



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

MAY 14, 2020



**COOPERATIVE  
STRATEGIES**  
ASSESS • PLAN • FUND • BUILD



**NATIONAL COUNCIL  
ON SCHOOL FACILITIES**  
States Advancing Effective K-12 Policy, Planning, and Practice

# 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

- Brief legislative update
- **State & District reps: What are the operational issues that are keeping you up at night?** – put them in the chat at the beginning
- *Updated* corona capacity feasibility analysis
- *Updated* budget document
  - Will provide a spreadsheet for your use
- Break into groups for feedback on developing corona capacity
  - **What concerns do you have about being able to develop, communicate, and implement a corona-capacity with your community?**
  - Our desire is to finalize guidance after today's call
  - Will provide spreadsheet for your use
- Next steps

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

Our intent is to have:

- Draft (1) budgeting worksheet
- Focus on scheduling options after corona-capacity has been determined
- Draft (1) cleaning protocols by May 20<sup>th</sup>
- Draft (1) hygiene protocols by June (date TBD)

## ▶ FEDERAL UPDATE: HEROES ACT – PROPOSED \$3 TRILLION

**Department of Education** – \$100.15 billion to support the educational needs of States, school districts, and institutions of higher education in response to coronavirus, including: ▪ \$90 billion for a State Fiscal Stabilization Fund for grants to States to support statewide and local funding for **elementary and secondary** schools and public postsecondary institutions.

### **This flexible funding can support:**

- costs associated with making up instructional time, including teacher, school leader, and classified school employee personnel costs;
- providing school-based supports for impacted students, families, and staff, including counseling, mental health services, family engagement efforts, and the coordination of physical health services;
- costs associated with sanitation and cleaning for schools and school transportation;
- professional development for school-based staff on trauma-informed care to restore the learning environment;
- purchasing educational technology, including assistive technology, that aids in regular and substantive interactions between students and their classroom instructor;
- coordination efforts between State educational agencies and public health departments for emergency planning, response, and recovery;
- authorized activities under education statutes including ESEA, IDEA, McKinney-Vento Homeless Assistance Act, the Adult Education and Family Literacy Act, and the Perkins Act;

## ► SUMMARY OF WORKING ASSUMPTIONS

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### 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.

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### 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.

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### 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.





# UPDATED COVID- CAPACITY EXERCISE

▶ GOALS FOR DEVELOPING A COVID-CAPACITY

Limit exposure  
**within** a group

Limit exposure  
**between** groups

To prevent a  
person who is  
infected from  
transmitting  
the virus to  
others

If/when a  
person  
presents  
symptoms, the  
fewest groups  
of  
students/staff  
will need to  
self-isolate

so that

We can  
fulfill our  
obligation  
to provide  
a quality,  
universal  
public  
education

## ▶ 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: see slides 7-9.** 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.

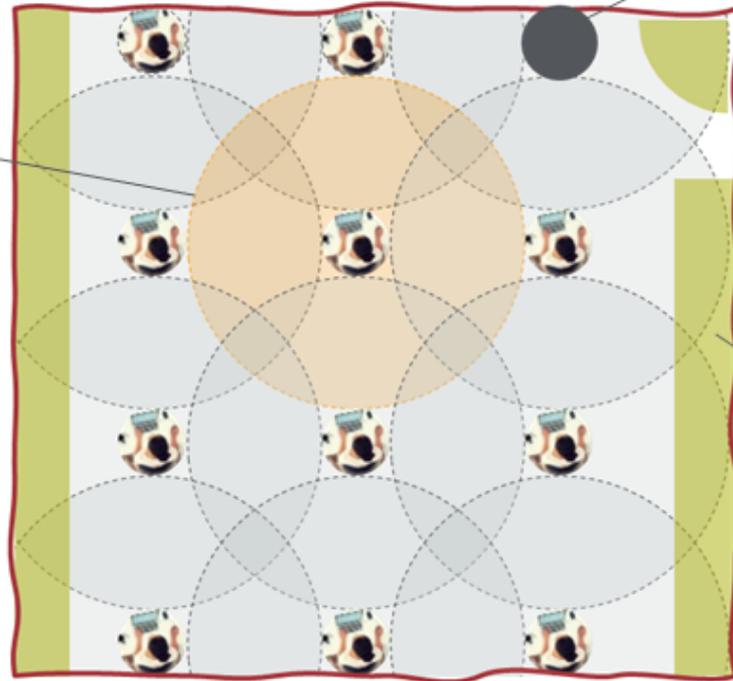
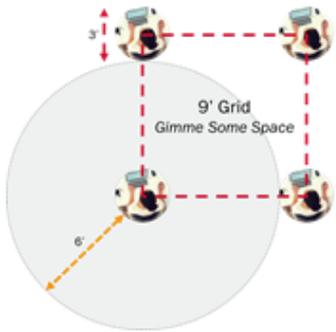




