

APPENDIX C

Key:

Hoarding

Heras Fencing and Monoflex

Temp Footpaths

Knee Rail Fencing

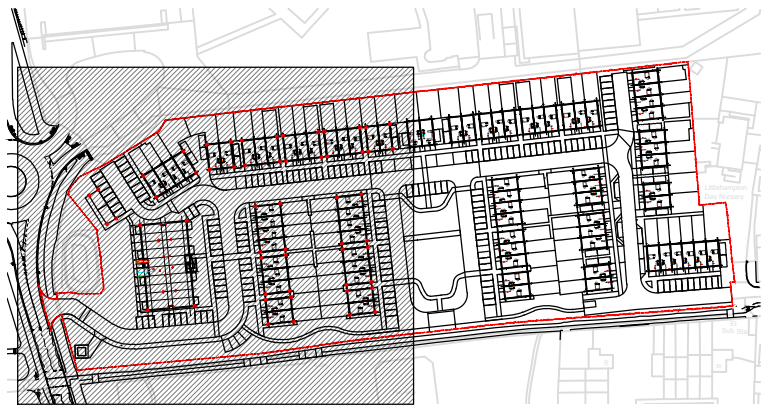
3no. Sales Parking Spaces

Gate House

Wheel Wash



This information relates only to 'Significant Hazards' identified on this drawing and is to be read in conjunction with the Designer's Hazard Register.



Setting-Out Coordinate Schedule
LTH-ECE-SW-XX-SH-A-SL-0010

N.B.
ALL COORDINATES ARE TO GRIDLINE INTERSECTION

B	16.5.22	FFLs and S/O points added, ASHPs moved	sh	SH
A	26.4.22	Apartment block moved, SUDS pond added	sh	SH



**BO
KLOK**
KANSKA & IKEA

SKANSKA & IKEA

Job Title

FITZALAN ROAD, LITTLEHAMPTON

Drawing Title
SITE LAYOUT PLAN (WEST)

Scale
1:250 @ A1 / 1:500 @ A3

Drawn	Checked	Date
aa	sh	22.03.22

Job No	Drawing No	Rev
LTH-ECE-SW-XX-DR-A-SL-0010		B

Status

S4 APPROVAL

APPENDIX D



Modular Movements
44 Newdown Road
South Park Industrial Estate
Scunthorpe
North Lincolnshire
DN17 2TX
Tel: 01724 281175
Fax: 01724 854675

Site Survey Report

Job/Order Number:	tba
Survey Completed by:	Andrew Skelton
Date survey requested:	03/06/20
Date survey completed:	Site visit completed 09.06.20

Site details

Site Name/ID:	Fitzalan rd, Littlehampton.
Site Address:	As above.
Site contact 1st:	Rick Butters.
Site contact 2nd:	

Unit Details

Type Size and Quantity of Unit	Proposed units, size 9.0m x 4.99m wide x 4.0m high.
---------------------------------------	---

Vehicle Details

	<u>Recommendations</u>	<u>Supply/Responsibility</u>
Type of vehicle required	STGO Cat1 tractor units	Modular Movements
Type of lifting/Cranage	Mobile Crane	Client
Additional Requirements (e.g pads/banksman)	Re-view when work starts	To agree

Route Details



Modular Movements
 44 Newdown Road
 South Park Industrial Estate
 Scunthorpe
 North Lincolnshire
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 Fax: 01724 854675

Directions to site:	A50-M1-M25-M3—M27-A27-A280--A259-Horsham rd-East st-Fitzalan rd.

Site & Delivery Assessment

<u>Access/Delivery Restrictions</u>	<u>Yes</u>	<u>No</u>	<u>Comment</u>
Bridges/Height Restrictions		No	
Road Restrictions		no	East st and Horsham possible parking issues.
Waiting Restrictions	Yes		Possibly, to advise once we know unload area.
Turning Restrictions		no	
Parking Restrictions	Yes		Possibly, to advise once we know unload area.
Traffic Management required	Yes		Site assistance required in ensuring vehicle enters site without any problems.
Track Way Recommended		No	To be decided later.
Street furniture removal		no	Not seen.

+

<u>Site delivery details</u>	<u>Status</u>	<u>Enabling Works Required by Ground Works</u>
Road/Track Conditions on site	Not known	
Entrance restrictions	Not known	
Obstructions	Not known	
Vehicle room on site:	Not known	

<u>Site viewed as</u>	<u>Yes</u>	<u>No</u>	<u>Comment</u>
Existing site		No	
Work started		no	
Greenfield	yes		
Under construction/complete	yes		Appears to be a new large development off the roundabout/new road.
Plans supplied	yes		basic
Other	Yes		Escort vehicles required.

Registered Office: 44 Newdown Road, Scunthorpe, North Lincolnshire
 Registered in England & Wales Company No: 09093879



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<u>Permits</u>	<u>Yes</u>	<u>No</u>	<u>Comment</u>
Police Permit required	YES		Suspension of movement of the units, between the following times 06.30 to 10.00 & 1600 to 1900. No night-time movement. Check on police escort requirements.

Additional Comments

The route is wide enough to allow the modules to pass, unfortunately we cannot take the most direct route due to narrow lights on the A27 so we would need to travel via Portsmouth.

There is a chance the police may escort within Sussex area with charges applicable.

The final 2 miles may need a parking suspension, when I visited the route was ok and passable but there was a lot of arras more vehicles could have parked.

The site is greenfield at the moment so a new entrance will need to be created.



The proposed site.

