



COVID-19 Claim Management on Construction Projects

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1. INTRODUCTION

COVID-19! Coronavirus! Pandemic! These are alarming global events that demand our attention. The pandemic has caused severe disruption in society and business. As of May 2020, unemployment is at record highs while economic activity is at record lows. What does this mean for construction project owners, contractors, and managers?



The internal and external environments in which construction projects are executed has changed significantly. The disruption manifests in a wide variety of impacts, extends to projects of all types, and permeates most organizations responsible for delivering project success. The first wave of this tumultuous change began in early 2020. No one knows yet how long the disruption will last. However, several waves of varying intensity lasting months or even years is possible.

Forward thinking project organizations have completed qualitative risk analyses to assess how the impacts may manifest and experience is being gained in actual project performance in this new environment. To properly manage, present or defend against claims for pandemic-caused impacts or to segregate pandemic impacts from other claims will require the capture of new data during project execution.

2. THE RISKS

For construction contracts executed prior to the outbreak of COVID-19, pandemics will likely be considered to have been unforeseeable. Entitlement for COVID-19 claims will often be based on typical Force Majeure contract terms. For contracts formed after the outbreak, foreseeability may become an issue. Contracts drafted after the COVID-19 outbreak may contain new language addressing pandemics.

COVID-19 impacts are expected to be a significant issue for most construction claims that arise on active projects during the pandemic. Such claims may often concern entitlement to an Extension of Time and relief from Liquidated Damages. For certain contracts, there may also be entitlement to recover damages; for example, if government-caused impacts are compensable. On most projects, the schedule and cost impacts of the pandemic will need to be quantified and segregated from other more customary disruption claims in order for those more customary claims to be properly assessed.



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Assessing the impact of COVID-19 caused project changes will be in many ways similar to assessing any disruption claim. Evidence of causation will be required. There will be aspects that impact productivity. There will be aspects that impact delay. There may be cumulative impact arising from a variety of multiple pandemic originated changes. There are some projects that are anticipating, on a risk basis, cumulative productivity losses of 20%. Other projects estimate that they are experiencing productivity losses of 50%. The losses are significant and reliable assessment will be important.

The assessment of delay and disruption and quantification of damages relies upon data. The ideal schedule, cost, and manhour data is a record of what was planned to happen and what actually did happen. There are a variety of established methodologies that can then be used to assess impact. All however require reliable data as input.

All projects produce data. The project organizations that are more often successful at claims management (either presenting or defending) are ones that have a defined process or standard for collecting and preserving relevant data. Long International's view of the type of data that may be required in the usual course is presented in our article, *Preserving Your Claim through Documentation*, authored by Richard J. Long, P.E., P.Eng.

The key to assessing or segregating a pandemic-caused impact is relevant data. The types of impacts that can be foreseen are addressed below. The type of data that a project organization might wish to assure is included in current documentation capture protocols is also reviewed. Contemporaneous records and data are more powerful than assessments made later or derived through various types of forensic analysis. So what should we add to or emphasize in our data collection and preservation process so that we can address the significant challenges that will be brought about by COVID-19 related issues in construction claims?

The COVID-19 pandemic may cause distinctly personal impacts in terms of personal health if one becomes sick. Fear of contracting the disease has also caused the implementation of risk mitigation strategies to reduce the risk of personal health impacts. Compounding these hazards are governmental and health agency fears that health systems may be overwhelmed and unable to treat the sick.

The type of risk management strategies that society and individuals are implementing include such things as:

- Physical distancing;
- Personal Protective Equipment (PPE);
- Stay at home guidance and in some cases orders;
- Travel restrictions;
- Closed businesses;

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- Closed offices (working from home); and
- Size limitations on group gatherings.

These health risk management strategies have curtailed economic and employment activity, which in turn creates loss of income. This motivates people to not comply with strategies and motivates societies and governments to ease restrictions in consideration of risk to health balanced against risk to the economy. We see these risk management strategies creating impact conditions in a variety of settings throughout a typical project.

Long International recommends creation of a construction site specific Pandemic Risk Mitigation Plan. This plan should, at a minimum, include a narrative which describes the identified risks, potential impacts and risk management strategies the site intends to implement. The plan has several uses which includes claim documentation. For this purpose, the plan should identify the records that the project intends to create and preserve with the intention of this information being available for subsequent analysis.

3. WORKFACE IMPACTS

Workface planning is defined as “the process of organizing and delivering all the elements necessary, before work is started, to enable craft persons to perform quality work in a safe, effective and efficient manner” (CII 2013; COAA 2014). Workface impacts are strongly influenced by physical distancing standards adopted by the project. Workforce density at the workface decreases thereby resulting in less workers. This does not necessarily



immediately reduce productivity although, depending upon the nature of the work and the planned density, it could result in taking longer to complete the work which pushes the project towards delay.

