I. Trustee Breakfast – 7:30 a.m., President’s Residence, 1722 Illinois Street

II. Regular Meeting – Starzer Welcome Center, Wagner Boardroom

8:38 a.m. Meeting called to order by Chairman Jorden.

Trustees present: Chairman Jorden, Trustee’s Haddon, McNeil, Truly, Salazar, Sanders, Swift, Hogue and Starzer via telephone

Mines executives and directors present: President Johnson, Interim Provost Boyd, EVP Volpi, VPSL Fox, VPRTT Tompkins, VP Han, VPGC Walker, Dean’s Graves, Moore and Kaufman, Mr. Winkelbauer and Dr. Cath.

Dignitaries present: Congressman Ed Perlmutter and USGS Director Jim Reilly.

a. Mines-USGS Partnership

Subsurface Frontiers review President Johnson reviewed the Subsurface Frontiers Initiative and how it fits within the Mines@150 vision for research and education strategic goals. He noted that Mines will have four to five additional similar initiatives, positioning Mines as the preeminent center for applied sciences research and education. Dr. Johnson stated that by focusing on the exploration, identification, visualization, and models of the earth’s subsurface, together Mines and USGS will create educational and research opportunities that fundamentally transform the applied geosciences. Dr. Johnson emphasized that the vision for the initiative is principally about science, innovation and unique education.

USGS Director Jim Reilly provided remarks regarding the Mines and USGS partnership. He noted the ability to put USGS and Mines scientists in into close proximity and surrounded by world-class resources will be transformative to research and education. Director Reilly noted that the Organic Act that created the USGS was adopted in 1879 and that coincidentally, the first trustee meeting of Mines also occurred in 1879. He stated that this initiative has support at the highest levels of the federal government starting with the Secretary of Interior, who is the advisor to the President. The Mines and USGS partnership will be revolutionary and change the way USGS operates for years to come.

Congressman Perlmutter also provided remarks regarding the Mines and USGS partnership, noting that the partnership will benefit many people, not only regionally, but also nationally and beyond. He reviewed the path that has been taken to get to the point of signing the cooperative agreement. Congressman Perlmutter stated that the new facility would attract scientists from all over the country to work with teams at Mines and USGS. He reiterated that the partnership is not about a new building, but rather about what that building will catalyze.

Mines/USGS Cooperative Agreement review Ms. Volpi provided a summary of the Mines/USGS cooperative agreement and provided information regarding the two phases of the USGS co-location to Mines campus. She reviewed the financial agreement between Mines and USGS that is subject to annual appropriation, noting the agreement is a five-year term from November 1, 2018 to September 30, 2023.

Subsurface Frontiers Program plan review Ms. Volpi introduced Mr. Ed Cordes and Mr. Andy Barnard of Perkins + Will to provide a brief overview of the Subsurface Frontiers building and program plan. They reviewed
the square footage breakdown and the interior structure. Also reviewed was the site for construction, noting its strategic connection within the campus at 18th and Washington Street, behind the existing USGS Earthquake Center site. Mr. Cordes provided an overview of the two-year construction timeline scheduled for completion in the summer of 2022. There was a brief discussion regarding security and the desire to finish the building earlier.

**Subsurface Frontiers plan of finance** Ms. Volpi provided a summary of the Subsurface Frontiers project cost of $121 million for the building and $161 million in total, including ancillary projects, parking garage, parking garage wrap and utilities infrastructure. She stated that there is the possibility for an additional cost of $15-20 million should Mines determine to add a fifth-floor shell. Ms. Volpi reviewed the projected funding plan for the building through State, Federal, private and industry support, as well as Mines financing. She noted that Mines asked that USGS commit funds needed to provide furniture, fixtures and equipment. She reviewed the specificity of the timeline. She noted that she would likely bring the financing approval to the Board in 2019 for approval. There was brief discussion regarding the desire to shorten the timeline for design and construction.

**b. Mines-USGS Partnership Action Items**

**USGS/Mines Cooperative Agreement** Chairman Jorden asked for a motion from the Trustees to approve the Mines/USGS Cooperative Agreement.

