

UM Stimulus Projects: Infrastructure

Project Title	Location	Type	Cost	Description	Expenditures		Energy	Green?*	Project Status	Notes
					\$ Year 1	\$ Year 2	Y/N			
Replace Library Chillers	UM - Missoula	Energy	\$485,000		\$485,000		Y	2	Ready to Award	
PARTV Heat Pump Replacement	UM - Missoula	Energy	\$500,000			\$500,000	N	3		Equipment at the end of its useful life
Boiler #3 Upgrade Controls and Economizer	UM - Missoula	Energy	\$600,000	Replace pneumatic controls and replace failed pre-heat economizer	\$100,000	\$500,000	Y	n/a		
Campus wide - Replace steam traps	UM - Missoula	Energy	\$300,000	Replace failed steam traps which waste steam, not otherwise specified	\$300,000		Y	2	Energy study completed	3 year payback
Specific building Lighting upgrades	UM - Missoula	Energy	\$590,000	As identified by energy audit, 9 buildings	\$590,000		Y	n/a	Energy study completed	15 year payback
Replace entrance doors on Auxiliary Services buildings	UM - Missoula	Energy	\$80,000	Airlocks on Lommasson	\$80,000		Y	n/a		
Campus wide - Energy control upgrades	UM - Missoula	Energy	\$500,000	Replace obsolete and failing equipment	\$500,000		Y	n/a		Project replaces old ARCNET system with the new TCP/IP protocol system
Todd Building HVAC upgrades	UM - Missoula	Energy	\$45,000	Separate computer AC from building system, add ventilation control, setbacks	\$45,000		Y	2	Energy study completed	3 year payback
Education HVAC upgrades	UM - Missoula	Energy	\$45,000	Add mechanical insulation and install DDC building controls	\$45,000		Y	n/a	Energy study completed	25 year payback
Fine Arts - Controls and steam traps	UM - Missoula	Energy	\$160,000	Install new controls and replace failing steam traps	\$160,000		Y	n/a	Energy study completed	33 year payback
Liberal Arts - Install building controls	UM - Missoula	Energy	\$60,000	Install new building controls on basement units	\$60,000		Y	n/a	Energy study completed	22 year payback
Main Hall Renovation - Complete Phase One Mechanical upgrades	UMW	Energy	\$459,000	To complete mechanical upgrades in two oldest sections of Main Hall instead of just doing two of four floors. Cost saving to do at same time.	\$459,000		Y	3	Ready to Award	Additional funding for current construction project. Critical unfunded issue.
Block Hall - HVAC Controls	UMW	Energy	\$150,000	VAV Dual Duct Terminal Upgrade w/ DDC	\$150,000		Y	2	Ready to Award	Project ready to rebid once funding is available. State providing \$200,000 asbestos money.
Convert Student Union Building to Steam Heat	UMW	Energy	\$225,000	To extend the main steam system to the SUB to take advantage of the wood-fired boiler.		\$225,000	Y	2	In Design from Energy Audit	Steam HX installation \$92,400 for payback amount. Rest is tunnel not on energy audit.
Library HVAC & envelope upgrades	UMW	Energy	\$197,000	Replaces pumps & chiller & converts VAV		\$197,000	Y	2	In Design from Energy Audit	

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Natural Resources Building Geothermal Heating	Tech	Energy	\$550,000	Installation of Geothermal Heating system on new Natural Resources Building - includes drilling	\$550,000		Y	3	Ready to Award	
Campus Water Distribution Back-flow Prevention	UM - Missoula	Modernization	\$1,500,000	Construct back-flow devices @ water inlets to campus		\$1,500,000	N	n/a	Preliminary study completed	To comply with enhanced potable water health standards
Main Hall Renovation - Earthquake Stabilization	UMW	Modernization	\$534,000	Seismic stabilization	\$534,000			3	Ready to Award	Additional funding for current construction project. Critical unfunded issue.
Emergency Response Kits	UM-HCOT	Modernization	\$10,000	Provide the tools and supplies to respond to campus emergencies including 2-way radios, AED's and other first response items.	\$10,000		N		Ready to Award	
Health Sciences Building Renovation Stage 2	Tech	Modernization	\$1,200,000	Installation of HVAC system	\$1,200,000		Y	3	In Planning Phase	
Roof replacement on Auxiliary Services buildings	UM - Missoula	Renovation	\$310,000	Aber, Jesse & Lommasson Center	\$310,000		Y	n/a		Project replaces the roof and adds insulation
Kitchen Renovation in dining hall	UM - Missoula	Renovation	\$325,000	HVAC upgrade in kitchen and dining hall		\$325,000	y	n/a		
IT Woods - HVAC & Classroom Renovations	UMW	Renovation	\$85,000	Current project does not include required ventilation to second floor classrooms. Additional funding.	\$85,000		Y	3	Ready to Award	Additional funding for current construction project. Critical issue for Montana Youth Challenge classrooms.
Airport Renovation Project	UM-HCOT	Renovation	\$1,557,500	Project includes renovations & repairs to UMHCOT airport facility to upgrade & renovate classroom & Lab facilities including equipment, HVAC, energy retrofits, building system replacements and other safety items	\$1,557,500		Y		Ready to Award	This item provides energy efficiency enhancements, instructional presentation enhancements, and addresses safety and ADA issues.

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Donaldson Renovation Project	UM-HCOT	Renovation	\$50,000	Convert old shop space with sloped drain floors and two story ceilings into flat floored classroom space with drop downed ceilings.	\$50,000		N		Need to bid	
Donaldson Renovation Project	UM-HCOT	Renovation	\$32,500	Replace worn out classroom and student center flooring	\$32,500		N		Ready to Award	
Parking Lot Repaving - Main Campus & COT	Tech	Renovation	\$450,000	Parking lot repairs and repaving on Main Campus and COT Campus	\$450,000				Ready to Award	
	Total		\$11,000,000		\$7,753,000	\$3,247,000				

- * Green Qualifiers 1 = LEED Certified - major renovations
 2 = ECM-like w/Payback ≤ 10 yrs
 3 = One or More LEED elements satisfied

	Target Amounts
Missoula	\$5,500,000
Butte	\$2,200,000
Dillon	\$1,650,000
Helena	\$1,650,000
	<u>\$11,000,000</u>