



► **NOW WHAT? NAVIGATING K-12 REOPENING**
A COLLABORATIVE PLANNING PROCESS

MAY 7, 2020



Key objectives for our recurring meetings

- **Share updates on Federal funding** for local and state educational agencies related to COVID-19 costs
- **Create and share tools** that can help track incurred and expected Covid-19 related expenses, assist with space planning, scheduling, manage record keeping, and other work associated with reopening schools
- **Develop guidance** for planning, operation, and maintenance of school buildings, transportation and student assignment that align to appropriate public health directives and concerns



▶ WEBINAR AGENDA

- Describing our deliverables—and revision process
- Present corona capacity feasibility analysis
- Review updated budget document
 - Break into groups for discussion
- Report back
- Next steps

We will record this meeting, take notes, and distribute to everyone on the invitation list.

Our intent is to have:

- Draft (2) of a planning template by May 7th (see appendix)
- Draft (2) of the budget tool by May 7th with a final by May 13th
- Draft (1) of capacity planning guidance by May 13th
- Draft (1) cleaning protocols by May 20th
- Draft (1) hygiene protocols by June (date TBD)



► SUMMARY OF WORKING ASSUMPTIONS

PUBLIC HEALTH

Staff and students need to be safe during a pandemic for which there is no vaccine and so the tools to reduce risk are high levels of personal and facilities hygiene and social distancing.

PUBLIC EDUCATION

Public school environments are not organized or funded to support social distancing or high levels of personal and facilities hygiene, so extensive collaborative planning needs to be occurring now.

ECONOMY

Parents cannot be fully productive in the workforce without districts providing schooling and after-school care to the children in the community; and schools will not adequate funding without the state and local economies thriving.



An aerial photograph of a residential neighborhood, showing a grid of streets, numerous houses with brown and grey roofs, and green trees. The image is overlaid with a dark semi-transparent layer and a white border. The text "SAMPLE COVID-CAPACITY EXERCISE" is centered in white, bold, sans-serif font.

SAMPLE COVID- CAPACITY EXERCISE

▶ QUICK MATH: CORONA-CAPACITY

1. Plan on a maximum classroom [*not school*] capacity of around 60% of current capacity
2. Declutter rooms as needed and insofar as practical to maximize useable space
3. Identify all current instructional spaces that get capacity; model *at least* 44 sqft per student of useable space
4. Identify all rooms that could be potentially used for an assigned instructional space with at least 44 sq ft per student (e.g., Art Rooms in ES, part or all of cafeterias, media centers, etc.)
5. If current + potential corona-capacity is not sufficient for your population, move to adjusting time and/or adding temporary space

These square footage guidelines are designed to reflect 6' of social distancing. The suggestions of operating at 60% capacity and *at least* 44 sqft per student in a room are intended to provide districts a starting place for the specialized capacity planning likely needed in the 2020-21 school year and are not to be interpreted as hard-and-fast rules; they are guides. **If you can provide more than 44 sqft per student, do it as this is likely a bare minimum. Some models we ran exceed 100 sqft per student: more to come on these numbers.** Users can apply these guidelines to their facilities and then adjust as needed based on local factors impacting at what capacities they can afford to safely operate.



▶ **START WITH CURRENT CAPACITY, FACTOR BY 60%**



Legend

- Admin
- Resource
- Computer Lab
- Core (Library, Cafe, Auditorium)
- Core Academics
- Career Tech
- Elective (Art, Music, Phys. Ed.)
- STEM/Science Lab
- SPED
- Support (Storage, RR, Mech)
- Circulation

Capacity Bearing Spaces

Room Type

- Classroom - 22 Students
- SPED - 10 Students

Enrollment: 480
 Current Capacity: 570
 COVID Capacity @ 60%: 342

Current Utilization: 84%
 60% COVID Capacity Utilization: 140%

▶ RECAPTURE ALL POTENTIAL SPACES @ 44SQFT+/STUDENT



Legend

- Admin
- Resource
- Computer Lab
- Core (Library, Cafe, Auditorium)
- Core Academics
- Career Tech
- Elective (Art, Music, Phys. Ed.)
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- SPED
- Support (Storage, RR, Mech)
- Circulation

