

MEMORANDUM

TO: University Facilities Planning Board: Nancy Cornwell - Chair, Walt Banziger - Vice Chair, Kurt Blunck, Allyson Brekke, Jeff Butler, ASMSU President, Anne Camper, Glenn Duff, Michael Everts, Chris Fastnow, Greg Gilpin, Mandy Hansen, Carsten Kirby – ASMSU, Terry Leist, Robert Marley, Martha Potvin, Fatih Rifki, Tom Stump, Julie Tatarka, Jim Thull, Brenda York

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

RE: **August 12, 2014**, 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

Approval of the draft notes from July 29, 2014.

ITEM No. 2 – EXECUTIVE COMMITTEE REPORT

Report on any current Executive Committee actions.

ITEM No. 3 – CONSENT AGENDA -

ITEM No. 4 – INFORMATIONAL - Campus Planning Overview-Upcoming Project Considerations
Presenter – Walt Banziger

ITEM No. 5 – RECOMMENDATION - Nelson Story Tower Meter Reading Antenna
Presenters – Victoria Drummond and Dan Stevenson

ITEM No. 6 – RECOMMENDATION - University Food Services 2-way Radio Repeater Antenna – South Hedges
Presenters – Victoria Drummond and Todd Jutila

ITEM No. 7 – RECOMMENDATION - College of Arts & Architecture Identity Signage at Cheever
Presenter – Victoria Drummond

HORIZON ITEMS

- External Building Signage Policy
- Seminar Materials
- Master Planning Issues
- Revisit and Update Policies
- HBO5 Amendment for Lab Facility

VCD/lsh

PC:

President Cruzado
Melissa Hill, President's Office
Maggie Hammett, President's Office
Keely Holmes, Provost Office
ASMSU President
Diane Heck, VP Admin & Finance

Heidi Gagnon, VP Admin & Finance
Jennifer Joyce, VP Student Success
Linda LaCrone, VP Research Office
Bonnie Ashley, Registrar
Robert Putzke, MSU Police
Becky McMillan, Auxiliaries Services

Julie Kipfer, Communications
Jody Barney, College of Agriculture
Susan Fraser, College of Agriculture
Robin Happel, College of Agriculture
JoDee Palin, College of Arts & Arch
Victoria Drummond, Planning D&C

**MEETING NOTES OF THE
UNIVERSITY FACILITIES PLANNING BOARD
July 29, 2014**

Members Present: Walt Banziger - Vice Chair, Jeff Butler, Tom Stump, Julie Tatarka, Carsten Kirby, Brenda York, Neil Jorgensen, Allyson Brekke, Bob Lashaway

Proxy: Victoria Drummond for Kurt Blunck and Renee Riejo Pera

Members Absent: Nancy Cornwell, Terry Leist, Michael Everts, Fatih Rifki, Jim Thull, Glen Duff, Martha Potvin, Robert Marley, Brett Gunnick, Greg Gilpin, Chris Fastnow

Staff & Guests: Randy Stephens, Victoria Drummond, EJ Hook, Andy Allen, Sarah Eastin, Chris Thompson

The University Facilities Planning Board met beginning at 3:30 pm to discuss the following:

ITEM No. 1 – Approval of Meeting Notes

The meeting notes from July 1, 2014 were approved unanimously.

ITEM No. 2 – Executive Committee Report

There was no action from the Executive Committee to report.

ITEM No. 3 – Consent Agenda – No items

The agenda was reorganized in the following order:

ITEM No. 6 – Informational - Classroom Design Guidelines Revision

Randy Stephens, University Architect, presented updates to the Classroom Design Guidelines, which were originally approved by UFPB on November 8, 2011. Highlights of the changes include additional photos, a statement of purposes for instructional spaces with four bullet points (as presented to the Classroom Committee), a statement about accountability, language about TEAL (Technology Enhanced Active Learning) classrooms, information about door hardware with a reference to MSU Design and Construction Guidelines and Building Code, and information about using commonly used products and purchasing furniture from the WSCA Office Furniture term contract with the State. Banziger asked for more detail about what would be covered in the TEAL classroom information; Stephens said it is described and should include some photographs, diagrams, and examples of current TEAL classrooms.

The updated Classroom Design Guidelines can be found at:

http://www.montana.edu/us/committees/ufpb/files/classroom_committee/MSU_Classroom_Guidelines_Rev_July_2014.pdf.

