

Littlehampton Leisure Centre Construction Management Plan

09.02.17

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1 INTRODUCTION

The purpose of this document is to set out the Construction Method Statement for the construction of Littlehampton New Leisure Centre, Sea Road, Littlehampton, BN16 2NA.

Overview

The client, Arun District Council has provided a brief for the design and construction of a new build 3015m² leisure centre to include the following elements;

- 25m 8 lane swimming pool
- 80 - 85 station fitness suite
- 1no Dance studio (50 capacity and capable of being divided into 2 space
- 1no Spin Studio (25 cycle spaces capacity plus 1 instructor)
- Flexi pool with moveable floor
- Café (30 covers)
- Multi-purpose studio for parties, meetings etc.
- A 4 badminton court sports hall

The site sits off Sea Road, facing the main seafront and is located between an operational waste water pumping station on the Western boundary with residential properties on the North Western and Eastern side of the site. Mewsbrook Park and boating lake are located to the North East side of the proposed new build. A light gauge model railway runs along the North Western boundary of the site. The existing leisure centre, boat club and car park will remain operational throughout the course of the new build.

This statement sets out proposed measures to ensure safety and minimise disruption to local residents, businesses, the general public and the workforce employed during the construction process of Littlehampton Leisure Centre.

In advance of starting the works on site a detailed Construction Phase Health and Safety Plan will be prepared in accordance with the Construction (Design and Management) Regulations 2015.

This plan will be progressively refined and developed as trade package contractors and specialists are appointed, and more specific and detailed methods, techniques and requirements are established.

The works are to be carried out over a **95** week contract period, provisionally starting in **JULY** 2017. This will comprise the enabling works and initial demolition followed by the main build and reinstatement works coupled with the demolition of the existing leisure centre in the closing stage.

2 CONSTRUCTION MANAGEMENT PLAN

2.1 General

This Construction Management Plan has been prepared on the basis of the current design and gives outlines our general approach to the construction and management of the project.

We have included our overall intentions for managing and supporting the project and the particular approaches that will be taken for certain key aspects.

Certain areas of operation will be the subject of specialist considerations, and more specific and detailed method statements relating to these operations will be developed and approved as the project proceeds. These additional key method statements will comply with the requirements of the relevant regulatory bodies and will be prepared by the specific contractors involved.

Willmott Dixon company policy dictates the above is the case and is rigorously enforced through on-going Health & Safety Managers visits and Willmott Dixon Group Health & Safety Inspections.

2.2 Pre-start Investigations

Prior to commencement of site works, an external survey has been carried out to confirm the existing site levels and the extent of any existing services. There are known 'live' services including 2nr pumped foul mains, one at 600mm in diameter at a depth of approximately 3.5m deep and a 300mm diameter main at approximately 2m deep.

A full condition survey of the existing environment will also take place and will be duly recorded prior to each phase of works commencing.

These will be plotted on a site plan drawing and a photographic record will be taken, which will be maintained as a record throughout the stages of the contract. This documentation will be included with the site specific Services Avoidance Plan (SAP).

Notification of the project commencement will be issued to all Statutory Authorities, advising them of the construction works and advising them of Willmott Dixon Construction Limited proposed programme of works.

Pre-commencement newsletters will be delivered to all neighbouring addresses introducing our site team and outlining our upcoming activities and relevant points of contact etc. This will continue on a monthly basis, or as required, throughout the works.

At the commencement of the contract, Willmott Dixon will commence the Logistics activities, which are detailed below.

