

Montana State University

State-Owned Heritage Properties

Biennial Report 2012- 2013

Report Prepared by:

Victoria Drummond, AICP, LEED AP

Associate University Planner, Facilities Planning, Design & Construction

MSU Bozeman

A special thanks to Tim Urbaniak, Instructor City College, Billings who authored the MSU-Billings sections; and Jason McGimpsey, Director Facilities Services, MSU-Billings, and Dan Ulmen, Facilities Services, MSU-Northern for their contributions.

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Executive Summary

Montana State University consists of four university and college campuses located in Bozeman, Billings, Great Falls and Havre; as well as Montana Agricultural Experiment Station (MAES) research centers in Sidney, Huntley, Corvallis, Moccasin, Havre, Conrad, Kalispell and Bozeman as well as the Extension Service outlets throughout the state.

In 2013 the student, faculty and staff on the four MSU campuses nearly reached a total of 25 thousand individuals teaching, working, and residing in the 6.1 million square feet of buildings (Appendix 3). MSU's inventory of buildings includes many that were constructed 50 to 100 years ago and still in full operation.

In accordance with the Montana Antiquities Act and as part of the Montana University System, in 2012, MSU submitted documentation regarding the first report (2010-2011 cycle) of the State-Owned Heritage Properties Biennial Report. In addition to the update on properties included in the 2012 report, this second cycle report includes the newly established Montana State University Historic District proposed Historic District and its 20 additional heritage buildings.

A majority of the MSU Heritage Properties in the report are on the MSU-Bozeman campus, followed by MSU-Billings with three properties, and MSU-Northern (Havre) with one. Great Falls College MSU, in Great Falls is principally a single complex under one roof constructed in 1976; and a vocational shop building that was constructed in 2008. MSU's Montana Agricultural Experiment Station (MAES) includes four sites in the report - including one building that no longer exists – the **Red Bluff Stage Stop (24MA0262)**. MSU's stewardship efforts during this report period total \$26.5 million dollars (Appendix 1).

This report fulfills the required reporting status and maintenance of those buildings and secondly focusing on other MSU-Billings held properties for potential historical significance. The expense for research, compiling the data and preparing the report cost \$27 thousand dollars (Appendix 1), excluding final production costs.

MSU Heritage Resources

June 28, 2012, MSU President Waded Cruzado, approved the University Facilities Planning Board's recommendation to partner with the State Historic Preservation Office (SHPO) to conduct a historic architectural survey of the MSU-Bozeman campus. SHPO provided matching funds to contract a professional cultural consultant to survey the buildings and structures within the historic core of the campus, complete a Historic Property Record for each building, and determine the eligibility to form a district and to submit a nomination to the National Register.

On January 6, 2014, MSU received confirmation from the Montana Historical Society that the "*Montana State University Bozeman Campus Historic District*" was approved and now listed in the National Register of Historic Places as of December 24, 2013. The **MSU Bozeman Campus Historic District (24GA1893)** includes 25 Smithsonian referenced buildings and complexes (made up of several buildings), multiple contributing structures such as a Territory-State dedication Marker, and landscapes including the Romney Green. Formation of the District provides recognition favorable to prospective students, faculty and staff as

historic buildings contribute to the campus fabric and is historic identity reflecting on the stature, quality and integrity of MSU. The Nomination document of the **MSU Bozeman campus Historic District (24GA1893)** may be reviewed at: <http://mhs.mt.gov/shpo/MSUHD.pdf>

A completed Heritage Property Reporting Form is attached (Appendix 5) for each of the following known documented MSU heritage properties:

24GA1893	MSU Historic District		
24GA0336	Hapner Hall	24GA0352	MSU Bozeman: Ft. Ellis Military Site
24GA1629	Heating Plant	24HL0329	MSU: Fort Assiniboine/ NARC MSU: Central MT Agricultural Exp Station,
24GA1681	AJM Johnson Hall Strand Union Building	24JT0162	Moccasin
24GA1763	Danforth Chapel	24MA0262	MSU: Red Bluff Stage Stop
24GA1796	Langford Hall		
24GA1798	Reid Hall	24HL1382	MSU-Northern, Havre-Gymnasium
24GA1799	McCall Hall		
24GA1871	Hamilton Hall		
24GA1872	Hannon Hall	24YL1859	MSU-Billings: Academic Support Center
24GA1873	Hedges Complex	24YL1860	MSU-Billings: Apsaruke
24GA1874	Herrick Hall	24YL1861	MSU-Billings: Physical Education Building
24GA1876	Johnstone Center		
24GA1877	Lewis Hall		
24GA1878	Linfield Hall		
24GA1879	Montana Hall		
24GA1880	Plew Building		
24GA1881	Atkinson Quadrangle		
24GA1882	Renne Library		
24GA1883	Roberts Hall		
24GA1884	Romney Gymnasium		
24GA1885	Roskie Hall		
24GA1887	Taylor Hall		
24GA1889	Traphagen Hall		
24GA1892	Wool Laboratory		

The first column above contains the Heritage Properties on the MSU-Bozeman campus. The second column contains those located at four MSU MAES sites; one building at MSU-Northern; and three MSU-Billings buildings on the main Billings campus. There are no properties at the Great Falls College MSU campus included in this report. It appears that the MSU-Northern **Student Union Building (24HL1383)** may have been an oversight omission from this list and it is recommended for inclusion in the next cycle.