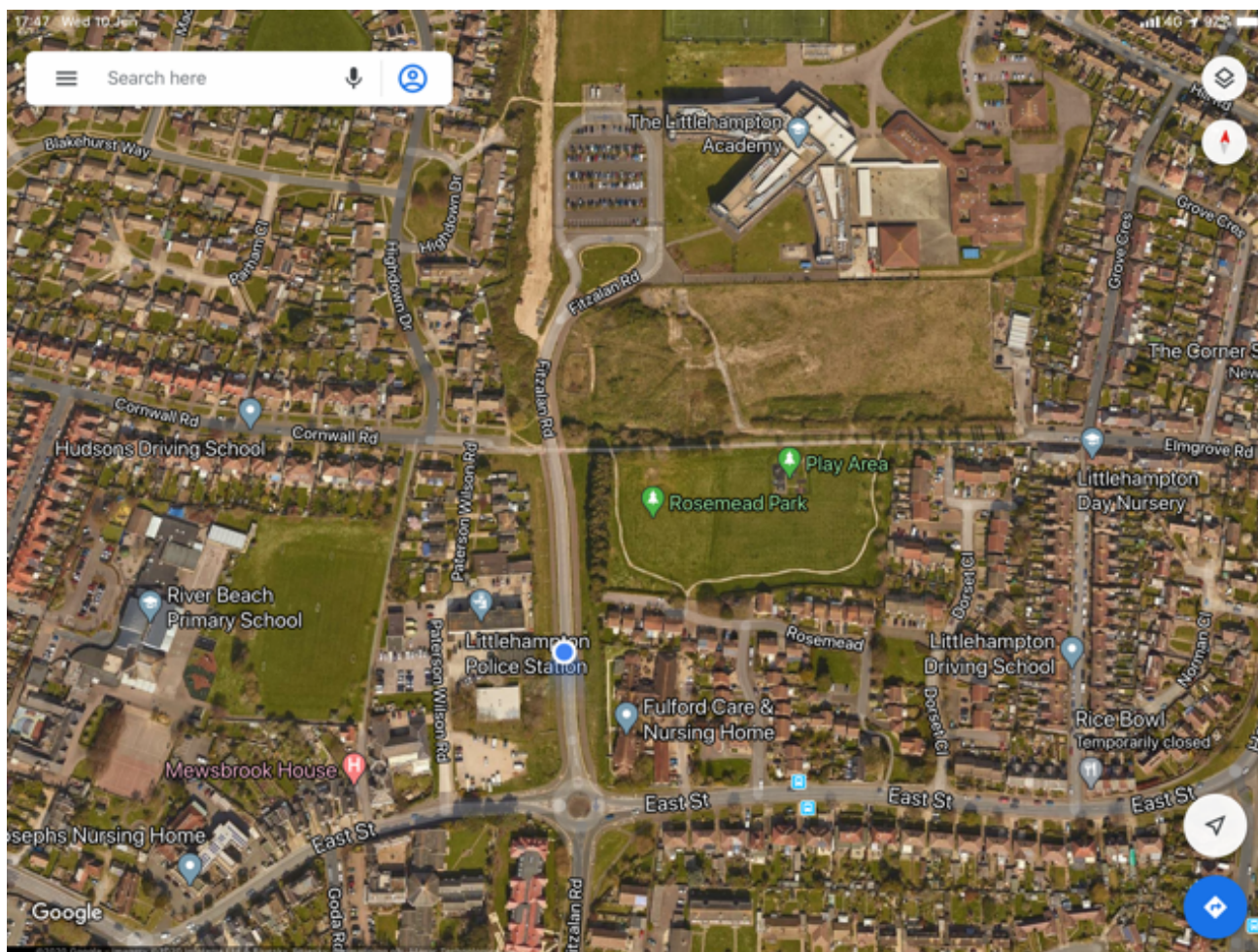
MODULAR MOVEMENTS

Modular Movements
44 Newdown Road
South Park Industrial Estate
Scunthorpe
North Lincolnshire
DN17 2TX
Tel: 01724 281175
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Delivery road.

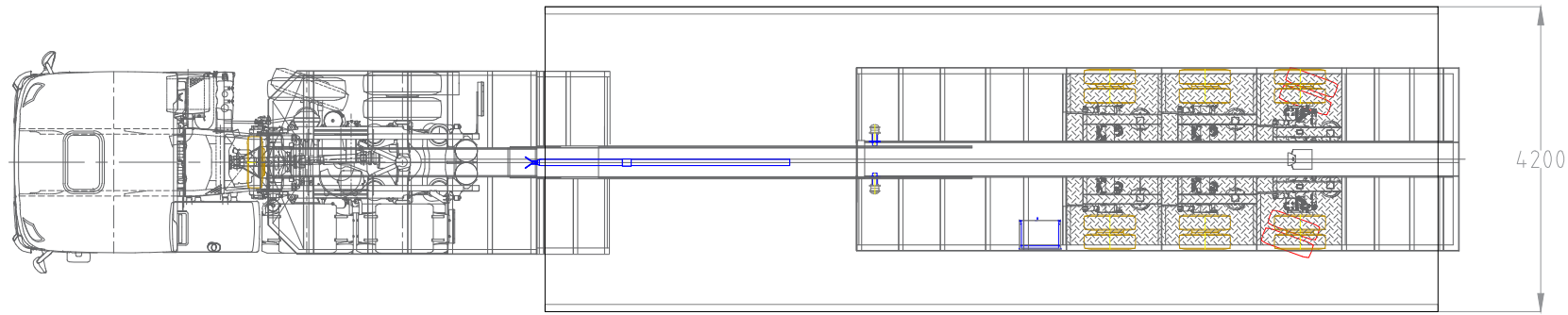
Registered Office: 44 Newdown Road, Scunthorpe, North Lincolnshire
Registered in England & Wales Company No: 09093879



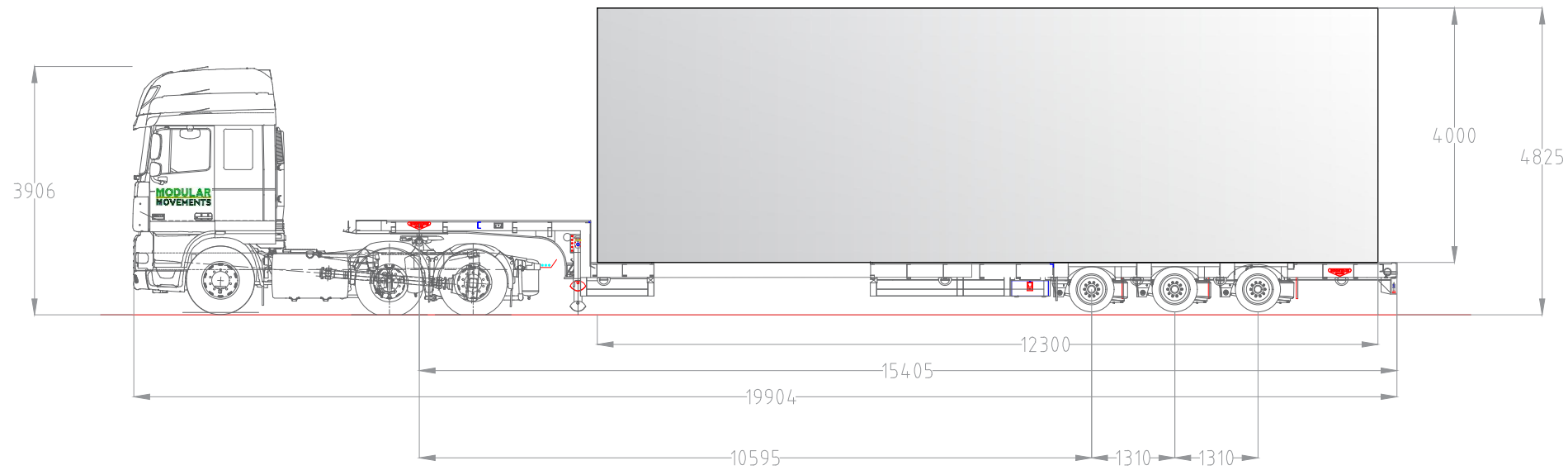
Map showing the actual delivery road and site just above Rosemead pk.

DO NOT SCALE.
IF IN DOUBT ASK.

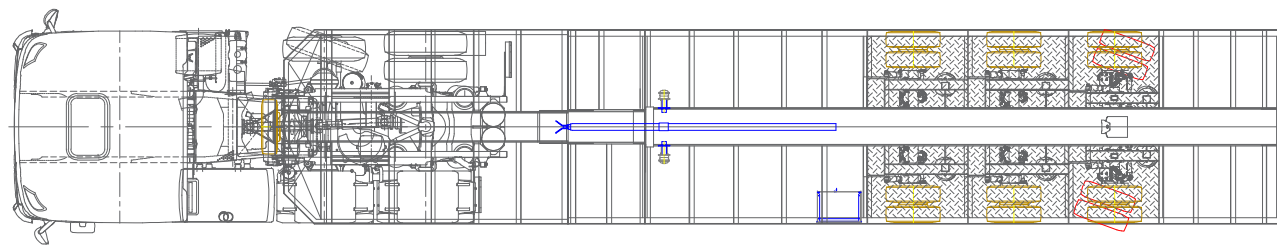
Plan of Laden Rig (12m x 4.2m)



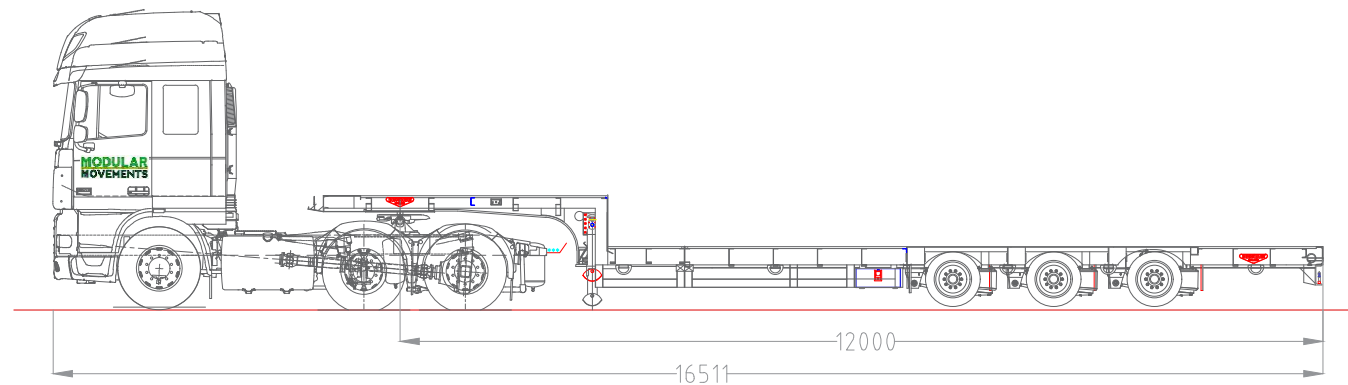
Elevation of Laden Rig on Broshuis 3 axle trailer (12m x 4.2)



