

NATSOL - ERECTION OF WOODEN BUILDING FOR COMPUS TWIN FULL ACCESS

See: Internal layout drawing for wooden building

What you need:-

1. **Components [& tools] supplied by NATSOL:**
 - a. building sections; 4 walls and roof
 - b. 3m x 160mm vent pipe
 - c. 3m x 110mm soil pipe for soakaway inside vent pipe
 - d. gutter and downpipe for building inside vent pipe
 - e. vent pipe flashing collar
 - f. vent cowl
 - g. SIKAFlex
 - h. gutter & downpipe kit and rainwater gully
 - i. pack of coach screws & washers,
 - j. door handle set
 - k. universal 9mm drill bit
2. **Tools, equipment and materials required:**
 - a. **safety clothing**
 - b. tape
 - c. ladder
 - d. powerful cordless drill or generator and corded drill
 - e. socket drives for cordless or spanners
 - f. drill bits for piloting timber, plastic & metal
 - g. small assortment of ZP woodscrews for pipe fixings etc
 - h. mastic gun
 - i. breathable exterior 'paint' for door and frame e.g. OS Country Colour, Sadolin.
3. **Personnel & skills required:**
 - a. 4 people for erection of frames and roof, then 2
 - b. measuring & drilling
 - c. lifting and positioning
 - d. fitting coach screws
 - e. masticking

Method – see accompanying drawings and/or photos:-

NB. Use appropriate safety clothing for all stages. Before you start to erect the building make sure that all 4 apertures in the floor have galvanised hatches fitted. Do not erect under windy conditions. Keep bystanders clear by roping off site. If using corded power tools use correct voltages [and/or protective trips] for site work.

1. Using the 9mm universal bit supplied drill through the vault flanges where there are small circular depressions 30mm in from the edge. Do **NOT** use a hammer setting.
2. The lid/floor section of the vaults should have two rows of indents at several places around the sides. You should use the rows furthest from the edge for alignment of the inner wall surface of the building. If you can't see them then mark on a line with a pencil 60mm in from the edges.
3. Stand the **rear wall** section in place [centrally L to R] and line it up with the line you have just marked on. Support this wall section with props or otherwise hold securely. Make sure you don't trap the plastic drip edge under the sole.
4. Stand a **side wall** section in place. Position to the line on the floor and check also to see that the **vertical** pencil line on the surface of the lining board inside is just visible in the corner. Then insert 2 x 120mm turbo coach screws into the piloted holes covered by lead tabs on the outside of the side wall to join rear and side walls together.
5. Repeat with the other **side wall**.
6. Now adjust the positions of the three walls you have joined up to make sure that the soles are all lined up with their respective markings on the floor. The gap for the front

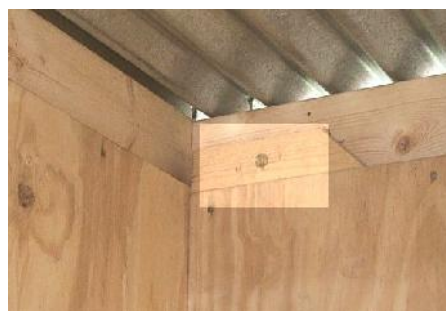
wall should be 1675mm but check this by measuring the front wall and measuring the gap between side walls low down.



N.b. Our buildings now have a skylight rather than a rear window



7. Fit the **front wall** into position and fit the corner coach screws as before. Leave the **batten across the bottom** in place for the time being.
8. Check the **diagonals** to make sure the building is square.
9. Using a cordless drill and socket drivers or a ratchet fit 100mm turbo coach screws with washers from below to fix down the sole plates of all walls as shown above. Do not overtighten.
10. Now remove the batten across the bottom of the front wall.
11. Raise **the roof** into position. Slide it up from the back with 2 people inside and 2 outside. Find a way of holding it down whilst fixing - **a roof blowing off is very dangerous!** Use 4 long wood screws [which should be supplied with the building] and insert these through the timber blocks on the top of the walls into the roof frame using a cordless drill. See highlighted area below. You may need to pilot these first.



12. **Fit gutter**, sloping it to the preferred side and then the downpipe. It may be possible to direct the water to the urine soakaway or there may be a separate soakaway – see **Soakaway Installation Instructions**. You must decide on an appropriate course of

action depending on site conditions and typical rainfall. We supply a rainwater drainage gully but you may need additional pipe.

