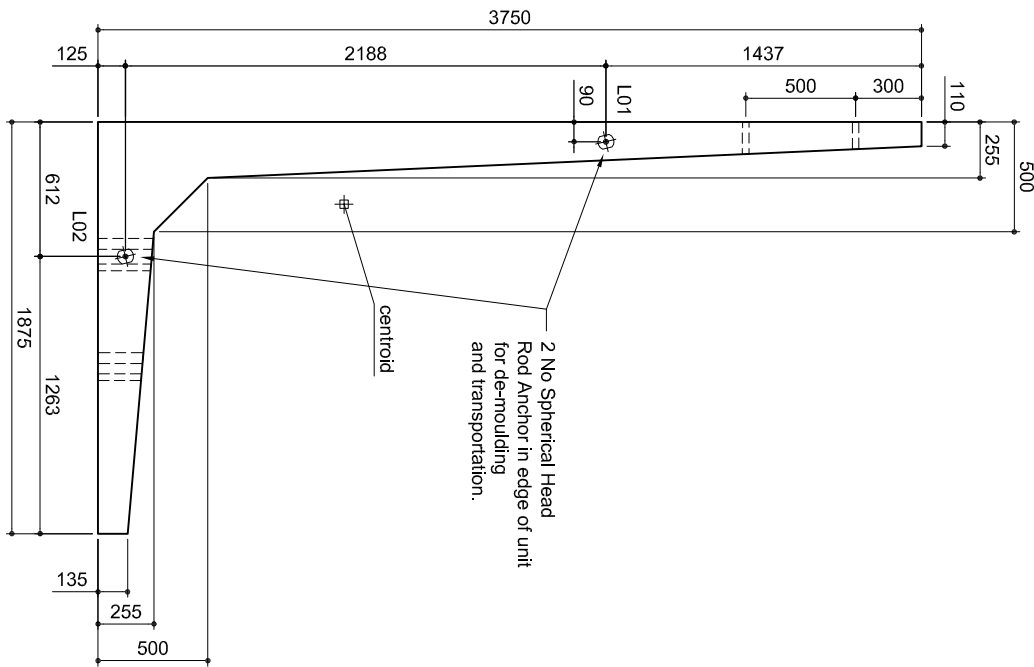
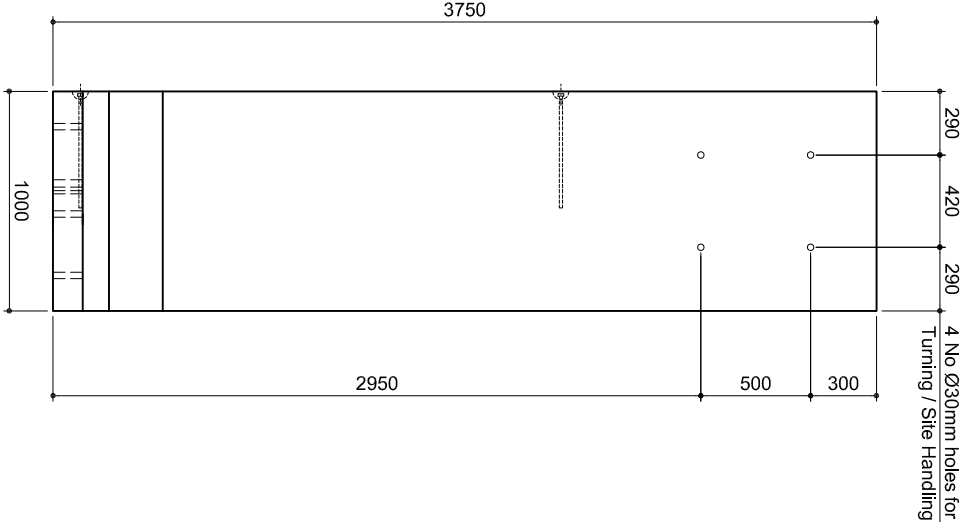
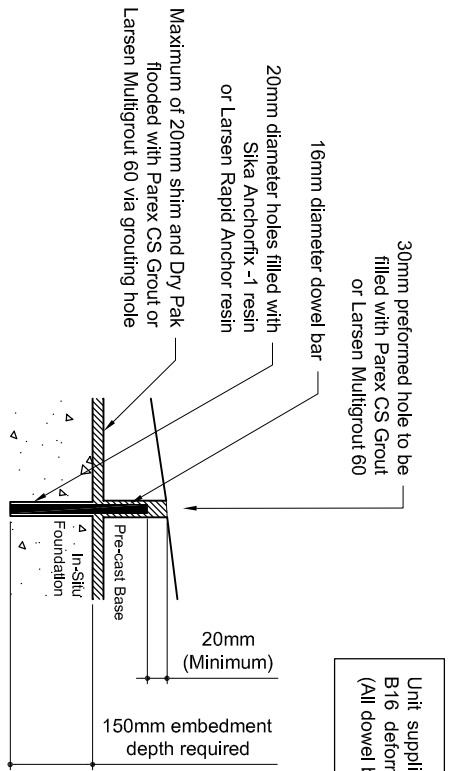




