

# School Reopening Update

November 2, 2020

## Internal Factors

Building &  
Ventilation  
Achieve “Low  
Risk” Score

In-Person  
Social  
Distancing  
and Other  
Safety  
Measures In  
Place

Start  
Phased  
Re-Opening

Routine COVID-  
19 Testing and  
Contact Tracing  
Protocols  
Operational

## External Factors

Community  
Transmission Rates  
Positive percentage in  
school  
Evolving science and  
research  
Availability of material  
and human resources



**Internal  
Factors**

In-Person  
Social  
Distancing  
and Other  
Safety  
Measures In  
Place

# Safety Measures

- ▶ School & Classroom Setup
  - ▶ Desks & tables spaced 6 feet apart - ✓
  - ▶ Sinks or sanitizer stations in classrooms - ✓
  - ▶ Virus shields placed in some high traffic areas - ✓
  - ▶ Isolation room in every school - ✓
  - ▶ In-building protocols - ✓
- ▶ Enhanced Cleaning
  - ▶ Plan for enhanced daily cleaning & sanitizing - ✓
  - ▶ DPW purchased more electrostatic sprayers to disinfect buildings - ✓

# Safety Measures – continued

- ▶ Masks, Face Shields, Gloves
  - ▶ SPS has ordered 270,000 masks that meet BOH health and safety guidelines; 24,000 pairs of gloves; and hundreds of face shields - ✓
- ▶ Bus Transportation
  - ▶ Significantly limited; One student per row on bus



**Internal  
Factors**

Building &  
Ventilation  
Achieve “Low  
Risk” Score

# Building Assessments - Update

- ▶ Sequenced and prioritized the work by building based on technical difficulty & program support
  - ▶ Group 1: Argenziano, Capuano, West
    - ▶ Achieve low risk status and open on Dec 1
    - ▶ Complete additional work after Dec 1
  - ▶ Group 2: East, SHS Mods
    - ▶ Achieve low risk status and open ASAP
  - ▶ Group 3: Healey, Kennedy, Winter Hill
    - ▶ Complexity of building systems will require more time

# Building Assessments - Update

- ▶ Buildings NOT included in ventilation upgrade plan
  - ▶ New SHS
    - Turn building over from construction team to SPS in December (except auditorium)
    - SPS working on space planning and phased occupancy
  - ▶ Brown School
    - Long-term planning will begin immediately following near-term work



# Building Assessments - Update

- ▶ Received bids:
  - ▶ Group 1 – Week of Oct 26
- ▶ Reviewed Group 1 contractor workplan/schedule
  - ▶ Validated that work projected for Dec 1 achieves ventilation threshold
  - ▶ Validated work performed for additional resilience after Dec 1 can be completed while occupied
  - ▶ Relocation strategy focuses on Phase 2 & 3 (SPED, ELL, K-2)

# Argenziano – Work plan

- ▶ Current Argenziano: Extensive centralized air handling
- ▶ Centralized air handling systems (3 classroom zones, gym, library, kitchen, cafeteria)
  - ▶ Upgrade from MERV-8 to MERV-14
    - MERV: Minimum Efficiency Reporting Value
    - MERV-8: 84.9% of 3.0 to 10.0 microns
    - MERV-14: 90+% of 1.0 to 3.0 microns, 75% of 0.3 to 1.0 microns
  - ▶ Install unit-mounted UV and humidifiers
    - Requires electrical upgrades
  - ▶ Rebalance and retro-commission systems

# Argenziano – Work plan

- ▶ Rooms not on centralized systems
  - ▶ Portable HEPA air filtration units
  - ▶ Portable humidifiers
- ▶ Nurse / wellness suite
  - ▶ Install new exhaust fan with 10' discharge stack on roof
  - ▶ Install new exhaust duct work
  - ▶ Disconnect from central return system
- ▶ Additional measures
  - ▶ 34 CO2 sensors to monitor performance
  - ▶ 133 wall-mounted UV units for surface/air disinfection overnight

# Capuano – Work plan

- ▶ Current Capuano: Mix of centralized and in-room air handling
- ▶ Centralized air handling systems (4 zones)
  - ▶ Upgrade from MERV-8 and MERV-11 to MERV-14
  - ▶ Install unit-mounted UV and humidifiers
    - Requires electrical upgrades
- ▶ Unit air handling systems (24 classrooms)
  - ▶ Increase outside air percentage
  - ▶ Portable HEPA filters & humidifiers
- ▶ Rebalance and retro-commission systems
  - ▶ 4 central, 24 unit, 15 exhaust fans

