

A QUICK GUIDE TO

Safe and Effective Construction in the

COVID-19 LANDSCAPE

**Can't wait to restart your projects
but unsure of the steps to follow?
How can you minimise physical
interactions yet be more productive?**

*"The economy is severely
affected; the construction
industry is especially badly hit.
However, there are solutions -
we can turn to digitalisation."*

says National Development Minister Desmond Lee.

Read on about the new safety measures and the innovative uses of
technology and digitalisation to resume construction safely at your
worksites, despite COVID-19 risks.



New COVID-19 regulations for construction

Here are the 3 key criteria to
resuming your construction
work onsite:



Meet COVID-Safe accommodation and transport

Accommodation and transport providers take note! According to the Ministry of Manpower (MOM), workers have to stay at dedicated accommodation and adhere to Safe Living Measures such as safe distancing and no inter-mixing.

For transportation, staggered pick-up and drop-off times must be arranged if employers of the workers are from different companies.



Meet COVID-Safe workforce

As of mid-August, all workers living in dorms (with the exception of some workers in Centralised Government Quarantine Facilities) have been cleared by the Inter-Agency Task Force. To be safe, companies can check dorm clearance statuses online.

Regardless, all workers are to continue observing safe distancing measures.





Meet COVID-Safe worksite

This is the final and most important criterion! Companies have to appoint an adequate number of Safe Management Officers (SMOs) and Safe Distancing Officers (SDOs) to ensure that COVID-Safe Worksite measures are adhered to.

SMOs and SDOs identified by companies will have to be sent for an SMO course before being deployed for construction projects and supply works. Meanwhile, all workers will have to undergo COVID-Safe Training for Workers before resuming work on any project.


Don't worry, the training can be completed online in under 3 hours!

3 simple solutions to mitigate the effects of COVID on construction

With the stoppage of construction works due to the Circuit Breaker and the many new safety measures to comply with, enhancing operational efficiency is key to make up for lost time.

Thankfully, Pan-United has got your back!






Our concrete innovations and digitalisation not only improve worksite productivity, they also help companies implement safer construction workplace practices by reducing physical touchpoints.

Concrete innovation: New Generation Self-Compacting Concrete ("PanU NewGen SCC™")

Look around Singapore and you are bound to see some of our concrete projects!

The first generation of Pan-United's SCC was a 'breakthrough' concrete, a specialised rheologic concrete that flows easily and uniformly to reach hard-to-fill corners, all without the need for noise-polluting mechanical compactors or vibration. Imagine the peace and tranquillity during construction works, now that's a dream come true.

Our SCC was used to build Singapore's tallest building, Tanjong Pagar Centre, safely and more efficiently. Similar mix designs from our SCC range have also shaped the Circle & Thomson-East Coast Lines, various HDB flats and many other projects.



In early 2020, Pan-United developed an even better New Generation Self-Compacting Concrete (PanU NewGen SCC™) which needs just a single worker to guide the concrete pumping pipe. This means less manpower required onsite and better safe distancing during concreting work.

Talk about a win-win situation!

PanU NewGen SCC™ reduces manpower needs by up to 57%, improves productivity by 74% and reduces casting time by 40%. All in all, with a faster completion time, it is ideal for complex formworks and the current COVID climate.




Virtual Quality Testing

The second solution is virtual quality testing. It has 3 parts: e-trial mix, e-Cube sampling and our in-transit concrete management system called AiM (Artificial Intelligence Mixing).

Before a project commences, a virtual trial mix can be requested to be done at the batching plant. The 'live' e-trial mix is done via 24/7 CCTV monitoring and the video recording results are sent to the contractor and consultant. Thus, the quality standard of the mix is assured.

For e-Cube sampling, once the concrete is batched, an SMS is automatically sent to the contractor and consultant. Cube samples are taken at the batching plant under the consultant's instruction for a quality check. Again, for your peace of mind, the 24/7 CCTV system lets you monitor and record the demoulding, labelling and curing of the concrete.





During the concrete delivery journey, our concrete mixer trucks are equipped with **AiM** which virtually handles concrete slump management. The concrete consistency is calibrated remotely all the way from the batching plant to the project site, so that the specified concrete product quality is assured when the truck reaches its destination.


AiM eliminates the need for quality assessors and product technicians to be physically present at worksites to test and approve the concrete quality from each mixer truck. It enables fewer workers onsite and lessens the number of physical touchpoints too, further improving all round safety.

AiM minimises the risks of project delays, ensuring your projects move as smoothly and quickly as possible!



Contactless e-Processes

Finally, an operations optimisation platform called AiR (Artificial Intelligence for Ready-Mix Concrete) that saves time, reduces cost and increases safety by automating back-end processes.



Among other benefits, electronic delivery orders ("eDOs") and electronic customer invoices (e-invoices) improve safety by minimising physical touchpoints among employees, and customers or workers at construction sites. Time and costs spent on administration can be eliminated - which is most ideal when many of us are still working from home today.





Emerging stronger in a post-COVID market

COVID-19 is not going away for quite some time. It's time to change mindsets and view this crisis as an opportunity to push forward, embrace innovation and pick up new technologies.

Pan-United hopes to play our part by spearheading concrete and logistics breakthrough technologies.

We want our innovations to help you remain adaptable and ride through the storms.

Together, let's emerge stronger post-COVID!

Drop us a message at ***concrete@panunited.com.sg*** to find out more about our suite of offerings.

www.panunited.com.sg