Motion to approve the new Mines/USGS Cooperative Agreement as proposed made by Trustee Truly; seconded by Trustee Haddon. Approved 7-0.

**BE IT RESOLVED** that the Board of Trustees of the Colorado School of Mines approves the Cooperative Agreement between the United States Geological Survey and the Colorado School of Mines with an effective date of November 1, 2018 through September 30, 2023.

**Subsurface Program Plan** Chairman Jorden asked for a motion from the Trustees to approve the Subsurface Frontiers program plan.

Motion to approve the Subsurface Frontiers program plan as proposed made by Trustee Haddon; seconded by Trustee McNeil. Approved 7-0.

**BE IT RESOLVED** that the Board of Trustees of the Colorado School of Mines hereby approves the Subsurface Frontier Building Program Plan at a total cost of $121 million.

9:32 a.m. Brief break for photograph and farewells.

Meeting resumed at 9:50 a.m.

c. **Consent Agenda**

1. The minutes from the September 14, 2018 meetings submitted for approval.

   Trustee Haddon motioned to approve the minutes as presented; seconded by Trustee McNeil.
   Motion approved 7-0.

d. **Reports and Updates**

**Board Committee Reports** Trustee Haddon reported that the Finance and Audit Committee (FAC) and the Investment Advisory Committee (IAC) met on October 17, 2018. To avoid redundancy, Trustee Haddon deferred to Ms. Volpi to review the financial report later in the meeting.
President Johnson provided thanks for those who participated in the Mines/USGS partnership proclamation ceremony on Monday, October 22, 2018, at the Denver Athletic Club with Secretary Zinke, Senator Gardner and Congressman Perlmutter. He reviewed community events that Mines hosted on campus, noting the Golden Civic Foundation auction and dinner held in Lockridge Arena had raised historical levels of funding. He stated the importance of positive Community relations. Dr. Johnson provided information on Student activities happening at Mines noting he would like to ask a student group to come and talk to the Board in the future. One student event of note is the Entrepreneurial Innovation Challenge. It challenges students to look at the future of the Henderson Mine and is supported by Climax and Freeport McMoran. Teams pitch ideas and the top team receives $25k. Dr. Johnson may bring in three winners to share their experience with the Board. President Johnson noted the recent success of many of the Mines Athletics teams. Lastly, he recognized Marv Kay for his selection as inductee to the Colorado Sports Hall of Fame.

Research activities and Tech Transfer Report Dr. Tompkins provided an update on shared research equipment, noting that there are more than 150 shareable instruments identified across campus at an approximate origination value of $7.5 million. There was brief discussion regarding the current property registry at Mines and the process for accessing shared equipment. Dr. Tompkins noted the effort to establish a more effective overarching governance and system for accessing equipment that can be shared. She reviewed the evolution of the decentralized shared equipment system, and the need to develop a cost model and, pathways for industry access. Dr. Tompkins reviewed Mines’ unique research facilities noting the diverse mixture of capabilities and highlighted the new facility Water-Energy Education, Science, and Technology (WE²ST) Tech Hub. She provided a summary of the vision of the Hub noting that it promotes academic and industry collaboration in solving water problems, and the initial research areas are in municipal and industrial wastewater. Dr. Johnson reviewed size of the facility and stated that the concept of the Hub attracted a $1.5 million grant from ZOMA Foundation.

Financial Report Ms. Volpi provided a summary of the financial statements through September 30, 2018. Total assets for first quarter are up 5.5% due to fall tuition and fees and, accounts receivables. Total liabilities are down 1.9% due to timing of fiscal year end accruals. She reviewed the first quarter income statement noting the increase of 8.4% compared to last year due to tuition and fees from the larger body of freshman students. In addition, there is an increase in grants and contracts revenue. Ms. Volpi noted the operating expenses are up 15.5% primarily due to current repair and maintenance projects not capitalized. There was a brief discussion regarding how the University captures these types of increases and accounts for more construction on campus. Ms. Volpi noted that Mines models the balance sheet and income statement for future costs related to the building and operating costs. Ms. Volpi reviewed the first quarter forecast adjustments noting total operating revenue was $800,000 under what was budgeted due to a reduction in summer enrollment and a slower increase in online enrollment. She noted not all online programs are up yet, but Space Resources is up and successful. Expenses are approximately $1 million up, primarily due to construction, and faculty hires and increases in faculty start-up packages. Ms. Volpi noted there is approximately $9 million in interest expense annually on the GAAP financial statements and the non-GAAP statement includes both principal and interest.

