

BE GOOD NEIGHBOURS

*A home owner's guide on good practices
to follow when carrying out building
works in landed housing estates*

As the lifestyle preferences and requirements of home owners change over time, owners of landed houses may alter, extend or redevelop them to meet their changing needs.

When carrying out these alterations, extensions, or redevelopments, home owners and their architects or engineers are encouraged to consider the possible impact on neighbouring houses and the potential concerns of their neighbours.

This guide on good practices offers owners of landed houses tips on the “dos and don’ts” when carrying out building works to their homes. Parts I to III provide information on what home owners should and should not do when preparing to start their building works, when working on the house, and when working on the general compound. Part IV provides suggestions on how home owners can avoid disputes with their neighbours, as well as advice on what to do if disputes arise.

We hope that the good practices outlined in this guide will promote good neighbourliness and harmonious living in the landed housing estates in Singapore.

For enquiries, contact:

***Urban Redevelopment Authority
Tel: 62216666
Website: <http://www.ura.gov.sg>***

***Building and Construction Authority
Tel: 1800-342 5222 (1800-DIAL BCA)
Website: <http://www1.bca.gov.sg>***

**Please note that as this guide is intended to be advisory in nature, URA and BCA are not obliged to intervene in the event that any party chooses not to adhere to the guide.*

**The drawings shown in the guide are illustrative and diagrammatic.*

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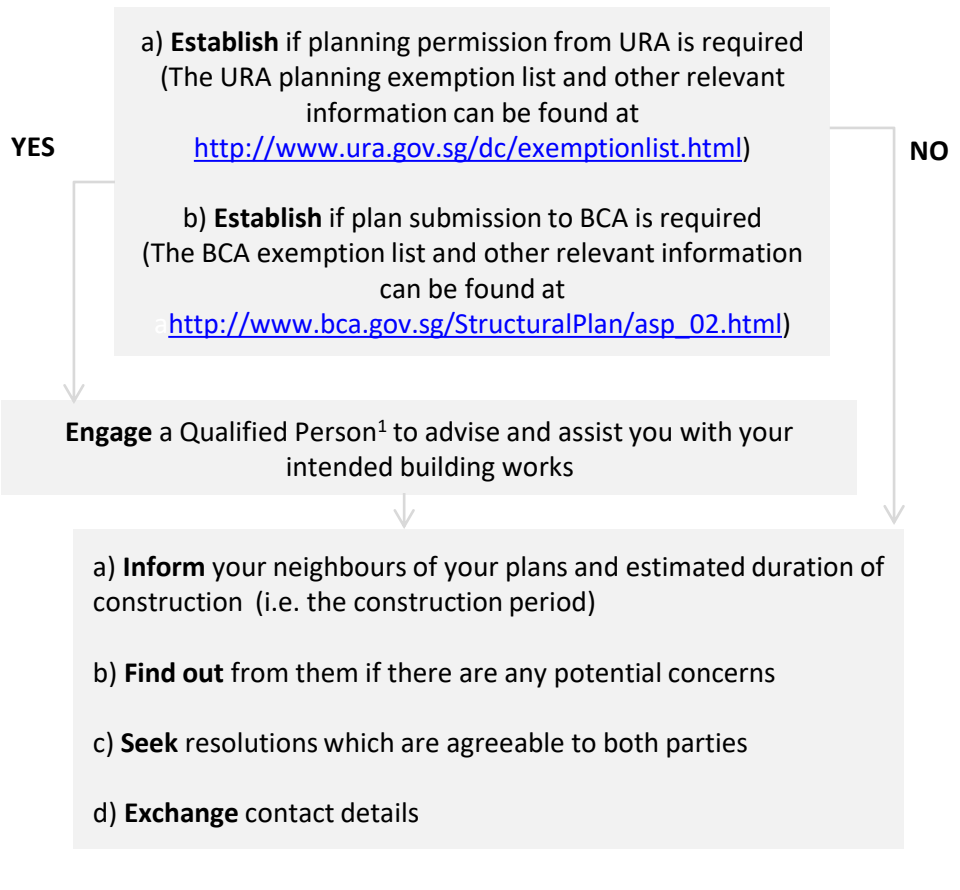
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Part I: Preparing to start works

a) General advice

What should I do if I want to redevelop or make alterations to my landed house (including building extensions)?