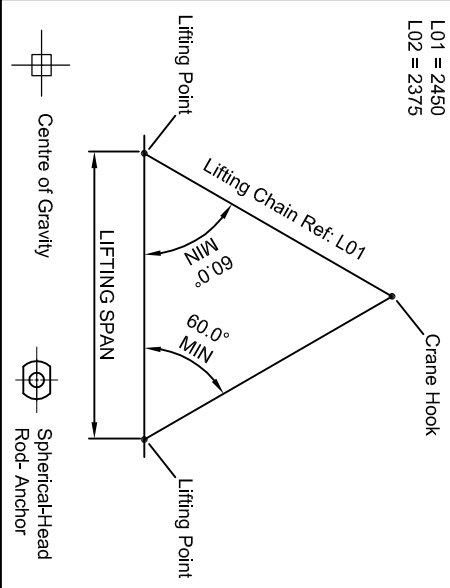
Elevation A - A



Elevation B - B



Lifting Instructions



Anchor Detail Scale 1:10

- Installation steps:**
- Position the units on to the shimmied concrete foundation.
 - Dry Pak to the edge of the base of the units to create a seal to the perimeter.
 - Through the 30mm preformed holes drill a 150mm, 20mm diameter hole into the foundation.
 - Fill holes with the resin to a level so that when the dowels are inserted the resin becomes level with the top of the foundation (as a minimum).
 - Insert the B16 dowel bar into the resin. Ensure that the bar is pushed to the base of the drilled hole.
 - Ensure the units are uniformly flooded by using the grouting hole to completely flood the shimmied void (and grouting hole) with grout.
 - Grout around the dowel so that the dowel is completely encapsulated.
 - Do not disturb dowel bar or unit until grout has achieved full strength in accordance with resin and grout manufacture guidelines.

The Construction (Design and Management) Regulations 2015

- a) If you are unsure of your responsibilities please refer to the HSE website.
- b) These notes should be read by all CDM duty holders. Whilst we do not go into specifics such as working at heights, working over excavations, slips and trips etc, where Δ is shown in the notes and on the drawing some potential hazard / risks are identified and should be assessed accordingly by the main contractor and the design team prior to any site works commencing.
- c) Particular attention should be made to the notes identified by Δ which have the potential for significant risk where not adhered to. This F.P. McCann unit drawing should be read in conjunction with all other relevant drawings available from the design team e.g Architect, Engineer, Steelwork sub-contractor etc.
- d) **Lifting** - The lifting equipment referred to in note T is the only lifting equipment which should be used on F.P. McCann supplied units. All elements must be fitted in accordance with F.P. McCann's lifting plan/method statement.
- e) **Installation** - Where it is necessary to work at height i.e. removal of shackles, procedures for working at heights must be followed. The manufactures guidelines and safety recommendation for the application of the grout and resin must be followed.

Notes:

1. Δ Handling

Unit Volume / Weight	Volume (m ³)	Weight (T)	Weight + 5% (T)
Unit Ref	1.08	2.81	2.95
3750 Wall Unit			

Weight is based on 2.8 T/m³.
+5% is recommended for sizing lifting equipment.
All lifting points shall be used as specified below:

As-Cast Lift	Qty	Simply Reference	SWL (T)
Sph. Head Rod Anchors	2	STRA025520	2.5
Upright Lift	Qty	Reference	
Wire Rope Lifters	2	Rope Assemblies - A18 Master Link	

Anchor recesses to be filled by others on site.

c) The site lifting / installation equipment may be purchased from Simply Precast (Tel: 0800 678 5178).

Site Lifting: Pin Anchor Lifting Shackle Ref: SPARC025.

