

Background

On 12-10-21 this section on Doors was sent to PBC, project professionals, and others, in our letter covering multiple topics expressing our positions on the Fairbank Community Center Project. It is the section in **purple** below that we are considering in greater detail now.

Doors

Entrance to Senior Center – The COD looked at the entry doors and airlock design and wonder if it is sufficient to meet the needs of our community. While it is a positive thing that wider doors were requested in order to provide better margins for passage of mobility assistive equipment, the fact that there is only a single door for passage in and out of the air-lock area could present safety and circulation issues. The current Senior Center arrangement includes an airlock with two sets of double doors. On many occasions the double doors are both opened for simultaneous passage of people arriving and leaving. Though the airlock in the current design may be wide enough for a person to step aside to allow another to pass, only a single person may move through either doorway. Currently, when one activity starts and another ends, there can be a traffic jam in the Senior Center entrance area even with two sets of double doors. In the future community center, a single person getting through at a time is bound to result in worse congestion. Beyond the inconvenience that would cause, safety may also become a factor, particularly if the building requires evacuation in an emergency.

Automatic openers – At the forefront of automatic door opener technology are touchless door openers. One waves one's hand near the detector and a sensor activates the door to open. This is an advantage to a person holding on to a walker, a person who has dexterity or strength limitations, or a person whose hands are full. Entry doors are good candidates for such openers as are restroom doors and locker room doors.

On 01-10-22 Jennifer Pincus of the PBC included the following in an email that also included information and drawings related to the Universal Changing Rooms:

Concerning the restroom access controls and locks, there is a system called a "bathroom kit" that allows touchless push buttons and an integrated "occupied" light. The touchless button's sensor's sensitivity can also be adjusted so only motion a foot away is picked up. Either way, when the door is locked on the inside, the door won't open. There is also the ability to override the lock.



Camden Door Controls CX-WC16 Touchless Switch Restroom System

On 01-18-22 Kay sent an email to Jennifer Pincus that included the following among other things:

I, personally, am excited to see those bathroom kits for touch-less door opening. I hope the system has a track record of reliable operation and that they are not outlandishly costly. These door openers would be of very high value to people with mobility devices, people with grasp limitations, and people with strength challenges. Some thought will be needed to design signage for people who are blind or visually impaired - to communicate how to operate the feature. If these can become the standard for the bathrooms throughout the building, that would be wonderful.

Current Information

[Jennifer Pincus sent this by email 02-22-2022

Hi Kay,

Chris is away from his email today, but I didn't want to hold you up so am attaching the floor plan and will try to answer your questions.

Chris, please correct me if I get any of this wrong.

We are proposing to limit the door openers (the powered type that Rachel sent you cut sheets for) to 5, in the following locations:

- **1 WC in SPS**
- **2 WC's in the Senior Center**
- **1 WC in the group of restrooms across from the Preschool**
- **1 WC in the Rec corridor between the gym and Program rooms**

There is no code requirement to make every WC in the building accessible, but each restroom is a single user room and will otherwise be fully accessible, .

Dennis has asked about also providing one at the outdoor camp restrooms, but we have to discuss this further with Rachel to see if it's possible, as these rooms do get locked.

Chris has indicated that the price of these openers is in the neighborhood of \$6000 each! As an alternative, he also suggested a different type of door assist that is not fully touch free but still makes the door much easier to open. These types of openers are much less costly. We have asked BH+A to look into this option and are awaiting feedback and information to send to you. You may be familiar with them as well? I believe they require one to operate the lever but there is a power assisted opener so the door requires less force to push open. We will confirm what BH+A proposes as soon as we hear back from them.

We look forward to your report from tomorrow's meeting.
Jennifer

On 2/23/22 We received this:

Concerning options for the single-use restroom door hardware, in general, hardware that requires electricity is more expensive. This includes powered door operators.