Note

Qualified Person (QP)¹:

A Registered Architect or a Professional Engineer who has the relevant training and expertise to advise on your building works. For example, Registered Architects would be able to advise you on architectural design aspects of a house while Professional Engineers would be able to advise you on structural or loading issues.

The QP's role is also to draw up the plans for submission to the relevant agencies such as the URA and BCA, and work with a contractor to supervise the works to be carried out.

Part I: Preparing to start works

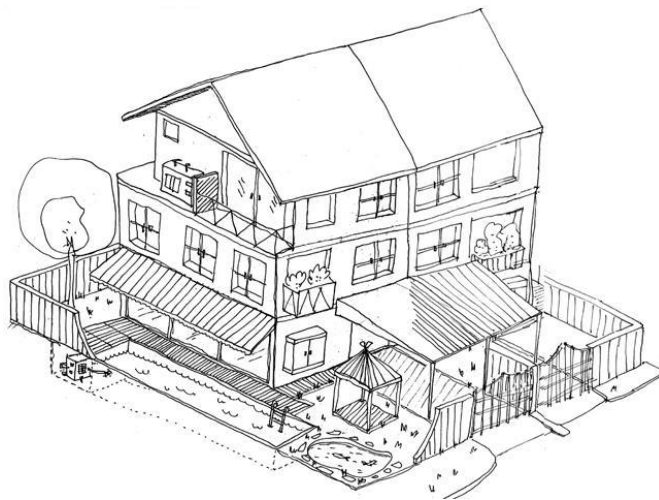
a) General advice



If you require access to your neighbour's property during the construction period, **you should** ~~try to~~ obtain their written consent at this stage. Appendix A shows a sample of such a letter of consent.

More information on renovating your property can be found at:

<http://www.ura.gov.sg/homeowner/landtitled-renovate.htm>



Who is my "neighbour"?

Your immediate neighbours include people staying next to, in front of, or at the back of your house.

However, if your construction works involve piling and deep excavation, you are encouraged to engage neighbours who are staying a few units away from your house as well. This is because the effects of piling and deep excavation extend much further.

Part I: Preparing to start works

a) General advice

What should I do if my works could adversely affect my neighbours? (e.g. causing cracks in floors or water leakage)

- 1) Seek advice from your architect, engineer and builder on adopting appropriate construction methods and take precautions to minimise the potential impact.
- 2) Inform your neighbours of the intended works and seek their understanding.
- 3) Address their concerns, and where possible, incorporate their suggestions into your construction plans and/or schedule.

Should I engage a Registered Surveyor?

Yes. Home owners are advised to engage a Registered Surveyor to undertake an updated Topographical and Boundary Survey of the property before starting works.

This will help to confirm the property boundary and prevent potential disputes with neighbours.

Part I: Preparing to start works

b) Planning construction works

What actions should I take if I need to increase the floor load of my property?

Your Professional Engineer should design new foundations to support the new building loads. Transferring additional load onto existing common foundations is strongly discouraged.

What actions should I take if my construction works are close to my neighbour's party walls or boundary walls?

Your builder should take the necessary safety measures to prevent the construction debris from falling into your neighbour's properties. Such measures include providing robust hoarding² or nettings along the common boundary walls.

Note

Hoarding²: A temporary fence erected around a construction site

Part I: Preparing to start works

c) Handling asbestos

What are asbestos?

Asbestos is a group of fibrous minerals which were vastly used in building and construction materials in the past, but their usage has since ceased due to their adverse health effects.

However, it is still possible to find asbestos in parts of existing buildings such as roof sheets, ceiling boards, insulation boards, wall partitions and claddings, gutters, water tanks, underground pipelines, etc.