2.3 Security and Site Establishment

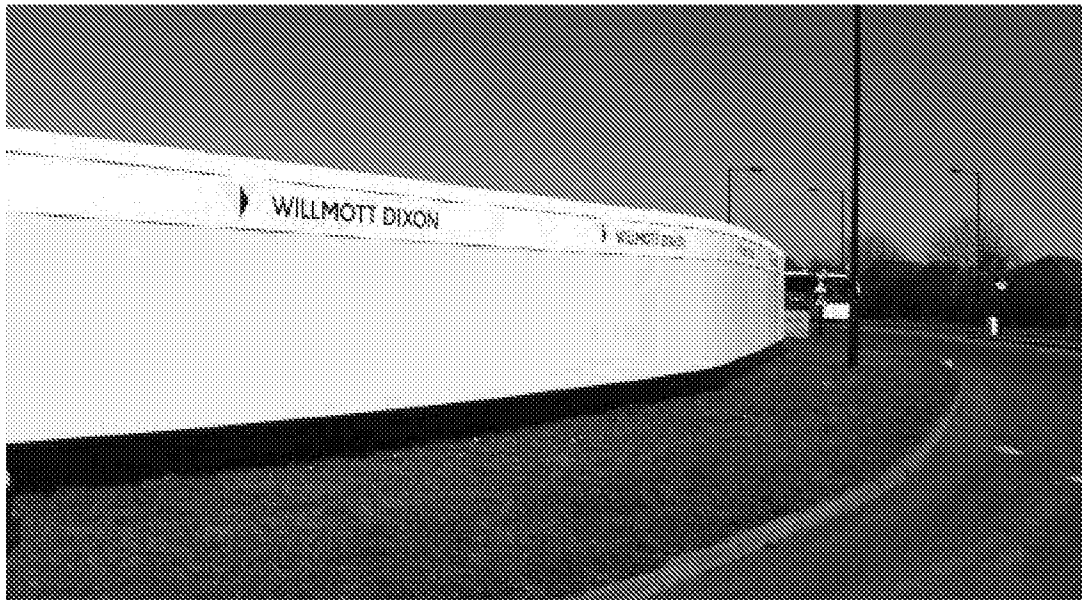
Secure site compounds will be established as shown in Appendix E Construction Logistics Plan.

During the initial Construction Phase a mixture of 2.4m high timber hoarding (erected along the site boundary and car park areas) and solid metal Anti Climb Heras-type fencing which will be inspected weekly, maintained and adapted during the contract to suit the phasing of the works. **There will be metal Anti Climb Heras-type fencing erect within the adjoining golf course to store excavated materials to be reused as part of the**

landscape works, access to the golf course will be via a small bridge, crossover.

The existing light gauge railway will also be segregated with fencing. Any existing fence to adjacent properties (i.e. pumping station) will be thoroughly examined to ensure that it conforms to HSG 151 and if not will be secured accordingly. General public access to Mewsbrook Park Park will also be maintained from the existing car park area.

In addition tree protection will be installed in various locations on the site as agreed with the local authority landscape officer to separate these areas from the site works and will be retained for the duration of construction works.



Example of Hoarding

Site office and welfare facilities will be established as identified in Appendices D and E and will comprise: Site management offices, Meeting room, Induction room, Canteens and Welfare facilities. These will be erected on hard standings within the contractor's working area and segregated from construction traffic by pedestrian barriers.

2.4 General Access Strategy

The site accommodation and pedestrian access will be located in the North West area of the site at;

Sea Road
Littlehampton
BN16 2NA

Vehicular access will be via the existing Sea Road entrance.

It is intended to set up the site access arrangements as shown on the accompanying Appendix E Construction Logistics Plan:

- Circulation arrangements during construction - The main vehicle access and egress routes on to the site will be via the designated and segregated site entrance off Sea Road. To facilitate this some minor temporary alterations will be made to the existing car park to maintain the two way flow in and out of the car park
- To ensure avoiding congestion, increased vehicle trips are not generated and increased traffic flows are not an issue, appointed suppliers and sub-contractors will be contracted to deliver to an agreed schedule listing both the date and time of delivery. Delivery vehicles will be provided with directions to the site and be required to turn off engines to avoid nuisance upon arrival. Large deliveries will be coordinated to avoid bottle necks on the access road/entrance. All deliveries will arrive within the agreed working hours with of:

(08:00 -18:00) Monday to Friday

(08:00-13:00) Saturday

Sundays and Bank Holidays No works on site

- All deliveries will be routed to site along a preferred access route selected to minimise disruption to local residents and surrounding areas. The preferred access route will be via Sea Road, ensuring segregation of pedestrians from construction traffic. At the pedestrian access to the site compound (via) a combination of turnstile and signing in/out procedures (visitors) will be established. These will be operated in conjunction with site safety, environmental and quality inductions for all personnel visiting and working on the project.
- Customers are completely segregated from the site work area. Any vehicles approaching the site entrance will be closely monitored by the gate supervisor.
- There is no need for suppression of pavements, road space, bus stops or parking bays outside the site area. No highway licences or traffic orders are required
- There will be limited parking spaces available on site and all operatives and visitors will be encouraged to take public transport. A site travel plan will be produced by the operator, Freedom Leisure.
- An appropriate holding area will be formed within the construction site where vehicles can pause, turn off their engines until required unload/load.
- No waiting will be permitted on the roads adjacent to the site. The Gateman will be posted at the site entrance to ensure that construction vehicles do not obstruct pavements or queue on the roads adjacent to the site.
- The site access will be kept clean to avoid debris and other materials being deposited on the surrounding streets and footpaths.
- A 10mph speed limit is enforced on all Willmott Dixon sites when inside the site boundaries.
- Safety Signs will be placed around the site and along all pedestrian routes.
- Adequate signage will be displayed directing traffic to/from site and traffic movements into/out of site will be controlled by a trained Traffic Marshall/Banksman adjacent to the existing main entrance gate.

- Multiple deliveries or abnormal loads will necessitate holding vehicles in designated zones away from site to avoid vehicle congestion at the site entrance if required.
- All deliveries including plant will be within the site boundary.
- Deliveries will be strictly controlled to delivery time restrictions described above.
- A Banksman will be employed to receive and manage deliveries arriving and all large deliveries will be required to book in advance to avoid multiple, unexpected arrivals on site.
- Significant large deliveries, e.g. steelwork lorries/cranes etc. will be pre-empted and notified to our neighbours, where possible, via monthly update newsletters.

2.5 Wheel Washing Facilities

A wheel washing area will be located inside of the entrance/exit gate as shown in Appendix E Construction Logistics Plan to prevent deposit of materials on to the public highway. These facilities will be implemented and employed as required and will comprise an area with drainage to a collection tank ensuring that dirty water from wheel washing does not discharge into the existing drainage system. Any necessary wheel washing will be via a hand held pressure jet washer utilizing recycled water from the collection tank.

The site management for the project will comprise a site based Construction Manager who will lead the site team and administer the contract.

The Construction Manager will be assisted and supported by site based construction management personnel, responsible for the management and supervision of the site-based operations.

A Senior Building Manager responsible for the overall construction works on site, supported by a Building Manager(s) as applicable to the specific stages during the construction cycle.

The site based team will also consist of a Lead and Assistant Project Surveyor managing the commercial aspects of the Project.

The site team will be supported and assisted by our head office based staff including environmental, planning, temporary works, health and safety managers.

2.6 Signage

A main construction signboard and its content will be discussed and its position agreed with the Client and Local Authority.

Site signage will be provided within the boundaries of the site as necessary to advise operatives/visitors and delivery staff of safety requirements within the confines of the site and where to report on arrival. Such signage will include:

- Accommodation / Access requirements
- Speed Limits
- Overhead / Underground Services
- Safety Helmet and Footwear Requirement
- Noise

- Danger Construction Site, etc.

2.7 Movement and Hoisting of Materials

All vehicle movements and deliveries will be subject to the control of Willmott Dixon. A detailed tracking exercise will be carried out to ensure vehicles can access and exit the site safely.

The storage of materials on site will be kept to an absolute minimum and therefore delivery scheduling will be carried out to ensure supply is on a 'just in time' basis only.

All concrete and screed deliveries will be proposed as 'ready mixed' and will be delivered to site in appropriate vehicles with requisite wash out facilities.

Concrete and screed placement techniques will be changed and adapted to suit the location and suitability of the equipment for its placement.

Vertical movement of material and equipment will be done by Crane or Forklift.

2.8 Storage and Handling

Various holding areas within the site boundary will be setup for all plant and materials delivered to site to be stored in a neat and safe fashion. Some Materials will be stored on upper floor within the building footprint ready for the finishing trades, once the envelope is weather tight.

More vulnerable materials/equipment will be stored in the secure container or programmed on to site to be incorporated directly into the construction.