Capacity Bearing Spaces

Room Type

- Classroom - 22 Students
- SPED - 10 Students

Enrollment: 480
 Current Capacity: 570 Current Utilization : 84%
 COVID Capacity @ 60% + All Reclaimable Capacity: 812
 COVID Capacity @ 60% + All Reclaimable Capacity Utilization: 59%

▶ BACKOUT LEAST DESIRABLE SPACES AS POSSIBLE



Legend

- Admin
- Resource
- Computer Lab
- Core (Library, Cafe, Auditorium)
- Core Academics
- Career Tech
- Elective (Art, Music, Phys. Ed.)
- STEM/Science Lab
- SPED
- Support (Storage, RR, Mech)
- Circulation

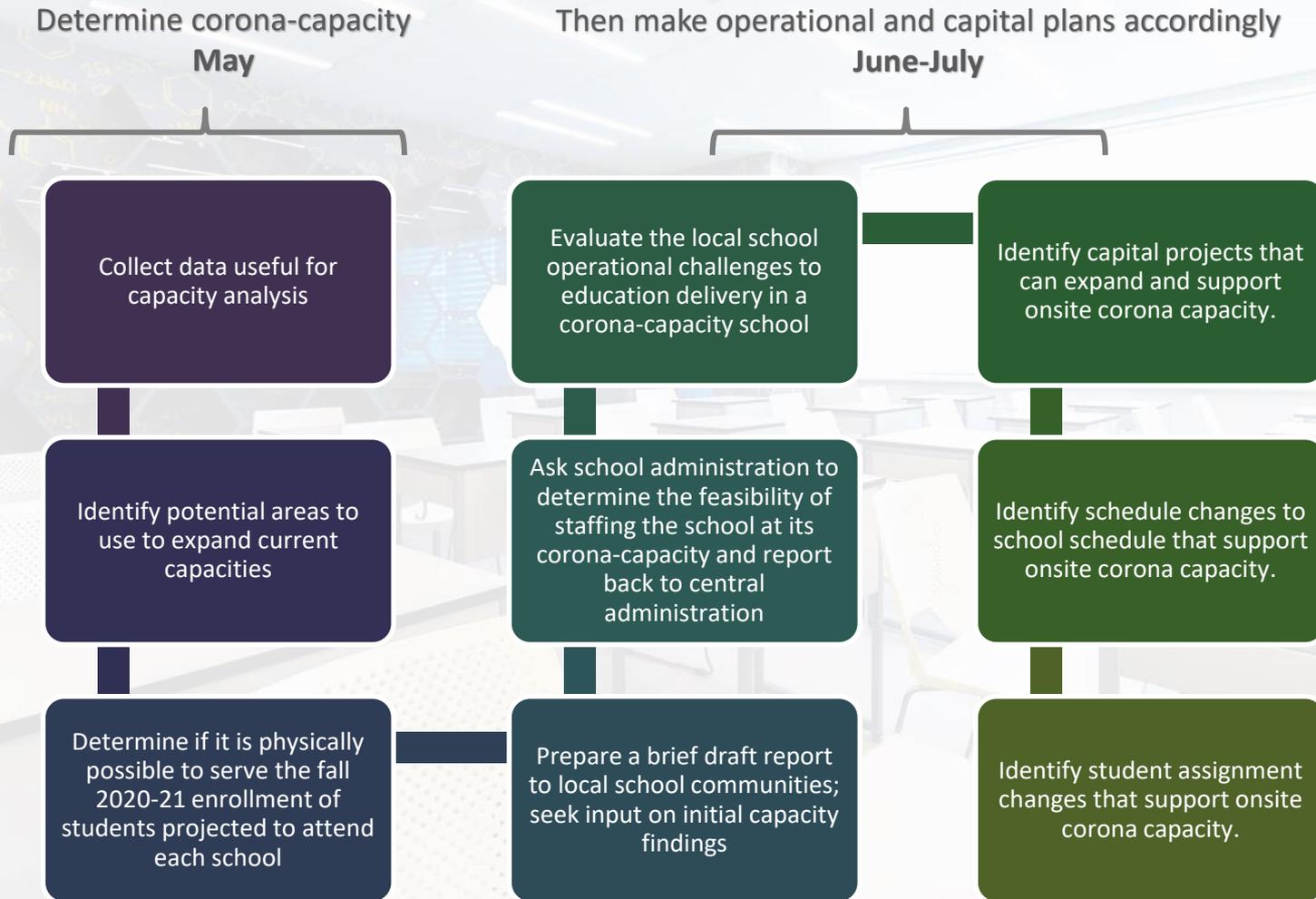
Capacity Bearing Spaces

Room Type

- Classroom - 22 Students
- SPED - 10 Students

Enrollment: 480
 Current Capacity: 570 Current Utilization : 84%
 COVID Capacity @ 60% + Prioritized Capacity: 581
 COVID Capacity @ 60% + All Reclaimable Capacity Utilization: 83%

▶ REOPENING STRATEGY STEPS





BUDGETING

Community Support



Facilities Operations



Off-Site Social Distancing



On-Site Social Distancing



Public Health Protocols



▶ BASIC WORKING BUDGET ESTIMATES

- 50 million students in PK12 public schools
- 100,000 K-12 public schools
- 15,000 school districts
- 3.2 million classroom teachers
- 5 million school staff
- 82% of public schools with a full or part time nurse
- 15 million students in aftercare in public schools
- 7.5 billion gross square feet of public school space

Community Support



Expense Category	Description of the expense & assumptions	Type of unit	Unit cost \$	# of units	Total cost
District Staff Expenses	Provide students and their families with extra food service to address high levels of economic distress in communities.	student			\$-
District Staff Expenses	Establish and communicate school use guidelines to non-school users of public school facilities for 2020-21 school year.	community users			\$-
District Staff Expenses	Retain nurses during aftercare services.	aftercare programs			\$-
District Staff Expenses	Continue to support Community feeding programs, where necessary.	community users			\$-
District Staff Expenses	Resume after and before school childcare with added cleaning, and social distancing--assume an increase in cost per student of 10%--average cost in public schools of \$100 to \$500 per month, estimate \$250 with \$25 per child per month increase.	student	\$225	15,000,000	\$ 3,375,000,000

