

**SOUTH DAKOTA BOARD OF REGENTS**

**Budget and Finance**

**AGENDA ITEM: 6 – G**  
**DATE: December 11-12, 2019**

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**SUBJECT**

**SD Mines Ascent Innovation Building Purchase and Renovation Preliminary Facility Statement (PFS)**

**CONTROLLING STATUTE, RULE, OR POLICY**

[SDCL 5-14-1](#) – Classification of Capital Improvements

[SDCL 5-14-2](#) – Supervision by Bureau of Administration of Capital Improvement Projects – Payment of Appropriated Funds

[SDCL 5-14-3](#) – Preparation of Plans and Specifications for Capital Improvements – State Building Committees – Approval by Board or Commission in Charge of Institution

[BOR Policy 6:4](#) – Capital Improvements

[BOR Policy 6:6](#) – Maintenance and Repair

**BACKGROUND/DISCUSSION**

South Dakota School of Mines and Technology (SD Mines) is seeking approval to acquire the current Ascent Innovation building located on campus owned property. The facility will be used to house campus activities designed to foster entrepreneurship and economic development among students/faculty and grow both industrial funded applied research and basic research. The purchase of the facility will provide needed space to expand research and economic development for SD Mines and South Dakota.

**IMPACT AND RECOMMENDATIONS**

SD Mines requests approval of their Preliminary Facility Statement for the purchase and renovation of the Ascent Innovation building. This project will need legislative approval.

The project has an estimated cost of \$5.5M - \$3.5M for the purchase of the facility and \$2.0M for the renovations. The purchase will be funded by a bond issue to be paid back through overhead recovery funds. A request is being made for \$2.0M in state general funds for the renovations.

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**DRAFT MOTION 20191211\_6-G:**

I move to approve SD Mines’ Preliminary Facility Statement for the acquisition, whether outright or through a lease-purchase arrangement, and renovation of the Ascent Innovation building, at a cost of \$3.5M for the acquisition to be funded with overhead recovery funds and \$2.0M for renovations to be funded through state general funds or other funds if general funds are unavailable, and to submit this project for legislative approval.

In the event of a lease-purchase agreement, the term shall not exceed five years and any payments will be credited towards the purchase price.

**ATTACHMENTS**

Attachment I – SD Mines Ascent Innovation Building Purchase and Renovation Preliminary Facility Statement

## South Dakota School of Mines & Technology Preliminary Facility Statement (PFS) **Ascent Innovation Building Purchase & Renovation**

### 1. General Programmatic Needs to be Addressed

The South Dakota School of Mines and Technology (SD Mines) is seeking to acquire the current Ascent Innovation building located on campus-owned property. The facility will be used to house campus activities designed to foster entrepreneurship and economic development among students/faculty and grow both industrial funded applied research and basic research.

Research success over the past 15 years at SD Mines has been significant. The research has resulted in a substantial increase in economic activity in the materials and manufacturing area connected with SD Mines.<sup>1</sup>

- Before 2011, Mines was making 3-4 invention disclosures a year. Since 2012 we have averaged 15 a year. (An invention disclosure is the first step to a patent.)
- In the past 3 years alone, Mines has licensed 8 patented technologies to industry, and has submitted over 30 new patent applications.
- In the past 4 years, 9 companies in the materials and manufacturing area have spun out of the university.
- The Incubator on the SD Mines campus is currently host to 21 companies and has launched 20 others since its establishment in 2007.
- Mines has grown its engagement with entrepreneurs through an Entrepreneur-in-Residence program that currently has 40 participants. Several of these entrepreneurs have become CEOs of start-ups involving SD Mines technologies.
- In the last six years, SD Mines start-ups have won first place in the Governor's Giant Vision Competition four times and come in second twice. SD Mines students have also experienced great success, winning first place in the student division the last five years running.

The estimated required capital investment needed to acquire the Ascent Innovation facility is \$3.5 million with an additional \$2.0 million to renovate the spaces to accommodate the equipment needs. The facility is approximately 40,000 square feet and was built in 2006. The building has flexible space that will be provided to researchers as funds become available.

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<sup>1</sup> Companies established with Mines technologies include VRC Metal Systems; Nanopareil, LLC; Innovative Materials and Processes, LLC; HF Webster; RPM & Associates; Flexible Robotic Environment, LLC; CALXAQUA, LLC; Black Hills Manufacturing Services; DarCEO; Nanocoatings, Inc.; and Endlas, LLC. In addition to start-ups, Caterpillar located a design center in Rapid City which employs over 90 engineers and technicians because of the SD Mines. The Research Centers at Mines also attract companies for collaboration. Current company partners in the materials and manufacturing area include Kaneka, Johns Manville, Continental Structural Plastics, PolyOne Corp., SGL Group, Teijin Co., Stratasys, Steelcase, MOOG, United Technologies, Lockheed Martin, Nordson-Xaloy, Boeing, American Axle, and Daktronics.

**2. Analysis of the Student Body or Constituents Served**

Many undergraduate students and the majority of graduate students participate in research activities on the SD Mines campus. Both equipment and instrumentation needed for the research are supported by numerous federal, state, and industry funded grants and contracts. SD Mines has a goal to increase research expenditures to \$25M by 2023, and additional space is needed to reach this goal.

**3. Additional Services to be Offered**

SD Mines proposes that the acquisition of the Ascent Innovation will support the expansion of national caliber research and economic development to SD Mines and South Dakota.

**4. Compliance with Master Plan**

The newly adopted master plan update includes the acquisition of the Ascent Innovation building as a part of the plan.

**5. Analysis of Needs Assessment Based on the Facilities Utilization Report**

While all of this research and economic activity associated with manufacturing and materials bodes well, *the most significant barrier to continued research growth is lack of space*. Mines has accommodated research growth in materials and manufacturing research through use of very low quality surplus space owned by the SD Mines Foundation, by leasing space, and by overcrowding research equipment. *In our nationally recognized composites research facility, we have stopped accepting any research awards that require more equipment space, even if the equipment is donated*. SD Mines can only continue to expand research in this high value area with sufficient and appropriate space to do the work.

## 6. Location



*Figure 1. Location of Ascent Innovation.*

## 7. Reallocation or Demolition of Old Space

It is anticipated that some leased spaces at the Technology Development Laboratory would partially move to this location.

## 8. Proposed Funding Source/Sources

We are requesting to bond \$3.5 million to be paid back through overhead recovery funds. In addition we are requesting that \$2 million of state general funds be requested through current legislation for the necessary renovations.

## 9. Budget for Development of a Facility Program Plan

Private funding through the SD Mines Foundation will be used for the development of the Facility Program Plan, if needed. The renovations will be less than the \$5M requiring a building committee.