



Active Mobility

CEILING HOISTS

Installation Method

Recognised by AMS as one of the key elements to the implementation of any safe Patient Handling Program, the installation of your ceiling hoist system is a critical part of the overall success.

As many installations are performed in existing facilities, the success of the installation requires a company that understand the impact this temporary construction process has on day to day operations. AMS's year of expertise will ensure that the impact of the installation process is minimised through the design of fully flexible and respectful processes in co-ordination with facility managers and keeping in mind the functional and clinical needs of the space involved.

Standard infection control procedures are followed by AMS and as part of our installation process, all rails are inspected and commissioned prior to being put into use.

INSTALLATION METHODS

Methods chosen for installation of rails should be matched to specific site conditions. This may include a combination of methods to provide the best solution for the layout required. All support structures must be verified for applicable loads and forces prior to installation.

Type of mounting available:

CEILING MOUNTING	WALL MOUNTING	POST MOUNTING
Fixed to: <ul style="list-style-type: none"> • Concrete Structure • Timber Structure • Steel Structure 	Fixed to: <ul style="list-style-type: none"> • Brick and block walls • Concrete walls • Timber/metal stud walls 	Fixed to: <ul style="list-style-type: none"> • Drywall, plaster, cement sheet, tile surface • Light framed walls



Rails may be fitted in:

DOMESTIC DWELLINGS

Bedrooms, bathrooms, living areas, pools and spas

RESIDENTIAL CARE / AGED CARE

Bedrooms, ensuites, disabled bathrooms, therapy departments, pools and spas

INSTITUTIONS

Single and multi bed wards, ICU and HDU wards, bariatric wards, A &E departments, therapy departments, scanning and imaging rooms, hydrotherapy pools and mortuaries

MUNICIPAL POOLS

Pools, spas and change rooms

RIDING SCHOOLS

Horseback transfer

LANDINGS

Height variation up to 3 steps

What type of structures are suitable?

Surprisingly most structures are suitable for rail installation in one way or another. Our experience and close ties with building professionals enables us to guide you through the most cost effective solutions.

Some common structures include:

Pitched/truss roofs, Flat roofs, Cathedral/ sloping roofs, Concrete ceilings, Concrete soffit suspended ceiling, Structural steelwork suspended ceiling, Roof perlins/steel truss suspended ceilings, Manufactured/laminated beams

IMPORTANT INFORMATION

All rails must be installed level to allow smooth traversing of hoist system

Suitability of building structure for required SWL and forces of hoist system must be confirmed

Lateral braces where required should be placed on every first and fourth dropper or part thereof and at any change of rail direction

Longitudinal braces where required should be installed on every support framework and at intervals not exceeding 5m

When ceiling mounting, any single rail should be supported by no less than 3 brackets

End rail brackets should be within 200mm of rail ends

All anchors/fasteners should be approved and used in

accordance with manufactures guidelines to suit the substrate concerned

All threads should be assembled with locklite for additional safety

Support timbers used should be kiln dried to prevent future shrinkage and preferable F17 or higher grade

Consult Unistrut span/load tables when using unistrut supports

Never direct fix into centre of natural timber beams if laminated side by side

Rail joints must always be placed in centre of joining bracket

A minimum of 4 supports should be fitted to each rail bend

RAIL BRACKET SPACING

Slimline Rail

SWL	Recommended Spacing	Maximum allowable spacing
200kg	1.5m	2.2m
300kg	1.5m	1.8m
360kg	1.0m	1.6m
450kg	0.8m	1.2m

Slimline Rail Single Piggyback

SWL	Maximum allowable spacing
200kg	5.0m
300kg	4.2m
360kg	3.4m
450kg	3.2m

Slimline Rail Double Piggyback

SWL	Maximum allowable spacing
200kg	7.0m
300kg	6.0m
360kg	6.0m
450kg	5.0m

Fineline Rail (Concealed System)

SWL	Maximum spacing
200kg	1.2m
300kg	1.2m
360kg	1.0m
450kg	0.8m

Fineline Rail Single Piggyback (Concealed System)

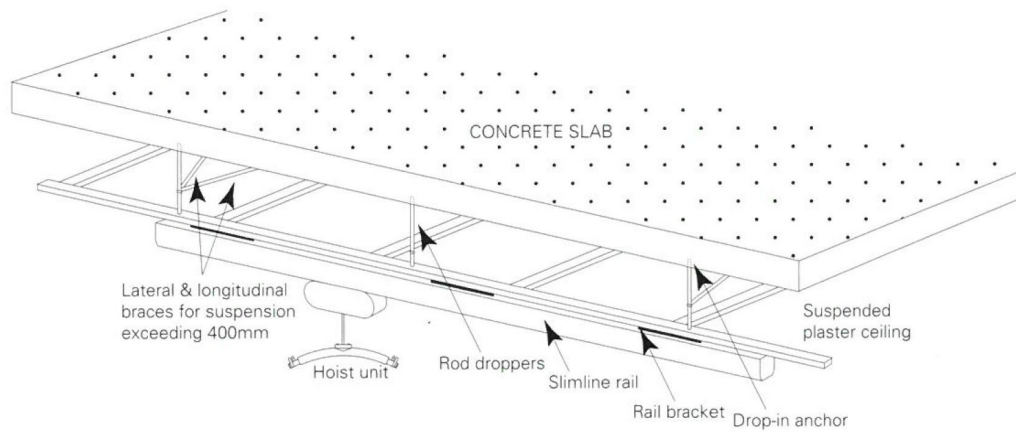
SWL	Maximum spacing
200kg	2.0m
300kg	1.8m
360kg	1.6m
450kg	1.4m

Fineline Rail Double Piggyback (Concealed System)

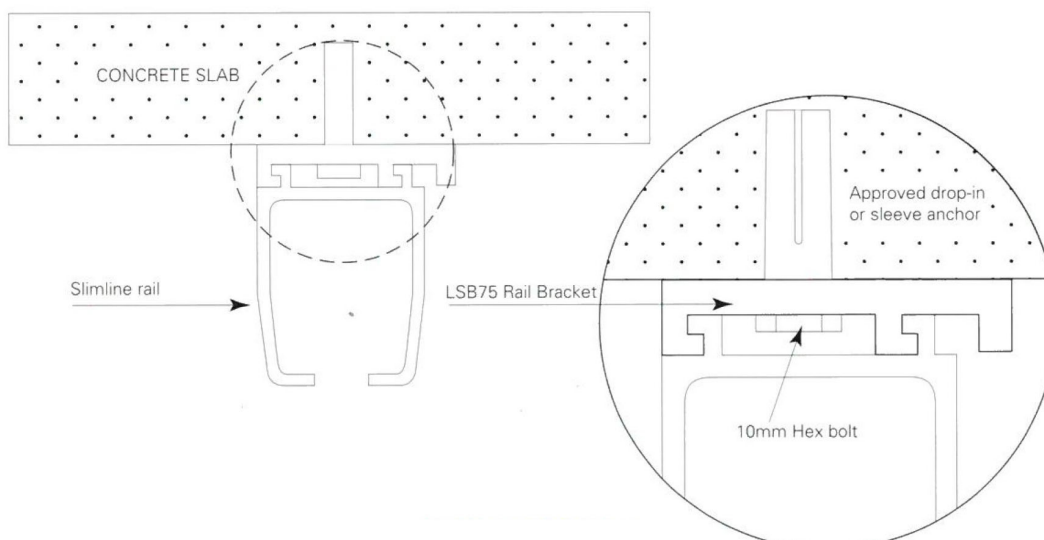
SWL	Maximum spacing
200kg	2.6m
300kg	2.2m
360kg	2.0m
450kg	1.8m

CONCRETE STRUCTURES

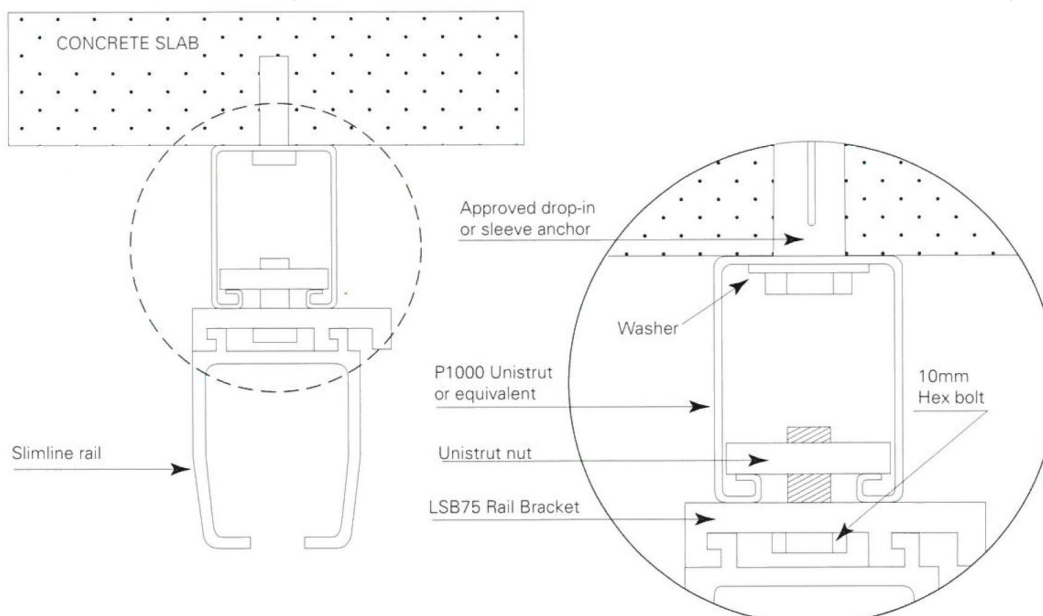
SLIMLINE RAIL SYSTEM



DIRECT FIX WITHOUT UNISTRUT

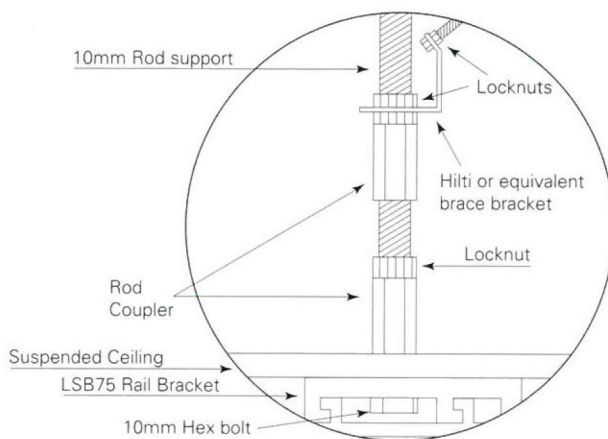
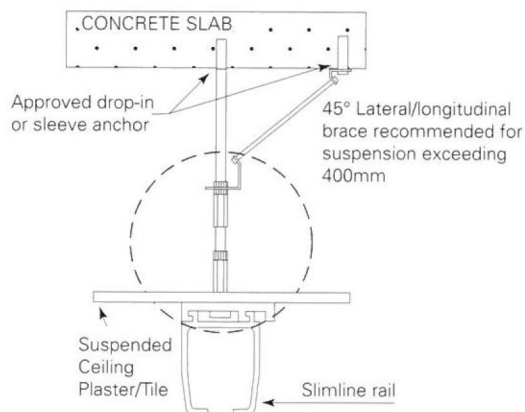