All 25 properties at MSU-Bozeman are included in the National Register within the newly created *Historic District*. The MSU-Billings and MSU-Northern properties have been determined potentially eligible for inclusion in the National Register but have not yet been nominated. The most visibly prominent MSU-Billings property is the **Physical Education Building (24YL1861)**. It serves as a primary gateway to Billings through this highly visible part of the campus. It is the logical first priority for nomination submission for possible inclusion into the National Register under Criteria A and C. Of the four MAES properties: the **Red Bluff Stage Stop (24MA0262)** building was destroyed by fire in 2006 leaving just the foundation, building footings and a commemorative sign at the site. Two of the MAES sites are listed as by the state as early military posts historic sites - **Ft Assiniboine (24HL0329)** and **Ft Ellis (24GA0352)**.

Heritage Property Status and Conditions

MSU-Bozeman

A majority of the properties included in this report are being reported on for the first time and therefore there isn't change over time to report. Overall – the Heritage Properties on the MSU-Bozeman campus rank “Good” for Condition and Integrity and “Satisfactory” status. Recent activity and plans for the short-term future involving reported properties include:

In 2012-13 the main entrance and public lobby areas of **Hapner Hall (24GA0336)** constructed in 1959 and **Langford Hall (24GA1797)** constructed in 1960 were renovated (Hapner Hall Figure 15, Langford Hall Figure 16). The project enlarged the communal areas with additional square footage and more modern amenities and ADA compliant accessibility.

The **Hedges Complex (24GA1873)** that consists of the Hedges South and North student residence towers and the Miller Dining Hall and Food Service Center were constructed in 1964-1967. In 2012 the complete window systems were replaced with energy efficient systems (Figure 17). In 2014, Miller Dining Hall is scheduled for renovation, including redesigning the north entrance for ADA compliance.

Reid Hall (24GA1798) constructed in 1957 currently is the home of the Jobs Hall College of Business and Entrepreneurship, and the College of Education Health and Human Development. Renovation of Reid Hall ranks as a high MSU priority in the 2016-2017 Long Range Building Program. Current estimates are that a comprehensive building renovation will require a state appropriation of ~\$28 million dollars. The JHCB&E is scheduled to move out of Reid Hall and into its new building (Jobs Hall) by 2015. Reid Hall is centrally located within the MSU Bozeman campus Historic District – adjacent to Renne Library and Montana Hall. Corridor and lobby common areas were upgraded and the ITC computer lab classrooms were renovated in the last two years.

Johnstone Center (24GA1876) student residence complex was constructed in 1955 to replace wooden barracks style dormitories constructed for the influx of students the years following WWII. It was originally named Lewis and Clark Hall and all four wings were dormitories. The three wings still used as student residences are connected by a central dining hall. The dining hall is scheduled for upgrades in the next two to three years. Early contextual plans are to enlarge the dining hall area southward towards Harrison Street, which is an MSU-owned roadway that was reopened for use in 2013 (Figure 18).

Lewis Hall (24GA1877) the 1923 Italian Renaissance Revival science building is adjoined to Cooley Laboratory. An NIH Grant allowed MSU to completely renovate Cooley Labs into a primer research facility. Since Lewis Hall's west end is connected to Cooley Labs, it benefited from site improvements including storm water collection and removal, rebuilt retaining walls and exterior steps (Figure 19).

Atkinson Quadrangle (24GA1881) consists of three buildings built in 1935 to provide housing for the female student population. In 2013 an office area within a portion of one of the three buildings, Quad F, was renovated to accommodate the newly Board of Regents approved MSU Honors College.

Due to the installation of a complete building fire sprinkler system in **Taylor Hall (24GA1887)** the oldest building on campus (1894), the exterior wooden fire escape was approved for removal (Figure 20).

The **Wool Laboratory (24GA1892)** is a Craftsman-style, two-and-a-half story frame building with a garage built in 1947. The garage's roof structure was so deteriorated that it was considered for demolition. Following consultation with SHPO MSU instead rebuilt the garage roof structure and replaced the roof surface, preserving the original garage (Figure 21).

The south elevation of **Linfield Hall (24GA1878)** constructed in 1907 includes a 1953 addition, Linfield South. The buildings did not include an elevator. In 2013 Linfield South was updated to include renovation of the lecture hall classroom, ADA compliant restrooms, elevator to access the four floors of Linfield Hall, and a new ADA compliant entrance on the west elevation where the buildings connect (Figure 22).

MSU-Billings

The extent of heritage properties at MSUB consist of constructed buildings, primarily architecturally significant under Criterion C which are such:

"that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction."
(National Register Bulletin)

The **Academic Support Center (24YL1859)** was planned for removal in 2012, and that plan is currently included in the 2016-2017 Long Range Building Program and upon approval will proceed. Built in 1955, the building has been used for a variety of functions including Student Union Building, Computer Annex, and International Studies. The building has been moderately remodeled a number of times, the latest being in 2000. At this time the building is vacant and is in fair condition. To address the negative impacts of the potential removal of this structure, it has been digitally documented through photography (Figure 5), three-dimensional scanning (Figure 6), and architectural modeling using the Revit software (Figure 7). These technologies facilitate a level of digital preservation used to supplement the existing original architectural plans that represent the original design intent, for which the building is noted.

Apsaruke Hall (24YL1860) is in good condition and currently houses The College of Allied Health Professions and classrooms used by the MSU School of Nursing. Originally constructed in 1957 as a men's dormitory, the primary architectural features remain intact. This building has also been digitally documented using photography (Figure 8), three-dimensional scanning (Figure 9), and architectural modeling (Figure 10) in addition to the archiving of the original architectural drawings.