Plan of Unladen Rig on Broshuis 3 axle Trailer



Elevation of Unladen Rig on Broshuis 3 axle Trailer



Key to Swept Path:-

	Wheel Track (Access)
	Wheel Track (Egress)
	Vehicle Centre & Travel Direction
	Outer Path of Vehicle body
	Path of Cargo
	200mm Clearance of Cargo

NOTES:

THIS DRAWING IS BASED ON OUR SPECIFIC VEHICLE CONFIGURATIONS WHICH IN TURN IS BASED ON INFORMATION SUPPLIED BY VEHICLE MANUFACTURERS AND HAS BEEN PRODUCED BY MSERV LTD FOR THE PURPOSE OF DEMONSTRATING FEASIBILITY OF ACCESS TO A PARTICULAR SITE. WE HAVE MADE REASONABLE ENDEAVOURS TO ENSURE IT'S ACCURACY, HOWEVER ULTIMATE RESPONSIBILITY REMAINS WITH THE ROAD HAULER.

RIG DETAIL

-	-	-	-
Rev	By	Description	Date

MODULAR MOVEMENTS

44 Newdown Rd, Southpark Industrial Estate,
Scunthorpe, DN17 2TX

Working in Partnership with...

254 Moorfield Lane, Scarisbrick, Lancs, L40 8JF
Telephone: 07496 122404

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Project Vehicle Dimensions

Title	Vehicle Dimensions
1	1000
2	1000
3	1000
4	1000
5	1000
6	1000
7	1000
8	1000
9	1000
10	1000
11	1000
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99	1000
100	1000

Client	Modular Movements
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Scale (@A1)	Date:	Drawn	Checked
1:50	01/11/2019	GO	AS

Drawing Nr

Project Nr - Origin - Vol - Lev - File Type - Role

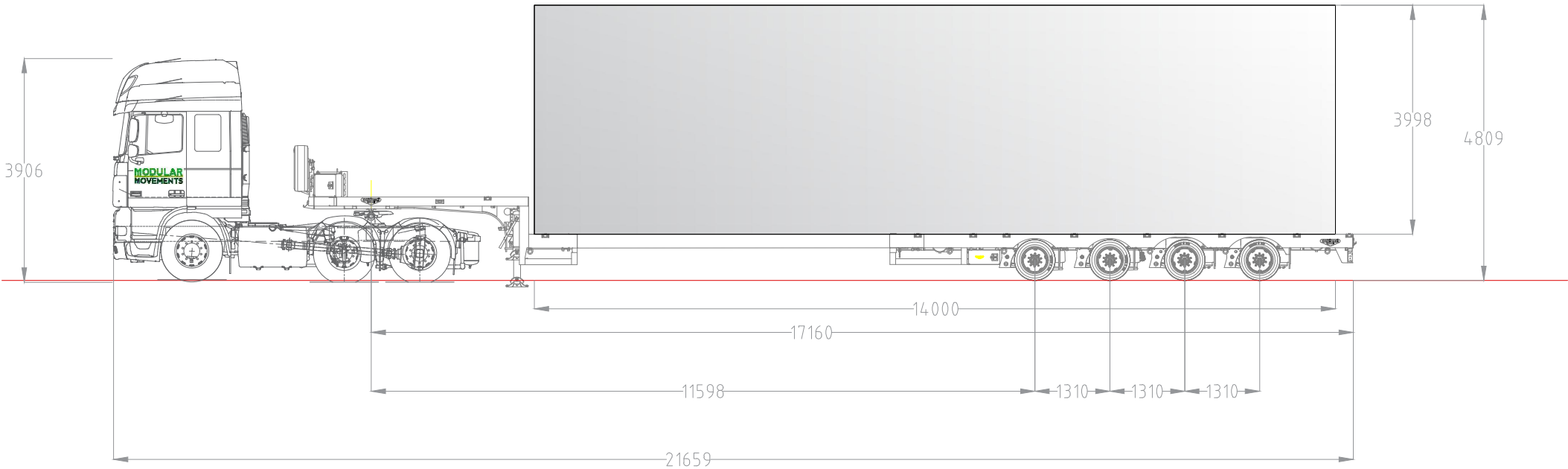
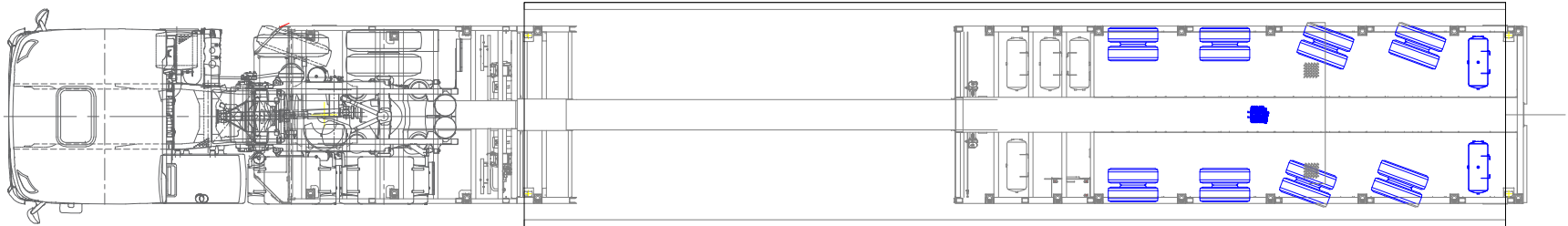
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Rev	-	Suitability	-	ARUN D
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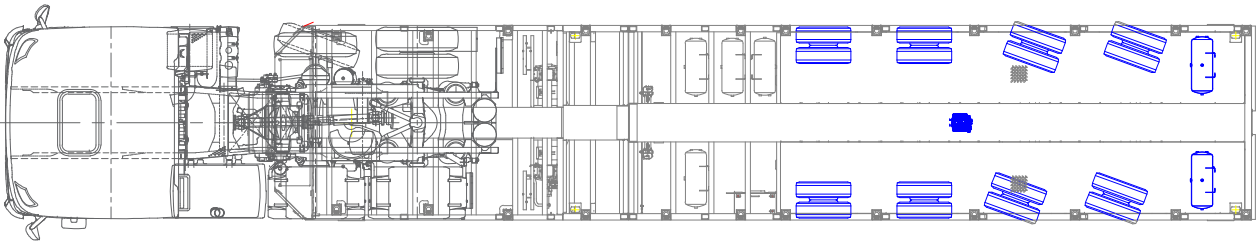
ARUN DISTRICT COUNCIL LU/144/22/DOO

DO NOT SCALE.
IF IN DOUBT ASK.