# Capuano – Work plan

- ▶ Nurse / wellness suite
  - ▶ Install new exhaust fan with 10' discharge stack on roof
  - ▶ Install new exhaust duct work
  - ▶ Disconnect from central return system
- ▶ Additional measures
  - ▶ 40 CO2 sensors to monitor performance
  - ▶ 40 wall-mounted UV units for surface/air disinfection overnight

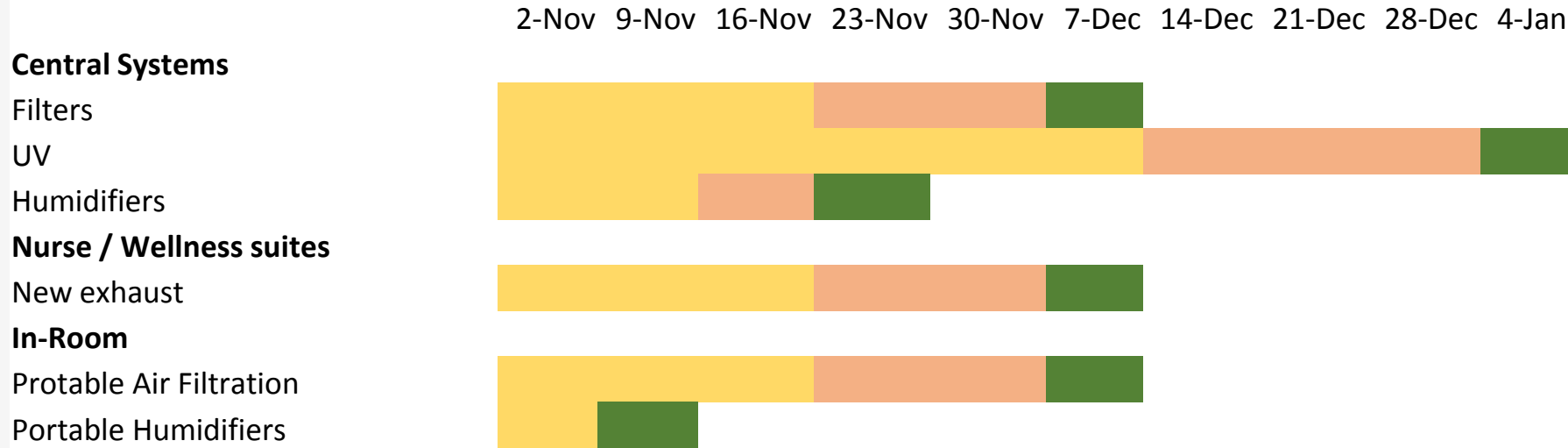
# West – Work plan

- ▶ Current West: Mix of centralized and in-room air handling
- ▶ Centralized air handling systems (6 zones)
  - ▶ Increase outside air percentage (5 zones)
  - ▶ Upgrade from MERV-8 to MERV-13 (5 zones)
  - ▶ Install unit-mounted UV (2 zones)
  - ▶ Install duct-mounted humidifiers (5 zones)
- ▶ Unit air handling systems (29 rooms)
  - ▶ Increase outside air percentage
  - ▶ Portable HEPA filters & humidifiers
- ▶ Rebalance and retro-commission systems
  - ▶ 6 central, 29 unit, 10 exhaust fans

# West – Work plan

- ▶ Nurse / wellness suite
  - ▶ Install new exhaust fan with 10' discharge stack on roof
  - ▶ Install new exhaust duct work
  - ▶ Disconnect from central return system
- ▶ Additional measures
  - ▶ 32 CO2 sensors to monitor performance
  - ▶ 50 wall-mounted UV units for surface/air disinfection overnight

