



Reopening America: Strategies for Safer Polling Places

Overview

The pandemic presents new challenges for polling places and voting centers during the 2020 general election. While many may choose to vote via mail-in ballots, others will cast their votes in-person at their local precinct. Frequently polling places are set up in local churches, gymnasiums, schools, libraries and other public buildings. Inside, spaces are modified to accommodate check-in tables, equipment, voting booths for paper as well as electronic voting, and scanning stations. Entrances and sidewalks outside typically become waiting areas on Election Day, littered with voters waiting in lines. During 2020, election administrators and poll workers will need to address additional modifications and new procedures to reduce the transmission risk of COVID-19. This report provides a menu of mitigation strategies that can help election administrators make these spaces safer for voters and poll workers alike.

5-Booth Classroom (1,600 sq. ft.)

The numbered strategies below reference the [AIA Re-occupancy Assessment Tool](#) framework.

3.1.3 Voter services table and additional ADA voting booth. Ensure equitable accommodations that facilitate the same voting experience for all users. If necessary, relocate ADA voting area to space in hallway or lobby for voters with disabilities.

Optical ballot scanner.

3.2.5 One-way traffic flow.

3.2 Locate voting booths and equipment such that no person is closer than 6' to another.

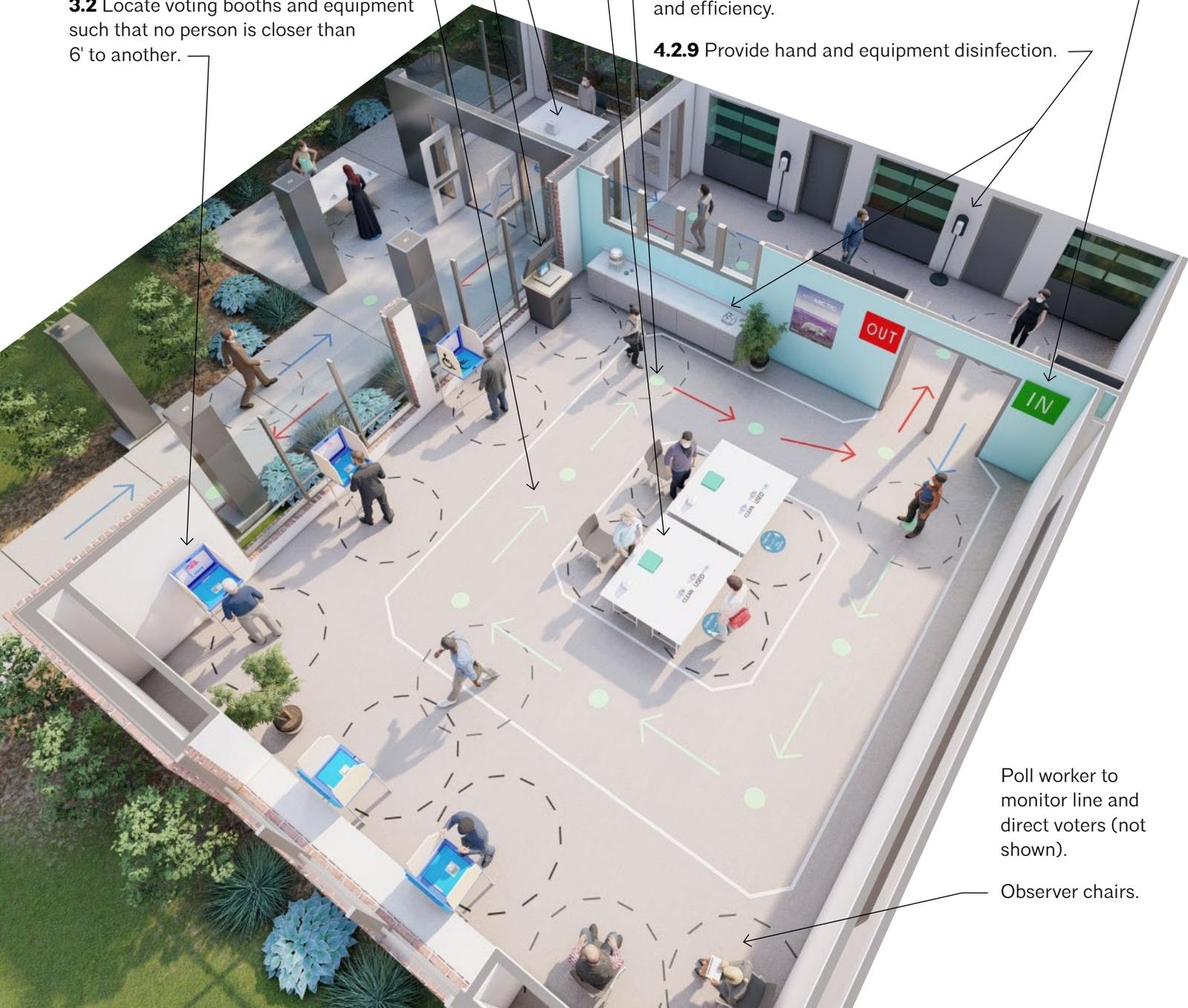
General note: See "Risk-reduction strategies" for information on other engineering and administrative strategies including mechanical ventilation and disinfection.