Physical Education Building (24YL1861) originally constructed in 1961 it is an extensively utilized building and arguably the most publicly accessed due to the many sporting events held there. The building is in good condition, having been renovated in 1981 including the addition of an auxiliary gym. Similar to the other two heritage properties, this building exterior has also been digitally documented (Figures 11, 12, and 13).

In 2013 an in-depth survey of all properties held by MSU-Billings was conducted. Buildings identified as potentially eligible for inclusion in the National Register on the main contiguous campus located at 1500 University Drive (Figure 1), the City College Campus (Figure 2) located at 3803 Central Avenue, as well as additional stewardship of land near Red Lodge (Figure 3), which once held a field research station prior to all structures there being consumed by the Cascade Fire in 2008 (Figure 4). The City College Campus has no building constructed earlier than 1980, the year the Technology Building was erected. Prior to the construction of the former Vocational Technical Center by School District #2, no known historical or cultural resources were present on the site. The second building on the City College Campus is the Health Building completed in 2008. A pedestrian survey of the Red Lodge property indicated no obvious existence of archaeological or historical cultural presence. Debris from the wood frame buildings left by the 2008 fire has been removed and the site is currently vacant, with power and water well available.

During this reporting cycle, no additional heritage properties were submitted for nomination, and no heritage properties were lost, but the comprehensive review of all properties has resulted in a more clear trajectory for future heritage action by the University.

MSU-Northern

Improvements made in 2013 on the **Gymnasium (24HL1382)** included a replacement gym floor (the original dated 1955), new bleachers, interior painting, foyer carpeting and A/V equipment. These improvements were funded by the MSUN Foundation Athletics Facilities Improvement Project. The 1958 addition (swimming pool and weight room) is scheduled for exterior painting and reroofing in next two years.

Great Falls College MSU

N/A

MSU-MAES

The **Ft Ellis Military site (24GA0352)** is an archaeological site that has not had any change during this period. However, in 2013, MSU contracted a consultant to conduct a cultural assessment of an improved portion of the greater site that has been used by the MAES as a research center. The resulting Historic Property Record **Ft Ellis Experiment Station Farm (24GA1894)** of the site includes 27 individual resources – both contributing and non-contributing buildings and structures. MAES has requested the demolition of one of the buildings. Following consultation with SHPO, MSU is further evaluating the feasibility of options ranging from demolition to renovation to eliminate significant deferred maintenance (Figure 23).

The 2010 construction of a new \$2.1 million dollar research laboratory at the **Ft Assiniboine (24HL0329)** military site enabled MAES to relocate its research out of the 1908 Guard House in 2011; however, it is still

uses the building for storage. It is the desire of the MAES to construct adequate facilities designed for agricultural research activity and research equipment and cease using historic military residence buildings at the Ft Assiniboine site.

Heritage Site Stewardship Efforts

MSU is an active university. While one university – each of the campus locations has operational responsibility. However, the institution’s mission is the same for all campuses - to educate students, create knowledge and art, and serve communities by integrating learning, discovery and engagement. The strategic priorities are recruitment, retention, and quality enhancements. The mission and properties require the campus facilities and grounds be well maintained. While stewardship of MSU facilities is the concern of all university divisions and departments; it is Facilities Management at each campus that is the visible and primary stewards of campus facilities.

MSU-Bozeman

MSU-Bozeman’s philosophy in using its annual maintenance budget is to prevent unexpected and catastrophic failure of building systems and components. Therefore, preventative, corrective, scheduled and major maintenance makes up approximately 50% of the annual maintenance budget. Custodial – or the day-to-day cleaning, represents another approximate 30% and the balance is infrastructure and grounds maintenance. The specific percentages may vary per campus – but the fundamental philosophy is the relatively the same: keep the institution functional and appealing in appearance.

As the flagship campus, MSU-Bozeman has experienced continued growth over the past 10 years. The lens is focused on utilizing all square footage to accommodate the growth, and to use it at its highest use as designed (i.e. designed instructional space for classrooms not office space).

The Ecology research lab renovation project (\$169,668) in **AJM Johnson Hall (24GA1681)** brought the lab up to new scientific and building code standards. In addition to improving the research lab and preserving the functionality of the centrally located building’s facilities, the improvements enabled the College of Letters and Science to entice more highly recognized faculty in the field of Ecology to come to MSU and bring already acquired grant funds to the institution and state.

Multiple improvement projects of the **Renne Library (24GA1882)** included improvements of the computer commons area (\$121,199), created a centralized testing center for professional licensure and certification available to MSU students and the public (\$238,321), and installed storefront access to the Special Collections room which is a repository of institutional and state records of historical significance (\$3,970).

The **Langford Hall (24GA1797)** and **Hapner Hall (24GA0336)** renovation and expansion of the public space project cost \$6,270,513. The project added features such as modern, inviting and accommodating lobby space; a communal kitchen; larger more secure reception and front desk areas; proximate living quarters for the resident manager; additional daylighting; and ADA compliant egress and restrooms. The improvements followed the replacement of all window systems as an insurance claim from damage caused by a summer 2010 hail storm. Subsequent to the renovations – both residence halls were requested earlier

and by more returning students than in the recent past. Without adding square footage to the individual student rooms, the residence halls were perceived as newer overall. Student residents are more able to become immersed in academic lifestyle – and immersion is proven to increase student success through to graduation. High graduation rates benefit students, the institution and the state.