2.9 Waste Management

A waste removal strategy has been developed during the pre-commencement period. This strategy will be incorporated within all trade contractor orders.

A Site Waste Management Plans (SWMP's) is in place for this project. The Construction Manager has appointed a Waste Champion from amongst the Building Managers to ensure best practice segregation, record keeping etc. are all maintained for the contract duration.

Rubbish skips will be provided within the contractor's site area, as shown in Appendix E Construction Logistics Plan, which will be removed and replaced on a regular basis. All trade contractors will be required to transport and deposit their rubbish within this provision.

Through the design process the volume of waste to be disposed is reduced as much as possible and either on or off site segregation (depending on space and the chosen disposal company) enables as much as possible to be recycled.

Packaging, whilst used where necessary, will also be kept to a minimum.

2.10 Scaffolding

Conventional scaffolding, where required, will be independent with boarded lifts to suit the nature, location and type of the particular operations.

All scaffolding will be securely tied to the structure and will include suitable ladder access. Scaffolding will be provided, erected and maintained in accordance with all current statutory regulations. In addition brick guards will be provided on all 'live' lifts.

Suitable guard railing will be utilised to prevent falling from unprotected edges of the excavations, upper floors and staircases as applicable.

No person other than a certified competent scaffolder will be permitted to erect, alter, adapt or dismantle any conventional scaffolding.



Example of Scaffolding

2.11 Temporary Services

- Power supply will be provided the existing supplies.
- 110v power will be utilised throughout the building.
- Safety & emergency florescent lighting will be used; all lighting will be controlled via time clocks to ensure they are not left on outside of the permitted working hours. Any flood lighting used on site will be pointed in to the site to minimise light pollution outside of the site boundary.
- Water will be provided direct from the mains system for use in the welfare facilities.
- Temporary drainage will be connected to the existing foul drains until the new foul connection to the mains has been installed and commissioned.
- Telephone lines and an electronic data transfer line will be provided to the site offices.

2.12 Hours of Work

The intended working hours are:

- (08:00 -18:00) Monday to Friday
 - (08:00-13:00) Saturday (by arrangement only)
 - No working on Sundays and Bank holidays

In the unlikely event that extended hours are required, our site manager will advise and agree these in advance with the local planning authority.

Deliveries to site will be timed to avoid conflict with peak periods of the leisure centre and car park.

2.13 Air Quality and Dust Management Strategy

Best practice will be employed in respect of dust and debris control from the construction activities and the following mitigation measures will be employed during the construction phase of the project to ensure that the impact of on-site activities are reduced to medium or low risk.

Site Planning

- Erect solid barriers to site boundary
- No bonfires
- Plan site layout – machinery and dust causing activities away from sensitive receptors
- All site personnel are to be fully trained
- Hard Surface haul routes were practical

Construction Traffic

- All vehicles to switch off engines
- Effective cleaning and wheel washing on leaving site
- All loads entering the site are to be covered
- No run off of site water or mud
- All plant on site to regularly maintained and appropriate filters in place
- Regulate movement of construction traffic onsite
- Ensure that onsite haul routes are effectively maintained and kept clean.

Site Activities

- Minimise dust generating activities
- Use water as dust suppressant where applicable
- Enclose stockpiles or keep securely sheeted
- Re-vegetate earthworks and exposed areas as early as possible during the construction process
- Ensure that any concrete crushers are licenced and comply with current regulations

Dust Monitoring

On the basis that best practice measures are to be adopted at all times along with the mitigations measures identified, a visual assessment is considered appropriate for this site.

The following five point assessment scale should be used when making a visual assessment of any impacts on the downwind boundaries of the site.

Table 1: Visual Inspection Assessment

	Significance	Description
1	None	No visible emission
2	Slight	Visible emission settling within 50 m of the source
3	Moderate	Visible emission settling more than 50 m from the source but more than 100 m from the boundary
4	Serious	Visible emissions settling less than 100 metres from the site boundary
5	Major	Visible emission crossing the site boundary

Willmott Dixon policies and procedures require a log to be kept to record the results of the daily visual inspection along with meteorological conditions including the prevailing wind direction across the site, wind speed, air temperature and the incidence of precipitation.