# Anatomy of a Socially-Distanced Classroom

## Social distancing isn't forgiving.

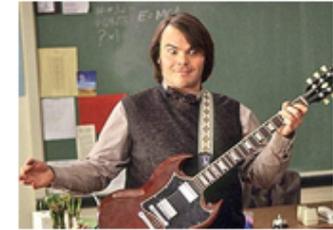
Unlike typical capacity models which assume reasonable tolerance for 'getting a little closer', the CDC's public health guidelines call for strict 6' spacing between people. Allowing for 3' of personal space, seating is optimally aligned on a 9' grid.



30' x 32' (960sf)

## Teachers count, too!

Capacity models should deduct 1-2 spaces for the teacher, instructional aides, special education monitors, and volunteers.



## Perimeter fixtures and door swings.

Built-in wall cabinets, AC units, and doorways take up floor space and should be factored into classroom layouts and capacity models.



## Keep it real.

Typical capacity models include utilization factors to model real-world school operations. (E.g. max capacity x 95% elementary, 75% secondary).

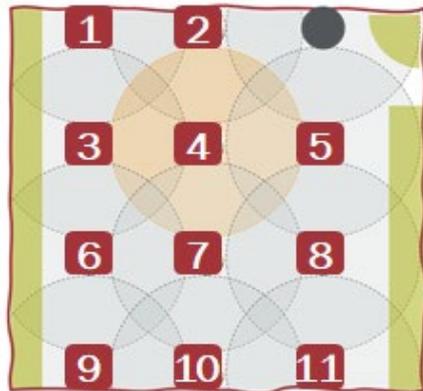
Variables such as differing cohort sizes, teacher conference/prep schedules, class-size variation in diverse secondary course schedules, etc. do not go away in a socially-distanced school, so neither should these factors.

# Socially-Distanced Classroom Capacity Study

Eg: 960sf CA classroom, w/ 3' built-ins on len/width, 1 teacher space per room

	low max students	high max students	avg max students	avg sf/student
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0' additional personal space	23	31	26.1	37
1' additional personal space	15	20	18.0	53
2' additional personal space	11	17	13.3	73
3' additional personal space	7	11	9.5	102



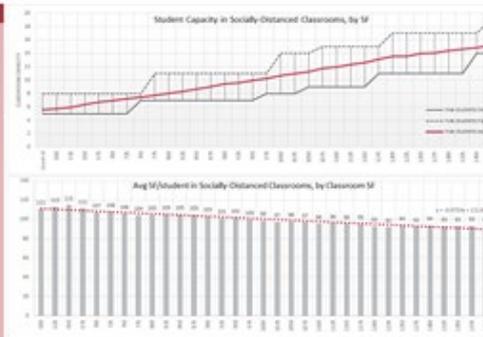
30' x 32' (960sf)

Number of students	Personal space	Personal space	Personal space	Personal space
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Classroom Size	Low	High	Avg	Avg SF/Student
100	1	1	1.0	100
150	2	2	1.5	100
200	3	3	2.0	100
250	4	4	2.5	100
300	5	5	3.0	100
350	6	6	3.5	100
400	7	7	4.0	100
450	8	8	4.5	100
500	9	9	5.0	100
550	10	10	5.5	100
600	11	11	6.0	100
650	12	12	6.5	100
700	13	13	7.0	100
750	14	14	7.5	100
800	15	15	8.0	100
850	16	16	8.5	100
900	17	17	9.0	100
950	18	18	9.5	100
1000	19	19	10.0	100
1050	20	20	10.5	100
1100	21	21	11.0	100
1150	22	22	11.5	100
1200	23	23	12.0	100
1250	24	24	12.5	100
1300	25	25	13.0	100
1350	26	26	13.5	100
1400	27	27	14.0	100
1450	28	28	14.5	100
1500	29	29	15.0	100