3.2.1 and **3.8** Check-in tables: equipped with poll book and/or Poll Pad, (2) jars for dirty and clean pens, hand sanitizer, and closed ballot box. Provide second folding table to increase horizontal distance between staff and voter.

3.4.3 Floor markings: dots indicate 6' distance between individuals; demarcate path circulation with tape or other visual indication of safe routes.

3.3.1 Separate entry and exit doors provided for safety and efficiency.

4.2.9 Provide hand and equipment disinfection.



Poll worker to monitor line and direct voters (not shown).

Observer chairs.

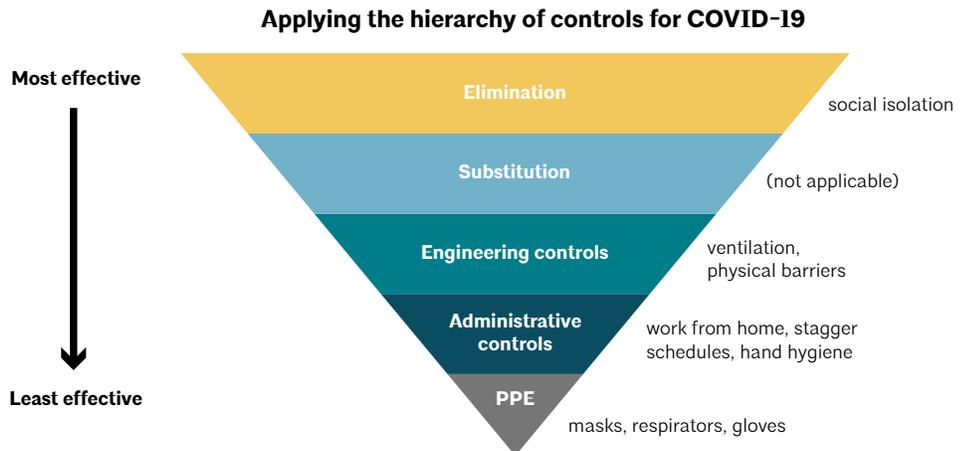
Risk-reduction strategies for polling places and voting centers

The following list of strategies (controls) is provided for consideration by election administrators before, during, and after in-person voting has occurred.¹ Strategies may or may not apply to every situation. Any application of the polling place operations and layout modifications should occur in accordance with state and local statutes and COVID-19 guidelines.

This planning guidance is based on both traditional infection prevention and industrial hygiene practices; it is advisory in nature and informational in content. The intent is to describe considerations to reduce the risk of occupant exposure to SARS-CoV-2, the virus that causes COVID-19 disease cases, in workplaces and places of public accommodation.