Physical distancing requirements are a work process change. Work process changes require training and monitoring if they are to be properly implemented. There will be an increase in Environment, Health, and Safety (EHS) orientations and training onsite, which reduces productive work time. Employee temperature monitoring can take a half hour prior to each shift per worker to complete. The monitoring of these changes will require additional EHS staff, beyond training personnel, who will be required to observe, monitor, and report on COVID-19 cases, creating a new layer of administration.



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Certain tasks are usually completed on a crew basis without distancing, where one worker assists another. These tasks, which could be fundamental to how a trade performs their work, may have to be redesigned, where possible, to accomplish physical distancing standards. In the absence of being able to accomplish physical distancing, a greater amount of Personal Protective Equipment (PPE) may be required.

The impact of distancing rules will likely result in the inability to attain planned productivities based on optimal crew size and mix. Anecdotally, there are reports of much more PPE being worn. There is a direct expense to this equipment but indirectly, and more significantly, there are potential productivity reductions. Specific data in the usual project record showing PPE as a cause of productivity impact is unlikely to exist.

Construction sites for buildings and industrial facilities can, at times, be inherently busy and possibly crowded depending on the type and number of trades present. The HSE solution to this is physical distancing and PPE. Disruption of the work resulting in loss of productivity can arise from workers being unable to effectively work in PPE such as masks. It can also be expected that too few access points to a space or floor of a building may result in pinch points and lineups as workers try to use the doors or stairs. Of course, if there are two doors, one could be designated “IN” while the other is “OUT”, which might alleviate certain problems while creating others such as having to travel all the way around to get to the entrance again.

The workforce plans will be predicated on attendance of the required number of trades and staff to execute the work. Absenteeism due to health symptoms or actual infection might affect a single person, a number of people, a whole crew, or in the worst case an entire site.

We may also see impacts at the workforce when specialty contractors are unable to attend perhaps due to travel restrictions. These might be specialty welding or fitting crews. They may also be equipment supplier’s commissioning engineers or other technical staff who would normally attend on site at key moments during execution.

COVID-19 impacts directly at the workforce may be difficult to capture through the usual construction documentation. Density of workers may need to be inferred from the schedule activities and manhour loadings by trade. Often, however, the schedule is not granular enough for this analysis to be definitive. Timesheets in their various forms may record attendance data but not work assignment. Certain projects will include daily crew reports, which include a work description and may give a location. These might be helpful but they are rarely transcribed into digital data and in a claims analysis setting have to be found and then manually forensically reviewed to try to identify trends. Long International recommends that when physical distancing standards are adopted on a project, management instigate a series of time and motion studies to observe and record basic data about the circumstances. That data is useful for project controls to estimate impacts and reforecast schedules. All of this data should be preserved for claim management and analysis.



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There is a potential for escalation in rework due to reduced Quality Assurance and Quality Control (QA/QC) surveillance. Staff reductions and physical distancing are a potential driver for this impact. It would be expected that the amount of rework should be identifiable from work production, if not quality records, so that any increase in rework can be identified. Long International recommends that anyone performing a review now should validate this expectation to be true. What is often less clear from the usual documentation is whether there has been a change in the QA/QC level of effort. Are activities delayed while waiting for inspectors to arrive? Records to this effect, whether by staffing levels, numbers of audits or inspections performed, or other identifiable parameters mentioned in the QA/QC manual, will help an eventual claim management effort. Most useful will be a contemporaneously prepared narrative explaining any change in these parameters identifying causes originating from pandemic risk control, if they are thought to exist.

If a coronavirus outbreak occurs on the project with workers contracting COVID-19, there is a significant risk of the site being subject to isolation rules or being shut down for sanitization. The resulting demobilization, shutdown, and remobilization would have delay and disruption consequences. Demobilization costs, on-going indirect costs, remobilization costs, as well as delay durations, should be captured in the usual project documentation. There also may be a period after remobilization, as productivity recovers gradually from the interruption, that may be more difficult to quantify. Notes or journals prepared contemporaneously to record the nature of the impacts and the time to return to normal would help the process.

4. SITE IMPACTS

Sitewide costs, often classified as indirects, include infrastructure to operate the project. This may include office trailers, break or meal facilities, transportation in various forms, accommodations, camp facilities, site maintenance, access provisions, security, HSE, staff, office equipment, utilities, and other similar costs.

Physical distancing immediately impacts anything that requires or uses a building. Allowable occupancy in camps can dramatically increase the required camp size. Lunch room capacity might increase the amount of space required or demand a change in how break times are managed around the site. These measures might have a knock-on effect to productivity.