## Back Under the Same Roof

Preparing for the "Next Normal" in K-12



# Re-thinking Space Utilization: What an open campus with social distancing could look like

## Socially-Distanced classrooms.

Occupy classrooms on a 7.5 ft grid to allow 6 ft distance between personal spaces, allowing face-mask-off personalization while seated. This implies a 40-60% loss of capacity in each room.



## Extended health suites.

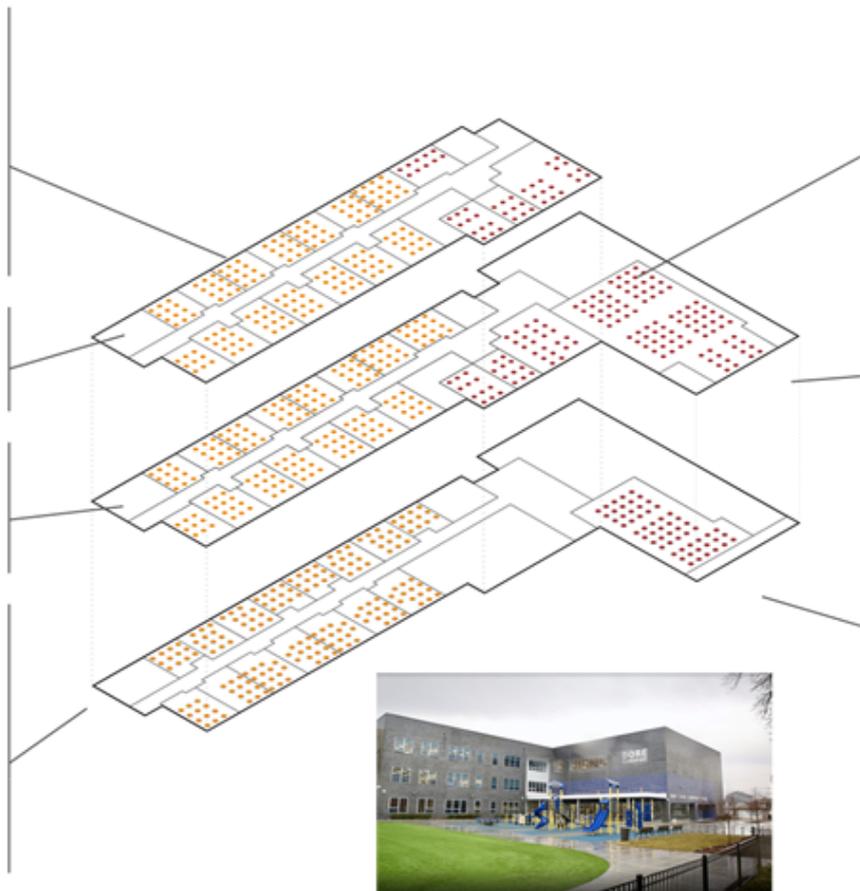
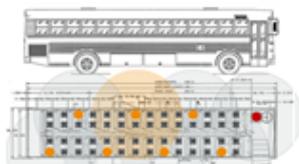
Create additional buffered space not accommodated by typical school clinics for corona examination and SEL counselling. *Each repurposed classroom would represent a loss of 8-15 socially-distanced capacity.*

## Teacher collaboration suites.

At secondary schools with rotating schedules, regain capacity by hosting teacher conference/prep activities in a shared professional space instead of empty classrooms. *Eg: Capacity net gain for a 1000 student middle school with 40 teachers is ~5 classrooms or ~75 socially-distanced students.*

## Modified school bus planning.

Transportation to and from school must be considered. *Without PPE, a socially-distanced school bus is limited to 12% capacity, or approximately 50% with strict use of masks.*



## Converted core spaces for instruction and independent study.

Your cafeteria, gymnasium, media center, and auditorium can be used to recapture lost classroom capacity. *Eg: An 8000sqf cafeteria could be furnished for four 'normal' classrooms of 20-30 students each.* Of course this is a trade-off requiring modification to the normal program (classroom lunch delivery, outdoor-only PE, etc.) Depending on each facility's space and enrollment, staff assignments, and creative on-site distance learning, this could allow for most or all students to return to school during normal hours.