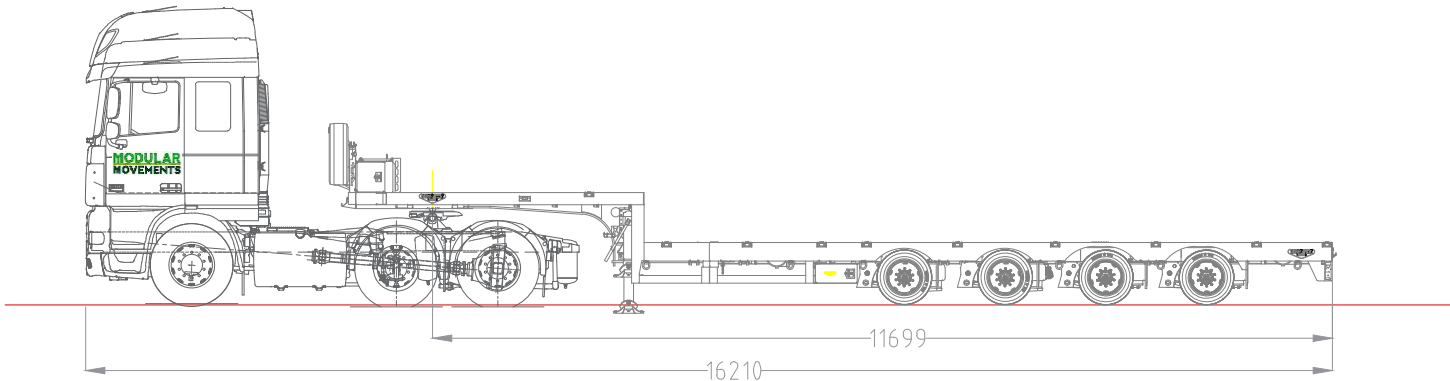
Plan of Laden Rig (14m x 3.2m)



Plan of Unladen Rig on Broshuis 4 axle Trailer



Elevation of Unladen Rig on Broshuis 4 axle Trailer



Key to Swept Path:-

	Wheel Track (Access)
	Wheel Track (Egress)
	Vehicle Centre & Travel Direction
	Outer Path of Vehicle body
	Path of Cargo
	200mm Clearance of Cargo

NOTES:

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RIG DETAIL

Rev	By	Description	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

**MODULAR
MOVEMENTS**

44 Newdown Rd, Southpark Industrial Estate,
Scunthorpe, DN17 2TX

Working in Partnership with...

254 Moorfield Lane, Scarisbrick, Lancs, L40 8JF
Telephone: 07496 122404

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Project Vehicle Dimensions

Title Vehicle Dimensions

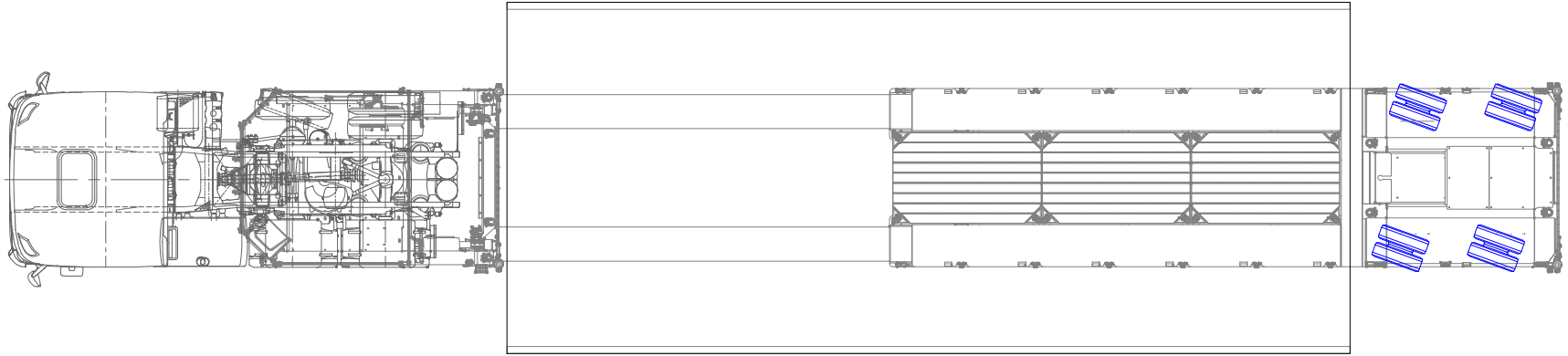
Client Modular Movements

Scale (@A1) Date: 1:50 01/11/2019 Drawn GO Checked AS

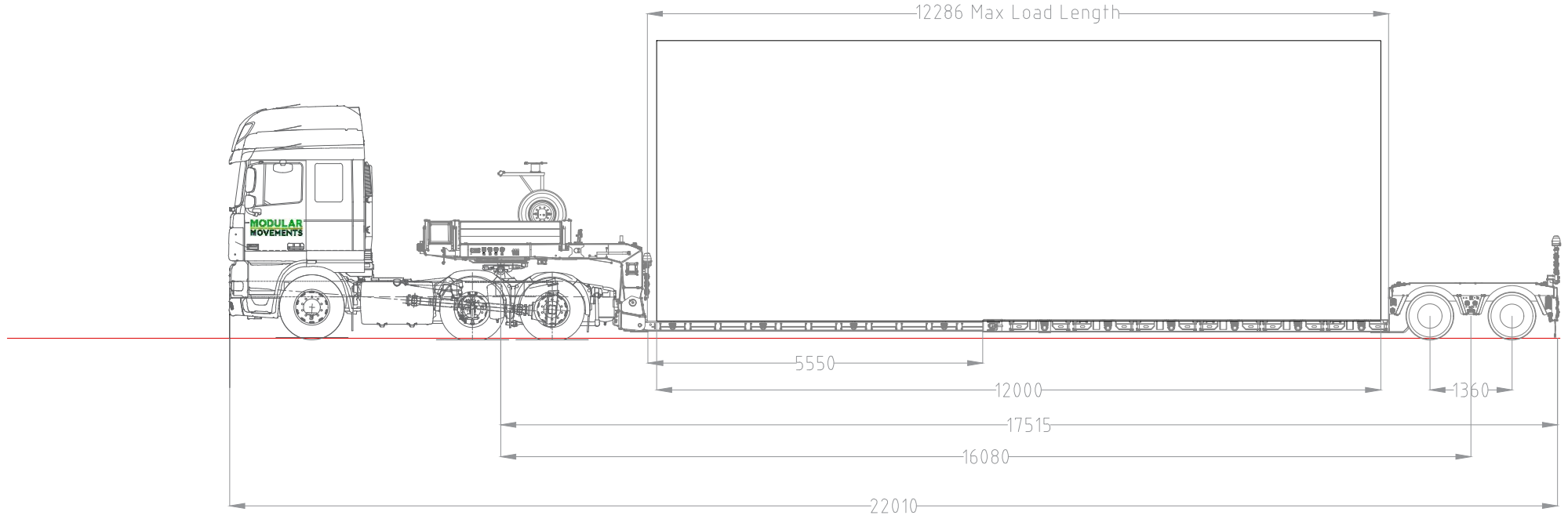
Drawing Nr Project Nr - Origin - Vol - Lev - File Type - Role - 191219-MS-ZZ-ZZ-DR-W-7000-002