Building specific classroom upgrades continue in **Reid Hall (24GA1798)**, which is the busiest building on campus providing instructional space for courses in all disciplines including the rapidly growing Jobs Hall College of Business and Entrepreneurship. Classroom upgrades (\$240,037) include more appropriate seating styles (swing or caster chair with fixed tables to replace tablet arm chair units more typically in high school environments), improved technology, improved lighting, ventilation, noise reducing and stimulation furnishings.

MSU-Billings

In 2011, a student group from the College of Technology Drafting and Design program digitally documented the exteriors of the three current heritage properties as an effort to assist Facilities Services in their stewardship. In addition, the students scanned the original construction documents for digital archiving. The students used a Leica Scanstation to scan the exteriors of the buildings to an approximate accuracy of a point every inch. The files are currently archived in their native IMP format for use within the Cyclone software, but have also been exported to PTS and PTX three-dimensional file formats for potential use in a broader range of typical computer aided design software. In addition to the three-dimensional scanning of the building exteriors, students also used a Canon Digital Rebel camera to document the buildings. During the last two years, this data has been further organized and archived at no further expense to MSU-Billings.

Additional preservation efforts that have occurred over the last two years include no expenses for the **Academic Support Center (24YL1859)**, or for **Apsaruke Hall (24YL1860)**. An upgrade of the display area in the **Physical Education Building (24YL1861)** was constructed for \$36,200 by funds provided by private donors. For this reporting period, \$13,674 has been expended toward stewardship efforts of the **Academic Support Center (24YL1859)**, **Apsaruke Hall (24YL1860)**, and the **Physical Education Building (24YL1861)**, primarily directed toward documentation maintenance and reporting. The primary expense of maintaining these structures were in the amounts of \$12,900 for the **Academic Support Center (24YL1859)**, \$35,900 at **Apsaruke Hall (24YL1860)**, and \$1,500,000 for the **Physical Education Building (24YL1861)**.

Due to the efforts of alumni donors, a new display area called the Corridor of Champions was constructed in the entry lobby of the **Physical Education Building (24YL1861)**. This public-private partnership contributed to the preservation for the amount of \$36,200. Public money also supports the preservation of this building in the form of athletic ticket sales and alumni donations.

The increase in value for these structures comes in the form of their continued function. Through proper and appropriate maintenance procedures, the buildings continue to serve the campus and community as useable workspace, but also contribute to the ambiance of the campus through their appearance.

MSU-Northern

Replacement of the bleachers and gymnasium floor (\$443,573) in the **Gymnasium (24HL1382)** preserves the value to the campus and greater Havre community as its designed purpose – an athletic events venue. While the additional projects were more aesthetic in nature, the interior painting, carpeting and audio/visual equipment also preserve its functionality and value as a gymnasium.

Great Falls College MSU

N/A

MSU-MAES

MSU conducted a site survey of the MAES Ft Ellis site and submitted a Property Record for the **Ft Ellis Farm Site (24GA1894)** to better facilitate thoughtful decisions considering the comprehensive site.

Site Enhancements/ Maintenance Needs

As a collection of state-owned buildings – a university is unique. It is dynamic in ways unlike any other state agency. The MSU-Bozeman campus is an operational city within a city; with its own police, diverse housing, recycling and refuse, parking, utilities and utility distribution, roadways, commerce, food service, mail service, grounds management that includes landscaping, integrated pest management program, irrigation, tree maintenance, snow removal, outdoor public art and memorials.

During this report period, MSU expended \$11.5 million in property administration and operations costs and nearly \$12 million attributed to restoration, repair and preservation maintenance projects (Appendix 1).

MSU-Bozeman

MSU-Bozeman, Facilities Services has calculated a multiplier useful in determining an average cost per gross square foot for that covers general administration and operations. The multiplier's variables include: Landscape & Grounds, Refuse Services, Utility O&M and Purchased Utilities, Property Insurance, University Police Services, Campus Mail Services, Building Heat, and Custodial Services.

During the report period, the expenses are what would be expected – the greater the square footage the greater the cost. It also happens that the two greatest costs are student supported and high utilization by students as the largest complex and concentration of student residences and the student union building. A total of \$11,875,397 was expended through construction projects that repaired, preserved and restored elements of Heritage Properties (Appendix 1).

MSU-Billings

The primary preservation needs for the three buildings identified at MSUB are issues of standard building utilization and maintenance. Due to the extensive use of the **Physical Education Building (24YL1861)**, it ranks highest for preservation needs, with **Apsaruke Hall (24YL1860)** ranking second, and the **Academic Support Center (24YL1859)** ranking last, due to its impending removal. MSU-Billings is appropriately maintaining these heritage properties by utilizing them in fulfilling the primary duties of the University. Their maintenance is incorporated into University planning and is funded appropriately.

MSU-Northern

Operation and Maintenance costs during the report period of the 1955 **Gymnasium (24HL1382)** totaled \$118,949.

Great Falls College-MSU

N/A

MSU-MAES

No student tuition dollars, mil levees, or special fees support MAES. It does receive Montana General Fund and Federal funding (Hatch Act). These funds go towards their principal mission of agricultural and natural resource research and outreach. Their diverse agricultural activities fuel economic sectors, sustain rural communities and create state tax revenues through marketable commodities and jobs. The biggest challenge facing MAES is the inherited array of buildings and structures that do not accommodate the research and farm equipment of current technologies. MAES provides facilities maintenance and building needs as part of MSU's Long Range Building Program process for appropriations. Due to more pressing State funding needs, MAES did not receive any direct LRBP appropriations from the 62nd and 63rd Legislatures. Each of the seven research centers and farm locations in Bozeman have buildings that may qualify as Montana Heritage buildings, but require funding for cultural resource evaluation, SHPO Property Record submittals and preservation efforts.