## Time and space.

Adjusting daily/weekly/yearly class schedules or allowing for hybrid on-site/off-site attendance can make up for lost facility capacity. *Eg: An alternating day block schedule would effectively double the facility's capacity and allow for normal hours without commandeering core spaces.*

## Differentiated teacher roles.

Capacity isn't just about the building, and most schools are not staffed for 9-16 students per socially-distanced classroom. Consider a re-design of teacher assignments to focus their individual strengths for either content delivery or learning skills development. By leveraging technology for large-scale online content delivery, more teacher time and energy could be redirected for student-focused learning skills coaching.

*There is a silver lining to this crisis, with potential transformative outcomes for students.*

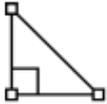


# School, District, or State Model



## GOOD: Quick Math

(## classrooms x ## students) + (recapturable seats in core spaces)



## BETTER: SF Model for each Room

∑ all classrooms:  
(room sf / 100 sf per person) x (utilization factor .75-.95) + (recapturable seats in core spaces)



## BEST: Length & Width Model for each Room

∑ all classrooms:  
(1 + (room length - 3ft 1<sup>st</sup> personal space - fixture depth) / 9ft) x (1 + (room width - 3ft 1<sup>st</sup> personal space - fixture depth) / 9ft) - 1 or 2 teacher spaces)  
x (utilization factor .75-.95)  
+ (recapturable seats in core spaces)



▶ **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

**25 teaching stations**

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

Current Utilization: 84%  
 Reduced Capacity Utilization: 140%

# ▶ RECAPTURE ALL POTENTIAL SPACES @ 44-100SQFT/STUDENT



**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

**47 teaching stations**

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

**39** teaching stations

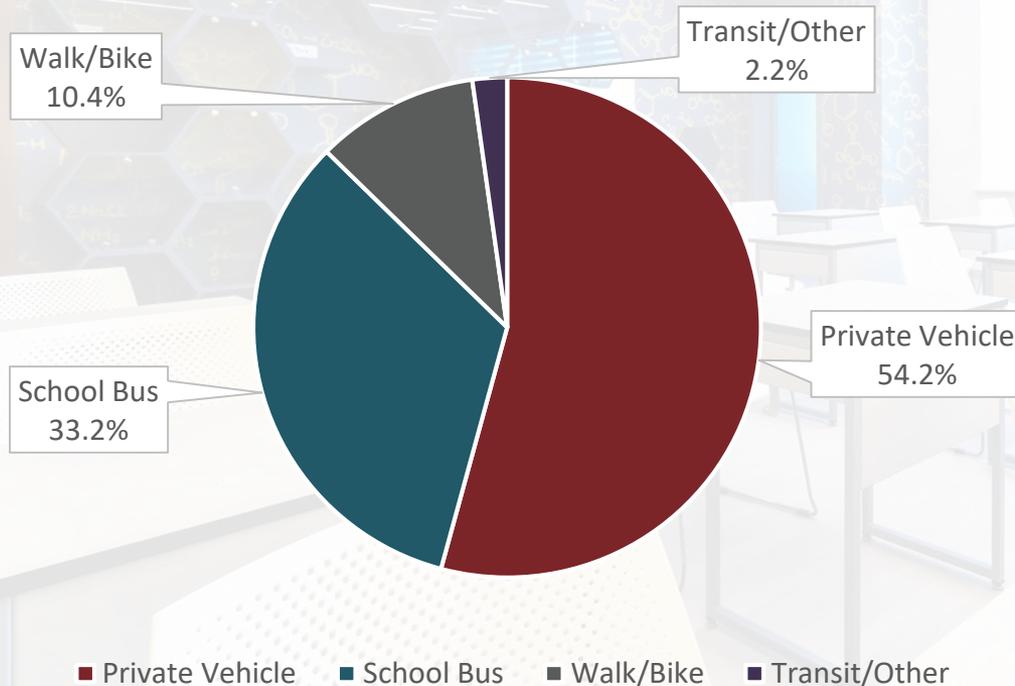
Enrollment: 480  
 Current Capacity: 570    Current Utilization : 84%  
 COVID Capacity including reclaimed space: 581  
 COVID Utilization: 83%

