <p>PURPOSE The intent of using the fund is to apply it to student-oriented projects that don't have the revenue producing or generating possibilities. The first use was for improvements to the Writing Center – available to the entire student body. The priority emphasis will be to involve student participation in identifying and selecting projects as the principal contributors of the funds. The funds may improve spaces within an Academic or Auxiliary Services building or improve outdoor spaces including landscapes, plazas, respite and seating areas, sculpture gardens, bus stops, and passive or active recreations areas.</p> <p>PROCEDURES – RECOMMENDATION APPROVAL Each year the UFPB will consider the Academic R&R Fund for the following:</p> <ul style="list-style-type: none"> • Use it. Determine the Fund amount available for use; solicit and vet project proposals; as a broad constituency venue, the UFPB will review and make a recommendation of project (or projects) to the President. • Bank it. Continue accrue funds with the intention of funding a larger project. This may be to continue in good faith 						

that a project will come up and by vetting and selecting a project to establish and begin a budget. (Greater risk as the Fund's priority is debt repayment)

The Process to Use the R&R Fund is as follows:

1. Office of Administration & Finance provides an annual fund balance report (including the amount applied to debt service or to cover Land Grant Income deficient) and determine the fund amount for this review period.
2. Open proposal submittal period and actively solicit proposals. A submittal form will be developed and provided. The guidelines for submittals will be the Purpose and Procedures of this document. Solicitation period deadline is 30 days from opening.

Populating the Projects list will be required each time the fund is considered for use. The list can be informed by individuals, database lists (i.e. FPDC Capital Projects database, LRBP, etc.), or other investment proposals (i.e. 2012 Admin & Finance Investment Proposals).

The call for projects requires transparency and equity, therefore a call for proposal will be sent to ASMSU, Deans Council, Staff Senate, Professional Council, Faculty Senate, Space Management Committee, the UFPB Committees, and the Office of the Provost. The list will be prioritized by ASMSU and then presented to UFPB. UFPB will review the projects and make a recommendation to the president.

Accepted proposals will be submitted to FPDC using the required Academic R&R Fund Application (included below).

3. As staff to UFPB, FPDC compiles a project list including all proposals received by deadline. The project proposals will be listed in a spreadsheet with the values-based criteria for evaluation.
4. Categorize the project proposals using the values-based criteria.
 - a. Supports student success, retention and graduation
 - b. Supports student recruitment (opposite would be it doesn't support)
 - c. Broad campus community impact (opposite would be inequitably enhances students of one college)
 - d. Enhances existing College/Department programs or physical assets
 - e. Creates new College/Department programs of physical assets
 - f. Not qualified for revenue producing funds
 - g. Promotes sustainable (meets the goals of the MSU sustainability initiatives)
 - h. Proposal is substantial, not a trend or short sighted
 - i. Reconciles a Space Management Committee identified need
 - j. Conducive project timing (shovel ready, and what type of architectural services are required)
 - k. On the LRBP list
 - l. Supported by Constituency groups
 - m. Reduces deferred maintenance
 - n. Has matching or other funds – or sole source for project
 - o. Adds new technology or opportunities by creating a premier space
 - p. Public space or designated use (i.e. building lobby or classroom)
5. Proposals over \$200,000 are to be reviewed by ASMSU and recommended to UFPB.
6. A written recommendation from UFPB is sent to the president for consideration. The recommendation will include the type of authority required and the time frame according to Montana State law for obtaining the authority to spend the amount as proposed by each recommended project.

PROCEDURES – RECOMMENDATION APPROVAL

Academic R & R Fund Proposal
Montana State University
UFPB Proposal for FY13 Funds

Instructions: **Please submit a cover memo and this completed form to FPDC by XXXX for consideration by the University Facilities Planning Board.**

1. Provide a single paragraph overview of the project.
2. Existing Facilities: Provide a brief history of the facility and an overview of its current uses.
 - What specific student needs does the facility support? Please be specific with regards to numbers of students, courses supported, and overall usage. How was this need assessed? How does the proposal address this need?

New Facilities: Provide an overview of the project with attention to the following issues:

 - What specific student needs does the facility support? Please be specific with regards to numbers of students, courses supported, and overall usage. How was this need assessed? How does the proposal address this need?
3. Provide overview of all anticipated funding and other sources investigated. Describe why this fund is most appropriate source of funding.
4. Provide prioritized list of the components of the request, so that the proposal may be reviewed in terms of partial funding or phases.
5. Identify any maintenance responsibilities or other ongoing costs associated with this proposal. Describe any deferred maintenance issues that may be eliminated or reduced by this proposal.