Faculty Senate Report Dr. Cath provided a review of Faculty Senate ongoing business, including the Faculty Senate’s appointment of members to campus committees, faculty involvement in campus suicide prevention and mental health support programs, evaluations, and, the transition of Research Council to the Research and Technology Transfer office. There was a brief discussion regarding the grade appeal process. Dr. Boyd provided information on the process, noting there have been two appeals in the last year or two.

e. Presentation and Discussion

Multi-year contract discussion Dr. Boyd provided a brief overview of the Faculty Senate’s request for Board consideration of Multi-year Contracts (MYC) for Teaching and Library faculty, and then introduced Ms. Carol Smith, University Librarian, to summarize department head support for this proposal. Ms. Smith introduced the Department Head and Division Director Council, noting its unanimous support for MYC as proposed by the Faculty Senate. She presented the business case for MYC and provided background on peer institutions in Colorado who have implemented MYC’s. She provided a summary of the percentage of credit hours
taught by teaching faculty. There was broad discussion regarding how the details of the proposed MYC compare to faculty members' current contracts. This discussion included an overview of the termination details of current relevant contracts, as stated in the Faculty Handbook, and, discussion regarding the instructional load carried by the Teaching Faculty.

The Board asked for clarification as to what they were being asked to do at the current time. Dr. Boyd stated that he would like to see Board consideration of the MYC concept broadly, so that if the Board determines it is supportive, he can begin working with the Handbook Committee on the requisite language amendments to codify MYCs. The Board requested a copy of Colorado State University’s multi-year contract, noting it would be difficult to support the MYC on simply a conceptual basis. Dr. Cath stated that there were no expressed dissenting views regarding the MYC within the Senate. Dr. Boyd provided background on the prior (2014) update to the Teaching Faculty contract that added advanced notification of non-renewal requirements to the existing contracts.

Career Center Update Dr. Fox provided an update of Career Center activity and a summary of the highlights of Mines graduate outcomes and recruiting activities. He noted that last year a challenge was set forth to make the Career Day more prestigious and a Mines signature event. He reviewed the 2017-2018 student engagement and employer recruiting activity data and the upward trend in the number of companies participating in Mines Career Day. Dr. Fox provided information on Career Day enhancements, how it is evolving and, has become a more distinguished event. He reviewed the expanded campus locations and industry centers established this year. He expressed gratitude for some professors suspending classes for Career Day. Dr. Fox noted that February 12, 2019, is the spring Career Day and that it will be in one location since spring is traditionally a smaller event. Mr. Winkelbauer noted it is a campus-wide endeavor. He also noted that 45% of the employer representatives who attend Career Day to recruit are alumni.

f. Action Items

Sabbatical Reports Dr. Boyd provided a brief summary of sabbatical reports received from faculty who completed sabbaticals last year. He made note that common themes in the sabbaticals were developing collaborations and advancing research initiatives. Dr. Boyd stated if the Board desires, he could invite faculty members to provide the Board an oral report of their sabbatical experiences at a future meeting. Dr. Boyd also stated he would provide the Board with a report detailing individuals who complete sabbaticals by visiting Mines. There was brief discussion regarding the suggestion that faculty members on sabbatical be encouraged to do outreach to recruit students to graduate degrees. Dr. Boyd recommended the Board consider and approve the Sabbatical Reports.

Motion to approve 2017-2018 academic year sabbatical reports by Trustee Haddon; seconded by Trustee Truly. Approved 7-0.

BE IT RESOLVED that the Board of Trustees of the Colorado School of Mines approves the above sabbatical reports for Academic Year 2017-2018.