# Group 1 – High level schedule



## ▶ Legend

Equipment lead time

Work in progress

Work complete

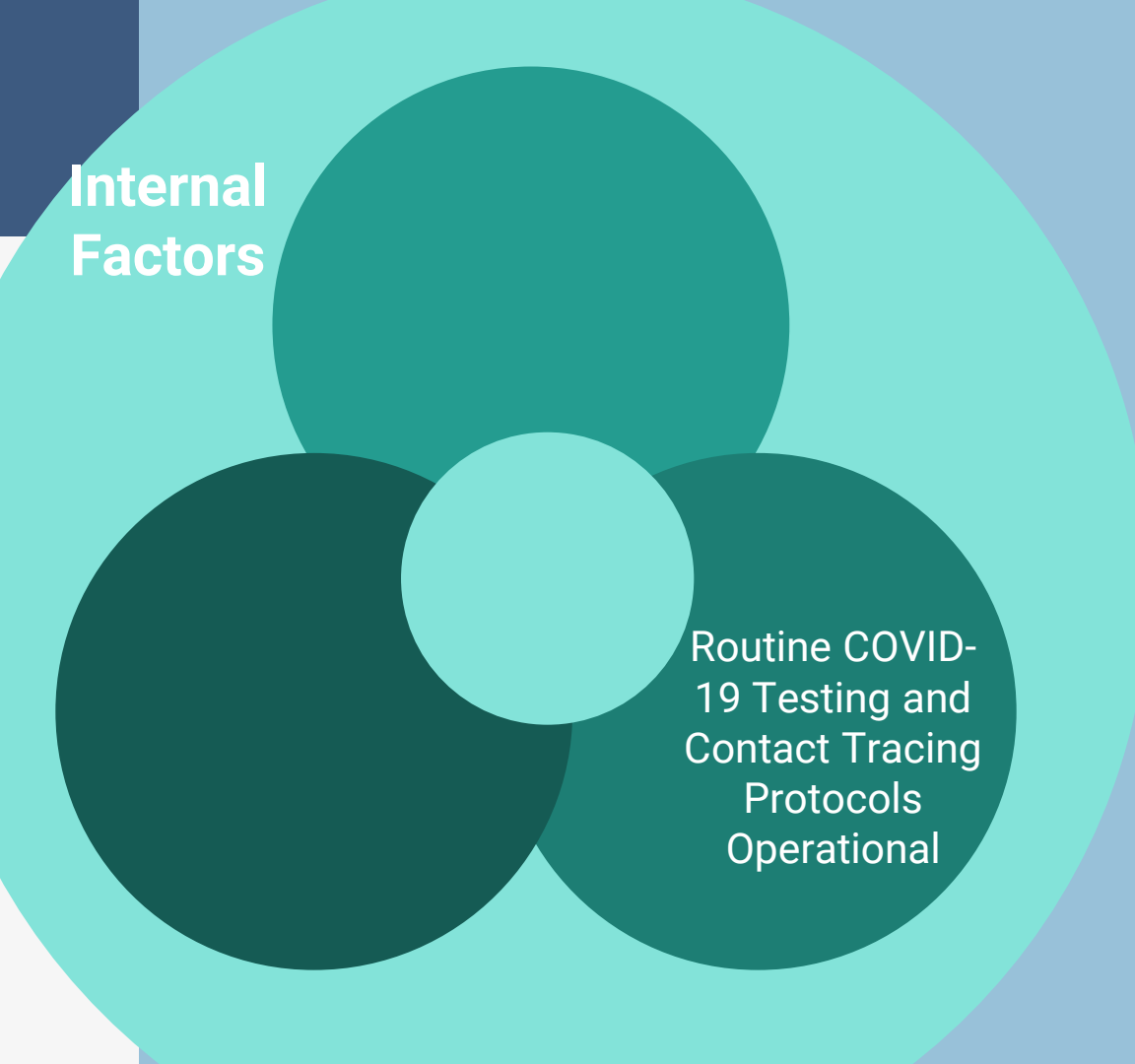




# Building Assessments - Next Steps

- ▶ Process contract for Group 1
- ▶ Receive bids:
  - ▶ Group 2 – Week of Nov 2
  - ▶ Group 3 – Week of Nov 9 or Nov 16
- ▶ Review contractor workplan/schedule
  - ▶ Project occupancy dates for each building
  - ▶ Develop relocation strategy for grades 3-12
- ▶ Release assessment for Group 1 buildings early next week; final detailed workplans to follow in the next few weeks
  - ▶ Subsequent groups to follow after bids are received and workplans are finalized

**Internal  
Factors**



Routine COVID-19 Testing and Contact Tracing Protocols Operational

# Benefits of routine public testing in schools

- ▶ Identify COVID-positive individuals who are asymptomatic and pre-symptomatic to prevent further spread in school and community
- ▶ Rule out COVID-19 for individuals who present COVID-19-like symptoms, allowing earlier return to school
- ▶ Baseline and frequent testing helps to evaluate the effectiveness of 6-foot distancing protocols and inform school decisions moving forward

# Testing Goals & Objectives

## Goals

- ▶ SPS provides a sustainable school reopening so students can remain in school throughout the year
- ▶ Testing will be integrated into school practices in a way that minimizes disruption to the school day and learning environment and supports compliance

## Objectives

- ▶ Ensure everyone returning to school is COVID negative
- ▶ Identify and isolate asymptomatic and pre-symptomatic individuals who are COVID positive
- ▶ Ensure equitable access to rapid turnaround testing for symptomatic individuals
- ▶ Conduct robust contact tracing including for staff who live outside of Somerville