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. The text 'BUS CAPACITY' is centered in white, bold, sans-serif font.

# BUS CAPACITY

▶ ~ 2/3 OF ALL STUDENTS NATIONALLY **DON'T USE THE BUS**

Means of travel from home to school in the United States for children ages 5-17 by percentage



Source: National Household Travel Survey, March 2019

There were 480,000 school buses (2016-17) driving nearly 3.5 billion miles every year.

**33.2%** of all 5 to 17 year-olds represents about 16 million students taking school buses to school.

**64.6%** of students in private vehicles & walking/biking are using modes of transportation that "socially distance."



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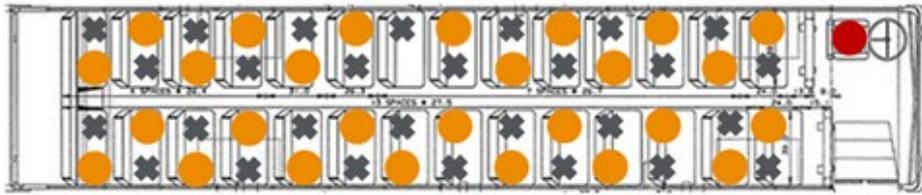
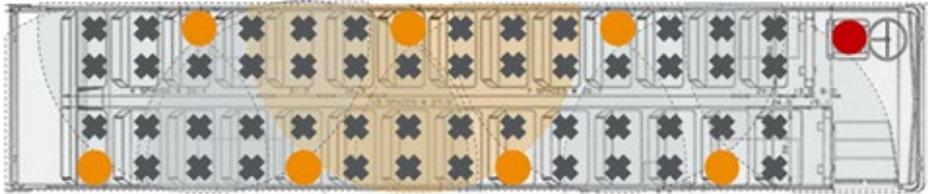
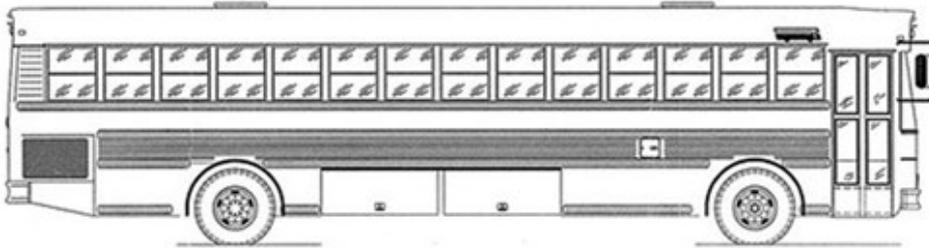
## ▶ BUS CAPACITY AND PROTOCOLS

### Some Protocols in Use

- Sanitizers on each bus for students and driver.
- Driver protected by plexiglass.
- Students wearing masks.
- Driver wearing a mask.
- Driver checking temperatures, to ensure that no student with a fever rides or goes to school.
- Disinfecting bus between routes.
- Socially distancing on the bus, reducing bus capacity.
- Permitting family members to sit together to increase bus capacity.
- Maintaining bus passenger logs to enable contact tracing.
- Running more bus routes to stagger arrival times at schools.
- OTHER???



# Transportation Implications



Normal School Bus Capacity	Social Distance Absolute Maximum Capacity	Minimum Capacity Reduction
56 (14 rows x 4 seats)	7 (1 student every other row, alternating sides)	-88%

**Is more generous spacing reasonable with mask protocols?**

CDC social distancing 'tips' for masks: Keep at least 6 feet between yourself and others, even when you wear a face covering.