DIRECT FIX WITH UNISTRUT (MORE SUITED FOR UNEVEN SLAB SURFACES)

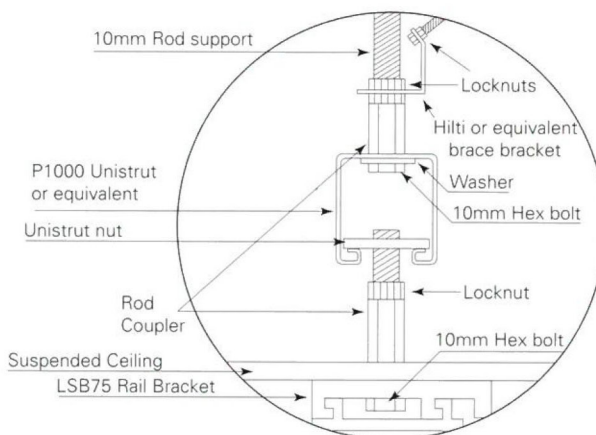
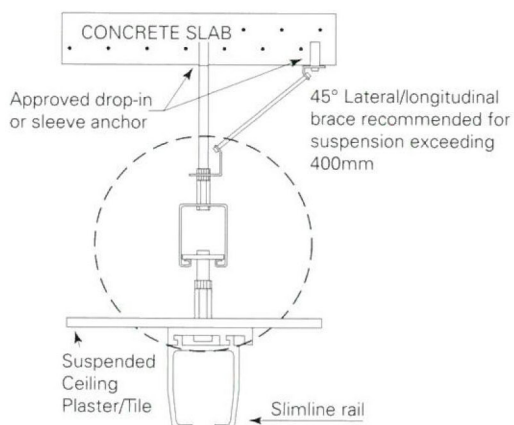


CONCRETE STRUCTURES

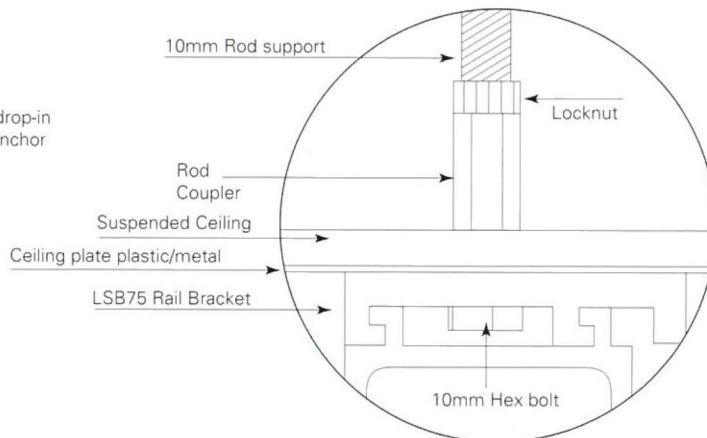
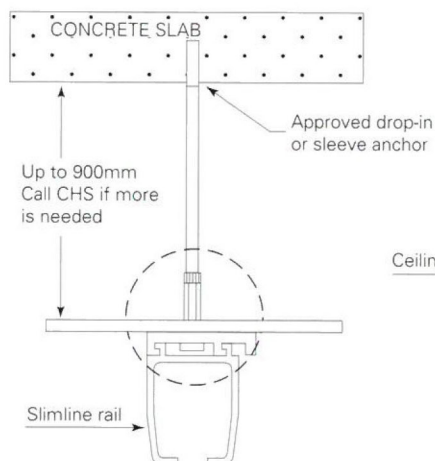
SUSPENDED CEILINGS DROPPERS WITHOUT UNISTRUT (NOT RECOMMENDED FOR SUSPENSION EXCEEDING 600MM)



SUSPENDED CEILINGS DROPPERS WITH UNISTRUT (RECOMMENDED FOR SUSPENSION EXCEEDING 600MM)

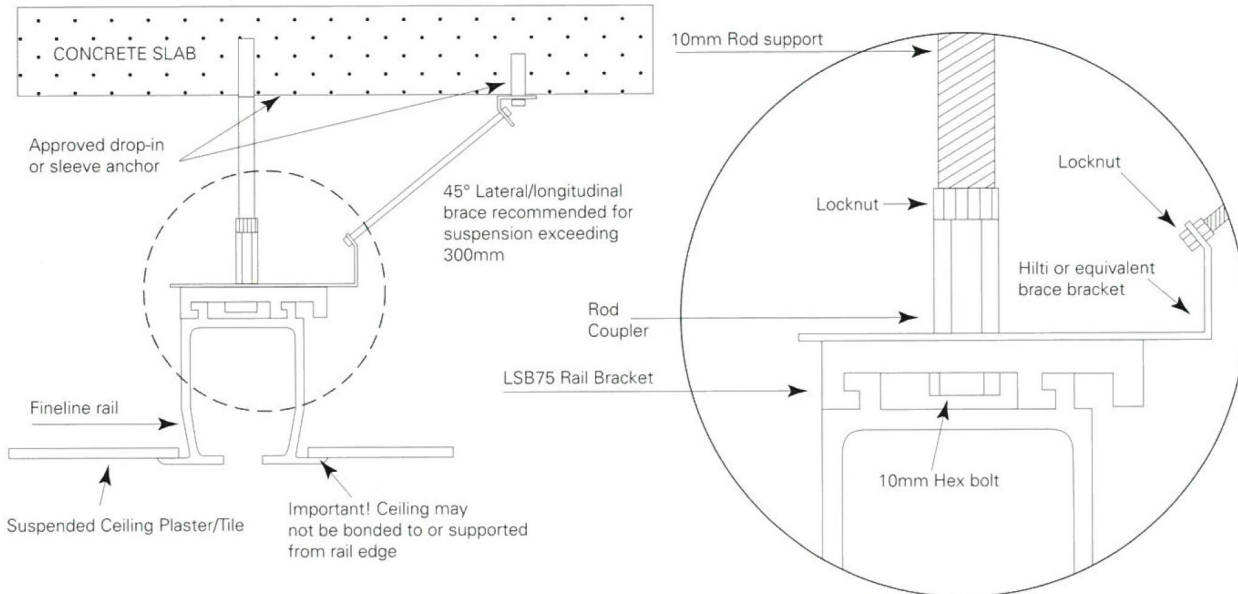


SUSPENDED CEILINGS BLIND FIXING METHOD (FOR EXISTING STRUCTURE NO ACCESS TO CEILING)



FINELINE RAIL SYSTEM

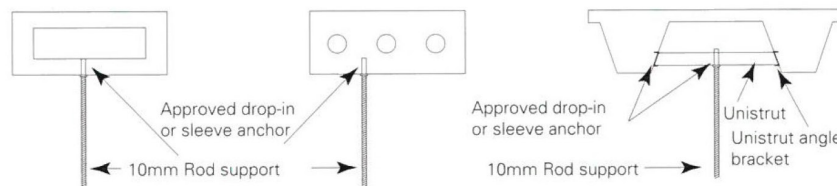
SUSPENDED CEILING DROPPERS SUPPORT



IMPORTANT

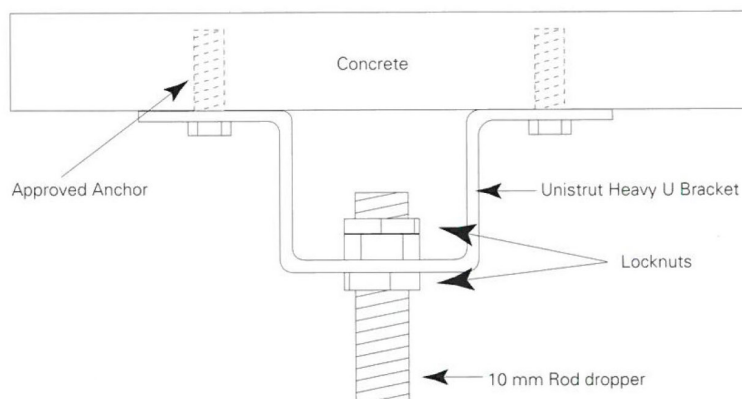
The ceiling system must not be attached to the rail system. The ceiling system must be self supporting. No weight may be transferred to the rail system.

SUSPENDED CEILING FIXING TO - PRECAST HOLLOW CORE, POST TENSIONED AND WAFFLE SLABS

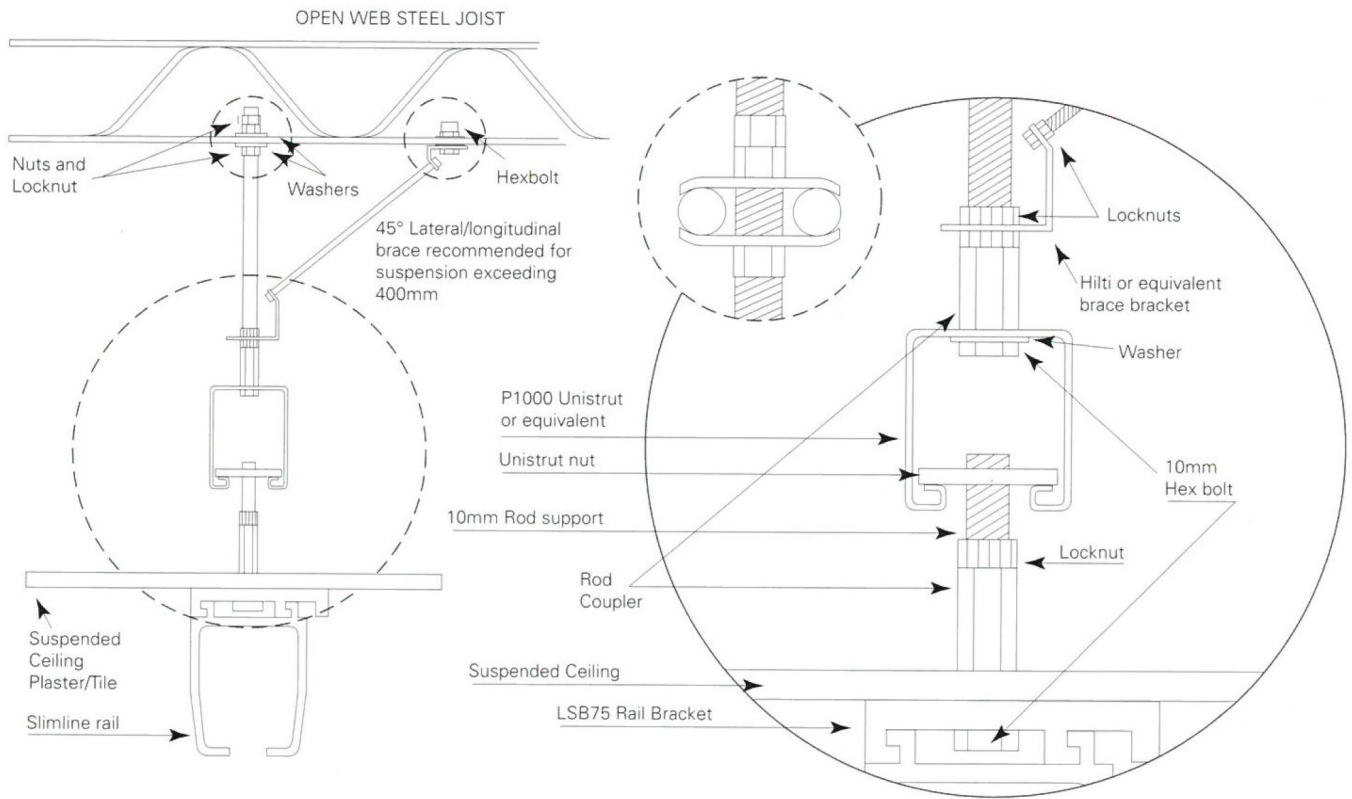


Suspension from these slabs for Slimline and Fineline Rail systems may be made using normal suspension methods along with approved anchors suitable for slab type. Use of Unistrut is recommended for Waffle Slab and block and bar applications.

