BUROHAPPOLD ENGINEERING

## Equality, Diversity and Inclusion in the "next-Normal"

The appearance of COVID-19 has had a vast and powerful impact on society as we know it, drastically changing our lives in recent months and some of these changes are likely to have a permanent impact on our workplaces and the way we work.

This article looks at the COVID-19 returning to work situation from an inclusive perspective – there are key areas where consideration is needed to ensure the workplace remains an inclusive environment for everyone during this period of dynamic change.

Firstly, it is important to establish one point which has challenged many disabled workers already. "Vulnerable" is a word repeatedly heard over the last few months. "Clinically vulnerable" and "clinically extremely vulnerable" are now terms defined in official and everyday guidance and well understood. Some organisations seem to have interpreted vulnerability as automatically including all disabled people. The disabled population, however, are not homogenous and cannot be categorised as one; individuals are unique and may or may not be vulnerable to COVID, or any other situation. It is therefore very important that care is taken not to assume vulnerability, which can result in biased decisions about who can or cannot return to the workplace. With COVID-19, it is more likely that a person with a hidden health condition will be at risk (eg through age, respiratory conditions or diabetes) than someone with a visibly apparent disability, such as a wheelchair user. Additionally, there can be profound indirect risks from measures taken during the pandemic, such as the negative effect isolation may have on mental wellbeing which must not be overlooked. **There simply is no readily apparent sign or checklist of who might be vulnerable at the moment, so engagement with your building occupants is critical.**

## Built Environment and Inclusive practices during COVID adjustments

**External Spaces** - A significant challenge can be some of the safety measures implemented into public infrastructure. Public bodies are making alterations to enable distancing, such as pavement widening to accommodate more pedestrians but this may result in unintended shared space, posing a great risk to people who are blind or partially sighted.

**Transport** considerations must also be made; prioritised parking and drop off zones for people with disabilities should be considered. There is much discussion around one-way routes to increase distance between pedestrians; it is vital that these routes can still accommodate spatial requirements for wheelchair users, mobility aid users or people pushing a pram. Cyclists and pedestrians should still be segregated. There may be an influx in cyclist commuters, meaning more cycle stands need to be added. When planning for this, ensure cycle stands comply with guidance such as ensuring there is a detectable warning surface underfoot, and ground level detection and some flexibility to accommodate adapted cycles, cargo bikes etc.

**Wayfinding and People Movement -** Individuals may have familiarised themselves with routes over time using visual cues. If the environment changes, this could result in a reduction of familiarity and independence in travel. For people who are blind or partially sighted, physical guiding may be required. This may also be the case for people with a guide dog, as the dog needs to familiarise itself with a new route. As previously mentioned, one-way systems are being widely considered, but this may mean routes are greatly extended which introduces a new challenge for people with mobility impairments, or conditions affecting stamina such as heart or respiratory.

Wheelchair users and people with walking aids may feel concerned about using public footways as it is more challenging to swiftly move out of someone's way if someone is not observing the distancing recommendations.

Data analytics can predict how a building or space might be populated and used and tracking apps can provide a highly responsive management tool in identifying issues, together allowing managers and operators to pre-test and react in an informed manner.

Technology can play a significant role in planning and supporting distancing measures:

- Data analytics of people population and movement can enable assessments to be made of maximum occupancy levels for distancing rules.
- Apps can also be used to track building occupancy levels, movement and dwell times in certain areas, which in turn can inform decisions about use of one way routes and assessing the success of people movement intervention measures to maintain appropriate distancing.
- The use of apps can be beneficial in helping people navigate a building or environment. Wayfinding apps have been known to significantly increase independence for some people with disabilities and can give audio feedback to someone with visual impairment who is unable to see or interpret floor markers and directional signs.
- Digital signs in the form of tablets enable last-minute changes more easily, and it is possible to integrate this with audio and enlarged text options.