13. Seal any joins as necessary on the outside of the building and between floor and wall internally with brown frame sealant.
14. **The vent pipe.** Slide the plastic storm collar on to the pipe and position approx 800mm down from the top end.
15. Attach directional cowl to the top end of the pipe with self tappers.
16. Insert pipe down through hole in roof. **Use a properly supported ladder, sufficient personnel and do not attempt under windy conditions.**



These pictures show a metal building but fitting the vent pipe is the same.

17. Locate bottom end of pipe in floor socket.
18. Slide storm collar down over roof collar. **Seal to vent pipe with SIKA.**
19. Seal pipe into floor socket with SIKA. You won't get around the back of the pipe but it doesn't matter.
20. If the interior is to be painted do this before fitting out.
21. The exterior surface of the door, frame and window should be painted with a breathable exterior paint. The door timber is treated but this will not in itself prevent swelling.

INTERNAL FITTINGS

N.b. Some pictures may illustrate metal buildings.

What you need:-

1. **Components supplied by NATSOL:**
 - a. toilet pedestal with urine separating plate
 - b. white seat adapted for pedestal
 - c. 2 hand disinfectant dispensers and 2 gel packs – load one in dispenser by pedestal, keep the other as spare
 - d. 2 toilet roll holders
 - e. ceramic urinal with splashback, trap, mounting brackets and pipework – all stored inside the soak box.
 - f. 40mm solvent weld pipe [long piece over rake handle],
 - g. soak bin containing some wood shavings
 - h. coat hook
 - i. various screws

- j. metal rake
 - k. emptying spade – store this somewhere else, you won't need it for years.
- 2. Tools & equipment required:**
- a. saw for pipe cutting,
 - b. cordless drill & bits
 - c. flat bit screwdriver
- 3. Personnel & skills required:**
- a. 1 person is sufficient, 2 is handy

Method – see accompanying drawings and/or photos:-

1. Fit splashback for urinal in front RH corner of cubicle. Use self tappers through perimeter dots to fix. Fit brackets to position marked in centre and hang urinal as shown. Fit waste and threaded adaptor below. It is preassembled.
2. Connect up urinal pipe work ensuring suitable fall in pipe, clip to wall. The pipe through the floor should be pushed into the hole up to the felt tip line. Any more than this and it may block the gutter.



NB The grab rail kit now includes a rail which is fitted vertically to the L of the urinal

3. Fit the grab rails in the positions shown on the walls or use the **Grab Rail Layout Drawing**. One grab rail is for the back of the door.
4. The wall mounted “soak” box is best fitted before fitting the pedestal. Fix the mounting brackets to the wall in both pedestal positions. The screw positions should be marked. If you can't see them then the top of the box should be 1100mm off the floor and you should leave a 25mm gap between the side of the box and the circular fixing plates of the rear vertical grab rails. Hang the box behind whichever pedestal position you intend to use first. If you don't want it to be easily removed put in a screw through the central hole in the back of the box.
5. Position the pedestal in which ever one of the rear hatches you decided to use first. The rear of the pedestal should be inserted first to engage the clip at the back under the floor and the urine separating plate must then be swung back to allow the pedestal to drop into position. If you are puzzled about how the urine separator directs urine to the gutter the answer is that the urine sticks to the underside of the last section of the stainless steel plate by surface tension. See photo on next page.
6. Fit toilet seat **following instructions on box**.
7. Fit the dispensers which open by pushing up recessed button underneath at rear.
8. Fit toilet roll holders, one each side, in position accessible from pedestal.
9. Fit coat hook on back of door or opposite urinal.