Dust Trigger Levels

Trigger levels have been defined in two stages, where the first stage should be used to identify preventative measures where dust or emissions have the potential to reach unacceptable levels. In these circumstances the site manager will identify the source and review the process, taking any necessary preventative action. The second trigger stage is defined as the level above which dust or emissions are at an unacceptable level at the sensitive receptor location. Action must then be taken to firstly suppress or secondly contain the emissions so that they are reduced back down to acceptable levels

Table 2: Trigger Levels and Actions

Monitoring Parameter	Specific Trigger Level to Activate an Action Response	Specific Actions to be taken Following Exceedance of Trigger Levels
Visual Inspection of Particulate Emissions	Moderate (3)	1st Trigger Level Site Manager to identify source(s), review process and take necessary preventative or corrective action.
	Serious (4) Major (5)	2nd Trigger Level Site Manager to instruct modification to or suspension of any operation or process causing visible dust emissions.

2.14 Safety

Full recognition and regard will be taken in the management and execution of the project of the Construction Design and Management Regulations 2015.

All trade contractors are obliged to provide safety policies, plans and method statements and will be interviewed prior to order placement on all aspects of safety, health and welfare.

All sites are subject to independent site safety checks, inspection and reports by our independent site safety inspectors and advisors.

Employer's direct contractors will be required to accord and be subject to the same Willmott Dixon safety procedures and requirements as our own trade contractors and operatives, as outlined above.

Safety inspections will also include the works of the employer's direct contractors if appropriate.

2.15 Noise Control

Overview

Noise and vibration from construction operations have the potential to disrupt and cause annoyance to the adjacent neighbourhood. It is therefore vital on a construction project of this size and duration to minimise any such disruption. Through careful planning, activities likely to cause concern can be identified to allow for suitable mitigation to be applied. All aspects of construction noise are closely monitored in consultation with the Local Environmental Health Officer.

A limit to the noise on the boundary is set by national legislation and will not be exceeded.

Likely Noise to be generated from construction plant

The following table summarises the anticipated noise levels generated from plant during the construction process.

Ref	Plant – Description	A-weighted Sound Pressure Level LAeq dB
1.	Driven Piling Rig	85-90
2	30t Excavator with pulveriser	80
3.	30t Excavator	82
4.	Tracked concrete crusher	82
5.	Dumper truck – general site clearance	80
6.	Mobile crane 50t	67
7.	Scissor lift	78

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8.	Concrete truck (dis-charging)	75
9.	Concrete pump	67
10.	Delivery vehicle	75
11.	Generator	55

Based on the above figures it is anticipated that the average sound pressure levels will be no greater than 75dB (A) during the permitted working hours.

- 75 dB(A) L_{Aeq} (10hr) Monday – Friday
- 75 dB(A) L_{Aeq} (5hr) Saturday

Proposals for monitoring noise and procedures to be put in place, where agreed noise levels are exceeded

It is proposed that noise monitoring is carried out on site once the operations are underway to ensure that the agreed noise levels are not exceeded. These will be regularly monitored by the site management team at set locations near sensitive receptors and records maintained.

In the event that noise levels are exceeded, the following procedures will be put in place by the site management team:

1. Quickly assess the seriousness of the problem
2. Contact the complainant and consider their views and advise how we propose to improve the situation.
3. Cease the activity causing the problem until preventative measures have been taken to control the situation.
4. Continue to take noise readings of the incident to demonstrate the effects of the improvements made.

Mitigation Measures

The following mitigation measures, as suggested in BS 5228, will be employed to lessen the noise and vibration impacts during the demolition and construction phase.

Community Relations

The establishment and maintenance of good community relations (See appendix Q) will be a priority. This will include informing local residents on progress of the works by way of leaflet drops and/or public meetings and ensuring measures are put in place to minimise noise impacts. A telephone "hot line" and agreed procedure for the contractor to investigate and report on complaints will be set up.

We will liaise with the Community Liaison Officer for the scheme (yet to be appointed).

28 days notice of times and dates of crane rigging and de-rigging shall be given to the council.