The American Institute of Architect's (AIA) [Re-occupancy Assessment Tool](#), on which these strategies are based, uses the Centers for Disease Control and Prevention's (CDC) "Hierarchy of Controls" framework to select ways of controlling workplace hazards. It proposes that the most effective way of controlling hazards is to systematically remove the hazards rather than primarily relying on workers or the public to reduce their own risk of exposure. In most cases, a combination of control measures will be necessary.

Adapted from NIOSH



1. The list of controls are based on [AIA's Re-occupancy Assessment Tool](#). Numbers in parentheses represent corresponding sections of the AIA Re-occupancy Assessment Tool. Controls also include guidance from the [CDC's Considerations for Election Polling Locations and Voters](#).

20-Booth Gymnasium (6,000 sq. ft.)

The numbered strategies below reference the [AIA Re-occupancy Assessment Tool](#) framework.

General note: See "Risk-reduction strategies" for information on other engineering and administrative strategies including mechanical ventilation and disinfection.

3.10 Provide entry queuing areas with ample spacing that also minimizes exposure to inclement weather.

4.2.9 Provide sanitization stations.

4.2 and **4.3** Staff to take breaks outside the main polling room, including consumption of food.

3.2.1 and **3.9.1** Check-in tables: Equipped with poll book and/or Poll Pad. Coordinate with a design and construction professional for adequate support and secure attachment of transparent screen between voter and staff. Alternative: provide (2) back to back tables.

3.4 Floor markings: dots indicate 6' distance between individuals; demarcate path circulation with tape or other visual indication of safe routes.

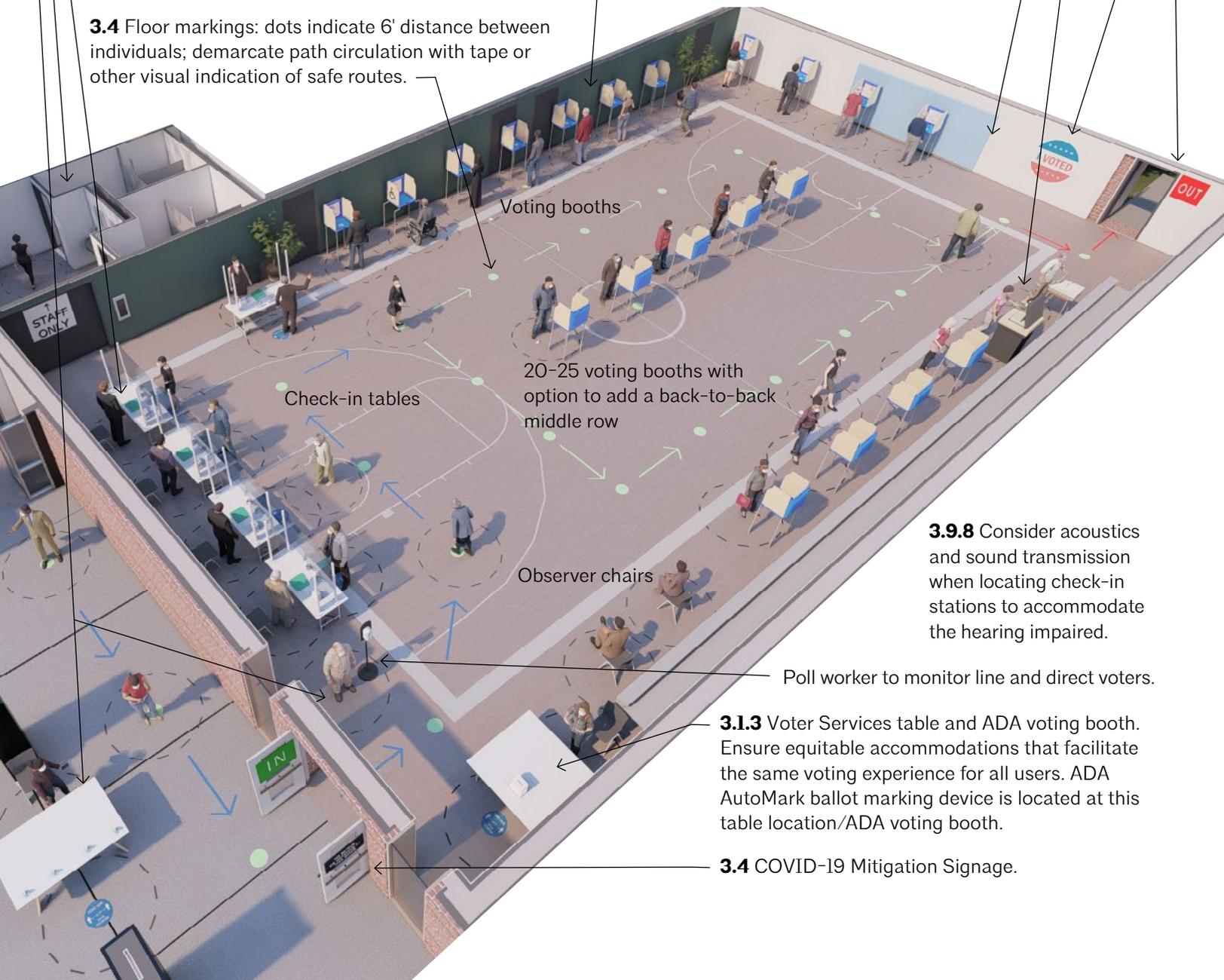
3.2 Locate voting booths and equipment such that no person is closer than 6' to another.