ITEM No. 5 – Informational - Residence Hall Update

Andy Allen, FPDC Project Manager, presented an update on the new Freshman Residence Hall, showing renderings including exteriors and interior layout. There is a stair tower on the north east elevated wing, and the west wings are grounded. There are about 100 parking spaces added on the site along the new road that will extend into campus. On the interior, the second floor where the three wings join (at the “knuckle”) will be open to the lobby area below and includes a staircase. The three types of resident rooms are doubles, singles, and semi-suites (a shared common space and bathroom between two double rooms). The hallways have a slight widening around the knuckle to allow for gathering space for residents. There is a lounge, two public restrooms and a mechanical rooms at the knuckle. There are two exits to Roskie beach from the main lobby and common space area, which includes a kitchen and fireplace. The design team has worked with Facilities Services to integrate an ideal amount of glazing in the lobby area, and to place a solar wall in the best location which is on the north west wing. There will be covered bike storage at grade level and protected by the elevated north east wing. Butler added that there is no mechanical equipment on the roof so the roof will be made solar ready; the mechanical systems are all inside the building. Andy will return to UFPB at a later time for approval of the exteriors; Brekke mentioned that the texture and colors of the exterior metal panels will be important to see.

ITEM No. 4 – Recommendation- National Ecological Observatory Network (NEON) Tower Site

EJ Hook, Environmental Services Manager, introduced the NEON project and site with comments from Sarah Eastin and Chris Thompson from NEON, and Andy Hansen, MSU Ecology Faculty. The proposed site is at W. College St. and S. 15th

Ave, where Family & Graduate Housing house and streets were removed. This tower will collect site-based data about the climate, atmosphere, soils, streams, ponds, and a variety of organisms. This tower will be in operation for about 10 years but can be relocated or terminated if MSU needs the site. The NEON team has done some surveying and geotechnical work on the site. The tower will be 105 feet tall, with a foot print of about 6.5 feet by 6.5 feet with guy anchors extending out 75 feet to support it. There is also an instrument hut that is 8 feet wide by 20 feet long and 9 feet tall, and takes very little construction. Around the site there will be soil arrays at grade level. NEON plans to fence the tower, and the rest of the site will be clearly marked but not fenced. The existing semi-permanent trail through the site will remain but may change where it leads, and the rest of the site may have another foot path for NEON staff access.

Butler asked how often the site is visited; Thompson said staff would visit the site about every two weeks for a day or two. Hansen added that the hope is that there would be regular visitation from students and the public for education. Butler asked about parking; NEON should get parking passes and either park in the parking lot to the east or on S. 15th Ave. Brekke suggested working on developing plans for screening elements of the site and camouflaging the tower; Thompson said that the color of the tower and instrument hut is flexible. Stump asked if the tower and arrays could be moved more to the south east corner of the site; NEON will investigate this option and this may work better to access the site from the parking lot to the east.

Construction on this site should begin summer 2015 and last about 4 months. The construction site will be very small, so that the least possible amount of the site is disturbed. There will be a NEON staff member on site at all times during construction. All construction and project costs will be paid for by NEON. Once construction is complete and the tower is functioning, it will be collecting 2,000 measurements including meteorological data, radiation, atmospheric chemistry, air quality, dust and aerosol, and CO₂. Sensors will go in the ground at a range of depths and the data will be transmitted to the NEON headquarters. Airplanes will also be flown above to collect data over larger areas, about two times per year for four hours.

Brekke stated that the City of Bozeman would like to see an informal proposal of the project, since this is a large tower for Bozeman and is on a visible site. Banziger added that the University is not subject to City of Bozeman zoning but does maintain a strong relationship with the City.

Stump moved to approve the general site for the project with consideration that it be situated so that the remainder of the lot is usable, and that NEON works with Facilities Services and Facilities Planning, Design & Construction to determine the exact location on the site and color of the tower and instrument hut so that it blends into the site. Thompson and Brekke will work on scheduling an informal presentation with the City of Bozeman. Brekke seconded the motion. The motion passed unanimously.

The vote:

Yes:	11
No:	0

ITEM No. 8 – Informational - Garfield St & S. 19th Ave Intersection

Bob Lashaway presented upcoming potential changes to the intersection at Garfield St. and S. 19th Ave. The City of Bozeman and Montana Department of Transportation will be working on College St. from S. 19th Ave to W. Main St. in the next year, and are considering putting in a traffic signal at Garfield St. and S. 19th Ave. This will require some realignment of street widths and lines. As a controlled intersection, this change will allow traffic coming off Garfield St. to turn right and left onto S. 19th Ave, as well as go straight across S. 19th Ave from both directions. The City of Bozeman's Pedestrian and Traffic Safety Committee is in support of this; there is currently not safe pedestrian crossing from W. Kagy Boulevard to College St. and this will provide a signalized crossing at all four legs of the intersection.