New degree approvals Dr. Boyd asked the Board to consider and approve four new degree programs: Advanced Energy Systems, GIS and GeoInformatics, Resource Commodity Analytics and Smart-Grid, Power Electronics, and Electrical Power Systems and Renewable Energy.

Dr. Sridhar Seetharaman presented an overview the Advance Energy Systems degree program. He noted the program is being jointly offered in collaboration with the National Renewable Energy Lab (NREL). He highlighted the distinct features of the program and the broadening of engagement of Mines faculty with NREL scientists. Dr. Seetharaman presented an overview of the vision for the program that offers a unique interdisciplinary Ph.D. program and non-thesis MS program. He provided additional information on the market for the program and the timeline for first graduates. Dr. Seetharaman concluded with a summary of the enrollment projections and financial plans.
Dr. Wendy Zhou provided an overview of proposed GIS and Geoinformatics online certificates and non-thesis degree programs. She presented a summary of the current market and noted the growth in the GIS market. She provided information on the broad application for GIS and noted there is no other existing online degree program focusing simultaneously on earth, environment and energy. Dr. Zhou provided information on the program team, and reviewed the courses included in the degree. There was discussion regarding the online program and that it is launching in Fall 2019. Further discussion regarding timing to look at partnerships.

Dr. Marcelo Simoes provided an overview of the Smart-grid, Power Electronics, and Electrical Power Systems degree program. He reviewed the thesis and non-thesis MS degrees, and graduate certificates to be offered. He provided a summary of key industry sectors and, green technology areas that would be served. He shared a summary of the relevancy of these new degrees to the Federal labs in Colorado. Dr. Simoes provided information on Colorado Cleantech and, focus areas and main issues with distributed power innovation. He distributed letters of support from NREL and OPAL-RT Corporation and reviewed the course list. Dr. Simoes presented a five-year growth and marketing plan.

Motion to approve the new degrees as proposed made by Trustee Haddon; seconded by Trustee Salazar. Approved 7-0.

**BE IT RESOLVED** that the Board of Trustees of the Colorado School of Mines approves creation of the following new graduate degree programs:

- **Advanced Energy Systems (MS non-thesis, PhD)**
- **GIS and Geoinformatics (MS non-thesis, and Graduate Certificate, online)**
- **GIS/Geoinformatics (MS non-thesis, online)**
- **GIS/Geoinformatics: Geospatial Information Technology (Graduate Certificate, online)**
- **GIS/Geoinformatics: GIS for Geohazards Evaluation (Graduate Certificate, online)**
- **GIS/Geoinformatics: GIS for Environmental Studies (Graduate Certificate, online)**
- **GIS/Geoinformatics: GIS for Natural Resources Assessment (Graduate Certificate, online)**
- **Resource Commodity Analytics (Graduate Certificate)**
- **Smart-Grid, Power Electronics, and Electrical Power Systems (MS, thesis and non-thesis)**

Revised five-year capital plan Ms. Volpi provided a summary of the revised five-year Capital Plan. She noted that in June the Board approved the original Capital Plan at a total project cost of $253 million. The revised Plan increased to a total project cost of $377 million. Ms. Volpi reviewed the changes in the revised Plan and the requirement from the State to submit a five-year plan for approval for every capital project over $2 million. Brief discussion regarding the annual submission of the Plan to the State.

Motion to approve the revised Capital Plan as proposed made by Trustee McNeil; seconded by Trustee Salazar. Approved 7-0.

**BE IT RESOLVED** that the Board of Trustees of the Colorado School of Mines approves the revised Capital Construction Five Year Plan with a total project cost of $377 million.

**Arthur Lakes Library renovation program plan approval** Ms. Volpi provided a summary of the history of the Arthur Lakes Library and reviewed the renovation program plan. She noted the renovation was an essential step to bringing the Library up to best practice standards across the country regarding student use and space for studying and collaborating. The renovation plan would increase student space, update handicap accessibility, update technology and enhance clarity of wayfinding. Of the $13 million renovation cost, Mines is requesting $10 million from the State and the additional $3 million through fundraising. Ms. Volpi noted that Trustee Swift was on the Building Advisory Committee and Trustee Swift provided his thoughts on the planning process. Brief discussion regarding the changing landscape of the Library, and the timing and resources needed to manage the project.
Motion to approve the Arthur Lakes Library renovation program plan as proposed made by Trustee Haddon; seconded by Trustee Truly. Approved 7-0.