Agency Compliance

The current point-of-contact for Montana State University and its four campuses is Victoria Drummond, Associate University Planner - AICP, located on the MSU-Bozeman campus. She may be reached at Victoria.drummond@montana.edu, 406-994-7914. In addition to the Montana Antiquities Act, MSU has the Board of Regents and the MSU Policies that provide process to follow that support heritage buildings and sites. Board of Regents and MSU Policies posted on the Web are located at:

<http://mus.edu/borpol/bor1000.htm>

http://www2.montana.edu/policy/Heritage_Building_and_Sites_Policy.htm

MSU-Bozeman

No adverse effects have been determined for heritage properties at MSU-Bozeman during this reporting period.

MSU-Billings

No adverse effects have been determined for heritage properties at MSU Billings during this reporting period.

MSU-Northern

No adverse effects have been determined for heritage properties at MSU Billings during this reporting period.

Great Falls College-MSU

N/A

MSU-MAES

There is pending investigation and consultation with SHPO regarding the demolition of a 1930's residence building at the **Ft Ellis Experiment Station Farm (24GA1894)** also known as operated as a MAES agricultural research center. MSU is obtaining estimates for the accumulated deferred maintenance and remediation efforts required to rehabilitate and use. SHPO and MSU have determined that demolition of the building would have an adverse affect. The outcome conclusion of this investigation will be reported in the next report cycle.

Program Opportunities/ Challenges

The opportunities of this program are that over time we will have developed a body of data that can graphically depict trends of preservation efforts. Data collected will also provide a resource for reviewing the costs to operate a state-owned heritage building and the appropriations needed for planning and implementing conservation and preservation programs.

MSU-Bozeman

During this reporting period MSU-Bozeman has been active in providing SHPO Property Record data on a majority of its state-owned buildings as well as the most significant Auxiliaries Services buildings including the **Strand Union Building (24GA1763)**, **Atkinson Quadrangle (24GA1881)** and **Johnstone Center (24GA1876)**.

An opportunity and a challenge next two years will be to prepare a process and educating the campus community constituents of the additional time period and consultation for construction projects within the **MSU Bozeman Campus Historic District (24GA1893)**.

Projects on the near horizon include modernization and upgrades to the Miller Dining Hall of the **Hedges Complex (24GA1873)**, **Reid Hall (24GA1798)** and **Johnstone Center (24GA1876)**.

MSU-Billings

During this reporting cycle, MSU-Billings is proud to embrace and maintain our heritage properties. These properties contribute to the aesthetic environment of our campus and community and hold memories of great significance for the many alumni, faculty and staff, in addition to their architectural aesthetics. During the review of main campus properties, two previously undesignated buildings stand out as opportunities to potentially recognize their eligibility for historic recognition. The first of these buildings is McMullen Hall, the distinctive administration structure that was the first building constructed on campus. The building was originally constructed in 1935 (Hart 2002 p.16). McMullen Hall stood as the only building on campus into 1941 (Hart 2002 p. 51). It is recommended that McMullen Hall be forwarded pursuant to Board of Regent's Policy 1003.5 for considered of nomination for inclusion into the National Register. The distinctive architecture of the building (Figure 14) may be sufficient under Criterion C, if not significant under Criterion A "that are associated with events that have made a significant contribution to the broad patterns of our history; or Criterion B "that are associated with the lives of persons significant in our past."

The Science Building may also be potentially eligible under Criterion C. The property for the Science Building was purchased in 1947 by the Billings Commercial Club (Hart 2002 p. 58) and the building was constructed in 1950 (Hart 2002 p. 62). The Science Building is presently proposed to be renovated to meet current university needs. MSU Billings is working with the Architect regarding the aesthetics of the addition in order to retain the historic fabric of the structure. Following the construction, it is recommended that a review of this building be considered as to the appropriateness of a nomination.

Additionally, for purposes of this report, several residences that are owned by the University and located adjacent to the campus were also reviewed for potential significance. These residences have been acquired over time for future campus expansion. Some of these single family residences currently serve as offices and some continue to be rented for dwelling. None of these residences currently stand out as being eligible, but a deeper review by an architectural historian may be warranted in the next reporting cycle for possible nomination under Criterion B or Criterion C.

MSU-Northern

Plans are underway for exterior painting and roof replacement of east wing (weight room and pool area) of the **Gymnasium (24HL1382)**.

Great Falls College MSU

N/A

MSU-MAES

Projects proposed in the LRBP for 2016-2017 Biennia include roof repairs to a research steer barn and feeding facility, new roof on the shop offices building, regarding and packing gravel around five buildings, replacing 20 miles of exterior fencing, and replace two miles of water pipe and water pumps of the irrigation infrastructure at the **MAES Ft Assiniboine Site (24HL0329)**. The estimate for these projects is \$750K.

Projects proposed for the **MAES Central Research Center Site, Moccasin (24JT0162)** include property fencing for an estimate of \$170K.

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Appendix

1. MSU Heritage Property Stewardship Costs Spreadsheet (separate attachment)
2. MSU Heritage Property Status, Condition, Maintenance Needs (separate attachment)
3. Demographics for each campus. Note MSU-Bozeman data includes faculty, staff and students associated with MAES and Extension Services; however the MAES research centers and Extension Services offices throughout the state are not included in the square footage calculation.