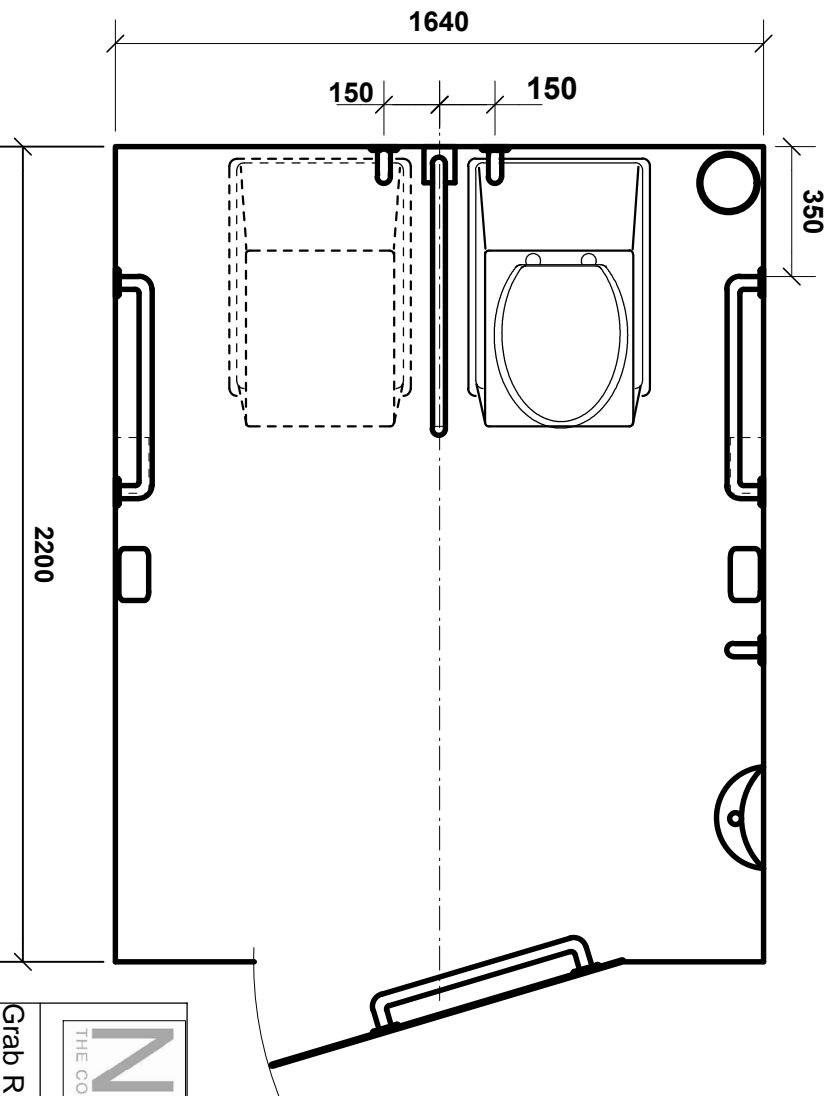
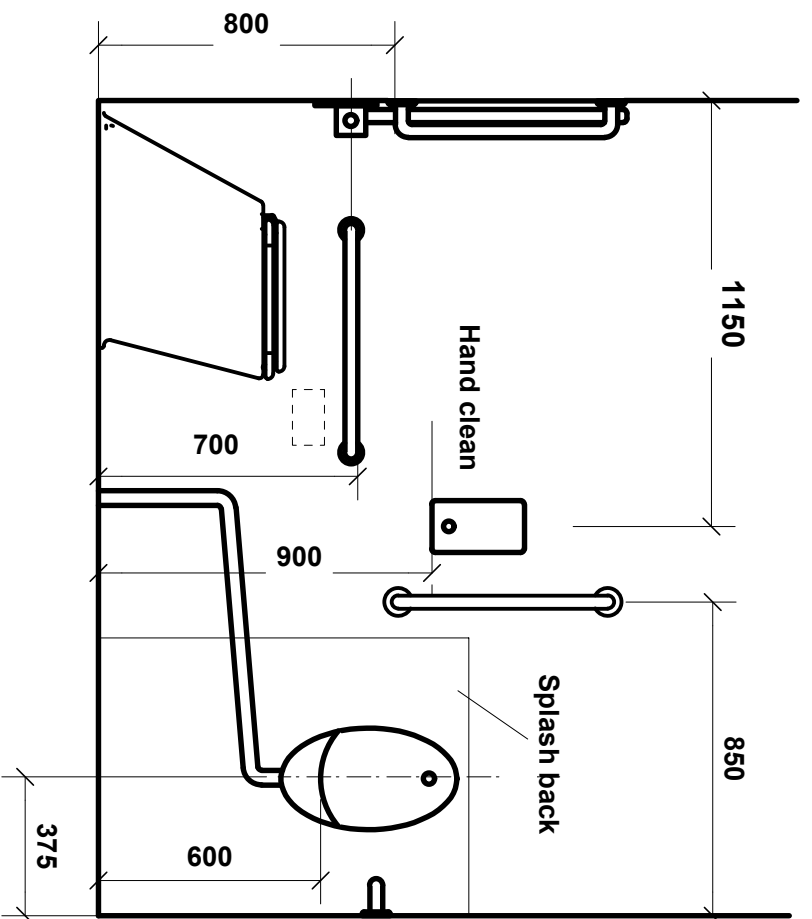
10. Open front hatches and spread a 2" to 3" layer of Hemcore evenly over the base of both vaults. If you have some left you could use it to top up the soak bin although woodshavings will be better at covering over solids in the toilet.
11. Place the rake in the active vault so that handle is accessible from the emptying hatch in front of the pedestal – it stays in there until vault changeover and is then moved to the new active vault.
12. If you want to seal the floor then wait till everything else is done. Clean carefully, allow to dry and use a sealant such as OS Floor Wax (High Polyx).