Rev Suitability

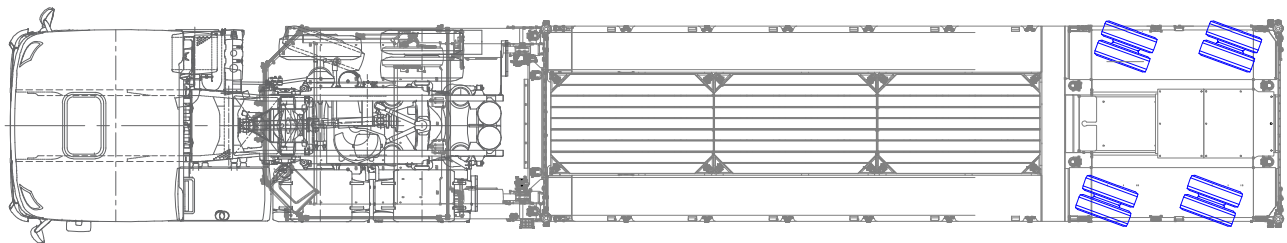
ARUN DISTRICT COUNCIL LU/44/22/DOC



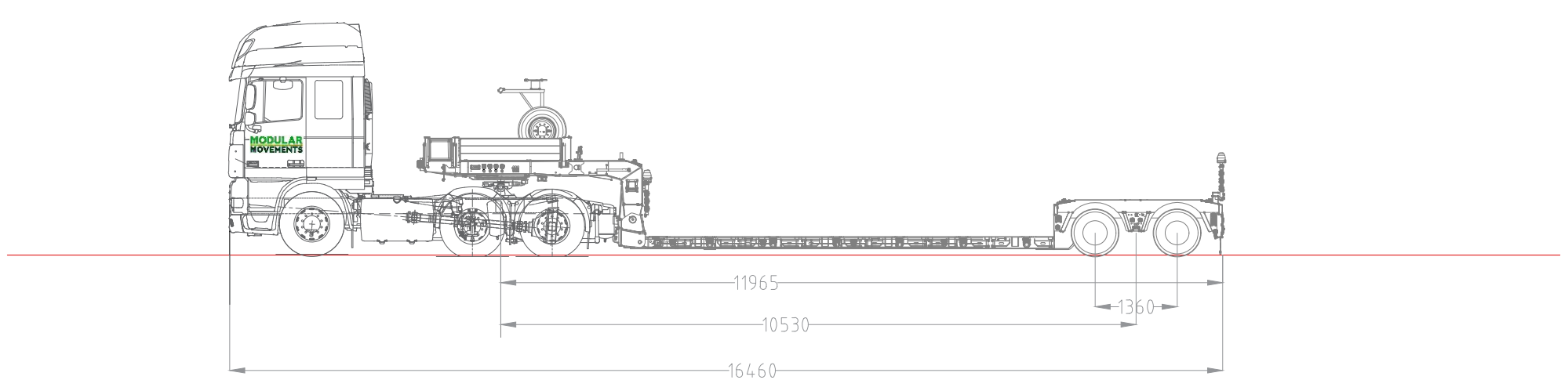
Elevation of Laden Rig on Kassbohrer SLL2 Lowloader (W12m x H4.65)



Plan of Unladen Rig on Kassbohrer SLL2 Lowloader



Elevation of Unladen Rig on Kassbohrer SLL2 Lowloader



Key to Swept Path:-	
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	Wheel Track (Egress)
	Vehicle Centre & Travel Direction
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RIG DETAIL

-	-	-	-
ev	By	Description	Date

MODULAR MOVEMENTS

44 Newdown Rd, Southpark Industrial Estate,
Scunthorpe, DN17 2TX

Working in Partnership with...

54 Moorfield Lane, Scarisbrick, Lancs, L40 8JF
Telephone: 07496 122404

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Project Vehicle Dimensions

Title	Vehicle Dimensions
-------	--------------------

Client Modular Movements

Scale (@A1)	Date:	Drawn	Checked
1:50	01/11/2019	GO	AS

Drawing Nr

Project Nr - Origin - Vol - Lev - File Type - Role - Nr

191219-MS-ZZ-ZZ-DR-W-7000-003

Rev	Suitability	ARUN D
-	-	

ARUN DISTRICT COUNCIL LU/144/22/DOO

APPENDIX E

APPENDIX: CLOCS Standard for construction logistics: Managing work related road risk (WRRR)

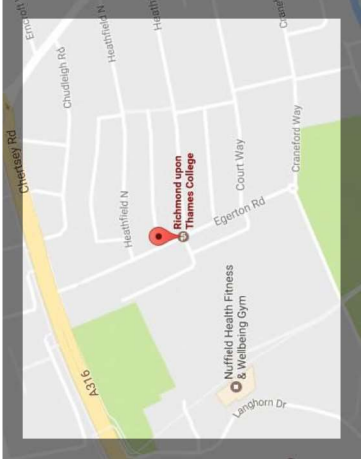
CLOCS Requirement	Further Information
Operations	
Quality operation – current certification with the Fleet Operator Recognition Scheme (FORS) Bronze accreditation (or equivalent)	www.fors-online.org.uk
Collision reporting - Conduct collision reporting, investigation and analysis	Included as part of FORS: CLOCS Manager is a free collision reporting tool available to all operators: www.clocs-manager.org.uk Free collision reporting toolkit available: www.clocs.org.uk/clocs-guides/
Traffic routing – adhere to any client specified routes	Follow client instruction
Vehicles	
The following vehicle safety equipment shall be fitted to vehicles over 3.5 tonnes:	CLOCS Guide: Vehicle safety equipment www.clocs.org.uk/clocs-guides/
Prominent signage warning other road users not to get too close to the vehicle	Further information and discounts on stickers and other equipment available through FORS: www.fors-online.org.uk/cms/contractors/fors-offers/ www.fors-online.org.uk/cms/discount-equipment/ Other services: www.fors-online.org.uk/cms/discount-services/
Side-guards on both sides of exempt vehicles	
Class V and VI 'close proximity' mirrors to exempt vehicles	
Close proximity warning system and/or camera system and/or vision-aid fitted to HGVs	
Left turn audible vehicle manoeuvring warnings	
Drivers	
Approved driver training in vulnerable road user safety	SUD courses and other approved courses detailed on FORS website: www.fors-online.org.uk/cms/training-discounts/
Driver licences checked through DVLA	Free through DVLA online check Discounts on DVLA license checking services available through FORS: www.fors-online.org.uk/cms/discount-services/

APPENDIX F

It is the contractor's policy that wherever possible the method of travelling to and from site should have as low environmental impact as is practicably possible.

This guide has been produced to enable all staff and visitors to make the best decision regarding the most environmentally conscious method of transport.

The contractor would encourage either cycling or the use of public transport as these are the most viable and environmentally conscious ways to access the site.



Where to find us?
Richmond College,
Egerton Road, Twickenham TW2 7SJ

OTHER TRAVEL METHODS

Taxi There are a number of companies within London offering green taxi services. These companies use hybrid vehicles and carbon offsetting to deliver an environmentally conscious option, but it should be noted that the numbers currently available are limited. Single occupant use of taxis should be avoided.

Website: www.climatecars.com
Tel: 0207 350 5960

Website: www.eceigo.com
Tel: 0207 833 8015

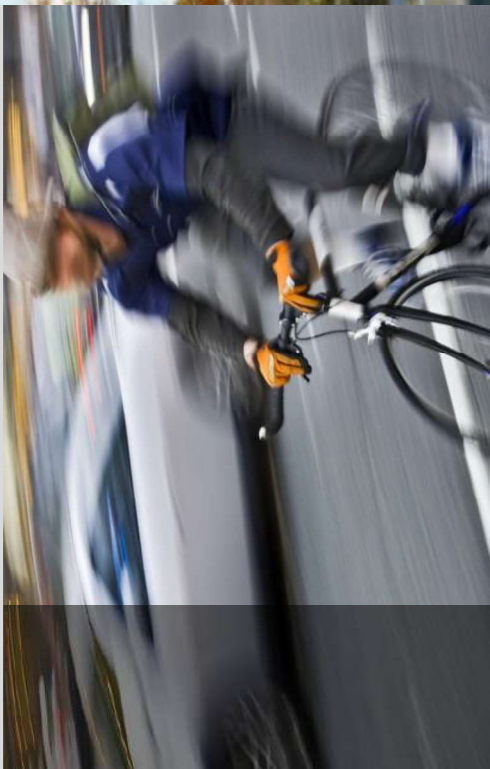
Car/Car sharing is an ideal way to reduce the environmental impact of travelling to an access point for one of the public transport methods. www.liftshare.com

Air Use of air travel is not recommended unless travel by other methods given is impractical

GREEN TRAVEL GUIDE

Richmond College

Egerton Road, Twickenham, TW2 7SJ



TRAVEL OPTIONS

There is no need to drive or take a cab. Why not use one of the following options:

- Walk
- Cycle
- Bus
- Underground
- National Rail service



Where to find us?
Richmond College,
Egerton Road, Twickenham TW2 7SJ



TRAVEL OPTIONS

Walk

The building is a 14 minute walk from Twickenham Station

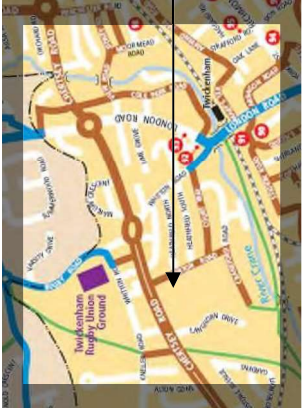
Underground

Closest Tube Stations:

- Richmond (**District**Line)

Cycling

There are many "main road cycle routes" (blue) and "off-road and quiet cycle routes" (Brown) in the local area, meaning conditions are quite suitable for cycling to the projectsite.