Facilities Operations



Expense Category	Description of the expense & assumptions	Type of unit	Unit cost \$	# of units	Total cost
Capital Expense	Determine whether HVAC system has fan power to use HEPA filters (York FAQs)	school		20,000	\$-
Capital Expense	Install bipolar ionization upstream of final filter	school		5,000	\$-
Capital Expense	Install UVGI Ultraviolet Germicidal Irradiation add-on; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2789813/	school			\$-
Contractor Expenses	If a school site has a case of COVID, deep clean the site--assumption for 10% of schools.	school	\$5,000	10,000	\$50,000,000
Contractor Expenses	Flush and test water in all drinking fountains and sinks following return to schools that have been vacant.	school		100,000	
Contractor Expenses	Adjust and repair operable windows to increase fresh air, where possible.	school		65,000	
District Staff Expenses	Administer a public health training program for current and new facilities employees and contractors.	system	\$500	10,000	\$5,000,000
District Staff Expenses	Staff custodians at 20,000 per GSF of school space for 8 hours...for 2000 hours in a year--assumes schools are currently staffed, on average at about 35,000, so an increase in custodians of an average of 1.25 by school, but allocated to districts equitably--some districts at 50,000 GSF for custodians, would need more than 1.25 per school.	annual custodial salary	\$56,000	125,000	\$ 7,000,000,000
District Staff Expenses	Adjust humidity to ensure at least 50% relative humidity	school			\$-
Equipment, Materials, and Supply Expenses	Teachers wipe down surfaces they have touched with disinfectant wipes before they leave each day figure 4 wipes per classroom of teacher use per day. Lysol wipes.	classroom	\$0.01	3,000,000	30,000
Equipment, Materials, and Supply Expenses	Purchase electrostatic disinfectant sprayers, for one per school--to save time and materials from hand disinfecting. https://www.emist.com/em360-backpack/	school	\$4,200	100,000	\$ 420,000,000
Equipment, Materials, and Supply Expenses	Hand sanitizers; for student washing 3 times per day with hand sanitizers-Purell Advanced.	one hand wash with sanitizer	0.02	150,000,000	\$ 3,000,000