	Faculty & Staff FTE	Student FTE	Campus Square Footage
Billings	607.81	4,081	1,286,340
Northern	256.38	1,058.2	561,812
Great Falls	179.44	1,255.7	206,154
Bozeman	3422.80	12,754.1	4,040,799
All MSU	4,466.43	19,149	6,095,465

4. Figures:
 1. MSU-Billings Boundary Map
 2. MSU-Billings City College Boundary Map
 3. MSU-Billings Biology Field Station
 4. MSU-Billings Biology Field Station lost building
 5. MSU-Billings Academic Support Center
 6. MSU-Billings Academic Support Center 3-D scan
 7. MSU-Billings Academic Support Center architectural model

8. MSU-Billings Apsaruke Hall
 9. MSU-Billings Apsaruke Hall 3-D scan
 10. MSU-Billings Apsaruke Hall architectural model
 11. MSU-Billings Gymnasium
 12. MSU-Billings Gymnasium 3-D scan
 13. MSU-Billings Gymnasium architectural model
 14. MSU-Billings McMullen Hall
 15. MSU-Bozeman Hapner Hall
 16. MSU-Bozeman Langford Hall
 17. MSU-Bozeman Hedges North
 18. MSU-Bozeman Harrison Street
 19. MSU-Bozeman Cooley Labs
 20. MSU-Bozeman Taylor Hall
 21. MSU-Bozeman Wool Lab
 22. MSU-Bozeman Linfield Hall
 23. MSU MAES Ft Ellis
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5. Individual Heritage Property Forms (separate attachment)

APPENDIX 4: FIGURES



Figure 1 - The red outline shows the general boundary of MSUB properties at the main campus. Identified buildings are 1) Academic Support Center, 2) Apsaruke Hall, 3) Physical Education Building, 4) McMullen Hall, and 5) Science Building.



Figure 2 - The City College of MSUB with the general property boundary shown in red. Identified buildings are 1) Technology Building and 2) Health Building.

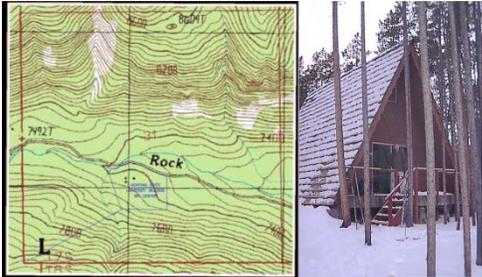


Figure 3 - Map showing the location of the Biology Field Station structures.

Figure 4 - The wood frame main building and the 19.71 Acres in E2, E2W2, Lots 1,2,3,4 Sec. 31 T7S R 19E on the property consumed by fire at the Biology Station Bare Mountain quadrangle.



Figure 5 - Academic Support Center (24YL1859)

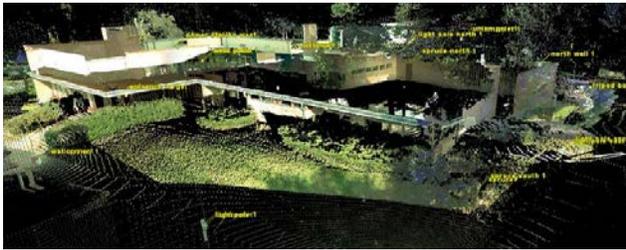


Figure 6 - 3D Scan of the Academic Support Center

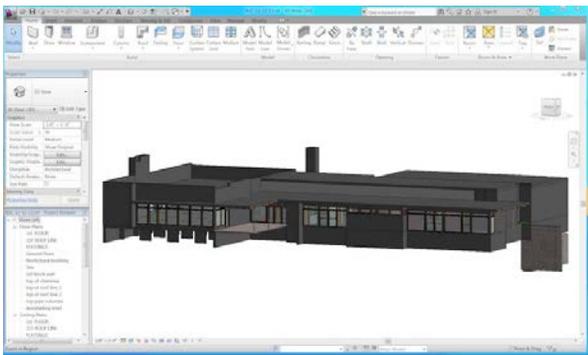


Figure 7 - Construction model of the Academic Support Center in the Revit Architectural software.



Figure 8 - Apsaruke Hall (24YL1860) with the Gymnasium Complex in the background.



Figure 9 - 3D Scan of Apsaruke Hall

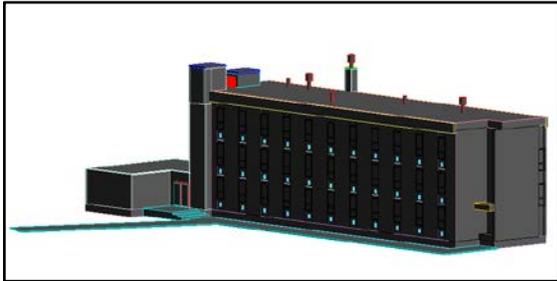


Figure 10 - Revit Architectural Model of Apsaruke Hall



Figure 11 - Gymnasium Complex (24YL1861)



Figure 12 - 3D Scan of the Gymnasium Complex

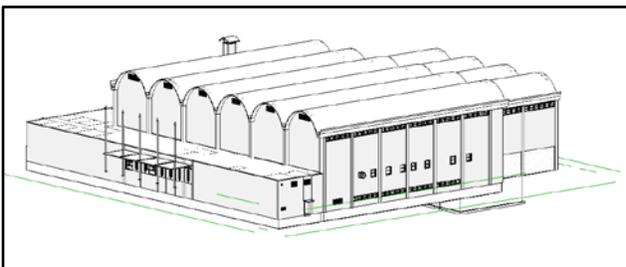


Figure 13 - Revit Architectural Model



Figure 14 - McMullen Hall



Figure 15 – Hapner Hall, south elevation, new entrance and public spaces.