3.10 Designated building ingress and egress pathways support separated traffic that also provide ADA accessibility.

"I voted" stickers or alternative voter engagement method.

Two optical scanners.

Alternative placement for optical scanners.



3.9.8 Consider acoustics and sound transmission when locating check-in stations to accommodate the hearing impaired.

Poll worker to monitor line and direct voters.

3.1.3 Voter Services table and ADA voting booth. Ensure equitable accommodations that facilitate the same voting experience for all users. ADA AutoMark ballot marking device is located at this table location/ADA voting booth.

3.4 COVID-19 Mitigation Signage.

Architectural and engineering strategies for polling locations and voting centers

Polling place/voting center selection (3.1)

- Utilize large interior, traditionally active spaces. (3.1.1)
 - » Utilize rooms in polling locations for in-person voting that have higher ceilings (i.e., higher than eight feet) and larger volume.
- When feasible, utilize appropriate spaces outside the polling room (e.g., outside, hallway, lobby, etc.) for information, sanitization, and other in-person voting processes. (3.1.3)

Space planning (3.2)

- Locate check-in tables and voting equipment such that voters and poll workers are no closer than six feet from each individual. (3.2.1) Assume a two-foot diameter circle per individual.
 - » Stagger locations of voting booths/electronic voting machines and face the machines in the same direction, preferably along the perimeter walls, and not in the path and direction of the air flow of the supply and return air registers.
- Locate trash cans (preferably touch-free) near entrances, doors, and check-in stations. (3.2.4)
- Consider one-way traffic flow in common spaces, hallways, and entry and exit points, while keeping in mind that longer travel distances extend potential exposure and can pose challenges for voters with physical impairments. (3.2.5)
 - » If possible, make voter paths unidirectional so that voters do not cross paths.
 - » Demarcate a voter circulation path that is three-foot wide with a minimum five-foot turning diameter for turning ease and wheelchair access, such that the path does not overlap with the physically distanced space of an individual at check-in, ballot marking, ballot scanning, etc.
- Expand interior spaces where queues may form (e.g., check-in, ballot scanning). (3.2.7)

Non-structural partitions and openings (3.3)

- Where permitted, consider an exit separate from the entrance. (3.3.1)
- Utilize touchless entry capability where feasible. (3.3.4)

Signage (3.4)

- Display COVID-19 mitigation signage on the building's exterior to convey actions taken to protect public health. Use large-dimension, high-contrast characters on a non-glare surface for legibility. (3.4.1)
 - » Summarize healthy hygiene, cleaning, and sanitization practices.
 - » Instruct voters to maintain a six-foot physical distance with others.