These are options for the doors:

Option 1: Closer, Push Plate, Door Pull and Deadbolt Privacy Indicator

Pros: This option requires no electricity and is thus the least expensive option.

Cons: The closer would help mediate the force needed to open the door but not provide much assistance for someone who has limited mobility or strength.

The privacy indicator would be turned by hand, which might be challenging to someone with limited dexterity.

Option 2: Power Assist and Accompanying Door Hardware

Pros: This option requires electricity or a battery, and therefore has an additional cost, but is less expensive than option 3 below. I would estimate it is about \$4,000 more expensive than the first option.

Cons: The power assist door hardware still uses power and must be coordinated with the other door hardware, for example the door's locking mechanism.

This option requires the user to lock the door from the inside, similar to option 1, which might be challenging to someone with limited dexterity.

Option 3: Bathroom Kit

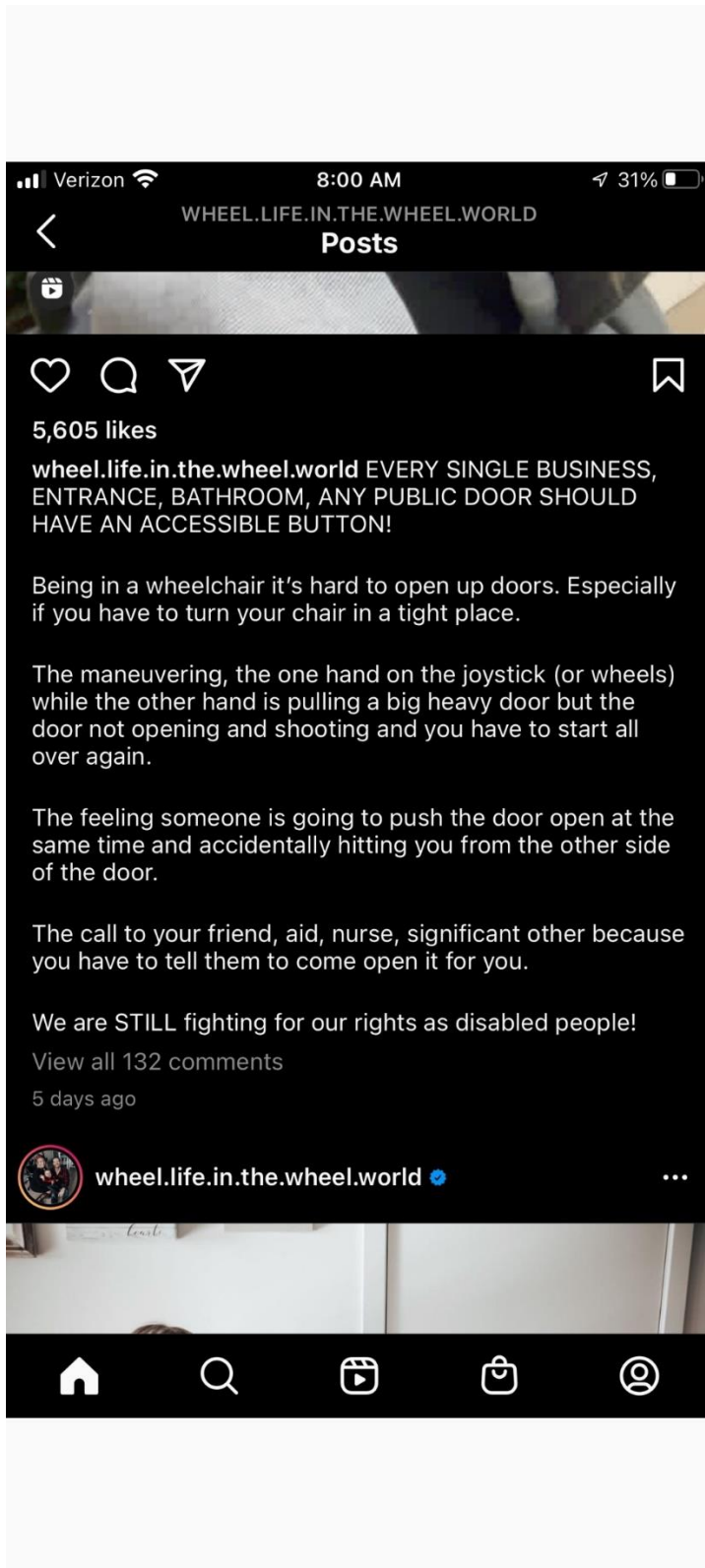
Cons: This option is the most expensive, and is estimated to cost \$5,500 more than the first option. This includes all hardware costs in addition to the cost of the controls.