# Criteria Used to Select Approach + Testing Partner

- ▶ **Flexibility:** Partner and City/SPS have ability to change approach to adapt to changing phases and situation
- ▶ **Sustainability:** We have the ability to maintain logistics and cost over time
- ▶ **Acceptability:** Staff and students feel comfortable taking the test; it is as non-invasive as possible and individuals can easily access the tests
- ▶ **Reliability:** We have confidence in the results we are getting (high specificity is especially desirable)
- ▶ **Ability to test minors:** Partner has ability to work with a student population
- ▶ **Rapid results:** Test results are ideally returned within 24 hours after receipt of samples

**Criteria used to evaluate 23 testing options**

# Tests Considered

	<b>Project Beacon/Broad</b>	<b>CIC/Broad</b>	<b>Mirimus/RTW Services</b>
<b>Flexibility</b>	End-to-end: 2 month commitment 200 tests/site/week Assumes indoor facility	100 tests/month \$800 per site set up fee	Wait list until early December, no redlines on contracts
<b>Sustainability</b>	<\$37 (core) - < \$67 (end-to-end) City hires Cataldo to administer test (core)	\$45/\$40 same ind 4X per month/\$37 (UMN) City hires Cataldo to administer test	\$15/head for pool of 24 +\$30/head for pool of 2 +\$4-\$12 per test (RTW to ind) City administers test
<b>Acceptability</b>	Anterior nasal	Anterior nasal	Saliva, pooled
<b>Reliability</b>	PCR: 100% all	PCR: 100% all (checking UMN test)	PCR: 100% all
<b>Ability to Test Minors</b>	Yes	Yes	Yes
<b>Rapid Results</b>	24 hours, local lab	24 hours/24 hours from receipt of overnight sample (UMN)	12-24 hours from receipt of overnight sample (pools of 24) +12-24 hours (pools of 2)

# Tests Considered

	<b>JCM Analytics</b>	<b>Boston Heart Diagnostics/ Clinical Enterprise/ Rapid Reliable Testing</b>
<b>Flexibility</b>	No minimum contract duration, no minimum tests	Willing to work with district to expand into pooling, financial penalty if don't hit turnaround time
<b>Sustainability</b>	\$15-\$17/head for pool of 10-20 \$122 per reflex test for pool if positive City hires Cataldo to administer test	\$50 at cost + RRT wrap around services
<b>Acceptability</b>	Anterior nasal, pooled	Anterior nasal
<b>Reliability</b>	PCR: 100% all	PCR: 100% all
<b>Ability to Test Minors</b>	Yes	Yes
<b>Rapid Results</b>	Within 24-48 hours of pick up from site, includes overnight shipping	24-36 hours, local lab

# Tests Considered

	<b>Ginkgo Bioworks/ Immune Observatory</b>	<b>Tufts University/ Broad/Cataldo</b>
<b>Flexibility</b>	Legal agreement between district and Ginkgo for in kind donation, can book now for November but likely not Thanksgiving week	Incentive to work with Somerville, developing methodology for surrounding communities targeting Somerville and Medford, ongoing relationship
<b>Sustainability</b>	Free, one-time donation for staff baseline only City administers test	\$25 per individual test (shared cost = \$12.50), \$40 per pool of 8-?, City hires Cataldo to administer test at \$75 per staff per hour and \$28 PPE per staff per day
<b>Acceptability</b>	Saliva	Anterior nasal Anterior nasal, pooled
<b>Reliability</b>	PCR: 100% all	PCR: 100% all
<b>Ability to Test Minors</b>	No	Yes
<b>Rapid Results</b>	Within 24-72 hours, includes overnight shipping	Within 24 hours, local lab



# Current Recommended Testing Approach

- ▶ **Baseline:** Tufts + Broad individual PCR anterior nasal testing; Cataldo swabbing (students); Ginkgo Immune Observatory (staff)
- ▶ **Screening, December 2020+:** Tufts + Broad PCR, anterior nasal; Cataldo staff performing swabbing
  - ▶ 2x / week for most staff
  - ▶ 1x / week for students
- ▶ **Symptomatic:** HHS will facilitate appointment with CHA/mobile testing

**Robust contact tracing essential component throughout**

# Testing Costs

- ▶ Individual tests = \$12.50 (includes 50% cost share with Tufts)
- ▶ Pooled tests = \$40 for pool of 8-13
- ▶ + Administration costs