ITEM No. 7 – Informational - Campus Planning Overview-Upcoming Project Considerations

Walt Banziger briefly discussed the campus planning overview, which has been discussed with University executives. The projects that are listed are being thought about overall regarding available building sites. One recommendation that has been made is to locate the Army/ROTC Field Storage Facility and the EHHD Human Performance Lab on a site in Faculty Court/Research Court on the south east part of campus off S. 5th Ave. This item will be discussed in more detail at the next UFPB meeting.

This meeting was adjourned at 5:05p.m.

VCD: lsb

PC:

President Cruzado
Melissa Hill, President's Office
Maggie Hammett, President's Office
Julie Heard, Provost Office
ASMSU President
Diane Heck, VP Admin & Finance

Heidi Gagnon, VP Admin & Finance
Jennifer Joyce, VP Student Success
Linda LaCrone, VP Research Office
Bonnie Ashley, Registrar
Robert Putzke, MSU Police
Becky McMillan, Auxiliaries Services

Julie Kipfer, Communications
Jody Barney, College of Agriculture
Susan Fraser, College of Agriculture
Robin Happel, College of Agriculture
JoDee Palin, College of Arts & Arch
Victoria Drummond, Facilities PDC

DRAFT

ITEM # 4		Campus Planning Overview – Upcoming Project Considerations				
PRESENTERS:						
Walt Banziger, Project Manager FPDC						
PROJECT PHASE:	PLANNING	X	SCHEMATIC	DESIGN DOCUMENTS	CONSTRUCTION DOCUMENTS	
VICINITY MAP:						
Applicable to multiple campus sites and functions						
STAFF COMMENTS:						
<p>Many of the below projects are either in the planning stages or are in some sort of planning/consideration stage for the foreseeable future. The primary issue at hand is where these potential projects might and should be located on our campus. UFPB will get an overview of these projects, to approach the planning and development of our campus in a comprehensive manner rather than a project by project approach.</p> <p> ROTC Field Storage Facility – Site Location HHD Human Performance Lab – Site Location Romney - Third Floor Class/Dance uses Marching Band Storage – Site location Student Health Services Facility – Future Site Location Outdoor Recreation – Expansion Athletics Indoor Practice Field – Site location Student Indoor Sports Complex – Future Considerations and Site Location Parking Structure – Site Location SOB Barn – Potential future uses associated w/projects noted Facilities Relocation – Existing Site Consideration ITC/Admin Building – Site Considerations USDA Site – Disposition Lease Opportunities – Consider options for any of the above </p>						
COMPLIANCE:					YES	NO
MSU POLICIES					X	
COMMITTEE OR APPROPRIATE REVIEW					X	
MASTER PLAN					X	
BOARD ACTION REQUIRED:						
No action needed as this is informational only						

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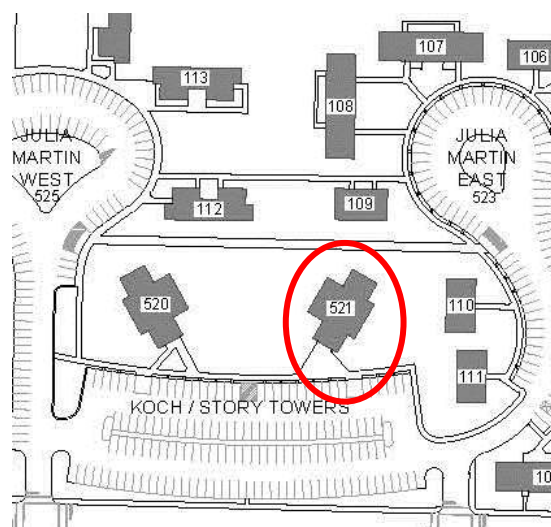
ITEM # 5	City of Bozeman Water/Sewer Department Meter Reading Antenna – Nelson Story Tower Apartments
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PRESENTERS:

Victoria Drummond, Associate University Planner
Dan Stevenson, Assistant Director Facilities Services

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



STAFF COMMENTS:

The Telecommunications Antenna Committee reviewed an application from City of Bozeman Water/Sewer Department for an antenna and gateway equipment for the rooftop and inside south penthouse of Nelson Story Tower Apartments. The new antenna is will be installed on the southeast roof of the penthouse co-located with the City of Bozeman Fire and Police antennas. The application was approved by the Telecommunications Antenna Committee for UFPB recommendation to the President for approval.