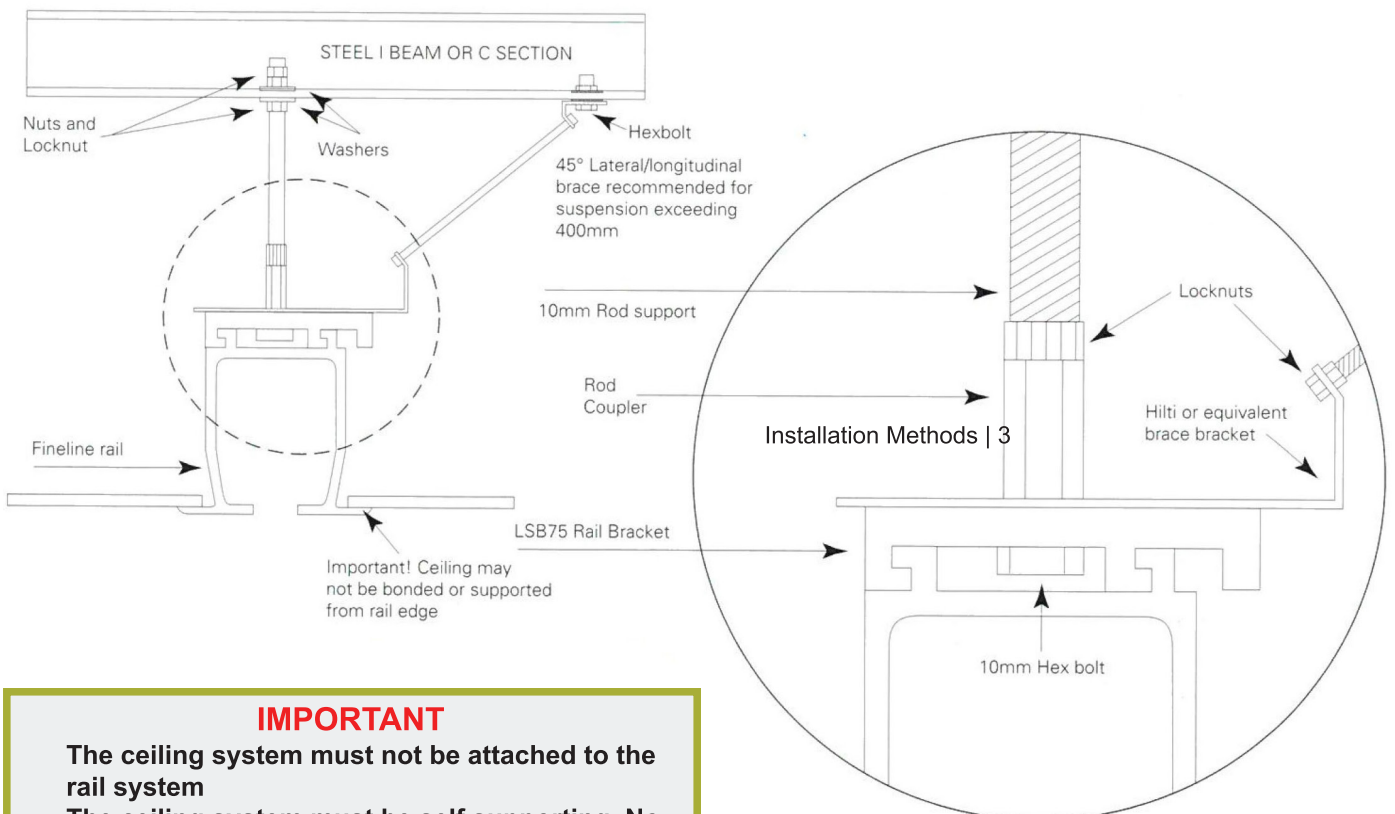
ALTERNATIVE METHOD OF ROD SUSPENSION FROM CONCRETE SLABS



DROPPERS WITH UNISTRUT (RECOMMENDED FOR SUSPENSION EXCEEDING 600MM)



FINELINE RAIL SYSTEM

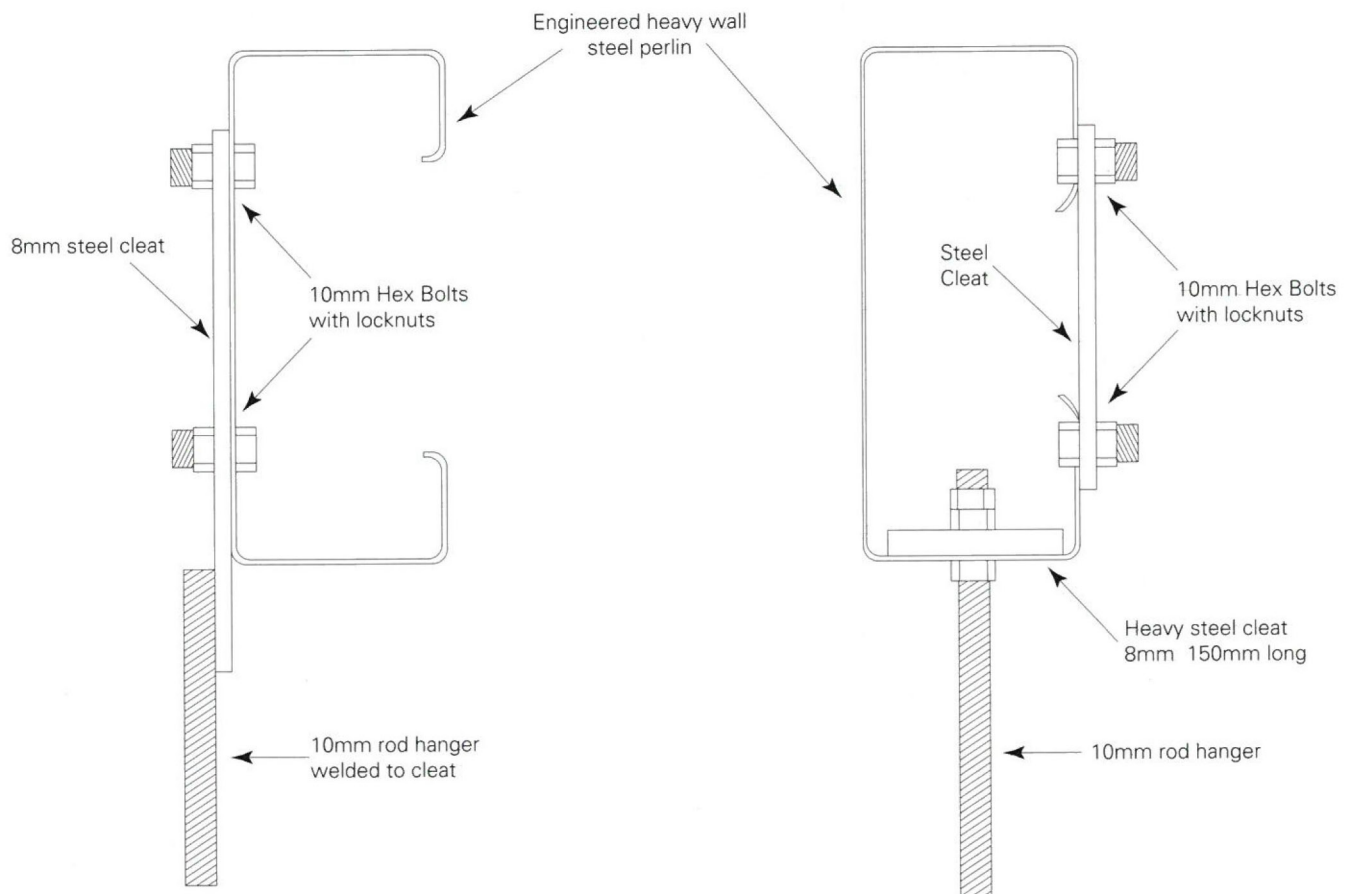


IMPORTANT

The ceiling system must not be attached to the rail system
 The ceiling system must be self supporting. No weight may be transferred to the rail system