Figure 16 - Langford Hall, south elevation, new entrance and public spaces.



Figure 17- Hedges North (part of complex) new windows.



Figure 18 – Harrison Street reopened, south of Johnstone Center.



Figure 19 – Cooley Labs, south elevation, new entrance and enhanced storm runoff and landscaping.



Figure 20 – Taylor Hall, east elevation, wooden fire escape.



Figure 21 – Wool Lab Garage, south elevation, reconstructed garage.



Figure 22 – Linfield Hall new entrance, west elevation of the Linfield Hall addition (Linfield South).



Figure 23 – Ft Ellis, residence considered for demolition.

APPENDIX 1 Stewardship Efforts

Smithsonian Site Number	Site/Building Name	Gross Square Feet	Property Administration and Operations ₁	Restoration, Repair, Preservation	Preservation Protection	Research and Documentation ₂	Interp and Education	Promotion, Tourism, Marketing	Pres/Cons Plan Development	Regular Maintenance	Site Monitoring	Design Projects to Avoid Adverse Effect	Outside/Grant Funding/In-kind Match	Total Stewardship Effort Cost
24GA1893	MSU Bozeman: Historic District													\$0.00
24GA0336	Hapner Hall	95,359	\$589,318.62	\$3,293,778.99		\$447.65				\$34,238.00				\$3,917,783.26
24GA1629	Heating Plant	9,614	\$59,414.52	\$266,883.85		\$447.65				\$18,404.07				\$345,150.09
24GA1681	AJM Johnson Hall	41,333	\$255,437.94	\$639,310.61		\$447.65				\$103,989.19				\$999,185.39
24GA1763	Strand Union Building	187,503	\$1,158,768.54	\$264,441.90		\$447.65				\$54,858.94				\$1,478,517.03
24GA1796	Danforth Chapel	2,538	\$15,684.84	\$0.00		\$447.65				\$1.00				\$16,133.49
24GA1797	Langford Hall	107,960	\$667,192.80	\$3,135,256.55		\$447.65				\$1,011.90				\$3,803,908.90
24GA1798	Reid Hall	91,167	\$563,412.06	\$240,840.32		\$447.65				\$140,426.65				\$945,126.68
24GA1799	McCall Hall	10,488	\$64,815.84	\$18,670.40		\$447.65				\$37,649.27				\$121,583.16
24GA1871	Hamilton Hall	27,745	\$171,464.10	\$28,292.16		\$447.65				\$73,882.88				\$274,086.79
24GA1872	Hannon Hall	85,669	\$529,434.42	\$519,702.05		\$447.65				\$1,006.37				\$1,050,590.49
24GA1873	Hedges Complex	315,449	\$1,949,474.82	\$879,773.11		\$447.65				\$606.29				\$2,830,301.87
24GA1874	Herrick Hall	40,387	\$249,591.66	\$159,630.56		\$447.65				\$31,437.25				\$441,107.12
24GA1876	Johnstone Center	121,400	\$750,252.00	\$216,760.84		\$447.65				\$1.00				\$967,461.49
24GA1877	Lewis Hall	42,131	\$260,369.58	\$26,948.87		\$447.65				\$75,262.51				\$363,028.61
24GA1878	Linfield Hall	65,563	\$405,179.34	\$7,116.89		\$447.65				\$73,971.73				\$486,715.61
24GA1879	Montana Hall	39,725	\$245,500.50	\$156,065.05		\$447.65				\$113,672.63				\$515,685.83
24GA1880	Plew Building	18,500	\$114,330.00	\$37,364.66		\$447.65				\$65,007.37				\$217,149.68
24GA1881	Atkinson Quadrangle	42,240	\$261,043.20	\$877,010.81		\$447.65				\$1,108.99				\$1,139,610.65
24GA1882	Renne Library	152,085	\$939,885.30	\$431,964.69		\$447.65				\$155,347.74				\$1,527,645.38
24GA1883	Roberts Hall	49,395	\$305,261.10	\$446,442.38		\$447.65				\$80,710.66				\$832,861.79
24GA1884	Romney Gymnasium	53,074	\$327,997.32	\$44,770.13		\$447.65				\$30,893.64				\$404,108.74
24GA1885	Roskie Hall	90,200	\$557,436.00	\$116,337.13		\$447.65				\$1.00				\$674,221.78
24GA1887	Taylor Hall	9,197	\$56,837.46	\$20,386.12		\$447.65				\$30,456.64				\$108,127.87
24GA1889	Traphagen Hall	37,014	\$228,746.52	\$9,710.00		\$447.65				\$62,446.51				\$301,350.68
24GA1892	Wool Laboratory	7,440	\$45,979.20	\$37,939.34		\$447.65				\$12,559.19				\$96,925.38
24GA0352	MSU Bozeman: Ft. Ellis Military Site		\$1.00	\$21,167.85		\$447.65				\$36,487.00				\$58,103.50
24HL0329	MSU: Fort Assiniboine/NARC		\$1.00	\$18,307.00		\$447.65				\$59,195.00				\$77,950.65
24JT0162	MSU: Central MT Agricultural Exp Station, Moccasin		\$1.00	\$1.00		\$447.65				\$36,325.00				\$36,774.65
24MA0262	MSU: Red Bluff Stage Stop		\$0.00	\$0.00		\$447.65				\$0.00				\$447.65
24HL1382	MSU-Northern, Havre-Gymnasium		\$118,949.05	\$473,345.00		\$447.65				\$1.00				\$592,742.70
24YL1859	MSU-Billings: Academic Support Center	12968	\$80,142.24	\$0.00		\$4,558.00				\$12,900.00				\$97,600.24
24Y1860	MSU-Billings: Apsaruke	20254	\$125,169.72	\$0.00		\$4,558.00				\$35,900.00				\$165,627.72
24Y1861	MSU-Billings: Physical Education Building	112997	698,321	\$36,200.00		\$4,558.00				\$1,500,000.00				\$2,239,079.46