Application Information

According to the application, this receiver will be the Cities’ 6th meter reading receiver. It will constantly pick up meter reads and then transfer them to the Cities’ server 4 times a day via cell phone modem. They can also see reversal of water alerts and leak alerts quickly. This system will be tied into a customer portal on their website which will allow customers to see their consumption the day before and receive alerts about their account via email. They hope to have the portal up in the next 2 to 3 years.

The equipment consisting of a PCTEL, Inc. 800/900 MHz MAXRAD Fiberglass Base Station Omnidirectional Antenna, 48 inches tall and Neptune Technology Group R900 Gateway v3, 13 inches x 9 inches, will be installed by Industrial Communications & Electronics, Inc. (ICE), a Bozeman firm with long ties to MSU for installation and maintenance of the other 2-way radio systems operated by Facilities Services, Auxiliary Services, MSU Police. They will use existing port holes into the roof for the cable, and existing electrical service. The indoor equipment will be mounted on a wall and include a UPS for backup purposes.



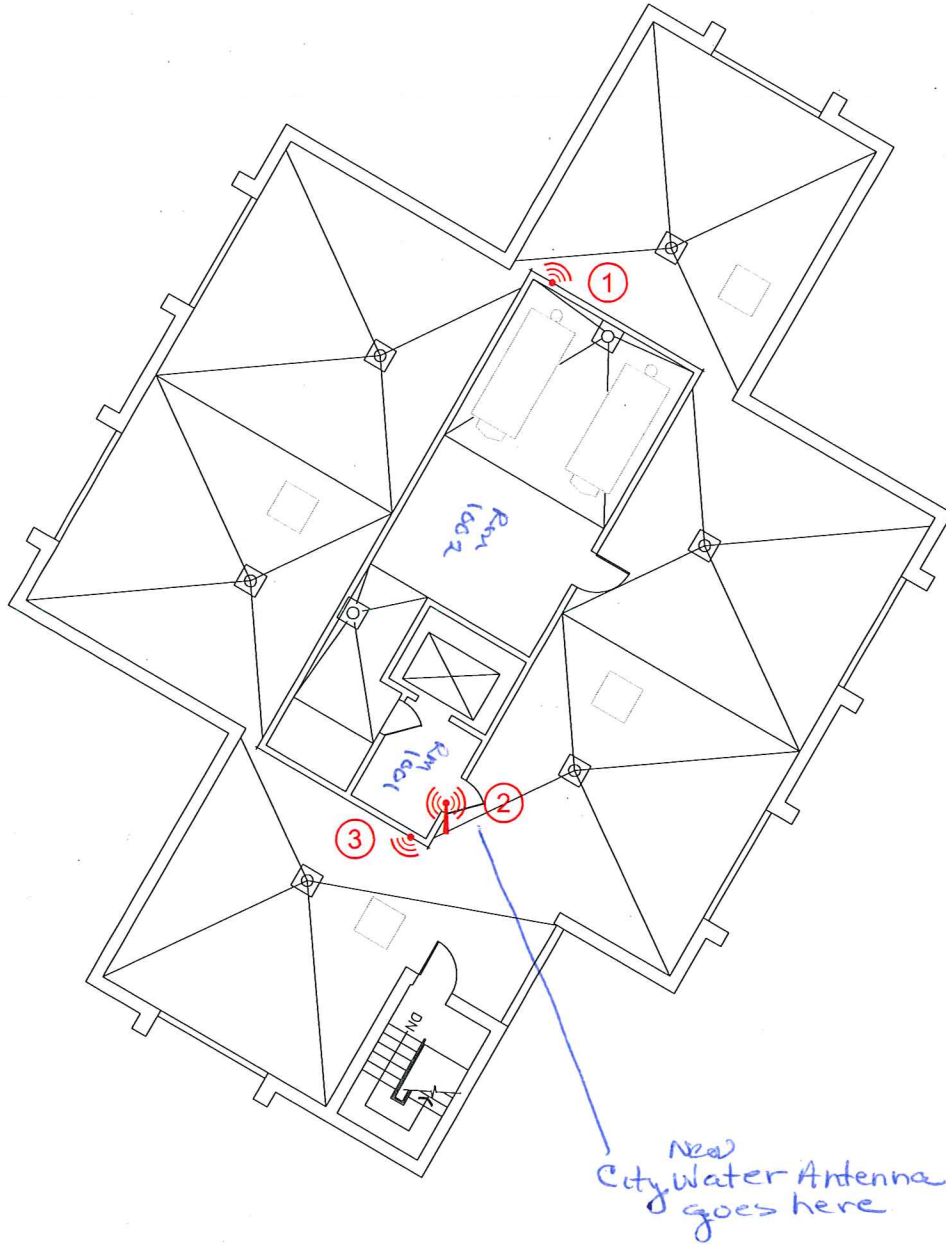
Here is a view of the City Fire Department antenna, and next to it is a picture of the wall mounted equipment at the City of Bozeman Water Department office to show a similar installation. See the attached product sheet of the new antenna, which is only 48 inches tall. The antennas are not very visible from the ground, 9 floors below and mounted on the smaller footprint penthouse.