# Testing Schedule

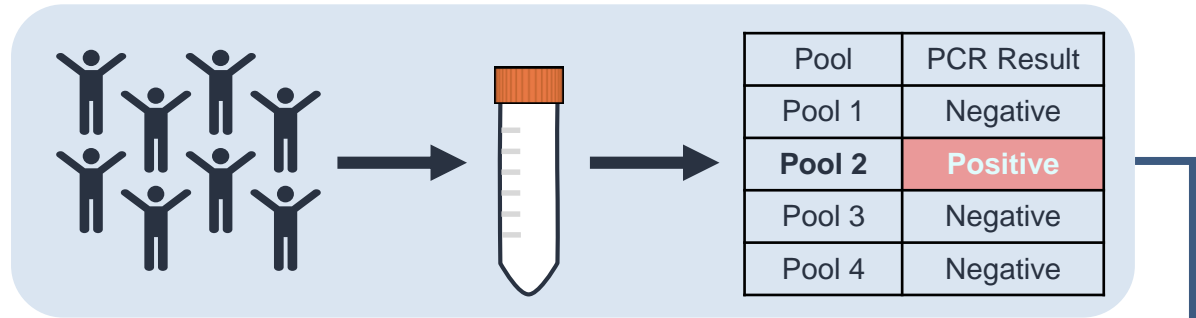
- ▶ Scheduling testing will be offered Tuesdays and Fridays
- ▶ Testing will be held in the gym
- ▶ Each classroom will be assigned a set testing time

<b>Tuesdays</b>	<b>Fridays</b>
<ul style="list-style-type: none"><li>• Phase 2a+b teachers</li><li>• Phase 2a+b students</li><li>• Cohort A students</li><li>• Phase 3+ teachers</li><li>• All staff</li></ul>	<ul style="list-style-type: none"><li>• Cohort B students</li><li>• Phase 3+ teachers</li><li>• All staff</li></ul>

# What Is Pooled Surveillance Testing?

- Polymerase Chain Reaction (PCR) test for SARS-CoV-2
- Evaluating a group of samples together
  - Equally sensitive
  - Efficient
  - Reliable

Pooled testing



**As-needed  
confirmation of  
positive pools**

Members of **Pool 2** to be tested  
individually



# How Does Pooled Testing Work?

- ▶ Tests for students in a classroom plus their teacher are combined and tested as one pool (up to 13 people)
- ▶ If the pooled test comes back positive, everyone in the pool receives an individual test
- ▶ HHS will notify members of the positive pool to schedule individual test
- ▶ Everyone in the pool will need to quarantine until positive individuals are identified
  - ▶ Positive individuals will isolate for 10 days after positive test result
  - ▶ Contact tracing will determine whether other students or staff outside of the pool
- ▶ The classroom with a positive pooled test will be shifted to remote learning for 2 weeks

# Quarantine vs. Isolation

## Quarantine = 14 days

- ▶ Quarantine keeps someone who was in close contact with someone who has COVID-19 away from others
- ▶ Full quarantine must be observed even after NEGATIVE test result
- ▶ Quarantine period starts after exposure to infectious COVID-19 POSITIVE individual

## Isolation = 10 days

- ▶ Isolation keeps someone who is sick or tested positive for COVID-19 without symptoms away from others, even in their own home.
- ▶ Isolation period starts after symptoms develop or POSITIVE test result

# Will close contacts outside school be tested?

- ▶ Somerville residents will be encouraged to get a free test through CHA/mobile clinic
- ▶ Exploring option to offer home visit for testing for household contacts
- ▶ Non-resident staff will be directed to Stop the Spread sites

<https://www.somervillema.gov/covid19testing>  
<https://www.mass.gov/info-details/stop-the-spread>

# Board of Health – Draft Testing Order

- ▶ Board of Health meeting tonight (November 2) to deliberate on a draft order requiring testing in K-12 schools in Somerville
  - ▶ Requires schools to submit a COVID-19 transmission prevention plan to the Board of Health
  - ▶ Must require ongoing testing of teachers, employees, and others providing ongoing services in school buildings



# Board of Health – Draft Testing Order

- ▶ COVID-19 transmission reduction plan (cont.)
  - ▶ Must provide a detailed testing protocol to identify and isolate students who are COVID-19 positive
    - Includes asymptomatic, pre-symptomatic, and symptomatic students
  - ▶ Exemptions allowed for individuals with contraindications documented by physicians
  - ▶ Requires both students and teachers to get the 2020 seasonal flu vaccine

# Testing Policy – next step

- ▶ The City's Incident Command System will provide written policy recommendations – which includes the details of the testing protocol – this week
  - ▶ This recommendation will be consistent with the Board of Health order and the testing protocol developed by the Testing Working Group