ASSESS. PLAN. FUND. BUILD



CANNONDESIGN



# BUDGETING

## ▶ WORKING BUDGET FINDINGS

- Operating a school under corona health and hygiene guidance adds an estimated \$375 per student.
  - Communication and planning
  - Staffing
    - health and hygiene
  - Equipment
  - Supplies
- **EXCLUDES** increased costs for instructional staff and for technology and other off-site learning costs.

## SAMPLE BUDGET WORKSHEET – EDITABLE VERSION FORTHCOMING

Detailed description of the expense	Type of unit	# of units	Unit cost \$	Unit of time	Freq	Total cost
Engage educational facilities space planners to help reorganize space and furniture to operate at recommended levels of social distancing.	district	1	\$7,500.00	1	1	\$ 7,500
Engage facilitators and communications professionals to help convene COVID committees in your communities and schools.	district	1	\$7,500.00	1	2	\$ 15,000
Increase nurses in schools to provide a FT nurse in every public school.	school	8	\$50,000.00	1	1	\$ 400,000
Extend hours for nurses to at least 1 hour into aftercare period.	aftercare	5	\$35.00	180	1	\$ 31,500
Add at least one more custodian per school.	district	17	\$56,000.00	1	1	\$ 952,000
Hand sanitizers for students entering the bus.	student	3,117	\$0.02	180	2	\$ 22,444
Disinfectant wipes for classrooms--4 wipes per classroom per day.	classroom	390	\$0.06	180	4	\$ 16,833
Hand sanitizers for students in classrooms.	students	7,793	\$0.02	180	3	\$ 84,164
Daily disposal masks to in-school staff	school Staff	700	\$0.75	180	1	\$ 94,500
Disposal masks to students who do not bring them from home.	students	7,793	\$0.75	180	30%	\$ 315,617
No touch thermometer to check body temperatures.	school	17	\$80.00	1	1	\$ 1,360
One oximeter per school.	school	17	\$45.00	1	1	\$ 765
Provide gloves to custodians (one custodian per 20,000 GSF)	custodian	56	\$0.10	180	5	\$ 5,040
Provide electrostatic disinfectant sprayers one per school.	school	17	\$4,200.00	1	1	\$ 71,400
Install protective clear plastic protector in front office.	school	17	\$1,000.00	1	1	\$ 17,000
If a school site has a case of COVID, deep clean the site.	school	1	\$6,500.00	1	1	\$ 6,500
Resume after and before school childcare with added cleaning, and social distancing.	student	3,117	\$225.00	1	1	\$ 701,370
Prepare site markings on sidewalks, and play areas, using cones, ropes, and paints.	school	17	\$100.00	1	2	\$ 3,400
Develop and post guidelines for visitors and parents who enter the school.	district	17	\$3.00	1	4	\$ 204
Prepare and post signage on school and bus space use and wayfinding in schools for staff and students.	district	1	\$1,500.00	1	1	\$ 1,500
Make site landscaping improvements to support outdoor classrooms and activities.	school	17	\$5,000.00	1	2	\$ 170,000
<b>TOTAL (\$374 per STUDENT ESTIMATE)</b>						<b>\$ 2,918,097</b>



# SMALL GROUP WORK

**What concerns do you have about being able to develop, communicate, and implement a corona-capacity with your community?**

► 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](mailto:mfilardo@21csf.org)

with resources as:

[www.facilitiescouncil.org](http://www.facilitiescouncil.org) and [www.buildusschools.org](http://www.buildusschools.org)

and/or

David Sturtz at: [dsturtz@coopstrategies.com](mailto:dsturtz@coopstrategies.com)