Training of Employees

Operatives will be trained to employ appropriate techniques to keep site noise to a minimum, and should be effectively supervised to ensure that best working practice in respect of noise reduction is followed.

Execution of Works

Reasonably practicable measures to manage construction noise and vibration impacts which will be undertaken during these works include the following:

- The hours of working should be planned and account should be taken of the effects of noise upon persons in areas surrounding site operations and upon persons working on site, taking into account the nature of land use in the areas concerned, the duration of work and the likely consequence of any lengthening of work periods.
- On-site noise levels will be monitored regularly, particularly if changes in machinery or project designs are introduced, by a suitably qualified person appointed specifically for the purpose. A method of noise measurement should be agreed prior to commencement of site works.
- On those parts of a site where high levels of noise are likely to be a hazard to persons working on the site, prominent warning notices should be displayed and, where necessary, ear protectors should be provided.

Control of Noise at Source

- Modification of existing plant and equipment - Noise from existing plant and equipment can sometimes be reduced by modification or by the application of improved sound reduction methods after consultation with the manufacturer.
- Use and location of equipment - Care should be taken to locate equipment away from noise-sensitive areas. Machines and plant should not be left running unnecessarily, as this can be noisy and waste energy. Plant known to emit noise strongly in one direction should, when possible, be orientated so that the noise is directed away from noise-sensitive areas. Acoustic covers to engines should be kept closed when the engines are in use and idling. Materials should be lowered whenever practicable and should not be dropped.
- * Maintenance - Regular and effective maintenance by trained personnel is essential and will do much to reduce noise from machinery. Increases in plant noise are often indicative of future mechanical failure.

Controlling the Spread of Noise

- Methods of work - If noisy processes can be avoided, then the amount of noise reaching the neighbourhood should be limited. Alternative ways of doing this are either to increase the distance between the noise source and the listener or to introduce noise reduction screens.
- Distance - Increasing distance is often the most effective method of controlling noise. However, this may not be possible when work takes place on a restricted site.

2.16 Environmental and Biodiversity

Overview

Willmott Dixon environmental policy requires a Biodiversity Champion to be appointed within the on-site team. A nominated Willmott Dixon Site Waste Champion will also be appointed from within the site team.

Ecology, Bat and Arboricultural surveys have all been completed recently and any findings from these surveys will be fed into the design process for any impacts to be assessed and any actions required during the works will be implemented and monitored by the nominated champion during the works.

The protection of trees and roots will be taken into consideration. A method statement will be produced on the release of the final arboricultural report and will be followed to manage the trees within the construction area (see Appendix S). This will be agreed in conjunction with the local tree officer.

Full project specific Environmental and Site Waste Management Plans have been developed and approved by Willmott Dixon's internal Environmental Manager along with WSCC approval of our Environmental Plan as required by the Planning Consent conditions.

Due regards will be made to the existing groundwater, surface water-rivers, water quality and hydro morphology. These will all be the subject of a detailed Environmental Impact Assessment.

The table below shows all surveys carried out to ensure the protection of ecological features:

Survey	By Whom	Reference
Phase 1 Ecology habitat survey	The Ecology Consultancy	12 th October 2016
Additional Ecology (Bats)	The Ecology Consultancy	14 th October 2016
Arboricultural Method Statement	The Ecology Consultancy	20 th October 2016

We place a great deal of importance to the ecological aspects of the scheme and we are mitigating these as follows:

- Deterioration of habitats as a result of light spill – minimise light spill in hours of darkness
- Impacts of sediment and pollutant run off– use of spill kits and sediment barrier
- Accidental damage to retained trees – tree root protection
- Encroachment on bat community activity – identification and awareness through induction and tool box talks
- Impact on breeding birds and hedgehogs – avoiding breeding season

2.17 Community Engagement / Considerate Constructors Scheme

The nature of Willmott Dixon's business requires a multi-level approach to planning a community engagement which will take into account a range of long term and short term engagements as befitting the location. Some ideas of what Community Engagement may involve are:

- Positive impacts upon the Local Employment Scheme;
- Newsletters;
- coffee mornings/open evenings;
- open site; supervised school visits;
- "open door" policy;
- Construction Ambassador Scheme Constructors; charity events. (See appendix R).