Neil Ramhorst, MSU technical antenna advisor, will check the frequency to make sure there will be no interference with existing MSU frequencies. He will also work with ICE to make sure the installation meets MSU standards and utilize Facilities Services workers as needed.

	YES	NO
MSU POLICIES	X	
COMMITTEE OR APPROPRIATE REVIEW	X	
MASTER PLAN	X	
BOARD ACTION REQUIRED:		
Recommend approval to install the antenna as proposed.		

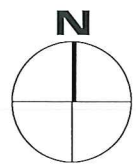
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Nelson Story Tower



Antenna Legend

- ① Resnet Spread Spectrum Antenna - no longer there
- ② Bozeman Fire VHF Repeater
- ③ Resnet Spread Spectrum Antenna - no longer there



**Commercial Vendor Application for Antenna/Tower Siting
on Montana State University–Bozeman Property**

1. Name of Applicant:
City of Bozeman Water/Sewer Department_____

2. Contact Person for Applicant:

Name: John M. Alston, Superintendent

Phone: 406-582-3200_____

Email Address: jalston@bozeman.net_____

3. Desired location for siting: Nelson Story, co-located with City of Bozeman Fire and Police antennas_____

4. Purpose of System:

This receiver will be the cities 6th meter reading receiver. It is constantly picking up meter reads and then transfers them to the cities server 4 times a day via cell phone modem. We can also see reversal of water alerts and leak alerts quickly. This system will be tied into a customer portal on our website which will allow customers to see their consumption the day before and receive alerts about their account via email. We hope to have the portal up in the next 2 to 3 years.

5. Description of Equipment to be placed on university property:

Antenna is PCTEL, Inc. 800/900 MHz MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antenna (MFB9155NF), 48 inches tall. Electronic Equipment is Neptune Technology Group R900 Gateway v3, 13 inches x 9 inches that is mounted inside the penthouse. Battery backup is included via a UPS. See attached product sheets.

6. Description of space requirements, utilities, communications linkages, and other services and equipment that will be required for the siting:

The antenna will mount on the same mast that holds the City Fire and Police antennas. The gateway will mount on the wall in Room 1001 of the penthouse adjacent to the existing Fire and Police equipment. An existing 110 electrical outlet will be used.

7. **Broadcast frequency: 915 MHz. Intermodulation Study will be done by Neil Ramhorst to make sure there is not interference with existing frequencies on campus.**

8. **Proposed Work Plan: Describe applicant’s proposed schedule for installation with details of work to be done and proposed dates of completion of each work item.**

Installation will be done by Industrial & Electronics, Inc. in conjunction with the City of Bozeman Water/Sewer Department and overseen by MSU’s antenna consultant, Neil Ramhorst.

9. **Proposed Effective Date and Duration of License:**

September 1, 2014 and will stay there as long as the City is using this same system, approximately 2-3 years. There is a possibility that MSU might “piggy-back” on the City’s system to do a pilot for reading MSU’s water meters.

On behalf of the applicant, I certify that the applicant has read the MSU Telecommunications Antenna/Tower Siting Policy and the WIRELESS TELECOMMUNICATIONS ANTENNA SITE LICENSE and the applicant agrees to comply.

Applicant	Date
City of Bozeman _____	
Company Name	

If the applicant wishes to negotiate a variation to the MODEL WIRELESS TELECOMMUNICATIONS ANTENNA SITE LICENSE, please set forth the proposed revisions and the reasons that the variation is being requested.