- » Encourage, if not require, voters to wear a mask or other face covering over their nose and the mouth.
- » Provide instructions for how voters flow through the polling process.
- Implement floor/pavement markings (e.g., tape, dots, or other temporary adhesive) to visualize the recommended six-foot spacing among voters and to clearly identify paths and routing for voters. (3.4.3)
- Post signage and/or floor markings that specify the direction of the voter path within the voting system. See ADA resource for recommendations to accommodate the visually impaired.² (3.4.4)
- Place conspicuous signage at entrances and throughout the polling location alerting occupants to the required occupant limits, minimum physical distances, use of PPE, and other risk management policies. (3.4.6)

Plumbing and plumbing fixtures (3.5) (not applicable)

- See the [AIA's Reopening America: Strategies for Safer Offices](#) for recommendations for staff break rooms and restrooms.

Mechanical and passive ventilation (3.6)

- Utilize operable windows for natural ventilation if possible. (3.6.1)
 - » If any portable fans are used, be sure the air flow is directed away from individuals (e.g., facing out from a window). Blow air out of the polling location and away from the voters.
 - » Ensure that any ceiling fans do not create a draft on any individuals.
- Ensure ventilation systems operate properly and provide acceptable indoor air quality for the current occupancy level for each space. (3.6.2)
- Increase ventilation rates and air changes, where feasible. (3.6.4)
- Prioritize fresh air intake versus recycled air where possible by adjusting dampers, economizers, and AHUs. (3.6.5)
- Verify all restroom exhaust fans are operable and providing negative air pressure. (3.6.6)
- Consider a maximum number of occupants per HVAC zone. (3.6.7)
- Check filters to ensure they are within service life and appropriately installed. (3.6.8)
- Flush the building for two hours before occupancy in the morning or after occupancy in the afternoon/evening, where feasible. (3.6.11)
- Disable demand-controlled ventilation (DCV). (3.6.13)
- Consider the use of portable room air cleaners with HEPA filters. (3.6.14)

Electrical, lighting, and communications (3.7)

Appliances, equipment, and accessories (3.8)

- Provide equipment that supports physical distancing and decreases the spread of pathogens. (3.8.4)
 - » Provide easy-to-clean and/or single-use equipment (e.g., pens, headphones) when possible.
 - » Clean any equipment that is shared by voters (e.g., electronic poll books, voting booths, electronic voting machines, etc.) after every use.

Finishes and furnishings (3.9)

- Install physical barriers, such as clear plastic partitions or sneeze guards, where minimum physical distancing is not possible (i.e., at check-in tables, other areas where poll workers interact with voters, and between ballot-marking devices that must be located such that individuals are within six feet of each other). (3.9.1)
- Consider acoustics and sound transmission when locating check-in stations to accommodate the hearing impaired. (3.9.8)

Site work (3.10)

- Provide entry queuing areas with ample spacing that also minimizes exposure to inclement weather, including wind, sun, and precipitation. (3.10.2)
- Ensure the designated building/space ingress and egress pathways support clearly separated directional traffic that also provide ADA accessibility. (3.10.4)

Administrative controls

Policies (4.1)

- Accommodate occupants in CDC-defined higher health risk categories. (4.1.6)
 - » Make all accommodations in accordance with local and state rules and regulations.
- Develop an emergency communications plan as well as a pandemic and/or outbreak response plan. (4.1.1)
 - » Develop policies associated with how long a person should wait before becoming a poll worker after having a diagnosed or suspected case of COVID-19.
- Develop a procedure to report potential cases of COVID-19 to the local health department. (4.1.2)
 - » Gather and maintain contact information of poll workers to provide to local health departments for contact tracing purposes, if needed.
- Identify necessary revisions to human resource policies. (4.1.3)

- Develop organizational protocols governing what happens if a person at the polling location is found to be COVID-19 positive. (4.1.4)
- Provide poll workers with up-to-date education and training on COVID-19 and COVID-19 mitigation guidelines. (4.1.5)