We will have an appointed manager on site that will make sure the lines of communications are kept open and there is constant dialogue.

Wherever possible, consideration will be given to pre-fabrication of components off site prior to delivery to minimise potential disturbance caused by construction traffic.

The working site is to be kept clean and in good order at all times. Surplus materials and rubbish will not be allowed to accumulate on the site or spill over into the surroundings.

Respectable and safe standards of dress will be maintained at all times. Lewd or derogatory behaviour and language will not be tolerated under threat of severe disciplinary action.

We will employ a Traffic Marshal/Logistic Manager who will manage all deliveries to site.

A detailed traffic management plan will be implemented and issued to all sub-contractors and managed by our Traffic Marshal / Logistic Manager, whose duties will include:

- Give priority to local residents & traffic
- Managing / collating the delivery booking in process
- Approved deliveries to site will contact the logistic manager in advance of their arrival to allow the site to prepare the delivery area and advise the driver of any issues. Regular meetings will be held with the Leisure Centre and other stakeholders to coordinate works which we feel could impact each other.
- Ensure vehicle engines are switched off while parking
- Banking & reversing vehicles where necessary
- Ensuring vehicle wheels are clean prior to leaving the construction area during groundworks phase.
- Ensuring vehicles are only using designated routes and not causing nuisance parking

The emergency 'out of hours' phone number will be confirmed prior to commencement.

2.19 Local Spend

Our supply chain system is assembled in 'local hubs' and we automatically aim, where possible, to select local contractors enhancing the value of 'local pound' expenditure.

Constructing a new building within the local area creates a variety of responses from the residents and businesses. Public facilities in particular gain a large amount of public interest and focus. Willmott Dixon will inwardly invest in the local business network by purchasing locally supplied goods and services. This interest, in an economic sense can become a very positive experience.

Locating and engaging services locally is a key part of the commitment required from labour trades on site but this extends beyond the immediate site boundaries into the community and local business structure.

3 CONSTRUCTION METHODOLOGY

A full dilapidation survey of the surrounding infrastructure will be completed prior to any construction works being undertaken, any damaged caused as a direct result of the construction process will be repaired as required.

Construction programme included as appendix A.

3.1 Initial Site Set up

Initial construction activities commences with the erection of site safety hoarding and the establishment of the site compound, offices and parking as shown in Appendices D and E.

A self-sufficient 'Oasis' office and welfare unit will be provided during the mobilisation phase with the main site offices being set-up whilst the demolition and site clearance commence. There will be a separate site vehicle and pedestrian gates into the contractor's site compound area.

3.2 Construction Phase

3.2.1 Construction Area Preparation

The new/permanent haul road will be constructed up to the base course level to provide a clean hard standing for the duration of the project. Temporary hardstandings will be required to the perimeter of the proposed building for mobile crane, concrete pump, tele-handler and general vehicular plant access.

Sub-Structure

Reduced level excavations will commence following removal of vegetation and top soil. Earthmoving plant and equipment will be utilised that corresponds with the quantity of soil to be relocated, the quantity of soil to be removed from site and the timescale within which the operation requires completion.

Driven pre-cast piled foundations approx. 450mm in diameter will be installed followed by pile cap formation which will be incorporated within the depth of the insitu reinforced suspended slab where appropriate. The pool shell will be constructed in advance of the steel frame erection. The ground floor slab will be installed in combination with the under floor services.

3.2.2 Superstructure

The structure will be a steel frame erected by a specialist subcontractor using a mobile / static crane.

A detailed method statement for the steel frame erection will be produced by the works contractor and agreed with Willmott Dixon Construction prior to commencement. The large spans (up to 25m) will require steel trusses and primary 'cellform' beams to span these areas. The first floor areas will comprise structural composite decking with insitu concrete placed via a mobile 'boom' concrete pump. Temporary edge protection will be fitted to the perimeter steel roof beams at ground level prior to being erected as the works proceed. Roof purlins and a lightweight roof deck will also be installed via mobile crane situated externally to the building footprint.