Off-Site Social Distancing



Expense Category	Description of the expense & assumptions	Type of unit	Unit cost \$	# of units	Total cost
Equipment, Materials, and Supply Expenses	Provide students with personal computing capabilities to use from home.	student	\$450.00		\$-
Equipment, Materials, and Supply Expenses	Provide students with hot spots.	student			\$-
Equipment, Materials, and Supply Expenses	Provide families with internet services to use from home.	student			
Equipment, Materials, and Supply Expenses	Mail school materials to students - assuming twice monthly contacts over 6 months for all students, and postage and supplies at \$1.00 per student.	student	\$12.00	50,000,000	\$ 600,000,000
Equipment, Materials, and Supply Expenses	Replace technology for what was issued and not returned from last school year.	student			\$-

On-Site Social Distancing



Expense Category	Description of the expense & assumptions	Type of unit	Unit cost \$	# of units	Total cost
Contractor Expenses	Utilize educational facilities space planners/architect planners to help reorganize space and furniture to operate at recommended levels of social distancing for HS, MS, and ES levels.	district	\$ 7,500	8,000	\$ 60,000,000
Contractor Expenses	Install outdoor structures and facilities to support outdoor instruction and activities--could be outdoor sinks, covered areas for outdoor classroom or cafeterias in mild climates, assume 5% of schools.	school	\$ 15,000	5,000	\$ 75,000,000
Contractor Expenses	Make site landscaping improvements to support outdoor classrooms and activities.	school	\$ 10,000	25,000	\$ 250,000,000
Contractor Expenses	Move portable classrooms on site if necessary to get small class sizes	portable	\$ 200,000	2,000	\$ 400,000,000
District Staff Expenses	Prepare site markings outside with 6 foot markings on sidewalks, and play areas, mark with cones, ropes, to control large numbers of students--assume volunteers do the work with cost of cones, paint, ropes as the cost.	school	\$ 200	50,000	\$ 10,000,000

Public Health Protocols



Expense Category	Description of the expense & assumptions	Type of unit	Unit cost \$	# of units	Total cost
Capital Expense	Replace lavatory fixtures with fixtures with sensors to reduce cleaning load and potential surface contamination, estimate 25,000 lavatories in highest need facilities.	lavatory	\$ 25,000	25,000	\$ 625,000,000
Contractor Expenses	Prepare and post signage on space use and wayfinding in schools for staff and students.	school	\$ 2,500	100,000	\$ 250,000,000
District Staff Expenses	Prepare and train a much larger cadre of substitute teachers in anticipation of potential increase in sick days required by teaching staff.	Substitute teachers			\$-
District Staff Expenses	Increase nurses in schools to provide at least a FT or PT nurse in every public school--increase from 2015-16 levels. https://nces.ed.gov/surveys/ntps/tables/ntps1516_20032002_s1n.asp	school nurse	\$ 50,000	18,000	\$ 900,000,000
District Staff Expenses	Provide training to students and teachers on the student required protocols and student consequences for not following the protocols.	school nurse		50,000,000	\$-
District Staff Expenses	Provide mental health services and counseling to students; additional 20,000 high need schools	school mental health counselor	\$ 56,000	20,000	\$ 1,120,000,000
District Staff Expenses	Develop and post guidelines for visitors and parents who enter the school.	school	\$ 250	100,000	\$ 25,000,000
Equipment, Materials, and Supply Expenses	Provide gloves to custodians for cleaning--5 pairs per day, with one custodian per 20,000 GSF	School custodians	\$ 0.50	375,000	\$ 187,500.00
Equipment, Materials, and Supply Expenses	Nurse takes body temperatures; no touch thermometer	school	\$ 80	100,000	\$ 8,000,000
Equipment, Materials, and Supply Expenses	Provide nurse with one oximeter per school; https://philipspulseoximeters.com/collections/shop	school	\$ 45	100,000	\$ 4,500,000
Equipment, Materials, and Supply Expenses	Provide daily disposal masks to in school staff--assuming 180 days. 75 cents each day X180 days = annual mask cost per person = \$135	School Staff	\$ 135	4,000,000	\$ 540,000,000
Equipment, Materials, and Supply Expenses	Install protective clear plastic between adults so parents can interact with front office staff to register students ahead of school reopening.	school	\$ 8,000	100,000	\$ 800,000,000





SMALL GROUP WORK

Step 1. Volunteer yourself or some other lucky person to keep notes for the group

Step 2. Decide which category to focus on in your small group.