I:\Log -Feasibility\12-00-00\12-03-02 Academic R&R Fund Process\R&R Fund Process.docx

COMPLIANCE:	YES	NO
MSU POLICIES	X	
COMMITTEE OR APPROPRIATE REVIEW	X	
MASTER PLAN	X	
BOARD ACTION REQUIRED:		
Recommend Approval of the Academic R&R Fund Proposal Process as proposed.		



UNIVERSITY FACILITIES PLANNING BOARD

March 27, 2012

ITEM # 7		2012 and 2013 Registrar Classroom Renovations				
PRESENTERS:						
Walter Banziger – Director FPDC						
PROJECT PHASE:	PLANNING	X	SCHEMATIC	DESIGN DOCUMENTS	CONSTRUCTION DOCUMENTS	
VICINITY MAP:						
Map not provided. Proposed classroom renovations are being proposed for various building locations including renovations of existing classrooms in Roberts Hall, Wilson Hall, AJM Johnson Hall, and Linfield Hall.						
STAFF COMMENTS:						
<p>At the December, 20, 2011, UFPB meeting, the UFPB reviewed the recommended classroom renovation schedule as proposed by the Classroom Committee. The Classroom Committee outlined a suggested priority lists of Registrar scheduled small, medium and large capacity classrooms to be renovated over the course of the next two years utilizing \$1.5 million of reverted funds dedicated by Montana Hall to upgrade classrooms. The recommended classroom projects were determined based on criteria that evaluated the aesthetics, HVAC, and the tech level of the room as well as comments provided by students, faculty and ASMSU.</p> <p>Subsequent to the UFPB recommendation, but prior to submitting the UFPB recommendation to the President for approval, the Dean’s Council requested an overview of the classroom ranking process. The Dean’s Council discussed how the renovations might address both current and future pedagogical teaching styles in particular interactive classroom designs. As it is unclear at this point in time as to how pedagogical styles should be addressed in future classroom design it was suggested that additional discussions be held prior to proceeding with a majority of the renovations. It was agreed that the design and construction of the four small classrooms in AJMJ, Wilson, and Roberts Hall be completed. In addition, the Classroom Committee has been tasked with exploring the pedagogical impacts further.</p> <p>Based on the above, at the March 23, 2012 Classroom Committee meeting, the committee reviewed the proposed project schedule. The Classroom Committee recommends the following renovations be forwarded to the President for approval:</p> <ul style="list-style-type: none"> • \$300,000 of the \$1.5M fund be committed to renovate four small classrooms (Roberts Rooms 210, 301, 312 and Wilson Room 132) as previously proposed and recommended by the board. The small classroom projects are expected to be completed in the summer 2012 and are utilizing similar designs details developed in the summer of 2011 classroom renovation project. Mark Hedley of StudioForma Architects has been hired as the consultant to oversee design of the small classroom renovations and the project is expected to be released for bid in April for construction to begin in May 2012. • Approximately \$700,000 of the \$1.5M will be committed to complete Linfield Hall 125 since it was determined to be the number 1 priority for large capacity classrooms. Because of the size and configuration (tiered flooring) of the Linfield classroom it is unlikely to be converted to an interactive style classroom without considerable investment and impact to the building. It is recommended that the room be updated with new finishes, technology, etc. in a flexible lecture style format. In addition, there is a planned 2013 renovation which includes updated bathrooms and the addition of an elevator in Linfield Hall currently in development. It is believed that the Linfield 125 classroom renovation project could be partnered with this renovation project to benefit from efficiency, reduced impact on 						

building occupants, and cost savings by utilizing a single design firm and construction contract to execute all the work.

- The remaining \$500,000 in funds will be reserved to renovate future small and medium sized classroom(s) to be determined with the desire to develop a model interactive classroom.
- The Classroom Committee recommends approval of the proposed plan.

COMPLIANCE:	YES	NO
MSU POLICIES	X	
COMMITTEE OR APPROPRIATE REVIEW	X	
MASTER PLAN	X	
BOARD ACTION REQUIRED:		
Recommend approval by UFPB to proceed with the proposed plan pending President's approval.		

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