Transportation whether local within a site or between a site and the outside world is impacted by density restrictions. Buses running from the camp to the workface at reduced capacity taking longer to deliver workers and return them at shift end has productivity impacts due to shorter “time on the tools” in a work day. Depending on circumstances, it might take four times the number of buses that otherwise would be required.

Remote job sites that charter aircraft to bring in crews are experiencing pressure to reduce density onboard due to pandemic physical distancing. This increases the number of flights to transport crews and the number of aircraft needed.



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Many of the site impacts will be captured, directly or indirectly, in the usual project documentation. There will be invoices for trailer rentals, buses, and infrastructure built or rented to accommodate risk mitigation strategies. We believe a time and motion observational study should include any new elements of site infrastructure, at least at the outset, to determine how well they are functioning to mitigate risk and whether these new facilities are causing any productivity problems of their own.

5. IMPACTS IN HOME OFFICE MANAGED PROGRAMS AND ORGANIZATIONS

Supply chains consist of organizations, people, activities and other resources that supply products and services. In this case, the supply is to the project and its workers at the workface. Supply chains for major projects can be extensive involving manufacturing, custom fabrication, commodity suppliers, and the logistics that tie them together and deliver materials of all types to the project site. The supply chain is heavily influenced by the project external environment but management of it is a project internal function.

Risks to the supply chain are by and large out of the direct control of the project but are able to be monitored and contingency plans can be made. The following impacts may occur:

- Critical materials and equipment may be delayed due to manufacturer plant shut downs or capacity reductions;
- Reduced available transportation such as trucks resulting in shipment shut downs;
- Hoarding by others; and
- Supply chain contractor staff working from home resulting in a reduction in communication.

The existence of these conditions will likely be captured by the routine project procurement expediting documentation. The effects, which include expediting or replacement costs and delays, might be more subtle to document as related to or caused by the pandemic. The Pandemic Risk Mitigation Plan can include provisions for a new role within the procurement organization whose goal it is to identify and capture these effects in a contemporaneous manner. Key to this will be training among procurement personnel and especially expediting staff to raise any potential issues that arise so that they can be added to a claim management dossier.

Timely engineering information is normally a key issue in the execution of projects, and tracking down who has held up what in the cycle of engineering data review can be challenging at the best of times. However, when an engineering organization that normally works in teams has the added constraint of perhaps working from home to accomplish physical distancing, things can get worse. Communication lines may become strained and productivity can decrease in those organizations all to the detriment of the overall project.



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Segregating the typical inefficiencies in the normal flow of engineering information from the pandemic exacerbated inefficiencies for these same engineering processes will require observation and monitoring. Engineering leadership, together with document control should be diligent in monitoring and recording the challenges faced and solutions reached. This is of course a usual expectation; however, in the case of pandemic risk mitigation, the team should be particularly sensitive to and diligent in creating a narrative record of events noting any impact which they feel could be due to pandemic risk mitigation.

Impacts in the home office of both the owner and contractor can be expected. The extent of the impacts will depend on the pandemic risk mitigation approach taken. Health-related absenteeism for those who become sick and for those who must isolate at home because of exposure is a clear risk. In the worst case, whole offices might be shut down. In the face of this risk, many organizations have decided to work from home. The potential impacts of this are impaired flow of communication, lower productivity from home-based staff with children, reduction in the effectiveness of team-based organizations, and increased costs to set up home offices. Travel restrictions could prevent teams from working face-to-face, which is seen by many as the most effective means of collaboration. Offsetting this is a reduction in the required travel expense budget.

The home office teams impacted may include many departments such as project management, engineering, procurement, or finance. Preparing documentation of impacts for eventual claims management has to be done as the project unfolds, necessitating meeting minutes or journal entries created with the specific records of impacts. The impact to the team itself might be small in the larger context but these teams exist because they are essential infrastructure to enable productivity at the workplace. If decisions are delayed, information is held up, or other actions are not taken, each of these can cause substantial delay and disruption, and create damages that should be attributed to the pandemic.

Beyond the immediate project organization, the impacts of delayed processes or decisions not made can have a cumulative effect when it comes to timely invoice payment and the financial cash-flow viability of contractors and subcontractors. The processes involved in invoice payment go well beyond the simple signing of a check. Contracts often have specific payment process requirements, which include timelines for the key process milestones that culminate in actual payment. To document any pandemic-caused impacts to payment processes, finance teams should diligently monitor contractual and internal milestones of the payment process and record all deviations and make notations explaining the cause. If the cause is pandemic risk mitigation or indirect impacts, it will be helpful to future claim management that these are highlighted.