Pros: With this option, the power assist is integrated into the locking mechanism because all the hardware comes together as a packaged kit. The user locks the door by pushing a button. There is an option to have touchless controls as well, similar to the CX-WC16.

[UBPK Package - Command Access Technologies](#)



Liesje kindly shared this information:



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wheel.life.in.the.wheel.world EVERY SINGLE BUSINESS, ENTRANCE, BATHROOM, ANY PUBLIC DOOR SHOULD HAVE AN ACCESSIBLE BUTTON!

Being in a wheelchair it's hard to open up doors. Especially if you have to turn your chair in a tight place.

The maneuvering, the one hand on the joystick (or wheels) while the other hand is pulling a big heavy door but the door not opening and shooting and you have to start all over again.

The feeling someone is going to push the door open at the same time and accidentally hitting you from the other side of the door.

The call to your friend, aid, nurse, significant other because you have to tell them to come open it for you.

We are STILL fighting for our rights as disabled people!

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(also 02-23-22)

Chris has weighed in with some clarifications that may be helpful to your discussion tonight:

1. There is no requirement for an operator on any interior door. Operators everywhere are an enhancement. The code requires that if the door has a closer, there is a maximum allowable opening force. As currently designed, all restroom doors will have closers, and do not exceed that maximum allowable opening force.
2. The cost per operator kit includes the operator, the locksets, the touch free pads (option 3) OR a push pad (option 2), all the wiring and accessories, and all the labor to install them. The addition of electrified hardware vs. a standard closer (option 1 or the currently designed hardware sets) adds an electrician's labor as well, and coordinating wiring pathways in all the parts of the door. This is a significant cost difference vs. a standard closer. We currently do not have detailed info that breaks down the cost of the door kits vs standard door hardware. The estimate used \$84,086 as the value for removing 5 locations, so the real premium is closer to \$16,800 PER DOOR as an add. We are looking for clarification from the estimator on this, but in the meantime just know that there are additional costs beyond the price of the kit for any operators that require power.
3. Regarding locking functions, the touch free push pad kit also includes the indicator light on the touch free push pad to say the door is locked and the kit system handles the complexities of the locks, operator and push pads working together for both opening and locking. Without the kit, a push pad (or lever latchset) would need another way to handle locking. Most ADA deadbolts have a raised throw on the inside to easily engage the bolt with a closed fist, which is an ADA requirement.
4. Regarding the costs of the three options, BH+A's hardware consultant did not think power assisted operators (option 2) were of significant enough cost savings over option 3 to consider them. We recommend limiting enhanced openers (of either type) to the following locations

- 1 WC in the program room corridor

- 3 WC's in the Senior Center

- 1 WC in the group of restrooms across from the Preschool

We do not recommend them in the UCR's as the doors from the corridor and pool will not have them. (For one thing, the corridor door will have access control hardware associated with it.)

(Jennifer) We ask for your input because we value your knowledge and experience, but this is a rather complicated design and estimating effort that takes many

other issues into account. The PBC will hear all the input and information and weigh the options before directing the design team to move in a particular direction.

Thank you for addressing this issue in a timely manner with this special meeting tonight. I hope this is enough information for your discussion.

Jennifer