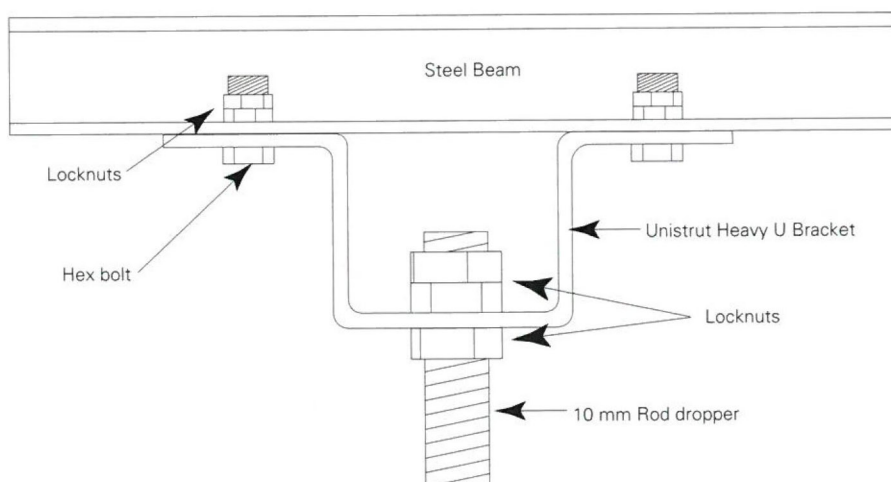
STEEL STRUCTURES

FIXING TO STEEL PERLINS

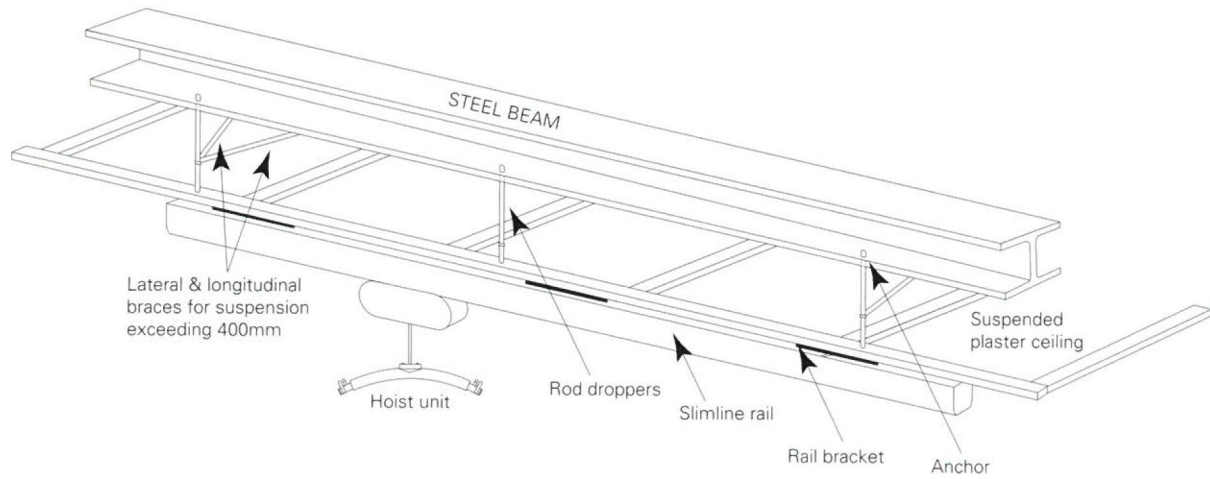


Suspension from steel perlins for Slimline and Fineline rail system may be made using normal suspension and brace methods. The integrity of perlins when loaded to required SWL of hoist system should be confirmed by a qualified engineer. Total deflections while under max. SWL should not exceed requirements of the standard AS/ISO 10535 2006.

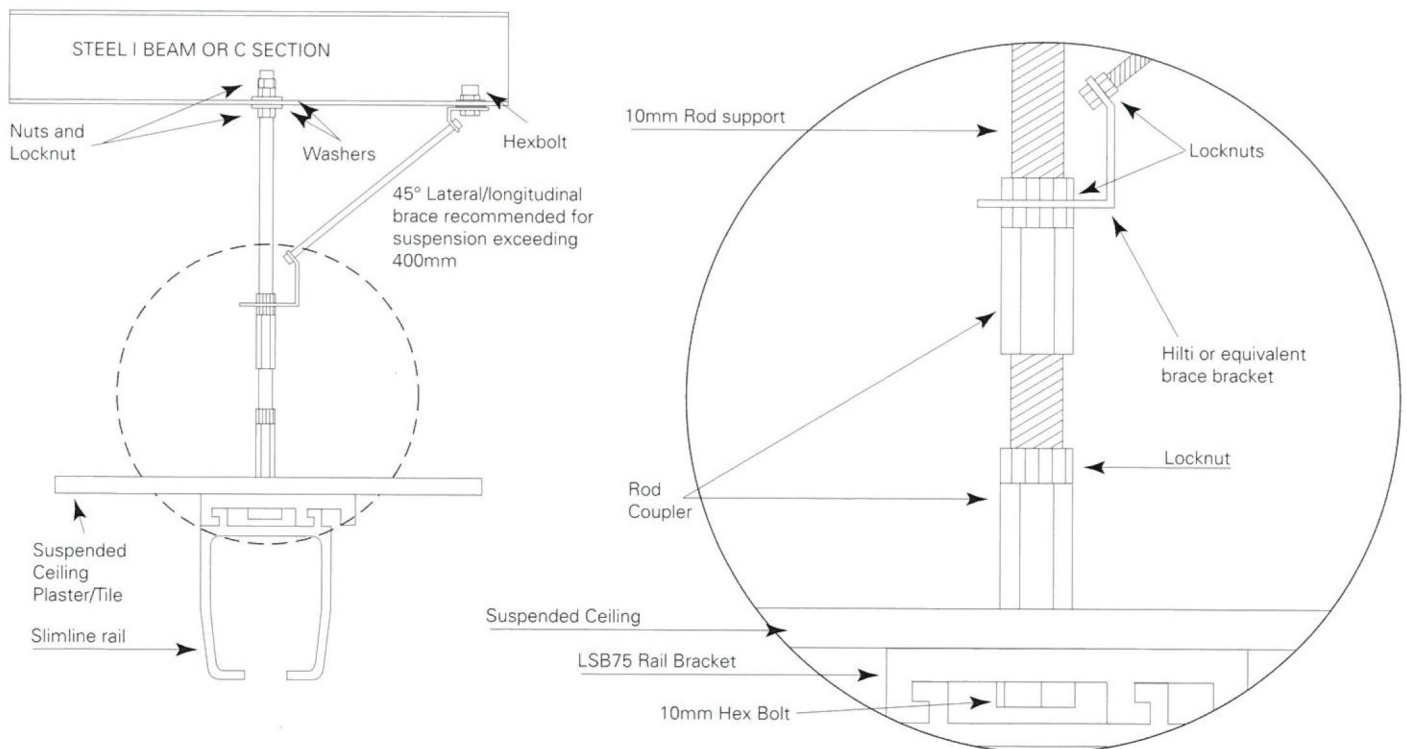
ALTERNATIVE METHOD OF ROD SUSPENSION FROM STEEL



SLIMLINE RAIL SYSTEM

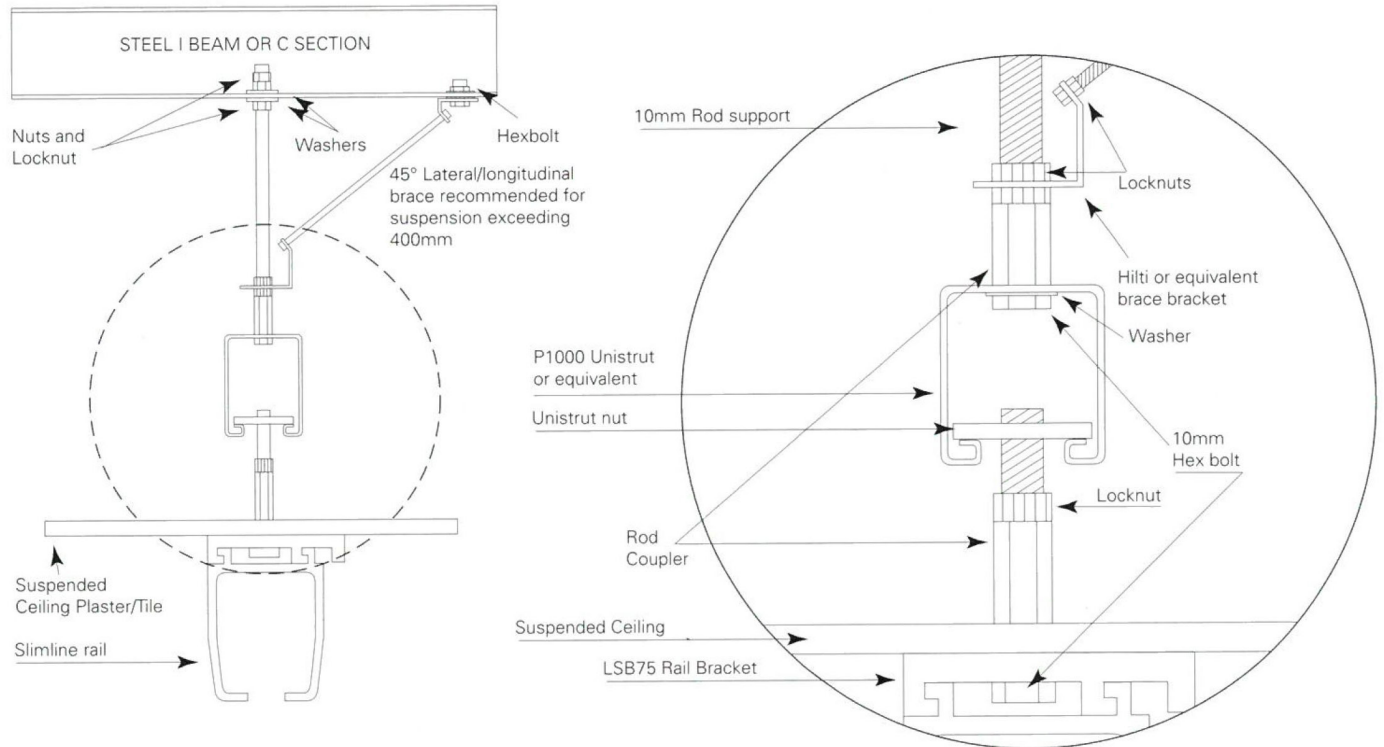


DROPPERS WITHOUT UNISTRUT (NOT RECOMMENDED FOR SUSPENSION EXCEEDING 600MM)