**BE IT RESOLVED** that the Board of Trustees of the Colorado School of Mines hereby approves the Arthur Lakes Library Renovation program plan at a total cost of $13 million to be funded by $10 million in State appropriations and $3 million in fundraising.

Health Services fee description amendment Dr. Fox provided background on the current definition of the Student Health Services Fee and a summary of the proposed amendment of the Fee definition. He asked that the Board consider and approve the updated definition of the Student Health Services Fee.

Motion to approve the Student Health Services Fee definition amendment as proposed made by Trustee Haddon; seconded by Trustee Truly. Approved 7-0.

**BE IT RESOLVED** that the Board of Trustees of the Colorado School of Mines approves the amended definition of the Student Health Services Fee.

A mandatory fee that provides support for health and wellness related activities, including but not limited to, wellness promotions, alcohol and drug education, sexual assault prevention, counseling activities, health center operations, staff salaries, and contract health services. A portion of this fee is used for construction, renovation, maintenance, and bond indebtedness of health and wellness facilities.

Re-designation of Board of Trustee designated funding Mr. Winkelbauer provided a summary of the history of the Trustees' merit-based scholarship endowment designation. He asked that the Board consider and approve the re-allocation of unmatched funds from the Board of Trustees Honors Scholarship program to establish new scholarship programs. Mr. Winkelbauer noted that the realignment of these unmatched funds would further the objectives of the Mines@150 strategic plan by offering scholarships to high academic achievers on a merit-based program. He noted there is a contingent pledge towards two new scholarship programs, the Community College Students Transfer program and President's Scholars program.

Motion to approve the re-designation of the Board of Trustees Honors Scholarship programs as proposed made by Trustee McNeil; seconded by Trustee Salazar. Approved 7-0.

**BE IT RESOLVED** that the Board of Trustees of the Colorado School of Mines re-designates $1 million from the Board of Trustees Honors Scholarship funds in the following manner: $500,000 to fund scholarships for a Colorado Community College Transfer program; and $500,000 for the President's Scholars (or prestigiously named) scholarship program.

g. Regular Written Reports

Undergraduate Admissions No questions

Graduate Admissions No questions

Safety and Cyber report Ms. Volpi noted the change in adding Cyber to this report.

CSM Foundation and Alumni Relations report Mr. Winkelbauer provided information on Parent and Family Weekend. He noted, in particular, the popular coffee chat at 9 a.m. before the Mines football game. More than 220 registered for this event. Mr. Winkelbauer thanked Chairman Jorden for participating in the Foundation Board of Governors meeting. He noted the passing of Mr. Bill Coors and the recent Coors family gift of property to Mines. There was brief discussion regarding timing for the next campaign. Mr. Winkelbauer noted the feasibility process for that campaign is wrapping up and priorities and goals are being defined. He will provide more details about campaign and timing in later meetings.
III. Trustee Lunch — Noon in the Wagner Boardroom

12:25 p.m. Motion to move into executive session by Trustee McNeil; seconded by Trustee Salazar. Motion approved 7-0.

Executive Session
The purpose of the Executive Session was to discuss legal advice pursuant to §24-6-402 (3)(a)(II), C.R.S.; employee matters pursuant to §24-6-402(3)(b)(I), C.R.S.; administrative actions and investigative reports involving students pursuant to §24-6-402(3)(b)(II), C.R.S.; and matters required to be kept confidential by federal law or statute statutes, pursuant to §24-6-402(3)(a)(III), C.R.S.

2:45 p.m. Motion to adjourn by Trustee Haddon; seconded by Trustee Truly. Approved 7-0

There being no further business, the regular meeting adjourned.

Anne Stark Walker, Secretary