Concrete

- a) Lifting strength based on 2 cubes = 15 N/mm².
- b) Characteristic 28 day cube strength = 55 N/mm².
- c) Concrete provides Design Chemical Class 2 (DC2) to Special Digest 1, Table D2.
- 3. Reinforcement**
- a) Reinforcement (500B or C) to BS4449.
- b) Scheduling, dimensioning, bending and cutting to BS8666.
- c) Cage to be tack welded and/or tied with T7 gauge annealed tying wire.
- 4. Manufacture**
- a) Manufactured to BS EN 13369:2013.
- b) Tolerances based on BS EN 13369:2013 & BS EN 13670:2009.
- c) Finishes: As below unless indicated otherwise on drawing

Cast Edge	All Other Faces
Class	Steel Float
Steel Float	A

- d) Marking: Units shall be indelibly marked to show:
- Unit reference and date of manufacture
 - Unit weight + 5%

5. Δ Design

- a) Design to BS EN 1992-1-1:2004 & BS EN 1997-1:2004.
- b) Loading as per design calculation - 10kN/m² surcharge with level fill retained to front / rear or 30.0° sloped fill retained to front / rear. Construction loading must not be more onerous than the permanent condition.
- c) The backfill material should be a free draining granular material such as a class 6N or 6P, fill as defined in the manual or Contract Documents for Highway Works Volume 1 Specification Series 600 Clause 610 & Table 6/1 Characteristic effective shearing resistance $\phi = 35^\circ$.
- Unit weight of fill = 19kN/m³
- d) F.P. McCann have designed the concrete units only, the stability of the support conditions should be checked by overall scheme designer.
- e) Design Life: >100 years to BS8500.
- f) Cover to Reinforcement & Exposure:

Min Cover	Cover Block Size (mm)	Min Cover (mm)	Max Cover (mm)
All Faces	45	40	50
Exposure			
All Faces	XC3/4	XD2	XF4

6 Δ Foundation

- a) Concrete base to be designed and installed (by others) to resist the horizontal and vertical forces and overturning moment, as specified below, so that stability is maintained.
- b) To ensure good bond and satisfy cover requirements in the anchors the slab should have minimum strength of C20 / C25 and a minimum depth of 200mm.

Resultant Horizontal Force	125.8 kN/m
Resultant Destabilising Moment	19.3 kNm/m
Vertical Force	181.2 kN/m

*These are maximum values associated with all standard loading conditions. For more specific values or for non-standard loading conditions see accompanying calculation.

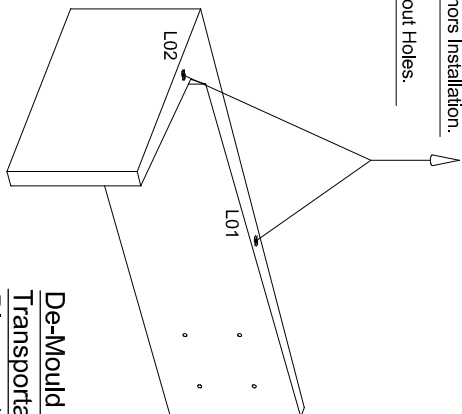
Rev	Date	Revision detail	By	Chk'd
F	Nov/19	Notes updated		CJ SH
E	Oct/19	Lifter references updated		CF CB
D	Feb/19	Manufacture tolerance notes amended		LK CB

Contract / Title:	F. P McCann Standard Retaining Wall Straight L Wall 3.75m High General Arrangement	Drawing no:	FPM-SLW-3.75-GA	Rev:	F
F.P. McCann Lydney Industrial Estate, Harpour Road Lydney, Gloucestershire GL15 4EJ Tel: 01594 947500 Fax: 01594 947501 www.fpmccann.co.uk		Drawn: LK Date: 14/12/16 Chk'd: SH		Status: Manufacture Oct. 2019	

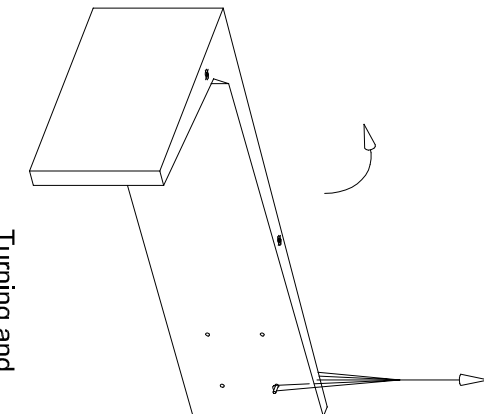
Manufacture Tolerances
Allowable dimensional variations shall not exceed the following:

Length	± 6mm	Cross section (each direction)	± 6mm
Height	± 9mm		
Edge straightness (deviation from intended line)			
Up to 3m	± 6mm		
3m to 4.5m	± 9mm		

Holes
Size of hole or opening: + 5/-0
Location of holes: ± 25mm



De-Mould and
Transportation
Diagram (nts)



Turning and
Site Handling
Diagram (nts)