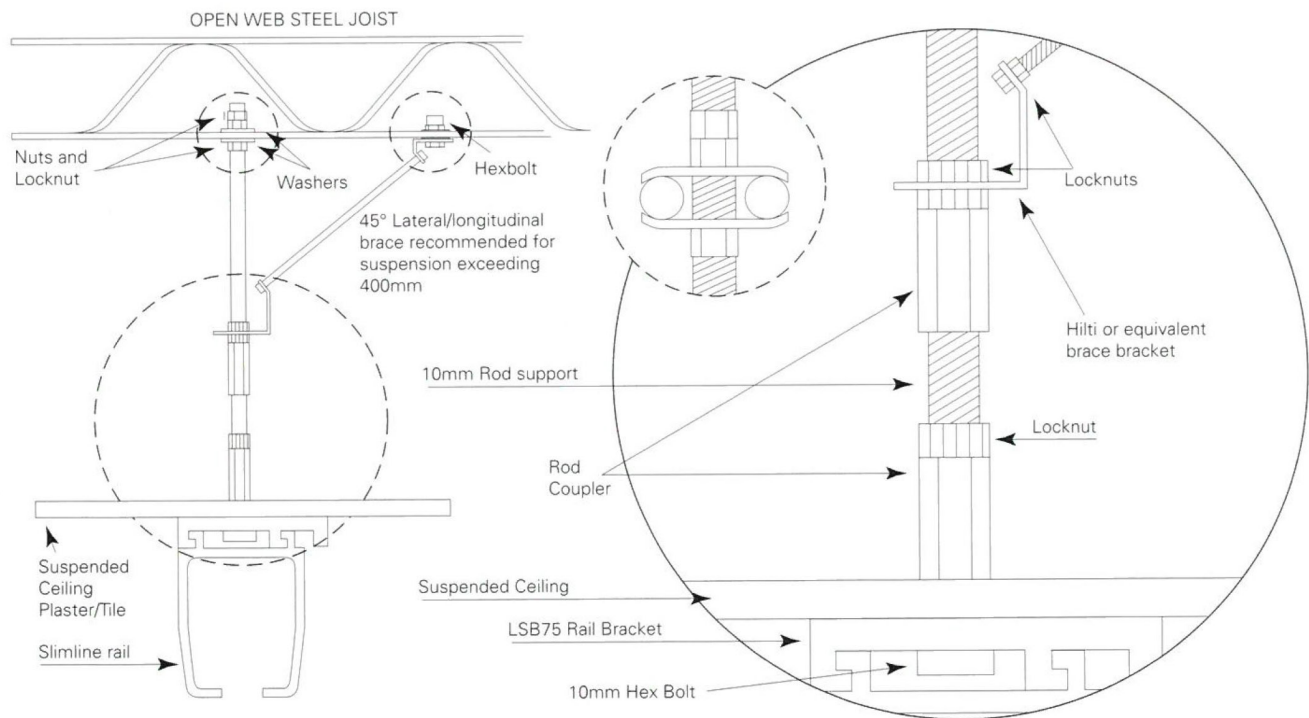


STEEL STRUCTURES

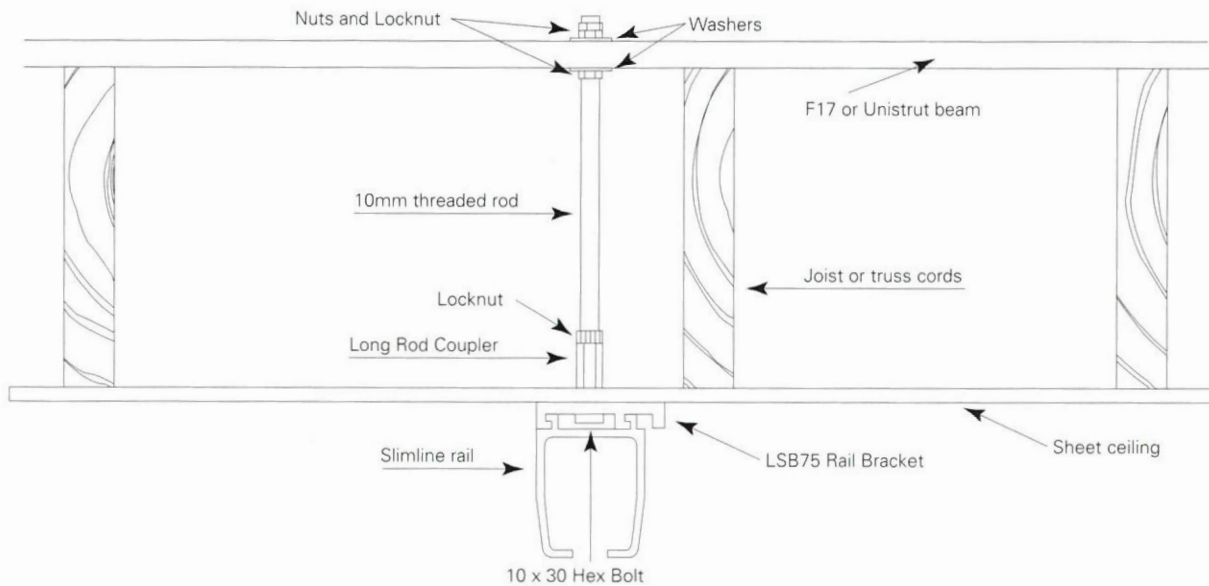
DROPPERS WITH UNISTRUT (RECOMMENDED FOR SUSPENSION EXCEEDING 600MM)



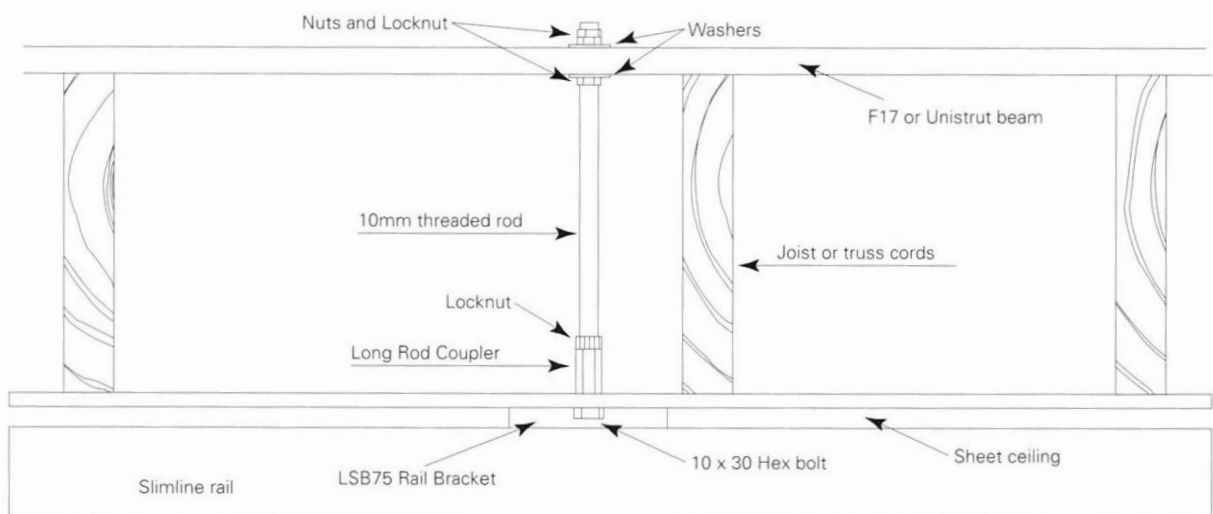
DROPPERS WITHOUT UNISTRUT (NOT RECOMMENDED FOR SUSPENSION EXCEEDING 600MM)



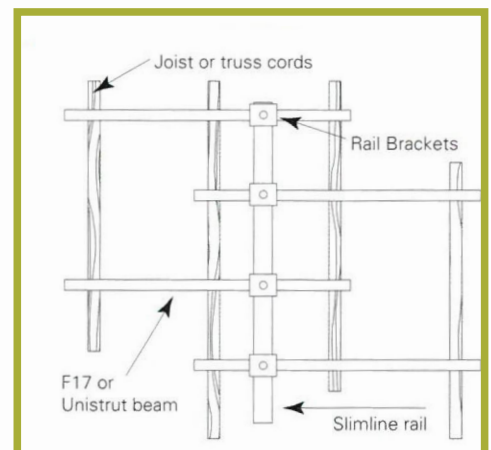
ACCESS TO CEILING CAVITY (RUNNING PARALLEL WITH BEAM)



ACCESS TO CEILING CAVITY (RUNNING ACROSS BEAMS)



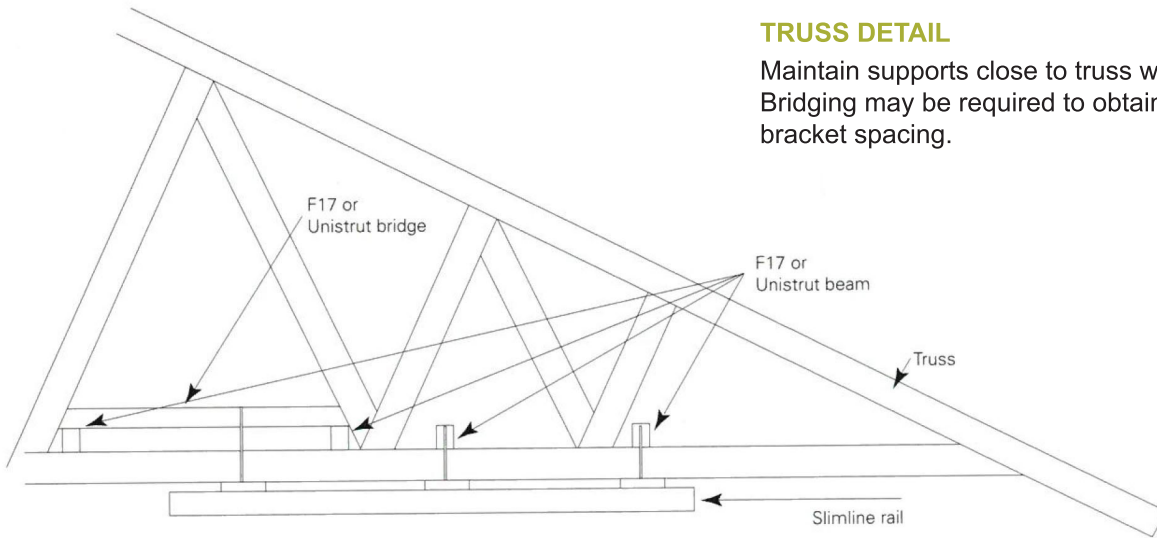
Where possible F17 / Unistrut beams should be staggered to spread load over 4 joists/ truss cords.



WOODEN STRUCTURES

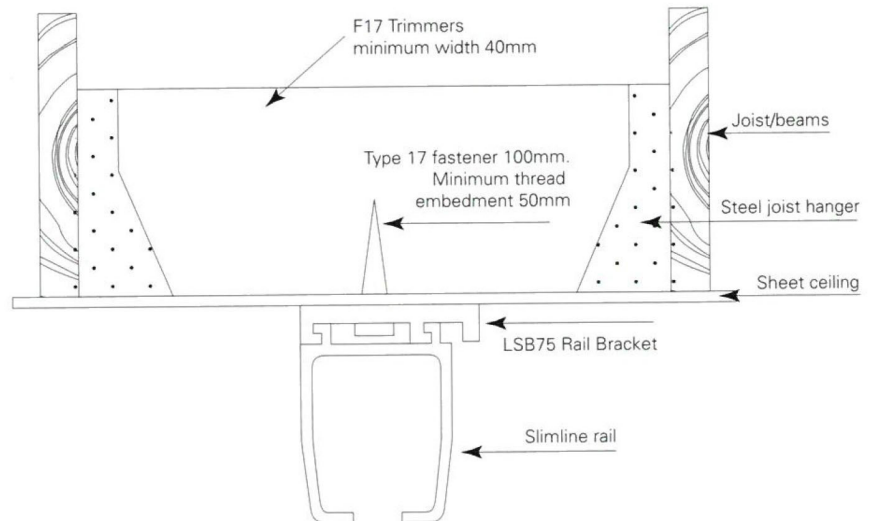
TRUSS DETAIL

Maintain supports close to truss web.
Bridging may be required to obtain rail bracket spacing.