RETURN APPLICATION TO

**MSU University Planner
Office of Facilities Services
Montana State University
Physical Plant
Bozeman, MT 59717**

Copies of the application will be distributed to

**KUSM
ITC
Legal Counsel**

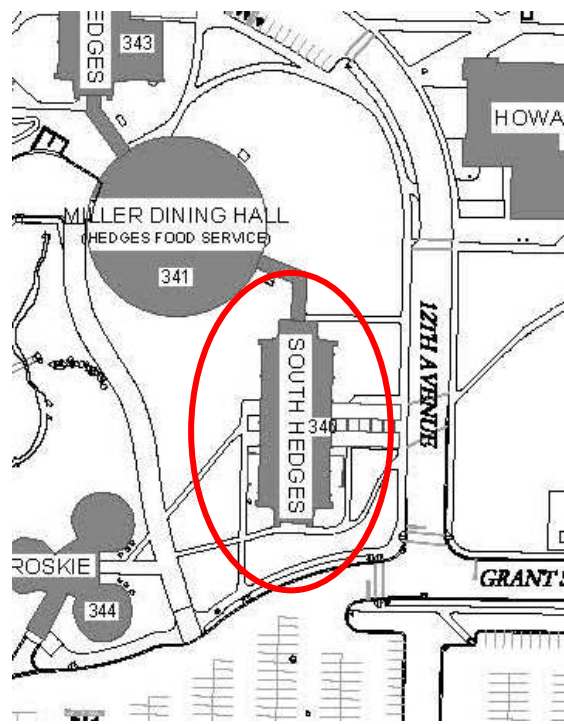
ITEM # 6	University Food Services 2-way Radio Repeater Antenna – South Hedges
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PRESENTERS:

Victoria Drummond, Associate University Planner
 Todd Jutila, Director University Food Services

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



STAFF COMMENTS:

The Telecommunications Antenna Committee reviewed an application from MSU University Food Services for an antenna and 2-way radio equipment for the rooftop and inside south penthouse of South Hedges Hall. The new antenna is will be installed on the northeast roof parapet edge far enough away from the existing antennas on the southwest edge used by MSU Police and MSU Custodial Services so as not to interfere with the communications. There are also 3 antennas on the roof top belonging to KUSM/MontanaPBS. The application was approved by the Telecommunications Antenna Committee for UFPB recommendation to the President for approval.

Application Information

According to the application, MSU University Catering wants to make their operation run more efficiently and stream line their communications between them and other food service departments. Currently their student and MSU staff use personal cell phones to communicate when they are out on deliveries and/or events, which runs into numerous problems. The handheld radio system will help them communicate more efficiently in areas where cell phones don't work and keep in better contact when making deliveries on and off campus. They can also communicate better with departments for large events such as football, concerts and conferences.

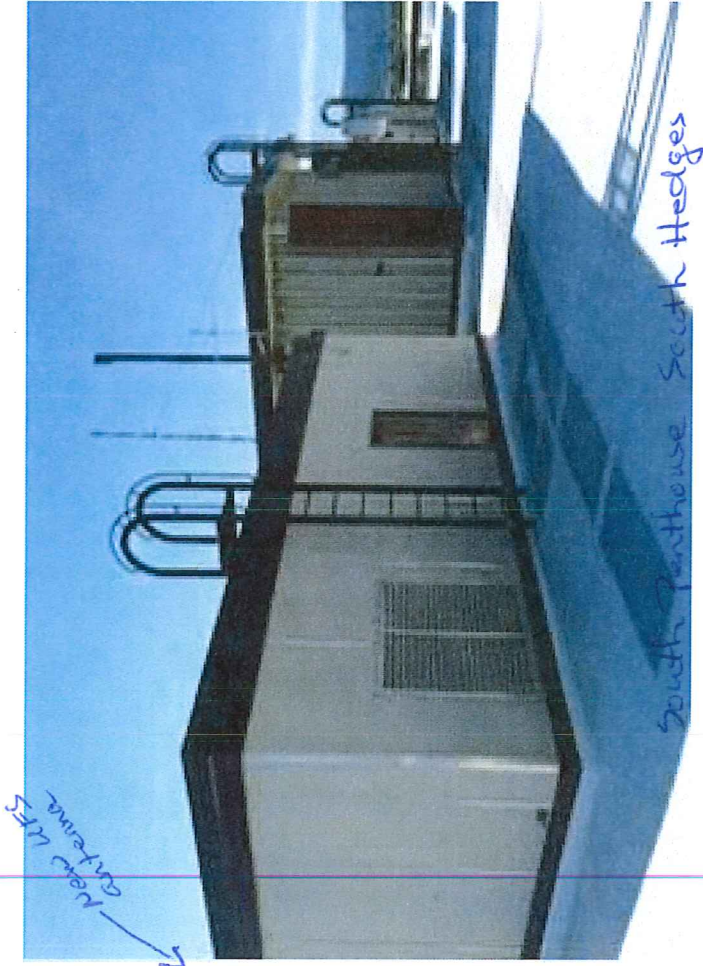
The equipment consisting of a Motorola XPR8400 VHF Repeater, VHF Unity Gain Repeater Antenna, Cabinet, and 16 Motorola Portable Radios, will be provided and installed by Industrial Communications & Electronics, Inc. (ICE), a Bozeman firm with long ties to MSU for installation and maintenance of the other 2-way radio systems operated by Facilities Services, Auxiliary Services, MSU Police. They will use existing port holes into the roof for the cable, and existing electrical service. The indoor equipment will be mounted in a cabinet similar to these and all re-arranged to fit.