Additionally, there are risks of losing key personnel, such as a senior leader, who if they become unavailable due to sickness would cause disruption to the project by their absence. The absence may be short term or permanent depending on the outcome of the sickness. Documenting an absence or sickness is unlikely to be challenging. If there are specific impacts, they are worth



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noting and a journal of how the organization addressed the absence of the leader is good documentation. There are industry studies about turnover in project leadership that during claim management could be referenced to assess the potential reduction in productivity.

6. IMPACTS ORIGINATING OUTSIDE THE PROJECT

The environment external to project execution is changed due to COVID-19. The changes appear in the supply chain, as discussed earlier, in governments and their administrators, as well as in society in general.

Certain types of projects require a series of permits to access land or undertake work that is regulated. The permitting process which may include working with a regulator's administration or perhaps public or legal hearings can be impacted when the required agencies are closed or their ability to respond is compromised by staff being unavailable and/or working at home. In these cases, the absence of the permit will be recorded but the reasons for that absence might not. The absence of a permit can be a direct cause of project delay. Once again, preparation of a narrative report in the form of a contemporaneously created memo or journal is recommended to explain the cause of the delayed permit and identify any link to the pandemic risk mitigation that may exist.

The circumstances of the pandemic continue to rapidly evolve changing the science and the regulatory approach to pandemic control. There may, from time to time, be orders from regulators. There may also be quickly evolving rules to which noncompliance could result in an order such as "Stop-Work". Changing rules create confusion and change management issues on site for which processes have to be updated and people trained. These take time. In the presence of an unsympathetic regulator, project delay and disruption may ensue.

Linear projects such as pipelines, power transmission lines, or roads (as examples) are planned to move along the route of the project, which inevitably means that crews and their equipment travel from community to community. Communities receiving an influx of workers, although perhaps welcoming the economic activity for hotels and restaurants, may overall have an adverse reaction to the health risks posed by the introduction of new people. There is a risk of political pressure to postpone, stop, or otherwise avoid the project coming through a community. Whether or not these community initiatives are successful, there is distinct possibility of delay if work cannot progress or disruption if the work is forced to hopscotch around a certain community or communities.

Records of progress, or lack thereof, should be available through the usual project records. Documenting that the cause is externally imposed due to pandemic risk mitigation will require the creation of narrative records that record the link to the pandemic. Whether the work stoppage was due to a government order is important. If there is no actual order but a voluntary stoppage or an agreement to avoid a stoppage, the specific circumstances are relevant depending on the situation, contract, and related facts. It is important that records of the events be as clear and complete as possible.

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Earlier we discussed the impact that the timely payment of invoices could have on the financial viability of project team contractors and vendors. These companies operate in the wider economy and are subject to prevailing economic and regulatory forces and the financial distress which could arise therefrom. The project team should watch for and monitor, as far as practical, the financial health or signs of financial distress of key project participants.

7. CUMULATIVE IMPACTS

The changes to the project execution environment both internal and external due to pandemic risk management are numerous. The specifics will vary by individual project and by project type. We can however expect multiple impacts throughout the project originating exclusively from the pandemic. Proving the individual causes with sufficient data to be compelling in a claim setting will be challenging. Providing evidence and proving a further claim for the cumulative effects of these impacts will likely be even more challenging.

Challenges that may need to be overcome to prevail on a disruption or cumulative impact claim include:

- Demonstration of causation;
- Reservation of rights to make a claim;
- Use of proper damages methods; and
- Preservation of good records.

8. CONCLUSION

The COVID-19 pandemic has changed the internal and external project execution environments. The pandemic has caused impacts of varying degrees to nearly every aspect of projects involving the activity of people. Ordinary practices in the creation of project documentation are robust and are utilized to support the analysis of construction claims. Although project productivity losses may be demonstrable, providing compelling evidence and proof that the losses were caused by the pandemic may not be as easy to demonstrate.

It may be simple to infer or surmise that physical distancing or other measures are the cause of a documented loss of productivity, but many projects will not automatically produce the data that underpins this supposition. The data required will be workforce or workplace observational information in the form of contemporaneously prepared narratives that describe what has happened and, where possible, provide causal links to the pandemic or to a pandemic risk mitigation strategy implemented by the project organization.

Long International recommends that each project organization, whether they expect to manage, present or defend against claims for pandemic-caused impacts, should prepare a pandemic risk mitigation plan. At a minimum, this plan should include a narrative which describes the identified risks, potential impacts, and risk management strategies that the site intends to implement.



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The plan has several uses including claim documentation. For this purpose, the plan should identify the records that the project intends to preserve or create with the intention that this information be available for later analysis.

About the Author



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