1- Purchased Utilities, Mail Service, Police, Property Insurance, Landscape and Grounds, Building Heat and Maintenance, Refuse Service, Utility O&M

\$11,795,413

\$12,424,418.26

\$27,103.50

\$27,126,694.33

Smithsonian Site Number	Name	NHL or NRHP Status	Property Status	Property Condition/ Integrity	Priority for Maintenance (1-5)	Condition ₁	Future Maintenance Priorities/Site Needs ₂
24GA1893	MSU Bozeman: Historic District	NRHP	N/A	N/A			
24GA0336	Hapner Hall	NRHP	GOOD	Satisfactory	5	FCI 8.3%	
24GA1629	Heating Plant	NRHP	GOOD	Satisfactory	3	FCI 1.9%	
24GA1681	AJM Johnson Hall	NRHP	GOOD	Satisfactory	4	FCI 20.4%	
24GA1763	Strand Union Building	NRHP	GOOD	Satisfactory	5	FCI 4.2%	
24GA1796	Danforth Chapel	NRHP	GOOD	Satisfactory	5	FCI 1.3%	
24GA1797	Langford Hall	NRHP	GOOD	Satisfactory	5	FCI 8.2%	
24GA1798	Reid Hall	NRHP	GOOD	Satisfactory	1	FCI 8.0%	~\$28M
24GA1799	McCall Hall	NRHP	GOOD	Satisfactory	5	FCI 11.2%	
24GA1871	Hamilton Hall	NRHP	GOOD	Satisfactory	1	FCI 13.6%	\$3.25M
24GA1872	Hannon Hall	NRHP	GOOD	Excellent	5	FCI 9.8%	
24GA1873	Hedges Complex	NRHP	GOOD	Excellent	2	FCI 10.9%	
24GA1874	Herrick Hall	NRHP	GOOD	Satisfactory	2	FCI 16.3%	
24GA1876	Johnstone Center	NRHP	GOOD	Excellent	1	FCI 11.0%	
24GA1877	Lewis Hall	NRHP	GOOD	Satisfactory	1	FCI 14.2	
24GA1878	Linfield Hall	NRHP	GOOD	Satisfactory	3	FCI 9.2%	\$2.5M
24GA1879	Montana Hall	NRHP	GOOD	Satisfactory	1	FCI 10.9%	~\$32M
24GA1880	Plew Building	NRHP	GOOD	Satisfactory	5	FCI 0.8%	
24GA1881	Atkinson Quadrangle	NRHP	GOOD	Satisfactory	4	FCI 28.3%	
24GA1882	Renne Library	NRHP	GOOD	Satisfactory	2	FCI 4.7%	
24GA1883	Roberts Hall	NRHP	GOOD	Satisfactory	4	FCI 3.0%	
24GA1884	Romney Gymnasium	NRHP	EXCELLENT	Satisfactory	1	FCI 7.7%	~\$20M
24GA1885	Roskie Hall	NRHP	EXCELLENT	Satisfactory	4	FCI 12.1%	
24GA1887	Taylor Hall	NRHP	GOOD	Satisfactory	3	FCI 20.5%	
24GA1889	Traphagen Hall	NRHP	GOOD	Satisfactory	2	FCI 14.0%	
24GA1892	Wool Laboratory	NRHP	EXCELLENT	Satisfactory	5	FCI 18.8%	
24GA0352	MSU Bozeman: Ft. Ellis Military Site	NRHP-Eligible	FAIR	Mitigation	2	unk	
24HL0329	MSU: Fort Assiniboine	NRHP-Eligible	FAIR	Threatned	5	unk	

24JT0162	MSU: Central MT Agricultural Exp Station, Moccasin	unk	FAIR	Satisfactory	4	unk	
24MA0262	MSU: Red Bluff Stage Stop	unk	Building Destroyed	n/a	n/a	n/a	
24HL1382	MSU-Northern, Havre-Gymnasium	NRHP-Eligible	GOOD	Satisfactory	3	FCI 9.3%	
24YL1859	MSU-Billings: Academic Support Center	NRHP-Eligible	FAIR	Satisfactory	5	FCI 15.8%	
24Y1860	MSU-Billings: Apsaruke	NRHP-Eligible	GOOD	Satisfactory	2	FCI 7.2%	\$1.75M
24YL1861	MSU-Billings: Physical Education Building	NRHP-Eligible	GOOD	Satisfactory	1	FCI 7.7%	\$3.25M

1 -MSU has an established cycle of auditing all buildings and through established metrics determines a Facilities Condition Inventory (FCI) Deficiency Ratio of deficiencies in categories of Life Safety and Damage Wear Out. FCI percentages rank 0-4 as GOOD; 5-9 as FAIR; and over 10 as POOR. Projects are prioritized through an ongoing analysis of needs relving on the FCI audits, LRBP planning, capital project planning, Alumni Foundation and College development programs, student enrollment fees. 2-Estimates reported in the LRBP for Biennia 2016-2017. Large amounts are for complete building renovation.