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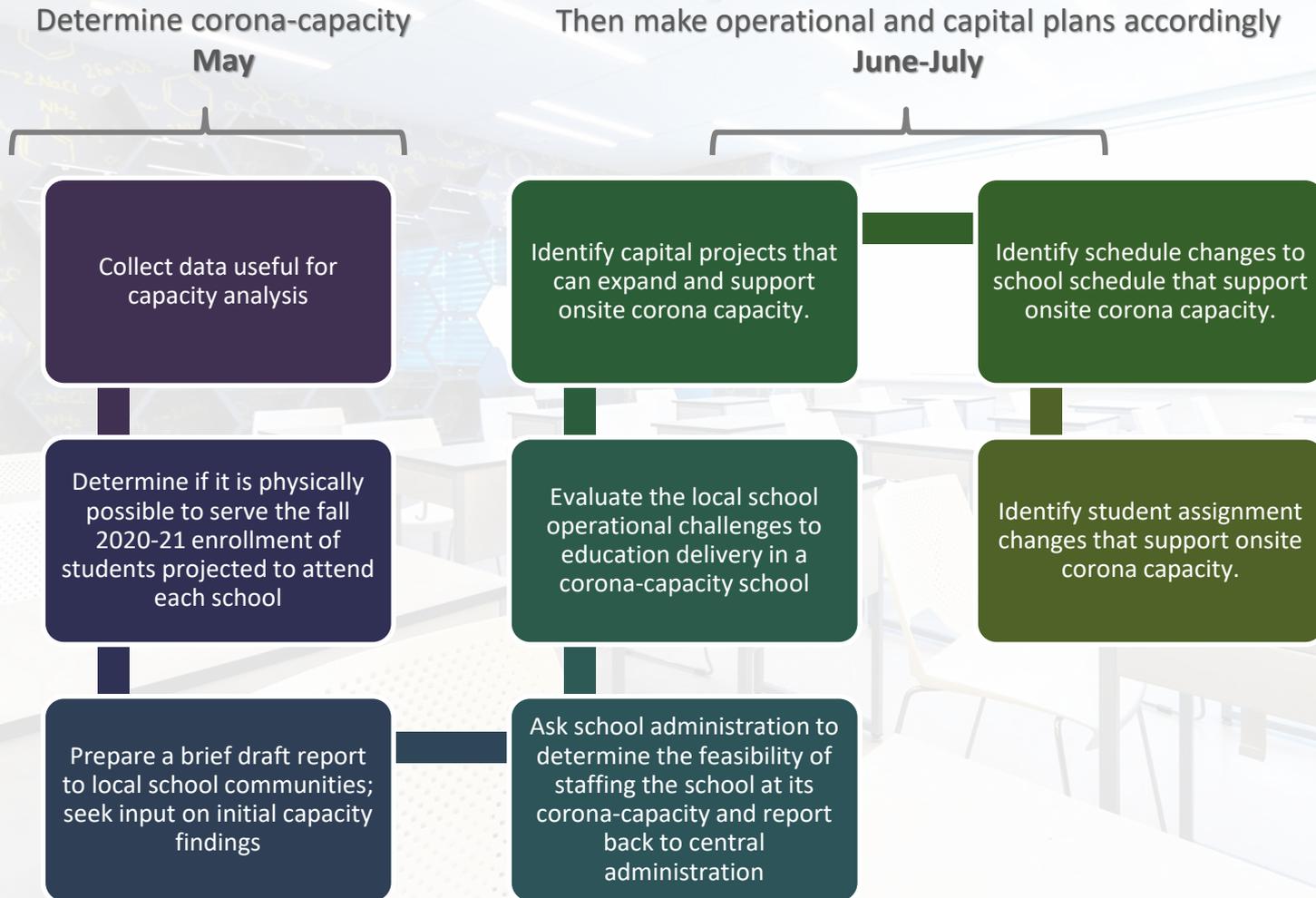
@cooperativestrategies



# APPENDIX

Re-opening strategy slides | minor modification from 5/7/20  
Budget slides from 5/7/20

## ▶ REOPENING STRATEGY STEPS



## ▶ 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.

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

- 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.
- **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.

- Engage local community (principals, staff, parents, and students) on the assumptions and findings for corona-capacity of their schools
- Seek input from local school communities on staffing, concerns about equity, safety, and feasibility
- **Identify other stakeholder partners than can provide potential space adjacent to the campus (e.g., office/retail, higher education, library, etc.)**



## ▶ 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



Community Support



Facilities Operations



Off-Site Social Distancing



On-Site Social Distancing



Public Health Protocols



Dynamic spreadsheet to be provided