Step 3: Review the budget assumptions and make comments on them, where you can, provide examples of costs.

Step 4. Suggest edits or additions to the budgeting assumptions—clarifications, other ways to derive an estimate.

Step 5. Notes and report back to the call participants.

► THANK YOU

Have ideas for topics for future webinars? Send them to us via the meeting chat function or email!

For further comments, please contact

Mary Filardo at: mfilardo@21csf.org

with resources as:

www.facilitiescouncil.org and www.buildusschools.org

and/or

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@cooperativestrategies



An aerial photograph of a residential neighborhood, showing a grid of streets, numerous houses with various roof colors (brown, grey, red), and green trees. The image is overlaid with a dark semi-transparent layer and a white border.

APPENDIX

Approaches to re-opening
Re-opening slides revised by webinar participants

▶ APPROACHES TO REOPENING

*Adapted for K-12 use from UC Berkeley guidance to staff on fall scenarios as forwarded by Jeff Vincent, PhD
Director, Public Infrastructure Initiatives
Center for Cities + Schools
University of California, Berkeley*

Scenario #1:

- For public health reasons, the campus must continue with **full remote** instruction.

Scenario #2:

- **In-person** operations resume, **with limits** and restrictions imposed by public health authorities
- **Screening for symptoms prior** to entering the facility
- Revised space utilization plans due to **social-distancing & enhanced personal hygiene and cleaning procedures during** the day

Scenario #3:

- Campus operations largely **return to normal** (i.e., mostly in-person), but wherever possible, will accommodate students & staff, who need or prefer to operate remotely due to continuing pandemic conditions.



▶ APPROACHES TO REOPENING

Scenario #2 is likely for most districts in the fall of 2020

Scenario #2:

- **In-person** operations resume, **with limits** and restrictions imposed by public health authorities
- **Screening for symptoms prior** to entering the facility
- Revised space utilization plans due to **social-distancing & enhanced personal hygiene and cleaning procedures during** the day

While all guidance in this document is subject to federal, state and local governmental guidance, we have to plan now and adapt as needed

Prevention is the best medicine.
Inform parents and staff to opt out of coming to school if they present any viral symptoms or believe they have been exposed to someone who has.

Recalculate capacity and operations to accommodate social distancing and increased hygiene. Goal is to allow for quasi-normal social interactions in smaller units so that when a student/staff member is exposed, only a small # of students/staff need to isolate at home for 14 days.



▶ DETERMINE THE “CORONA CAPACITY” OF EACH SCHOOL

Collect data useful for capacity analysis.

- Current school capacities
- Class size multipliers by grade or subject
- Square footage of the school
- Square footage of classrooms and other instructional and common spaces.

Identify potential areas to use to expand current capacities--for examples: art rooms, music rooms, cafeteria, gym, and school grounds.

- Propose an "on-site" corona capacity, which includes social distancing in traditional capacity spaces and use of instructional areas, not traditionally used for capacity calculations, such as cafeterias for instruction AND with capacities that would accommodate in seat instruction, but would not general have capacity, such as a gym or outdoor covered classroom.
- Calculate a corona utilization of each school using the 2019-20 enrollment and the corona capacity, to identify whether and which schools may need to reduce school schedule to achieve social distancing.
- Account for delivering special education classes, or social distancing of aids who accompany students in regular classes, where appropriate.
- **Identify other stakeholder partners than can provide potential space adjacent to the campus (e.g., office/retail, higher education, library, etc.)**

Determine if it is physically possible to serve the fall 2020-21 enrollment of students projected to attend each school.

- Begin by assuming school capacity ~60% of current
- Calculate current classroom capacity at 44 sqft per student
- Identify potential recapturable space for capacity (specials rooms, portions of cafeteria, etc.) at 44 sqft per student
- **Determine restroom capacity** (~30 sqft per person max)
- **Consider adding an isolation space for students/staff who present Covid-19 symptoms during the day; preferably near an entrance**

Prepare a brief DRAFT report to local school communities--administration, teachers, and parents on whether and which school BUILDINGS can support corona capacities and seek input on the preliminary findings.