**Communication** is vital to creating an inclusive and safe environment - clear signage and information benefits *everyone*. Throughout the pandemic, there have been many temporary measures put in place to enforce social distancing, signpost no-go areas and reinforce good hygiene practices. It is important that temporary signage maintains a standard that is compliant with accessibility guidelines, equal to that of permanent signage. This includes considerations such as keeping information clear, concise and simple and consistent; using visual content to support text and providing alternative formats of information.

Alternative formats include the use of tactile features, embossed text and Braille, pre-visit information and audio announcements. Where possible, adopting well established symbols in use by others can be helpful, currently the variety of signs, notices and the way they are applied in the built environment is vast and this makes it harder for people to interpret and follow instructions without concentration – the result has been that many environments, without policing by management, are not being used correctly to minimise infection spread.

Many buildings may also introduce the requirement for masks to be worn, but masks are a significant barrier to D/deaf people as the ability to lip read is eliminated, and perception of emotion through facial expressions is very challenging.

**Reducing Infection spread**

It is a well-known fact that the transfer of germs is facilitated through touching surfaces (especially those which are touched frequently) such as door handles. There are a number of ways where this risk is reduced:

1. doors which are automated or semi-automated will eliminate the need to touch the door handle,
2. doors that are held open on an electro-magnetic detentes that releases in event of fire
3. doors that have had an adaptor fitted to enable manual hands-free option by opening the door with the forearm. There are a number on the market that can be added to an existing lever or pull door handle.

*Features 1 and 2 above are also features that enable good access. For option 3, specific consideration will need to be given to the reach and force of the adaptor to open the door, as testing with disabled people is unlikely to have taken place yet.*

Other existing features that will reduce the spread of COVID-19 whilst giving access advantages are:

- Hands-free card readers, eliminating the need for physical contact and also providing access to people with varying reach abilities.
  The use of sensor technology to reduce need to touch objects, such as taps and bins.
- Using disposable hand towels manufactured using recycled paper are quicker and more hygienic to use than hand driers, which can cause distress and overwhelm to many who experience sensory overload from noisy equipment or environments, such as Autism. Recycled paper towels are a sustainable means of drying and people tend to dry their hands more thoroughly, which is very important to prevent the spread of germs.

**Ventilation** – many buildings have temporarily increased ventilation either through air conditioning systems or by opening windows. As the autumn approaches, this may result in unwelcomed cooler temperatures overall or fluctuations. It is important to inform regular building users of this change, as some medical conditions particularly affect body temperature so the degree of discomfort caused may not be endured by some.

**Acoustics** – Opening windows provides a good solution to increase ventilation but in some cases the resulting noise levels will interfere with concentration or speech intelligibility. Ensuring trickle ventilators and any mechanical ventilation filters are cleaned should enable the air flow to be maximised without increasing the noise level.

Another challenge can be the installation of additional hard finishes, such as temporary glass/perspex screens or dividers coupled with lower occupancy levels will change the acoustic environment in open plan. The resulting increase in reverberation time is likely to affect speech intelligibility which will be an issue for people with hearing impairments as well as some people with heightened sensitivity to background noise. In situations where face coverings are used, the situation will be worse – both by the impact of the face covering on voice clarity and projection coupled with the removal of the ability to lip read. Identifying quieter spots on the room booking system will help.

**Lighting** – Whilst light levels in offices are unlikely to be altered by any of the COVID related interventions, reflectance from new separating screens may be an issue, affecting people with sight conditions and heightened visual sensitivity through a neuro divergent condition for example. Lighting in open plan areas that relies on people movement detection to keep the lighting on can be problematic in sparsely populated office, this can be a particular issue for anyone not able to wave their arms around to trigger the detector when the lights go out.

In the home setting, people with sight conditions are likely to have already adapted their home for their needs, but this may be for domestic activities rather than full time working on a computer. People homeworking may benefit from good quality task lamps to supplement or replace the use of a domestic overhead fitting. Domestic level LEDs, for example, very often have flicker that is not seen by the naked eye but can contribute to headaches and eye strain and is readily picked up by the camera on a computer during video calls. Controlling daylight and reflection can be another challenge, with increased need for anti-reflective coatings to computers or adding blinds to windows. However, most computer screens are provided with ever brighter displays to combat bright working environments and reflections so users should be reminded to take time to adjusting the display set up to find the right balance (which may vary through the day).