TRAVEL OPTIONS

Coach & Bus

Buses servicing the area include:

33, 110, 267, 281, 290, 490, H22, R68 and R70



National Rail Service

National rail services are available at:

- Twickenham Station

Please see the National Rail website to plan your route from your start destination:

www.nationalrail.co.uk

For further assistance in planning your journey please visit:

www.tfl.gov.uk



APPENDIX G



ARBORICULTURAL PLANNING CONSULTANTS

17 CROSS ROAD
TADWORTH
SURREY KT20 5ST

Tel: (01737) 813058
E-mail: sja@sjatrees.co.uk

Directors: Simon R. M. Jones Dip. Arb. (RFS), FArborA.,
RCArborA. (Managing)
Frank P. S. Spooner BSc (Hons), MArborA, TechCert
(ArborA), RCArborA. (Operations)

ARBORICULTURAL METHOD STATEMENT

For Protection of Trees

at

Land south of Littlehampton Academy

Littlehampton

Sussex



March 2021

SJA ams 20463-01

CONTENTS

1. Statement of purpose	3
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6. Installation of underground services	9
7. Construction of permanent hard surfaces	10
8. Fencing, landscaping and reinstatement	12
9. Supervision and monitoring	13

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1. Statement of purpose

1.1. The purpose of this method statement is to detail what actions need to be taken to ensure the Erection of 112 residential units with access from Fitzalan Road, associated open space, hard and soft landscaping works, internal roads/footways, car and cycle parking, substation, bin store and engineering works at the land south of Littlehampton Academy does not cause any unacceptable damage to the trees to be retained within this site and in the adjacent properties.

1.2. This method statement has been drawn up to comply with the recommendations of British Standard BS 5837:2012, *Trees in relation to design, demolition and construction – Recommendations*.

1.3. Details of the trees can be found in the tree survey schedule at **Appendix 2** of the report to which this method statement is also appended. Their locations are shown on the tree protection plan (SJA TPP 041) at **Appendix 3** of the same report. The tree protection plan (and therefore this method statement) is based on the following drawings:

- ECE Architecture site plan (ref: LTH-ECE-ZZ-ZZ-SK-A-SL-5000 P09)
- AKS Ward drainage plan (ref: LLA-AKSW-XX-XX-DR-C-9201-P01)
- AKS Ward surface model plan (ref: LLA-AKSW-XX-XX-DR-C-9220-P02)
- Neil Tully Associates hard landscape plan (ref: LTH-NTA-XX-00-DR-L-0502/0503)

1.4. The key words and phrases used in this statement are defined in **Table 1** below.

Arboricultural consultant	Arboricultural expert instructed by the developer to oversee the retention and protection of trees adjacent to the development site.
Arboricultural monitoring	Regular inspections of retained trees by the arboricultural consultant, in order to monitor their health and condition; and to inspect the effectiveness of the tree protection measures implemented.
Arboricultural supervision	Pre-arranged attendance on site of appointed arboricultural consultant for the duration of specific construction activities that could otherwise result in unacceptable damage to retained trees. Whilst on site the consultant will control, supervise and where appropriate assist in the undertaking of these activities.
Construction Exclusion Zone ('CEZ')	Area based on the root protection area (RPA), normally surrounded with protective fencing, from which access is prohibited during development works.
Ground boarding	Temporary ground covering, designed to prevent compaction of soil in which significant roots of retained trees are growing.
Protective fencing	Temporary fencing, erected for the duration of demolition and construction activities; designed to prevent access and disturbance to the trunks and root protection areas of trees.
Pruning	The removal of living or dead parts of a tree, especially branches, to reduce size, to maintain shape, health, safety, or to regulate growth.
Root Protection Area ('RPA')	The minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.
Tree Protection Plan ('TPP')	Drawing based upon the finalised proposals; showing trees for retention and illustrating the tree and landscape protection measures.

Table 1 Key words & Phrases 1

1.5. This statement is designed to reflect the principles of the proposed layout only insofar as these relate to the protection of trees to be retained and should **not** be read as a definitive engineering or construction method statement for this development.¹

2. Planning and communication

2.1. Unless otherwise agreed with the Local Planning Authority (LPA), the following actions are to be taken, in the order specified in the Sequence of Works at **Table 2**.

2.2. The developer will appoint an arboricultural consultant to oversee all aspects of tree care and protection for the duration of construction works.

2.3. Prior to the commencement of works, the project manager will send copies of any construction method statements that might have implications for existing trees to

¹ Reference should be made to the architect or structural engineer over any matters of construction detail, specification, engineering performance standards or regulatory requirements, relating to structures, surfaces or underground services to be constructed. As arboricultural consultants, Simon Jones Associates Ltd. can accept no liability for any matters relating to the structural integrity or engineering performance of structures, surfaces or underground services described, proposed or eventually constructed. The responsibility for satisfying any Health & Safety requirements relating to any operations described in this method statement remains with those commissioning or undertaking the operations concerned.

the arboricultural consultant for his comments. The arboricultural consultant will liaise with the project manager to ensure that there are no conflicts between the construction method statements and this arboricultural method statement.

2.4. Prior to the start of any site clearance, ground preparation, or construction works the developer will convene a pre-commencement site meeting. This shall be attended by the developer's contract manager or site manager, the fencing/boarding contractor, the groundwork contractor(s) and the arboricultural consultant. The LPA tree officer will be invited to attend. If appropriate, the tree felling/surgery contractor should also attend. At that meeting contact numbers will be exchanged, and the methods of tree protection outlined in this statement shall be fully discussed, so that all aspects of their implementation and sequencing are made clear to all parties. Any clarifications or modifications to this statement required as a result of the meeting shall be circulated to all parties in writing.

2.5. The developer will immediately inform the arboricultural consultant if at any time during site clearance or construction the site manager or agent is replaced or transferred. The arboricultural consultant will convene a site meeting with the incoming/replacement site manager, to be held within five working days, to explain all outstanding tree protection measures detailed in this method statement.

2.6. A copy of this method statement shall be supplied to all site personnel who have control over works of any nature within the Root Protection Areas (RPAs) of trees to be retained, or within the footprints of their canopies. The contractor will provide adequate instruction on its implementation for all relevant staff. This instruction will be carried out by, or to the approval of, the arboricultural consultant.

Order	Works	Details at Section:	Arb. supervision required:
1	Pre-commencement site meeting	2	Yes
2	Removal of trees nos. 1, 2, 3, 4, 5, G2, G6 and H1	3	-
3	Erection of protective fencing	5	Yes
4	Construction of permanent hard surface within RPAs of trees nos. 5, 7, 9, 12, 13, 14 and 16	7	Yes
5	Clearance of machinery/materials from site, reinstatement and landscaping.	8	-
6	Removal of protective fencing.	8	-

Table 2: Sequence of works (relevant to tree protection)

3. Site clearance

3.1. No clearance of trees or other vegetation shall be undertaken until after the pre-start meeting and after the erection of the tree protection fencing (see below).