▶ HOW IS THE PHYSICALLY DISTANCED CORONA CAPACITY STAFFED?

Ask school administration to determine the feasibility of staffing the school at its corona capacity and report back to the central administration.

- Develop a school day class schedule to minimize room changes.
- Develop a lunch time plan to ensure lunch time maintains social distancing.
- Develop a staffing plan to support a social distancing schedule and social distancing space plan.
- Develop the special education plan to ensure appropriate service and educational delivery within the social distance environment.

Evaluate the local school operational challenges to education delivery in a corona capacity school.

- Drop-off procedures to identify symptomatic students/staff prior to entering the facility; pick-up procedures to minimize opportunity for viral transmission
- **Provide for water bottles** or refilling stations **instead of water fountains**
- **Determine student/teacher transition strategy through halls** (e.g., one-way hallways, rotating teachers when possible instead of students, etc.)
- **Create updated evacuation routes in case of emergency;** set drill schedule



▶ **IF SOCIAL DISTANCING CANNOT BE DONE ON SITE:
MITIGATION OPTION #1**

Identify capital projects that can expand and support onsite corona capacity.

- Explore whether portable classrooms, roofed or tented outdoor classrooms, room conversions, or other projects enable school enrollment to be supported on site.
- Identify small cap projects, like expanding hand washing stations, bathroom renovations, nurses suite modifications to separate students, and front office changes to enable contact with parents.
- Make site improvements, like landscaping and outdoor structures to support outdoor classrooms and areas for social distancing.
- Prepare site markings outside with 6 foot markings on sidewalks, and play areas, mark with cones, ropes, to control large numbers of students.
- **Signage in school parking lots for those accessing wi-fi near the building**
- **Use sports fields for additional outdoor recess space**
- **Additional climate control to support summer school/extended school year**
- **Include capital enhancements like upgraded HVAC filters and/or systems**



▶ IF SOCIAL DISTANCING CANNOT BE DONE ON SITE:
MITIGATION OPTION #2

Identify schedule changes to school schedule that support onsite corona capacity.

- Explore pros and cons of half day schedules hybrid of in school and on-line learning, reassignment to low utilized schools.
- Explore pros and cons of split enrollment days some students at school MWF and other students in school Tu/Thr; and alternate 3 and 2 day weeks: **e.g, A-day, B-day format**
- Explore pros and cons of 4 day school week with one day online learning-- increasing school capacity by 20%
- Estimate the staffing required to operate at recommended levels of social distancing for each scenario at HS, MS, and ES levels.
- **Explore the possibility of extending the length of the school day or year for staff as you have students attend for a portion of the day and rotate**
- **If considering a strategy where only a portion of students attend school each day, identify potential locations for childcare / online learning and recess to allow parents to return to work as possible**



▶ IF SOCIAL DISTANCING CANNOT BE DONE ON SITE:
MITIGATION OPTION #3

Identify student assignment changes that support onsite corona capacity.

- Determine whether the district has capacity in some schools, but not in others, which would enable students to attend re-opened schools without a schedule change-- for example, crowded ES, but excess capacity in MS, so moving a grade into the next level school;
- Estimate the number of students who would need to be reassigned at recommended levels of social distancing.
- Evaluate transportation impact including capacity, schedule, and costs associated with social distancing schedule and student assignment proposals.



▶ OPERATIONAL CONSTRAINTS

Adapted from considerations sent by Guy W. Bliesner, School Safety and Security Analyst, Idaho Office of School Safety & Security

All facility solutions have associated operational implications that may require rethinking a strategy

- Transportation requirements will be key particularly when long-commutes are unavoidable
- Maintaining fidelity of the strategies decided in an open campus environment (i.e., preventing the public from entering campus and engaging in behaviors contrary to your distancing and hygiene strategies)
- The more PPE and physical barriers in place, the greater the probable educational and psychological impact
- Strategy for on-boarding volunteers
- Enforcing distancing and hygiene standards without creating a punitive environment
- Allowing for social, physical education and/or athletic activities without compromising strategy
- Cost/benefit analysis of expenses