FINISHING OFF OUTSIDE - We don't supply anything for this and it will depend very much on the site.

1. A **ramp or slope** and **landing area** should be constructed to comply with building regs. Maximum gradient for a **ramp** of 2m length is 1 in 12; width 1200mm. A **slope** of maximum gradient 1:21 is preferred for wheelchair access. The level **landing area** in front of the door should be approx 2200mm deep to provide 1200mm clear when the door is open. Make sure the landing area is slightly below the floor level so that rain doesn't run inside. The **maximum permissible step** here is 15mm. **We strongly advise you to contact a COUNCIL ACCESS OFFICER or private sector ACCESS CONSULTANT when designing your approach to the toilet.**
2. We strongly advise you to fit a post preventing the door from opening further than 90 degrees. From 1st Feb 2010 all our doors will be fitted with restrainers but these could be damaged in high winds. The post should not obstruct disabled access.
3. Don't forget to fit a **rainbutt** to make use of rainwater and to reduce the amount of water going to the soakaway. Rainwater is fine for floor cleaning, urinal rinsing etc.



T 01686 412653



NatSol
THE COMPOST TOILET SPECIALISTS

Grab Rail Wooden Building

Dirg. No. FA 011 mw 1

Date: 5.12.11 Scale: NTS

Drawn: NJG altered mw

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EXTRACTS FROM PART M OF THE BUILDING REGULATIONS

SECTION M1/M2

ACCESS TO BUILDINGS OTHER THAN DWELLINGS

Ramped access

Design considerations

1.19 If site constraints necessitate an approach of 1:20 or steeper, an approach incorporating ramped access should be provided. Ramps are beneficial for wheelchair users and people pushing prams, pushchairs and bicycles.

1.20 Gradients should be as shallow as practical, as steep gradients create difficulties for some wheelchair users who lack the strength to propel themselves up a slope or having difficulty in slowing down or stopping when descending.

Limits for ramp gradients:

Going of a flight	Maximum gradient	Maximum rise
10m	1:20	500mm
5m	1:15	333mm
2m	1:12	166mm

Note:- For goings between 2 and 10m it is acceptable to interpolate between the maximum gradients.

Provisions

1.26 A ramped access will satisfy Requirement M1 or M2 if:

- c. no flight has a going greater than 10m, or a rise of more than 500mm;
- e. it has a surface width between walls, upstands or kerbs of at least 1.5m;
- h. there is a landing at the foot and head of the ramp at least 1.2m long and **clear of any door swings** and other obstructions;
- k. all landings are level, subject to a maximum gradient of 1:60 along their length and a maximum cross fall gradient of 1:40;
- m. there is a kerb on the open side of any ramp or landing at least 100mm high, which contrasts visually with the ramp or landing in addition to any guarding required under Part K.

Note from NatSol:

The full regulations can be downloaded at:

http://www.planningportal.gov.uk/uploads/br/BR_PDF_ADM_2004.pdf

Highlighted sections above relate to those requirements which, in our experience, are often neglected in the installation of toilets on remote sites.

We stress that the inclusion of the above extracts is merely a way to assist you but that we do not accept any liability for the work you do in providing access into a toilet we provide and that if in doubt you should consult with the local Building Control Officer or an Access Consultant.