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The client has tended to use traditional procurement but is not satisfied with productivity and the final product. They want information on incentivisation schemes.



Prifysgol Cymru
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Incentives, which are commonplace in construction projects and tend to be incorporated at contract stage, are related to successful achievement of client goals. Incentivisation must include Objective (client desired outcome i.e. faster project delivery), Measure (units i.e. days/weeks) and Target (level of performance and milestone to which contractor is rewarded).

'At its most basic level, incentivisation is incorporating incentives into an arrangement in order to motivate the parties to it.'
(Pinsent Masons, 2019)

Many incentives are now customary elements of contracts, but newer schemes are incorporating proposed changes to business practices which reflect a more 'responsible' approach.

Contractual Incentives:

As well as contracts for performance (i.e. aligning objectives of both parties through use of performance measures and linking these to financial reward), incentives can be used in other ways to encourage satisfaction of contraction obligations.

Completion dates – bonuses if completed early/penalties if overrunning.

Final price – securing rates for labour/materials and applying these to final quantity of works OR target-cost method i.e. pain share/gain share to distribute risk between buyer and seller.

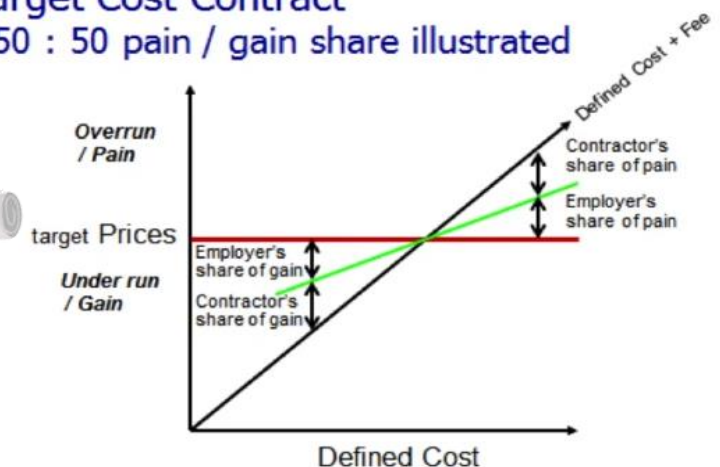
Extra Contractual Incentives:

Contract bundling/partnering arrangements – relies on TRUST as an essential part of the relationship with the intention of it leading to securing additional work and developing long term contractual agreements.

Behaviour change - promotes and encourages more sustainable, safe and responsible methods of design and construction.



Target Cost Contract - 50 : 50 pain / gain share illustrated



The **advantages** of incentives include increased and more accountable communication through more frequent monitoring and reporting; enhanced innovation through use of more creative methods to gain efficiencies; greater sense of ownership through commitment to performance improvements; and benefits to society/environment through behaviour change of those within the construction industry operating more 'responsibly'



Disadvantages of incentives include increased administration costs through additional pressure on communication/reporting; pressure to standardise and/or bespoke incentives so suppliers (and supply chain) are not disadvantaged; and potential for distorted priority working where contractors only focus on elements where bonus payments/incentives are offered.

'Perhaps the most obvious negative incentive in a construction context is liquidated and ascertained damages (LADs) for late completion or failing to achieve some other contractual requirement.'
(Pinsent Masons, 2019)



'Clearly the base measure and targets must be realistic and achievable: For incentivisation to work well, then;

- **average performance by the contractor means it earns average profit**
- **good performance means it earns good profits**
- **excellent performance means it earns excellent profits.'**

(Broome, 2010)

The reliability of each scheme to motivate performance or behaviour change should be evaluated prior to incentivising projects – and consideration should also be given to supply chains to determine how these stated incentives will be passed on. Individuals and businesses will have different agendas/mission statements which may dictate their response to incentive clauses and how this drives their commitment to performance management.

References

Pinsent Masons, 2019. *Using incentives to drive contractor behaviour.* [Online]. Available at: <https://www.pinsentmasons.com/out-law/analysis/using-incentives-to-drive-contractor-behaviour> [Accessed 9th April 2020].
Broome, J., 2010. Incentivisation under NEC3. In: *Procurement routes for partnering: a practical guide.* s.l.:Thomas Telford.