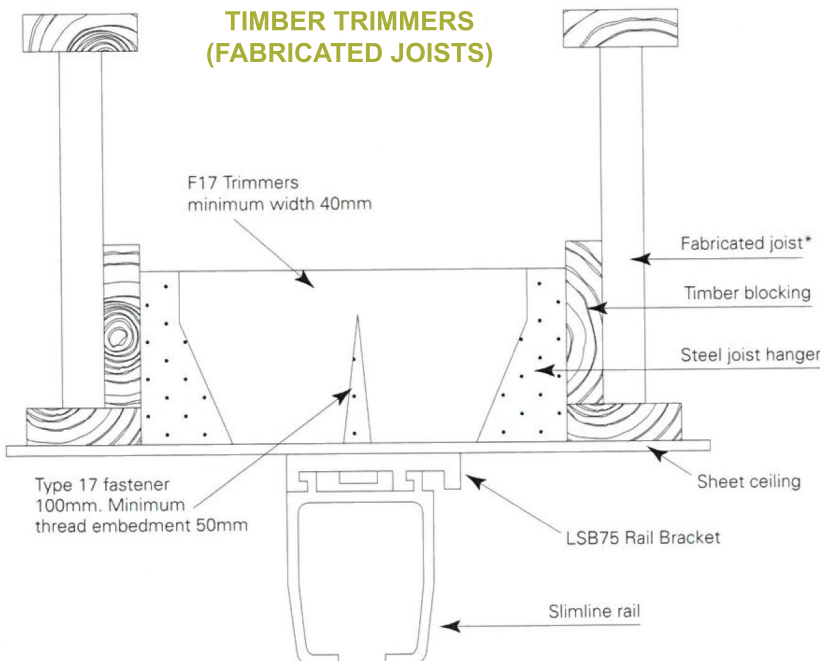


TIMBER TRIMMERS

Timber trimmers may be installed prior to ceiling sheeting allowing direct fixing at later stage.



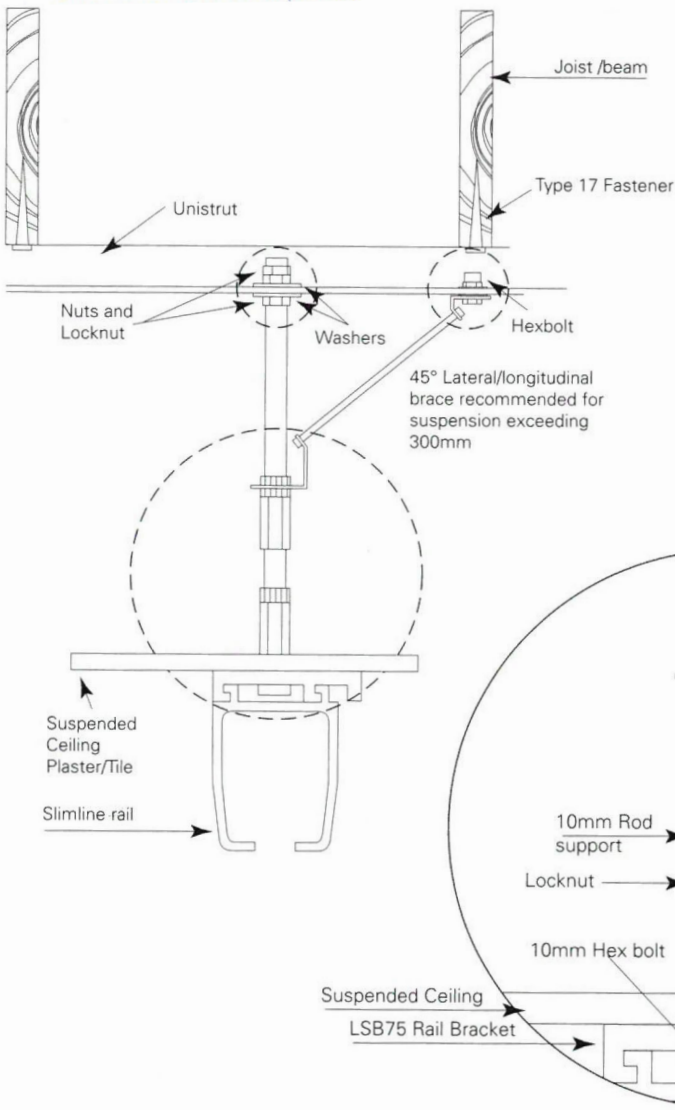
TIMBER TRIMMERS (FABRICATED JOISTS)



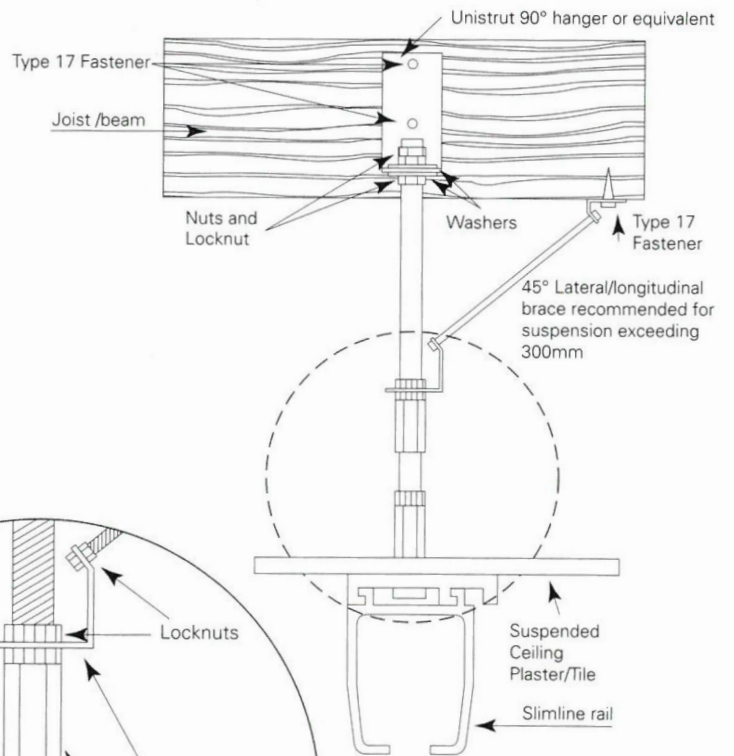
IMPORTANT

Suitability of fabricated and laminated beams/joists should be confirmed by manufacturer prior to fixing of rail system. Approved fasteners only should be used.

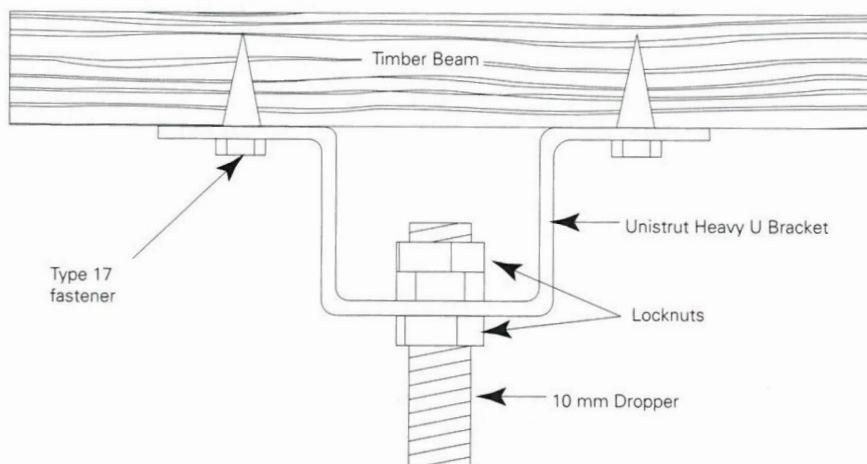
SUSPENDED CEILING (RUNNING PARALLEL WITH BEAMS)



SUSPENDED CEILING (RUNNING ACROSS BEAMS)

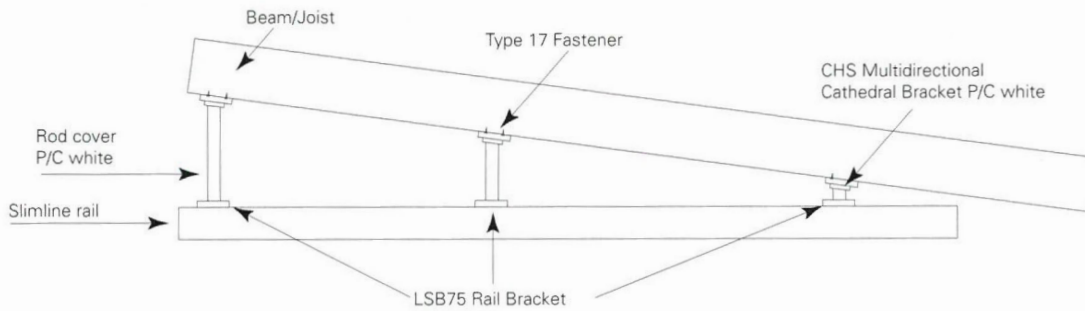


ALTERNATIVE METHOD OF ROD SUSPENSION FROM TIMBER



WOODEN STRUCTURES

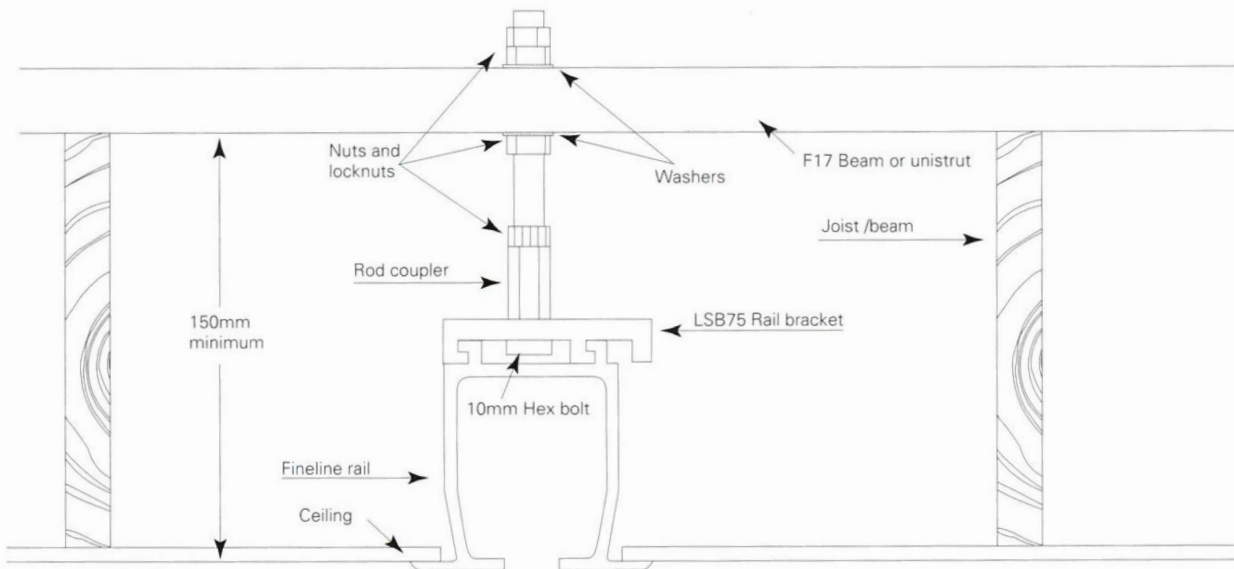
CATHEDRAL CEILING



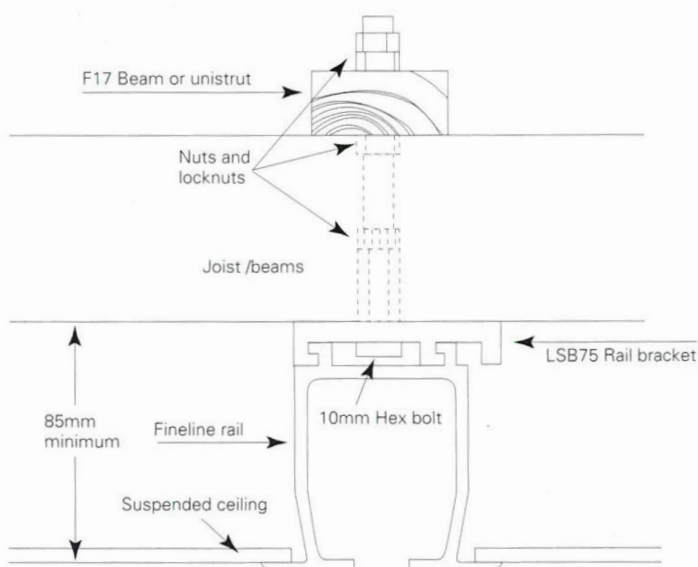
All exposed rod droppers and braces to be installed with AMS white rod covers for pleasing appearance.