**Hygiene and PPE** - In terms of hygiene, installation of hand sanitiser dispensers must consider reach height abilities and dexterity of all potential users. Cleaning regimes must be strictly adhered to for handrails, grab rails, hoists and other support aids that building users may rely on to access facilities.

**Safety in an Emergency** – Suitable arrangements must be made, particularly emergency evacuation for people with assisted or facilitated evacuation plans (PEEPS) for situations where people need to leave the building quickly due to a fire, flood or other emergency situation. PEEPS established prior to the pandemic should be reviewed as these may need to be revised to reflect support needs and other changes to the building.

This is not an exhaustive list, and each change or decision made as a result of COVID-19 and beyond must follow careful consideration of how it may negatively affect building users, particularly those with a disability.

## Anticipating the “next normal”

As society and workplaces reopen, we are mindful that the pandemic is not over and we may transition back to lockdown again, at least on a regional or local basis.

Many have quickly adapted to remote working and virtual communications and predictions are that many organisations will feel able to offer enhanced flexibility and choice over where to work or study during and beyond the life of the pandemic. This can be particularly helpful for people with disabilities, medical needs including mental health conditions, or care responsibilities for other family members - many people have been calling for greater flexibility for decades and the forced experiment of prolonged homeworking has proven that many jobs can be undertaken equally well from a home environment, giving organisations the confidence to offer this, at least partially, going forward.

With more regular homeworking being a probability in the future, many more offices may turn to hot desking for occasional use as the norm. Desk booking then becomes very important to ensure that people who rely on a specific desk position, layout or configuration will be confident of this being available; others who need a quieter place to work, such as many people with neurodivergent conditions, will ideally also be able to pre-book and be confident of their choice being available on arrival so that they can work productively. Increasing the proportion of sit-stand desks will help to ensure most people can find a desk height that suits their needs.

Reports suggest there are many people who have post infection respiratory issues, perhaps experiencing a physical impairment for the first time. Workplace and homeworking assessments and support will need to be in place to ensure that they are able to return to the workplace safely and comfortably whilst they continue their journey to full recovery.

Software has been utilised in new and developing ways, including many for video conferencing, enabling visual connection and interaction to be maintained during lockdown. Lack of real face-to-face contact can however result in feelings of isolation, particularly due to lack of non-verbal cues indicating wellbeing such as tone, facial expression and body language. Some video platforms, such as Microsoft Teams, include accessibility features such as live subtitling, and the ability to customise the layout of your screen including a way to fix the position on screen of a sign language interpreter.

Virtual events including CPD workshops, lectures, conferences and seminars have partially replaced ones previously requiring physical presence, which has some benefits, for example content can be recorded in an accessible format and viewed at a different time or revisited more than once, which is helpful for someone unable to attend or with a need to repeat some content. Where face to face events are able to happen once more, offering remote attendance could be beneficial as a permanent option for anyone who experiences sensory overload from crowded, busy environments or who finds travel difficult due to personal circumstances.

The lockdown period has highlighted the important role of nature on wellbeing. Biophilic design principles should therefore be an integral component of the design of any workplace (and our wider environments) going forward.

**Flexibility and some personal control is key to wellbeing, efficiency, productivity and motivation – offering as much choice as possible should create win-win arrangements that are good for both the individual and the organisation.**

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It is vital during this pandemic that during the dynamic decision-making process, we place people at the heart. To be successful, consideration has to be given to the diversity of human need including disability, health, faith, gender and much more, including related family needs.

As people gradually return, there is a unique opportunity to reconsider our workplace environments afresh. Engaging with stakeholder occupants is key, and this must include representatives with experience of disability, mental ill health, neurodivergent conditions, as well as faith or gender related requirements from the built environment. **The result should be a happier and more inclusive workplace and a more resilient, flexible environment to meet whatever the next normal looks like.**

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