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A contractor has taken on a project which is beyond their current experience. The contractor needs to understand how site layouts need to be controlled on complex construction projects.

During the design and pre-construction phase of any project, it is essential to undertake careful planning to ensure safety and security of resources, as well as define how the site will impact the local area and its community both visually and practically. New developments should integrate well with surroundings, adding value to the existing architecture, urban structure and spaces. The following poster explores the considerations for simple and complex site layouts using the key SSL (simple) and CSL (complex).



Site access & logistics

Access points – Defined entrance/exit points and loading bays on public highway (license required from local authority highways) plus consideration of overhead services, material movements and clear vision of all traffic. Specific instructions outlined for deliveries and access restrictions.
SSL – Simple access road development and signage erected.
CSL – Purpose built access roads and traffic signalling may be mobilised, road closures may be enforced, and laydown areas created.

Access signage – Clear off-site direction boards to ensure site traffic follows designated routes to/from site.
SSL – This can be as simple as an entrance and exit being marked out, speed restrictions and directional control.
CSL – Adequate signage to ensure construction traffic is segregated from general public. There may be restrictions on delivery times and days in built up areas to minimise congestion.

On site controls - Enforced to ensure deliveries are planned and coordinated in a timely way to suit environment and project. Minimise queue/wait times and ensure crane or forklift is available for material handling.
SSL – Coordinating deliveries during site working hours on a flexible basis as ordered.
CSL - Efficient logistics plan executed to meet restrictions imposed and/or the timely manner in the recruitment of each delivery to minimise storage and/or down time. For example, a component may be craned from a delivery lorry straight into the construction project rather than stored and used later, taking up valuable storage space and ‘double handling’ the material in lifting it twice.

Crane points – Planning the location and type of crane suitable for the project, plus plan for decommission and removal.
SSL – Flexibility of using a mobile crane around site if required.
CSL – Precise planning of each crane location ensuring coverage met for every stage of the project.

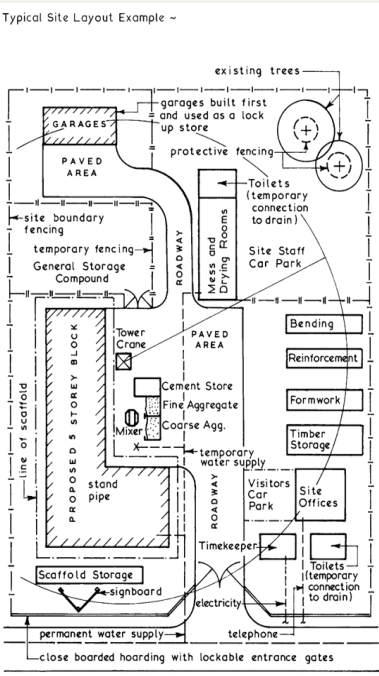
Storage - Efficient compound and material store for immediate and ‘Just in Time’ delivery. Even the most efficiently operated sites will need an element of storage incorporated on site.
SSL – Generally comprises several single storey containers allocated to each sub-contractor, a parking area for a forklift and silos of compo.
CSL – Allocation of storage and access on a moving rotational basis as to what sub-contractors are taking priority on site at a particular moment in time, access and movement of heavy, or large components taken into account, most delivered on a ‘JIT’ basis to mitigate the need to store on site and therefore ‘double handle’.



An example of these modular office builds can be seen from the offering by Elliott UK, a leading modular building supplier -
‘The advantage of Moduflex is that it can be easily stacked and linked to create large, open spaces up to three storeys high. The variable wall, window and door panels mean that endless layout options are possible. We can provide a whole host of welfare facilities to complete your temporary office accommodation including canteens, changing rooms, toilets and showers.’
(Elliott UK, 2019)