FINELINE RAIL SYSTEM

FINELINE RAIL SYSTEM (CONCEALED SYSTEM RUNNING PARALLEL WITH BEAM)



FINELINE RAIL SYSTEM (CONCEALED SYSTEM RUNNING ACROSS BEAM)

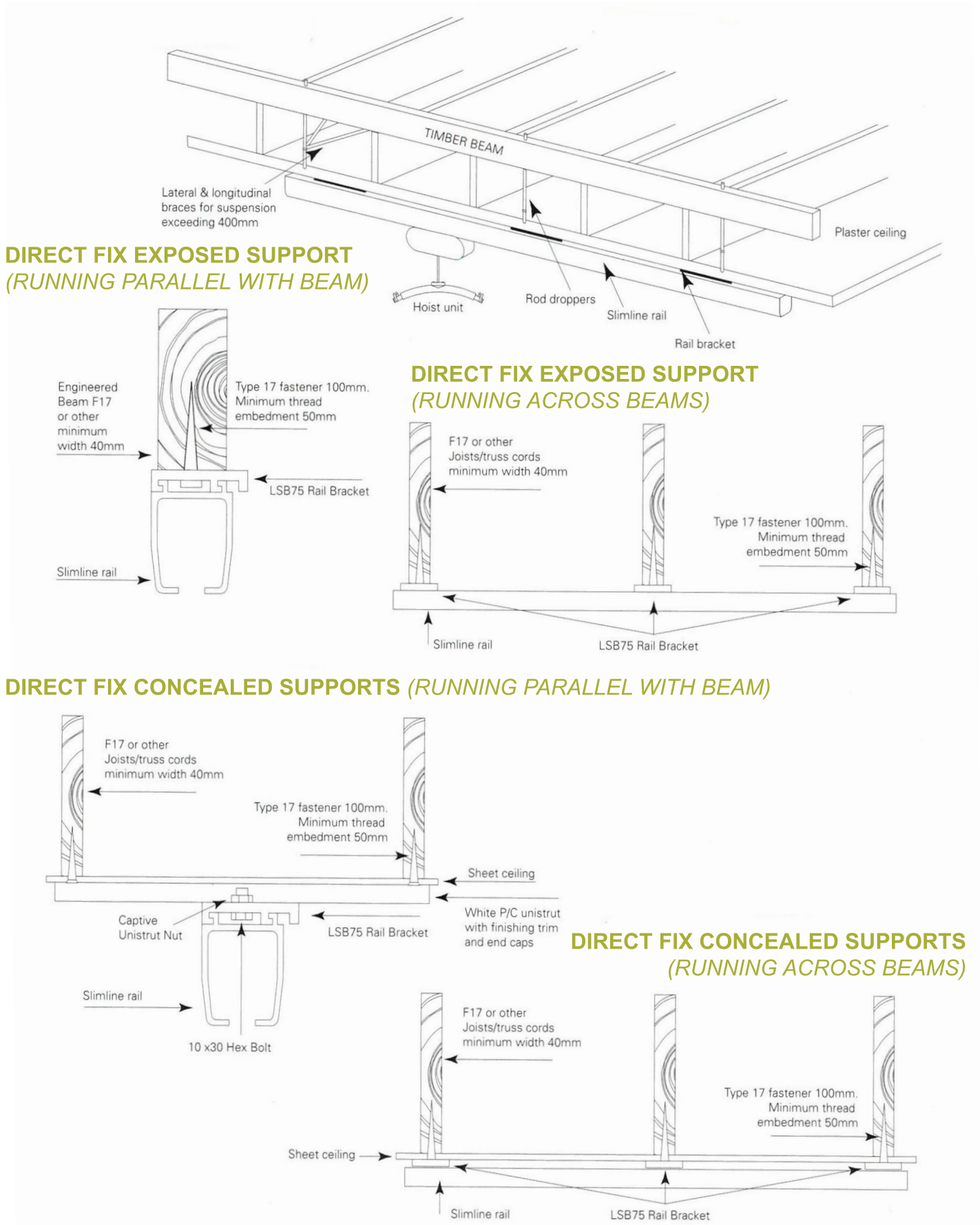


IMPORTANT

The ceiling system must not be attached to the rail system

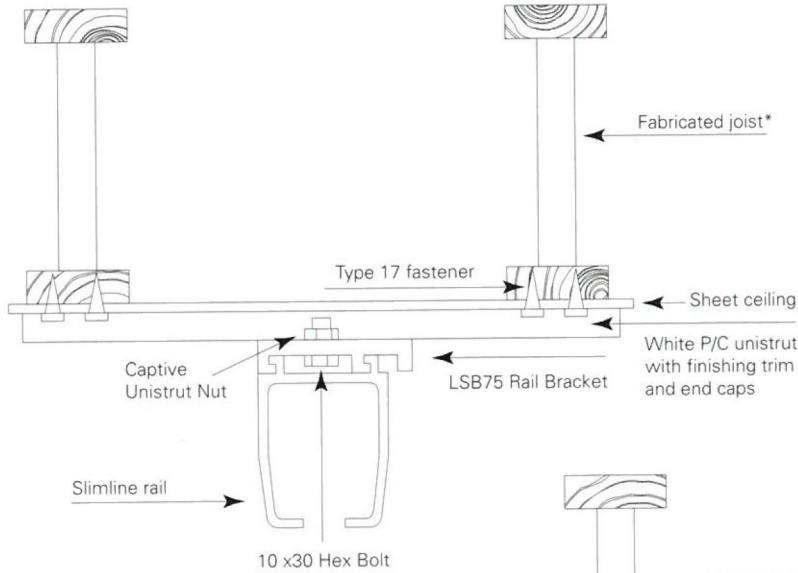
The ceiling system must be self supporting. No weight may be transferred to the rail system.

SLIMLINE RAIL SYSTEM

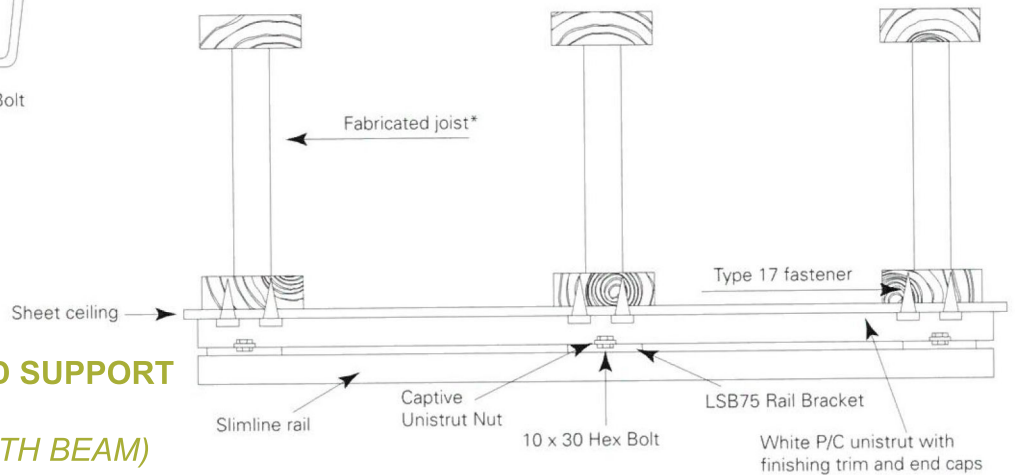


WOODEN STRUCTURES

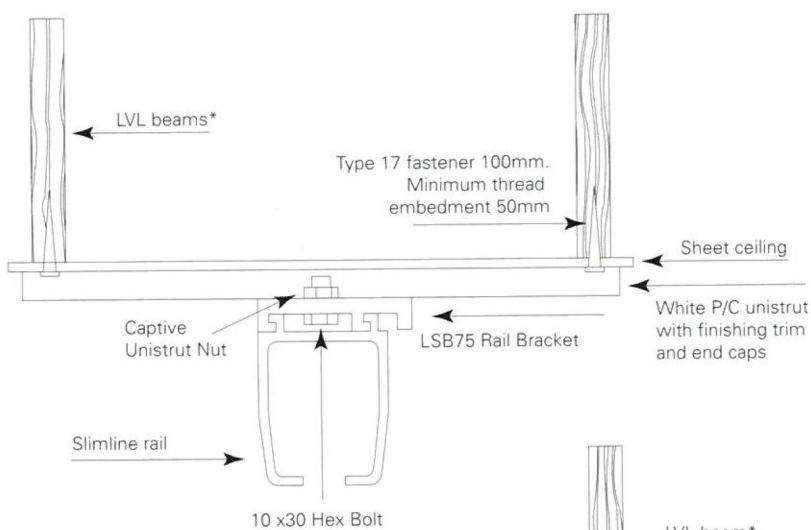
DIRECT FIX CONCEALED SUPPORT FABRICATED BEAMS (RUNNING PARALLEL WITH BEAM)



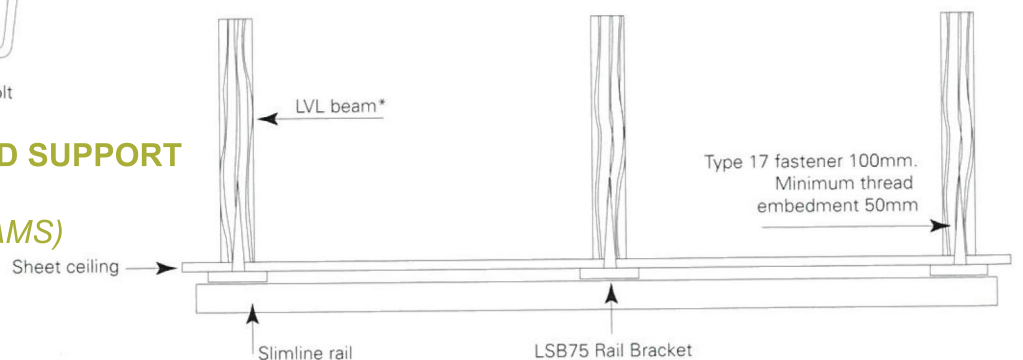
DIRECT FIX CONCEALED SUPPORT FABRICATED BEAMS (RUNNING ACROSS BEAMS)