3.2. If any vegetation clearance is required behind the line of the protection fencing this will be made clear at the pre-start meeting and arrangements will be made to undertake this prior to the fencing's erection, under the supervision of the arboricultural consultant, who will ensure it doesn't cause any soil compaction or damage to the roots of trees to be retained.

3.3. The five individual trees (nos. 1, 2, 3, 4 and 5), three groups of trees and one hedgerow are to be removed shall be felled and disposed of.

3.4. Stumps of those trees that are within the RPAs of trees to be retained shall either be left in place or shall be ground out.

3.5. Except within the RPAs of trees to be retained, all other vegetation to be removed may be cut down or grubbed out as appropriate. Within the RPAs of trees to be retained, vegetation will be cut by hand to ground level and stumps will be either left in place or ground out with a lightweight self-powered stump grinding machine. No excavators, tractors or other vehicles will enter the RPAs.

4. Ground preparation

4.1. No ground preparation or excavation of any kind, including topsoil stripping and levelling or re-profiling of soil, shall be undertaken prior to the pre-start meeting and after the erection of the tree protection fencing (see below). Thereafter there shall be no unsupervised excavation within the RPAs of trees to be retained.

5. Protective fencing

5.1. No site clearance, ground preparation, or construction shall commence on site, and no demolition or construction vehicles or plant will enter the site until the RPAs of the trees to be retained have been safeguarded by the erection of protective fencing

to the specification recommended in BS 5837: 2012, Section 6.2.2, as shown in Figure 2 of that document (see **Figure 1** below).

5.2. The protective fencing will be located in the positions shown by the **continuous bold blue lines** on the TPP.

5.3. The fencing shall be at least 2.1m in height, comprising a scaffolding or a timber post and rail framework supporting either a minimum of 20mm exterior grade ply or other robust man-made boards, or standard anti-climb 'Heras' welded mesh fence panels, fixed to each other with at least two clamps, and secured with anti-lift devices to concrete or plastic bases (footings) that are pinned at least 450mm into the ground with lengths of scaffold tube.

5.4. Scaffolding construction shall be to BS EN 12811-1:2003; uprights shall be at minimum 3.5m centres and every other one shall be supported on the side closest to the trees by struts braced to the ground at an angle of 45°. If used, 'Heras' panels shall be secured to two cross members between the uprights with heavy-duty cable ties. Notices stating "Tree Protection Zone, Keep Out!" will be attached to every third panel with cable ties.

Figure 2 Default specification for protective barrier

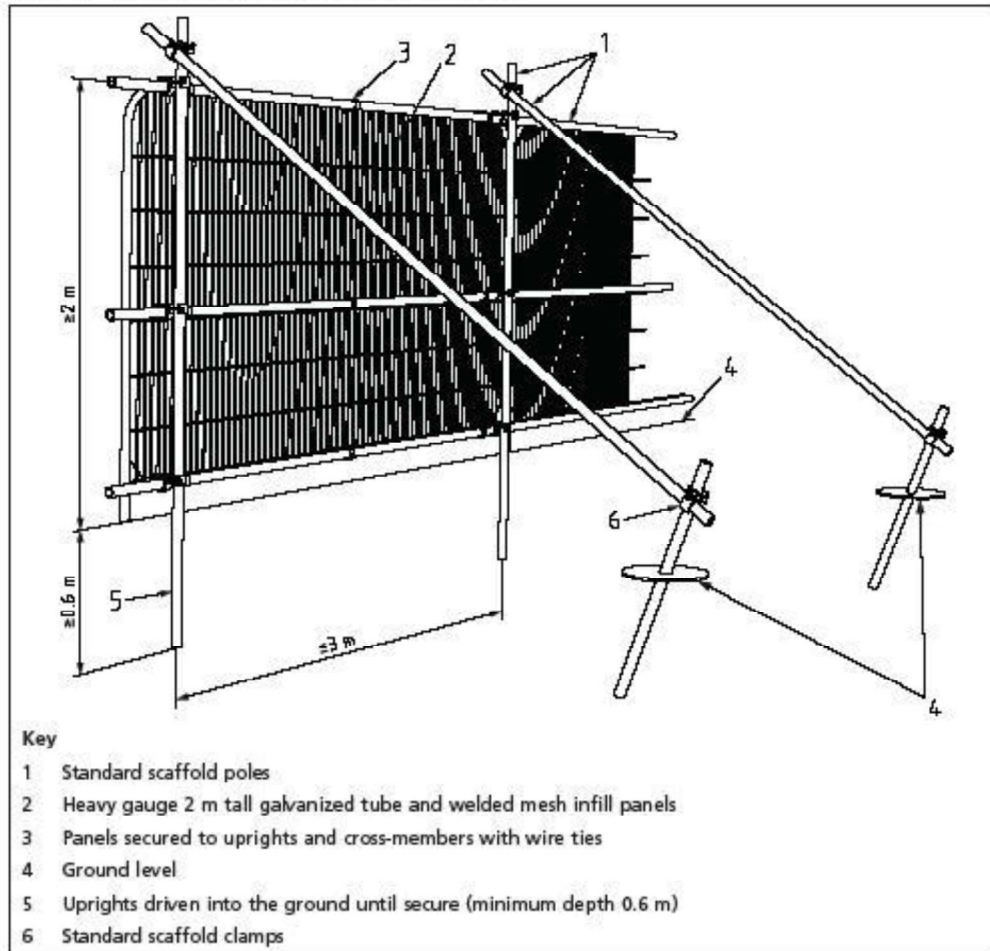


Figure 1 Protective fencing.
(Based on Figure 2, BS 5837: 2012)

5.5. Exclusion Zones (“CEZs”) behind the fencing: no equipment or materials will be stored, and no vehicles, plant or personnel shall enter these areas. Ground levels will not be changed within them, and existing vegetation and topsoil will be left undisturbed.

5.6. Areas for the storage of materials shall be outside the CEZs. Oil, bitumen, diesel, and cement shall not be stored, mixed or discharged onto the ground within 10m of the trunks of any trees. Areas for the storage or mixing of such materials shall be agreed at the pre-commencement meeting.

5.7. No notice boards, or power or telephone cables, shall be attached to any of the trees. No fires shall be lit where their flames could extend to within 5m of any parts of trees.

5.8. In the event that the protective fencing or ground boarding is accidentally damaged or knocked over, those sections will immediately be cordoned off with high visibility plastic mesh fencing. The damaged sections then will be repaired or replaced within 48 hours (2 working days). All instances of damage and re-instatement shall be recorded and immediately reported to the arboricultural consultant.

5.9. Once the protective fencing has been erected, the arboricultural consultant will visit the site and inspect it. He will record the position of the fencing and the condition of the retained trees. If it complies with this statement, the arboricultural consultant will 'sign off' the fencing to the contractor and copy this (in writing) to the developer. (See also 'Supervision and Monitoring' below.)

5.10. The protective fencing will not be moved or re-located without the prior approval of the arboricultural consultant. It will only be removed once all construction works are completed: the arboricultural consultant will be informed in advance of when it is intended to remove the fencing.

6. Installation of underground services

6.1. A review of the AKS Ward drainage plan demonstrates that no drainage routes are to be located so that no excavation is required within RPAs. All underground service routes shall also be located so that no excavation is required within RPAs.

6.2. In the unlikely event that the service routes cannot be located outside of the RPAs of retained trees, underground services shall be installed in one of the following two ways, in accordance with NJUG guidelines².

6.3. **Trenchless technique.** This involves thrust boring or directional drilling of service routes to avoid all excavation and disturbance of soil in which roots are likely to be growing. The pits for starting and receiving the boring machinery shall be located outside the RPAs of any retained trees. The bore shall be made at a minimum depth of 600mm below ground level. Lubrication of the 'mole' shall be with water, rather than with oil or other lubricants which could contaminate the soil.