References
Elliott UK, 2019. MODUFLEX®. [Online]
Available at: <https://www.elliottuk.com/solutions/full-product-range/moduflex> [Accessed 8th April 2020].
HSE, 2013. Pedestrian walkways and cycleways. [Online]
Available at: <https://www.hse.gov.uk/workplacetransport/factsheets/segregation.htm> [Accessed 8th April 2020].
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‘Pedestrians and cyclists should be kept away from vehicle routes wherever possible in order to avoid possible conflict. Separate pedestrian walkways and cycleways that are clearly identified and separated from each other, should be provided. Guard rails or fencing should be provided where appropriate to separate pedestrians and cyclists from vehicles. Pedestrian walkways should be separated from cycleways by surface markings. Additional protection should be provided at exits and entrances from buildings.’ (HSE, 2013)



Facilities for rest
(1) Suitable and sufficient rest rooms or rest areas must be provided or made available at readily accessible places.
(2) Rest rooms and rest areas must—
(a) Be equipped with an adequate number of tables and adequate seating with backs for the number of persons at work likely to use them at any one time;
(b) Where necessary, include suitable facilities for any woman at work who is pregnant or who is a nursing mother to rest lying down;
(c) Include suitable arrangements to ensure meals can be prepared & eaten;
(d) Include the means for boiling water; and
(e) Be maintained at an appropriate temperature.’ (www.legislation.gov.uk/, 2015)

Security, safety and stakeholder communication

Site hording – Protecting resources, minimising unauthorised access and managing movement to maximise safety.
SSL – A perimeter hoarding in a built-up area or just some herras type fencing to secure the access point if in a more rural location.
CSL – Require the minimum of a perimeter of hoarding for safety and security reasons. Potentially multilevel or even a building ‘wrap’ i.e innovative creative hording which serve as advertising space of to display images of completed project.

Site services - Procurement of temporary services will be required if not existing and costs factored in for the design, supply, installation, maintenance & testing of temporary electrical, plumbing, energy management and security systems.
SSL- Will require a water supply for both drinking and sanitary purposes. A generator can be used for electricity and an internet dongle and mobile used for communications.
CSL – Can be costly and will need to provide a good level of services and comfort including communications for a large volume of contractors. A supply of water, main electricity, plumbing and other associated temporary works incorporated to meet legal and corporate requirements and to attract and retain the best sub-contractors.

Entry permissions – Security manning site entry via smart turnstiles ensuring health and safety is adhered to, individuals have relevant induction/tickets/qualifications plus logs can be used for timesheets and payroll. Pedestrian management to be integrated as a legal requirement.
SSL – likely to have a basic locked gate/door with a contact number to call for entry or potentially an intercom.
CSL – Possibly a manned security hut, a turnstile to monitor subcontractor movement and to account for all entry and exit of site. Can be incorporated to induction, time recording, and qualifications as mentioned above.

Site signage – Clear display of information relating to key personnel contact info, site operational hours, H&S including PPE requirements, eye-wash stations, pedestrian walkways, parking, fire muster points and loading areas. These are a legal requirement and will be found on both simple and complex sites.

Site compound and welfare facilities – Enough space to accommodate contractors. These could be single or multi storey offices on or off site and should comprise project team offices, meeting rooms, kitchen and toilet, plus drying rooms, canteen and break out areas.
SSL- A single storey cabin to house a site manager, forklift driver and labourer, basic sanitary facilities such as a chemical toilet or two. Running water and a microwave in the cabin as to act as a kitchen.
CSL – Designated areas laid out and built in a scale as required dependant on volume of workers on site. A multi-storey office block of 2-4 storeys for project, client teams and main sub-contractors. A substantial block of breakout area with canteen and on-site catering facilities, Drying rooms and lockers, Toilet blocks and separate meeting rooms.

Stakeholder communication – CSR (Corporate Social Responsibility), Community Engagement, clear communications and public relations are critical on complex construction projects. Whilst these measures aren’t necessarily enforceable and do add costs, they are beneficial Providing opportunities for key stakeholders to visit/view the site and offering educational tours are commonplace, as is issuing frequent community communications and undertaking PR exercises i.e. charity events, donations and community initiatives.

Waste & Environment - weigh bridges can be installed at entry/exit points if transferring waste or aggregates from the site or wheel wash and cleaning rigs installed and used where necessary. These can be found on both simple and complex sites depending on the local environment and type of land being built on.