Procedures to reduce the spread of pathogens (person-to-person) (4.2)

- Develop a protocol for screening for COVID-19 prior to poll workers working on election day.
- Poll workers who show symptoms of COVID-19 should not come to the polling place.
 - » Consider having additional poll workers “on-call” who can be dispatched to locations that are short on staff due to poll workers calling out sick or if voter turnout is larger than expected.
- Promote hand washing, physical distancing, and respiratory etiquette. Conversely, discourage handshaking or other close contact among all people in the polling system. (4.2.9)
 - » Provide alcohol-based disinfectants containing at least 60% alcohol throughout the system: at all check-in, information, and other service tables, and as a final step in the voting process, preferably via a touchless dispenser.³ (4.2.11)
- Restrict permitted activities to reduce exposure risk. All food should be consumed outside of the polling room. Discourage sharing of food. (4.2.17)

Procedures to reduce the spread of pathogens (transmission by objects) (4.3)

- Adjust poll worker hours to allow for periodic breaks throughout the day. (4.3.1)
 - » Poll workers should take breaks outside of the main polling room, washing hands before and after and frequently throughout the day.
- Regularly clean and disinfect high-touch surfaces. (4.3.2)
 - » Designate at least one poll worker to be responsible for sanitizing voting booths, machines, and other election technology.⁴ Designate at least one poll worker to ensure that hand sanitizer and soap dispensers are adequately stocked hourly.
 - » Poll workers at check-in should sanitize shared equipment (electronic poll book, pen, etc.) between the service of each voter.
- Avoid and/or severely limit the use of common equipment. (4.3.7)
- Where common equipment must be used, including braille signage and the tops/bottoms of ramps and stairs, perform frequent sanitization. (4.3.8)
 - » For paper ballots: give each voter a clean pen at check-in to use for ballot marking; ask voters to put dirty pens in a bin by the exit; disinfect and reuse as needed.

3. <https://www.cdc.gov/coronavirus/2019-ncov/community/election-polling-locations.html>

4. Vendor and manufacturer guidance on cleaning voting machines and other election technology should be followed at all times (U.S. Election Assistance Commission; <https://www.eac.gov/election-officials/vendor-and-manufacturer-guidance-cleaning-voting-machines-and-other-election>).

Personal protective equipment

Procedures to support physical distancing (4.4)

- Institute strategies that promote physical distancing. (4.4.1)
- Encourage those who are not voting or assisting voters to remain outside of the polling facility. (4.4.2)
- Implement occupancy-reduction policies and enforce the maximum occupancy limit. (4.4.3)
 - » Whenever possible, assign one or more poll workers to manage the line and encourage voters to maintain physical distance while waiting in the queue.

Personal protective equipment (PPE) and other health and safety equipment

- Provide face coverings, face shields, goggles, hand sanitizer, and gloves, etc. to poll workers, as needed.
 - » Monitor the supply of these resources and replace them when necessary.
 - » Wash or sanitize hands.
- Educate poll workers on proper use of facial coverings and other health and safety precautions.
- All poll workers should wear facial coverings while they are in the polling area or otherwise interacting with individuals.⁵

5. <https://www.cdc.gov/coronavirus/2019-ncov/community/election-polling-locations.html>

Recommended links

AIA Reopening America: Strategies for Safer Buildings tools and reports

URI VOTES tools: <https://web.uri.edu/urivotes/tools/>

Stanford-MIT Healthy Elections Project: <https://healthyelections.org/tools>

CDC: <https://www.cdc.gov/coronavirus/2019-ncov/community/election-polling-locations.html>

ADA: https://www.ada.gov/archive/votingscrn_old.pdf

ASHRAE: <https://www.ashrae.org/file%20library/technical%20resources/covid-19/ashrae-covid19-infographic-.pdf>

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3D illustrations were created by Samantha Flores, AIA, director of Corgan's Hugo—the firm's research and development platform leading an ongoing investigation into the future of design and innovation—and Sam Dodd, an architectural intern with Corgan.

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