² National Joint Utilities Group. Volume 4, GUIDELINES FOR THE PLANNING, INSTALLATION AND MAINTENANCE OF UTILITY APPARATUS IN PROXIMITY TO TREES", Issue 2: 16th November 2007.

6.4. **Manual excavation.** This involves hand digging of a continuous trench to a depth of at least 750mm, under arboricultural supervision; with the careful retention and protection of all roots of a diameter greater than 25mm, as detailed elsewhere in this method statement. If soil conditions and/or root distribution render it appropriate, the arboricultural consultant may require hand excavation to extend to a greater depth than this.

6.5. Such an excavation will be undertaken using a pick or a hand fork to loosen the soil, which will then be cleared from roots using a compressed air soil pick and removed using shovels or trowels. All roots encountered of less than 25mm diameter will be cut cleanly with secateurs or a sharp pruning saw.

6.6. The faces of all excavations that contain exposed roots will be covered with hessian sacking and be kept moist at all times; they will not be left exposed to frost, wind or direct sunlight.

6.7. Protection of retained roots shall be carried out in the following way. A 50:50 mix of sharp sand and composted organic matter shall be prepared and packed around the root within a wrapping of Hessian (builders' sand will not be used as it has a high salt content and may be toxic to trees). The layer of sharp sand and compost shall be not less than 50mm in thickness around the full circumference of the root section. If concrete is to be poured or placed around these roots, they shall also be wrapped with an impermeable polythene membrane. Both the hessian wrapping and the polythene membrane shall be secured by degradable ties, in a manner that will not constrict future growth of the root.

6.8. Excavation beneath 750mm depth (or greater if the arboricultural consultant has deemed it appropriate) may be undertaken by an excavator working from outside the RPAs, provided that this is supervised to prevent any retained roots being damaged.

7. Construction of permanent hard surfaces

7.1. A review of the AKS Ward surface model and Neil Tully hard landscape plans indicates that hard surfaces are proposed within the RPAs seven trees to be retained. The encroachments can be separated into three types: the parking bays within the

RPA's of trees nos. 13 and 16, the footpath within the RPA's of poplars nos. 12 to 14, and the kerb haunching within the RPA's of trees nos. 6, 7 and 9.

Proposed parking bays

7.2. A review of the existing and proposed levels within the RPA of poplar no. 13 show that the proposed levels are 30mm above the existing levels. The proposed permeable concrete block paving and sub-base will be located entirely within the footprint of the existing hard surface, as such, the new surface can be founded no deeper than the sub-base of the existing hard surface, consequently no root severance will occur.

7.3. The parking bay within the RPA of beech no. 16 covers 2.4m² or 1.1% of its RPA, a review of the existing and proposed levels shows that the proposed surface will be 240mm below the existing levels, as such, excavation will be necessary.

7.4. To minimise the potential impacts, the excavation shall be undertaken manually under the direct supervision by an arboricultural consultant. If roots larger than 25mm diameter are encountered they shall be retained and protected, and the pile or pad will be relocated. Any smaller roots shall be cut cleanly by the arboricultural consultant. If roots larger than 25mm diameter are accidentally damaged, the arboricultural consultant will assess the damage and carry out any necessary remedial works. He will report to the client the extent of the damage and any long-term effect to the tree's stability or health.

7.5. Exposed roots will be covered with sand or hessian sacking and be kept moist at all times; they will not be left exposed to frost, wind or direct sunlight.

7.6. A review of the existing levels and the proposed level of the proposed footpath within RPA's show that the proposed levels are above the existing levels in the east section by 130mm, however, the proposed levels drop to 30mm below existing levels in the western sections, however, the hard landscape plan states that within RPA's the surface will be founded above the existing levels.

Proposed footpath

7.7. The footpath is to be self-bound gravel with timber edging, there is insufficient evidence to suggest that the footpath design can be above the existing soil level, however, the degree of potential excavation is likely to be very limited (no greater than

250mm) and given the small size of encroachment and the physiological health of the trees, there is no reason to suggest that tree will not tolerate the proposed works.

Proposed road haunching

7.8. The proposed site access from Elmgrove Road is located outside of the RPAs of the off-site trees nos. 6, 7 and 9, however, to accommodate the kerb and road haunching there is likely to be some excavation within the RPAs of these trees. The incursions are minor (no greater than 1.2m² or 0.7% of the tree RPAs) and subject to the excavation being undertaken manually under the direct supervision of an arboricultural consultant, there is no reason to suggest these specimens will not tolerate the small extent of root severance.

7.9. Construction should be undertaken in dry weather; ideally this should be between May and October when the soil is at its driest and least prone to compaction.

8. Fencing, landscaping and reinstatement

8.1. Care will be taken to ensure that fencing, landscaping and reinstatement do not cause any damage to the existing trees. Prior to the commencement of any landscaping works within RPAs the developer will convene a site meeting to be attended by the site manager or agent, the landscape contractor, the fencing contractor and the arboricultural consultant. The methods of tree protection outlined in this section of the arboricultural method statement shall be fully discussed, so that all aspects of their implementation and sequencing are made clear to all parties. Any clarifications or modifications to this statement shall be recorded and circulated to all parties in writing.

8.2. Within RPAs the following points shall be observed:

- Ground levels will not be changed.
- Only lightweight plant or vehicles shall enter the RPAs.
- No fuels or chemicals shall be brought into or stored within these areas.
- Digging (for fence posts etc.) shall be done by hand. Any roots of 25mm diameter and above that are encountered shall not be cut: if such sized roots are found the position of the proposed post will be re-located. Any smaller roots shall be cut

cleanly. All roots exposed should be backfilled with sharp sand on the same day they are uncovered.

- No parts of any fencing shall be nailed or otherwise attached to any parts of the retained trees.
- Unwanted vegetation shall be removed manually or by using chemicals that cannot damage the roots of the trees.
- No irrigation or drainage pipes shall be installed within RPAs.

9. Supervision and monitoring

9.1. Once the protective fencing has been erected, the arboricultural consultant will visit the site and inspect these tree protection measures. In the event that the specification or location of these items does not comply with this method statement, the arboricultural consultant will inform the fencing contractor, and adjustments will be made. Once compliance is achieved, the arboricultural consultant will 'sign off' the tree protection measures to the contractor and copy this (in writing) to the client.

9.2. Throughout the construction process the arboricultural consultant will monitor the condition of the trees, and the integrity and effectiveness of the protective fencing. He will visit the site at appropriate intervals as agreed with the LPA Tree Officer at the pre-commencement meeting, to ensure that the protection measures outlined in this document are adhered to; and will contact the site manager or agent on a weekly basis whilst ground works are being undertaken, and on a fortnightly basis thereafter, to ascertain what works are planned for the coming week and whether any of these require arboricultural input or supervision. Records of all monitoring and supervisory visits will be made and will be forwarded to the client and copied to the LPA.

9.3. The arboricultural consultant shall directly supervise all works that have to be undertaken within RPAs. These include:

- location of protective fencing
- construction of hard surfacing
- (if necessary) installation of underground services

9.4. The project or site manager will give the arboricultural consultant at least 48 hours written notice of the date of intended construction of any proposed buildings or structures, underground service runs, or areas of hard surfacing that are within the RPAs of any of the trees, so that he/she can attend.

9.5. All drawings or revised drawings issued to the site agent or to sub-contractors, that show details of any works within or abutting RPAs or beneath the crowns of trees are to be referred in advance to the arboricultural consultant to enable him to advise on any changes to the impact on trees that these drawings may cause, and to be able to provide solutions to avoid or minimise any further tree damage. All such drawings will be approved in writing by the arboricultural consultant before works within or abutting RPAs are proceeded with.

9.6. The arboricultural consultant will issue variation orders to the client in the case of any agreed changes to this method statement, and non-compliance notices in any cases of substantial deviation from the statement. These will be recorded in a final completion statement suitable for submission to the LPA if required.

SJA trees

March 2021