See the attached pictures. Antenna mounting will look similar to the existing MSU Police antenna with a height of 6' on South Hedges Hall south penthouse roof. The antennas are smaller than the KUSM antenna and not very visible from the ground, 11 floors below.

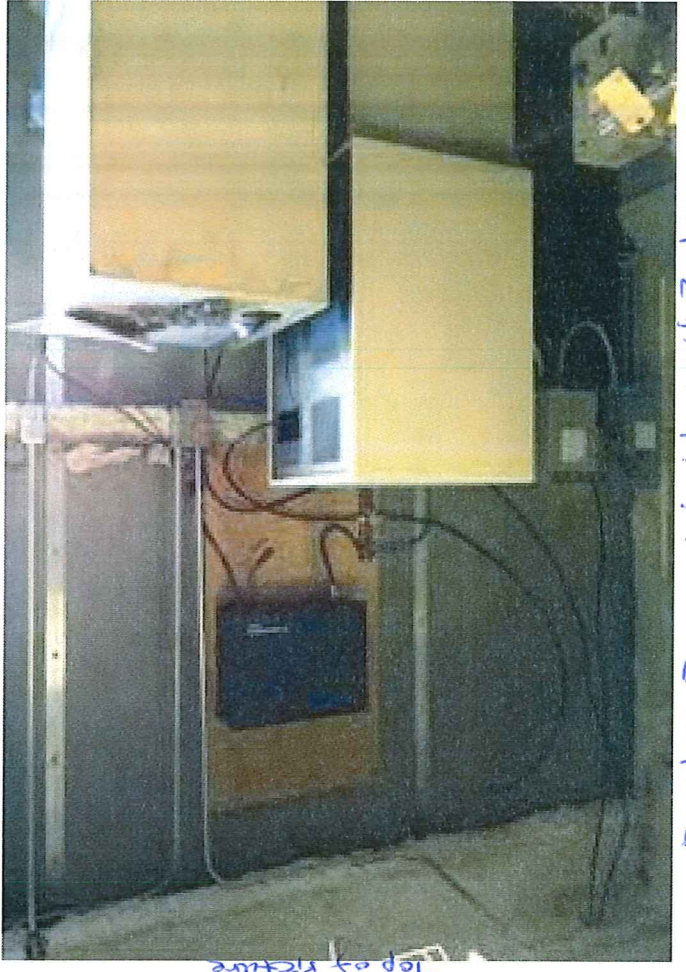
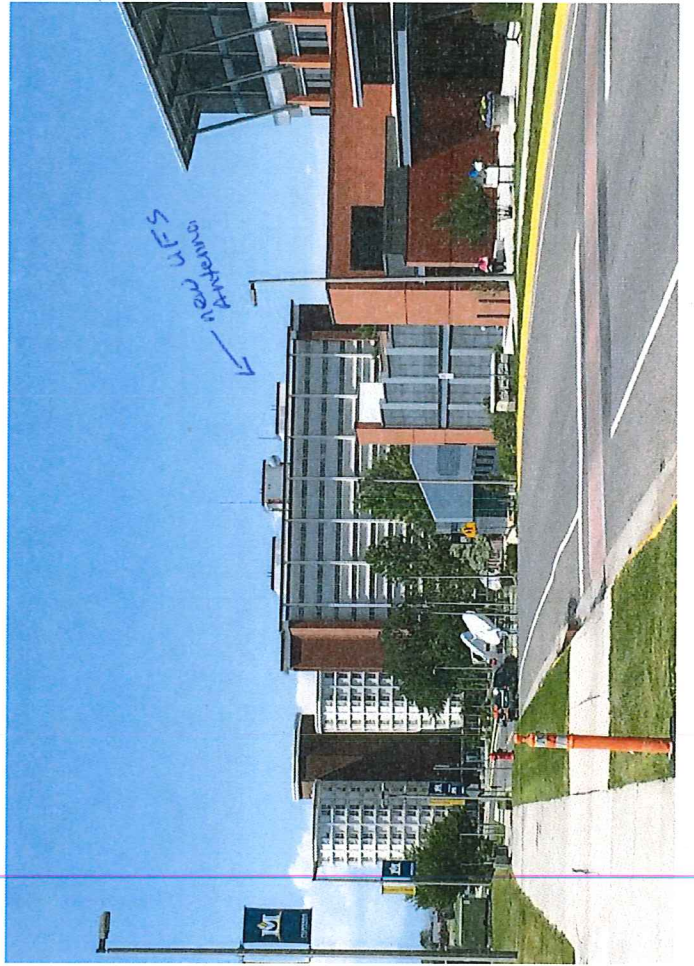
Neil Ramhorst, MSU technical antenna advisor, will check the FCC licensed frequencies as soon as they are issued later in the month to make sure there will be no interference with existing MSU frequencies. Any issues can be dealt with minor changes to the antenna. He will also work with ICE to make sure the installation meets MSU standards and utilize Facilities Services workers as needed.