3.2.3 Envelope

The weatherproof roof finishes and rooflights will commence once the roof has been installed. A crane and loading bay(s) with forklift/telehandler will provide hoisting facilities for this work.

The external walls will be installed from either fixed independent scaffold and/or mobile elevating platforms depending on special constraints. This will be undertaken concurrently with the roofing works.

The wall paneling, curtain walling and windows will be installed as soon as each phase of the super structure has been erected. This will create a weather tight environment within the building for the installation of internal services and finishing works.

3.2.4 Internal Work

The internal blockwork partitions will commence as soon as the floor slabs are installed followed by the high level services to all areas. Internal fixings and services to be installed as blockwork completes.

Internal carcass and first fixing by the finishing trades will commence once a weather tight environment has been achieved within the new building. Where necessary temporary weathering will be provided to window openings in prevent the ingress of wind and rain into the working area.

The render of blockwork on partitions/perimeter walls and screeding of floors will be undertaken progressively as blockwork partitions and first fix M&E elements are completed on each floor.

The second fixing by other trades will follow after a suitable period of drying out.

Suspended ceilings are to be installed once the high level internal service pipework and trunking has been completed and tested.

3.2.5 Mechanical / Electrical Services

A detailed fabrication, delivery and installation schedule will be prepared by the Mechanical and Electrical contractor, upon instructions to proceed, to ensure compliance with the overall contract programme. Builders work required for the new services will be defined at this stage for inclusion on the structural engineer's construction drawings.

The high level conduits and pipework above ceiling level will be installed from lightweight mobile towers, prior to construction of the internal walls and partitions.

Installation of light fittings, smoke detectors and fire alarm systems will be co-ordinated with the soffit treatment suspended ceiling works. Where necessary some ceiling (service) tiles will be omitted at this stage to permit access for testing and commissioning purposes. Key dates for power and water supplies to be available within the building will be identified on the programme.

Testing and commissioning of specialist systems will be carried out by the specialist system supplier/installer and all test certificates will be issued.

On completion of the commissioning activities the complete system will be offered for demonstration and witness testing to the client.

3.2.6 Fitting-Out and Handover

Temporary protection to floor and wall finishes will be removed once the installation of all fixtures and fittings has been completed. Snagging, cleaning and inspection will be undertaken room by room /area by area and once completed each room will be secured in advance of the final handover.

The building will be handed over to the Client in September 2018 to allow the customer/operator fit out to commence thereafter.

External Works

These works will be carried out as an on-going activity throughout the construction period, upon sufficient completion of the main building envelope. Initial works will include establishing formation level, mains drainage, mains services and base course to surface finishes, with soft landscaping to all areas carried out towards the latter end of the construction period in one operation.

Littlehampton Leisure Centre Construction Management Plan

09.02.17

4.0 APPENDICES

Appendix A-Construction Programme	TBC
Appendix B- Nuisance Avoidance	
Appendix C - WD corporate branding	
Appendix D - Typical site hoarding and accommodation photo	
Appendix E – Construction Logistics Plan	
Appendix F – CLAIRE code of practice	
Appendix G – Summary of excavated materials re-use on site	
Appendix H – Reuse of demolition material onsite	
Appendix I – Fuel, Oil and Chemical storage	
Appendix J – Cement and Concrete	
Appendix K – Fuel delivery procedure	
Appendix L – Environmental spillage procedure	
Appendix M – Storage and handling of drums and intermediate bulk containers	
Appendix N – Safe storage and disposal of used oils	
Appendix O – General guide to the prevention of pollution	
Appendix P – Code of construction practice	
Appendix Q- Community engagement (newsletter)	
Appendix R – Considerate Constructors Scheme (school event)	
Appendix S – Arboricultural Survey Report and Tree Protection Plan	See Planning Portal for this report
Appendix T – Preliminary Ecological Appraisal	See Planning Portal for this report
Appendix U – Archaeological Desk-Based Assessment	See Planning Portal for this report
Appendix V – UXO Desktop Survey	
Appendix W – GPR Survey of Existing Services	
Appendix X – Phase 1 Environmental Assessment / Phase 2 Geoenvironmental Assessment	See Planning Portal for this report