DIRECT FIX CONCEALED SUPPORT LVL BEAMS (RUNNING PARALLEL WITH BEAM)



DIRECT FIX CONCEALED SUPPORT LVL BEAMS (RUNNING ACROSS BEAMS)

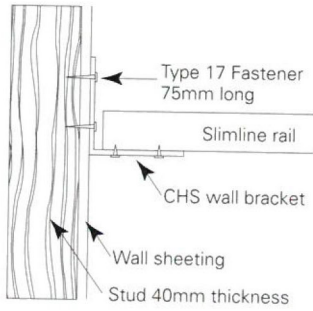


IMPORTANT

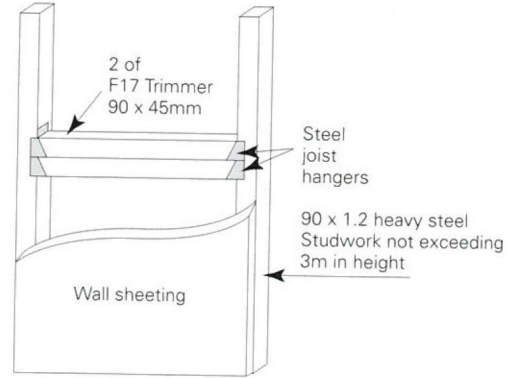
Suitability of fabricated and laminated beams/joists should be confirmed by manufacturer prior to fixing of rail system. Approved fasteners only should be used.

WALL MOUNTING

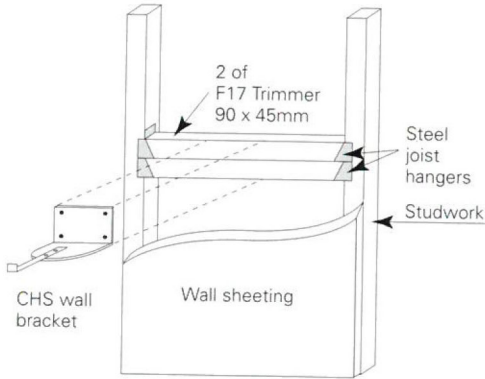
TIMBER STUD WALLS



STEEL STUD WALLS

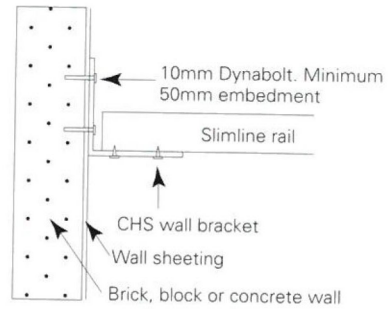


TIMBER STUD WALLS

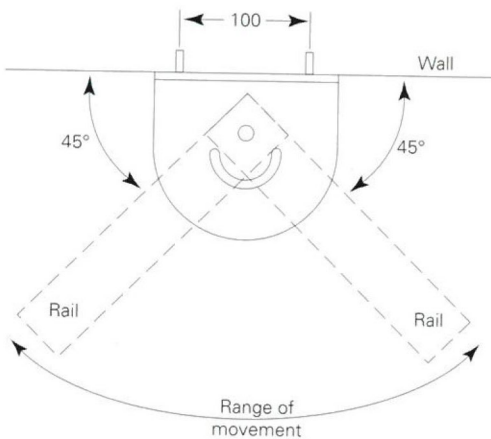


CONCRETE / BLOCK WALLS

For hollow core brick and block walls chemical anchors are recommended. Wall brackets are suitable for rail systems up to 300kg SWL

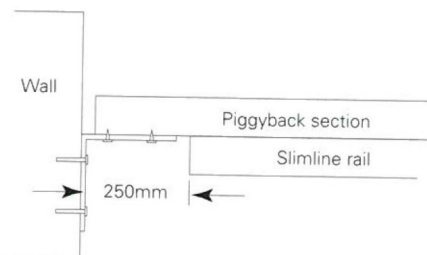
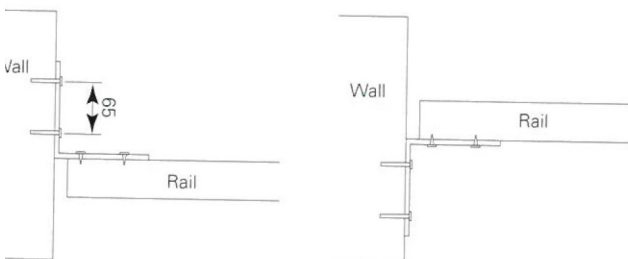
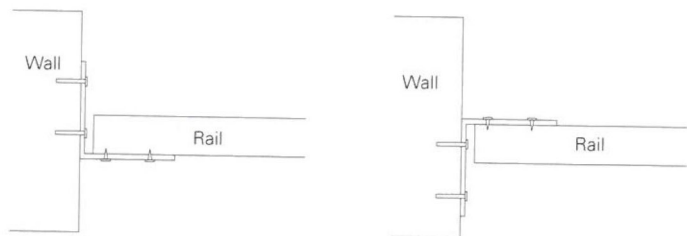


AMS WALL BRACKET



OPTIONAL MOUNTING

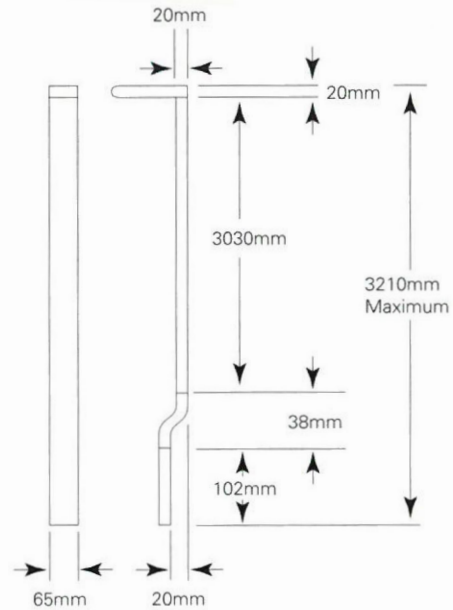
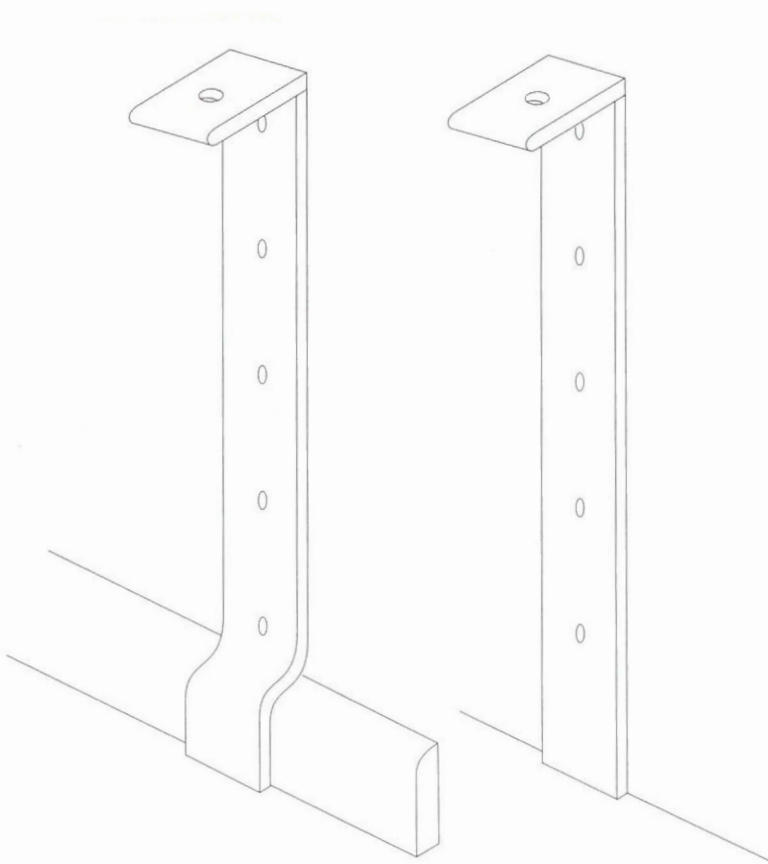
Dependant on site circumstances, rails may be above mounted or underslung, bracket may be upright or inverted.



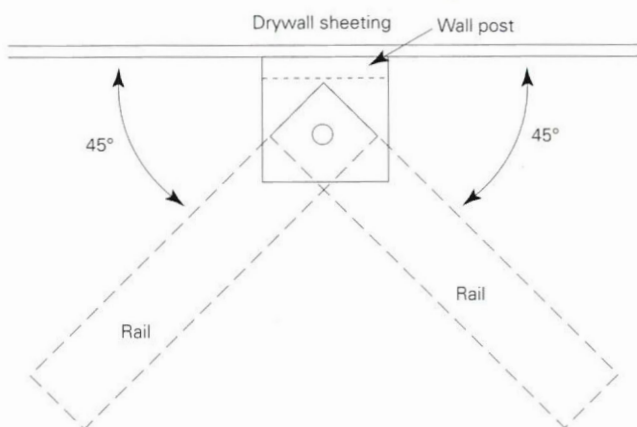
Spans requiring piggyback section should stop Slimline rail short at one end by 250mm to allow easy hoist/trolley removal for servicing.

WALL MOUNTING

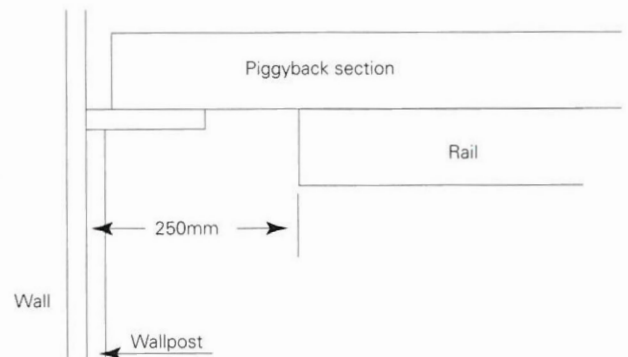
WALL POST FIXING



Fit with or without skirting offset
 Suitable for systems up to 450kg
 Drywall must be at least 10mm thick
 Drywall must be free of defects and moisture
 Suitable for both Slimline and Piggyback rails
 Fasten to drywall with EZ-Toggle and finishing cap supplied
 May be fixed to studwork or block walls if required
 Floor at base of post must be sound
 Weight is transferred to floor, fixing to studs or nogging is not required.



Rails may be installed at any angle exceeding 45° from wall surface.



Spans requiring piggyback section should stop Slimline rail short by 250mm at one end to allow easy hoist/trolley removal for servicing.



Active Mobility

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