	YES	NO
MSU POLICIES	X	
COMMITTEE OR APPROPRIATE REVIEW	X	
MASTER PLAN	X	
BOARD ACTION REQUIRED:		
Recommend approval to install the antenna as proposed.		

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6' RFS Unity Gain
Fiberglass OMNI
Antenna VHF
T122831



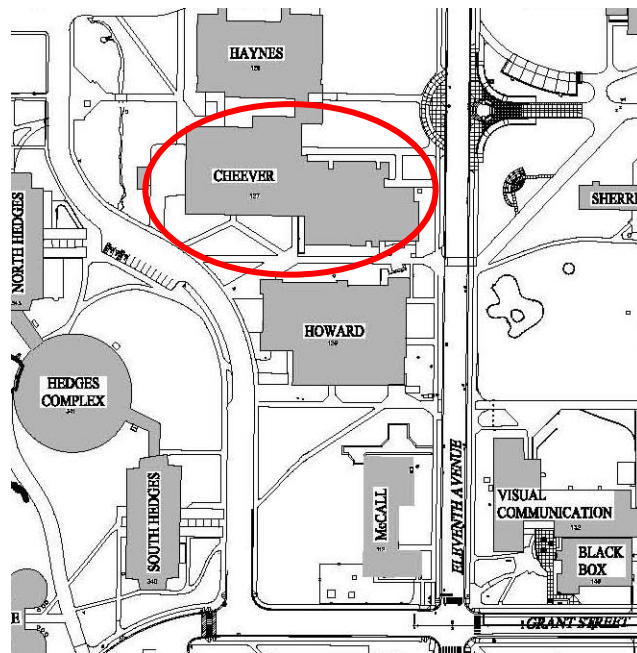
ITEM # 7	College of Arts & Architecture Identity Signage at Cheever Hall
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PRESENTERS:

Victoria Drummond, Associate University Planner

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



STAFF COMMENTS:

The Dean of Arts & Architecture asked the metals faculty member to design some interior signage for Cheever. These are intended to be plasma cut from metal, and in addition to the existing signage.



“The MSU College of Arts and Architecture” sign will be attached to the railing near the second floor commons area on the side facing the seating.

The “Office of the Dean” will go above the office door over the glass plate currently there.

The “Rest Stop” sign will hang in the common area as that is the name the students gave the space.



“The Dean's Gallery” sign will hang on the column in the dean's gallery.

The “Cheever 215” will be to the left of the entrance to Cheever 215, which is newly renovated. It is a nice artistic touch to the traditional signage.

Not pictured here, but necessary is a way finding sign to the Dean's office and a gallery. It would be a square metal plate attached on the column you see coming off the second floor of the elevator. It would need braille also.

The Dean is aware that there are ADA wayfinding needs for braille on some or all of these signs. University Communications is being worked with to review the particular style uses of the MSU name.



COMPLIANCE:	YES	NO
MSU POLICIES	X	
COMMITTEE OR APPROPRIATE REVIEW	X	
MASTER PLAN	X	
BOARD ACTION REQUIRED:		
Recommend approval of the interior wayfinding signs for Cheever Hall as proposed.		

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