What are the negative health effects of asbestos?

Exposure to asbestos fibres may lead to serious lung diseases such as asbestosis, mesothelioma and lung cancer. Building materials containing asbestos may release fibres when disturbed or due to wear and tear.

Should this affect my preparation to start construction or demolition works?

Yes. Before your builder starts renovation or demolition work, you should:

- 1) Remind your builder or engineer to conduct a check to ascertain if asbestos is present in the building.
- 2) If asbestos is present, engage a competent contractor to carry out asbestos removal work. Your contractor should submit a notification of asbestos removal work to the Ministry of Manpower (MOM) and ensure that the asbestos material is properly removed before renovation or demolition is carried out. All asbestos waste is to be disposed by a licensed asbestos waste contractor.
- 3) Inform your neighbours who may be affected by the asbestos removal work and advise them to stay away when the removal work is being carried out.

For more information on asbestos removal, refer to MOM's Guidelines on the Removal of Asbestos in Buildings at:

<http://www.mom.gov.sg/workplace-safety-health/resources/factsheets-circulars/Pages/chemicals.aspx>



You may also contact MOM using the information provided at:

<http://www.mom.gov.sg/contact-us/Pages/contact-information.aspx>

Part II: Working on the house

a) Conducting piling/excavation works

If my proposed development involves piling or excavation works (e.g. for the construction of basement / swimming pool), what should I do before commencing works?

1) Seek your neighbour's understanding

Such works are likely to generate a significant amount of noise and dust which may inconvenience your neighbours. You should inform your neighbours, seek their understanding and address their feedback/concerns (if any).

If you are carrying out works at the common boundary, (e.g. excavating close to the boundary wall) it is especially important that you inform your neighbours early.

2) Conduct a Pre-construction Survey of the properties nearby

Your builder should conduct a Pre-construction Survey of the properties nearby before commencing construction so that all pre-existing conditions are recorded. Your neighbours should be given a copy of the survey report, which can be used as a reference for any future disputes or damage claims by any neighbours.

3) Ask your Professional Engineer to conduct an Impact Assessment

Your Professional Engineer should conduct an assessment of the impact, such as disturbances and damage, of the proposed construction works on the surrounding properties.

If the proposed construction works are found to have an impact on the surrounding properties, you must ensure that your builder takes the necessary safety precautions and conducts close monitoring³ of the affected building.

Note

Monitoring³: This refers to observation of the building which could potentially be affected by the proposed works, so that construction can be temporarily halted should signs of damage appear.

Part II: Working on the house

a) Conducting piling/excavation works

What sort of piling system should I use to avoid damages and minimise inconveniences to my neighbours?

It is important that your Professional Engineer and builder select the piling system carefully and consider using a less invasive foundation system to avoid damages and delay in construction.

Micro-piles / jack-in piles*

These are environmentally-friendly piling systems which generate less noise and vibration.

Diagram Ila.i: Environmentally-friendly jack-in RC piling system



Driven reinforced concrete (RC) piling systems

These are likely to generate strong vibrations and excessive ground movement which may cause damage to surrounding properties. BCA may stop construction work should this occur.

Diagram Ila.ii: Driven RC piling system that may cause excessive vibration and damage to the surrounding properties



Damage caused by construction works can lead to delay in the construction progress, costly litigation and rectification works. You should therefore try your best to prevent this from happening!

Part II: Working on the house

a) Conducting piling/excavation works

What should I do to prevent damage to neighbouring properties due to excavation or basement construction?

If your development involves any excavation, construction of a basement or sunken swimming pool abutting the common boundary line, the works could cause damage to neighbouring properties if not carried out carefully.

To address this, your builder should adopt a suitable Earth Retaining and Stabilizing System⁴ (ERSS) and/or other appropriate measures to avoid excessive ground movements and damage of neighbouring properties.

Should you decide to proceed with the basement or sunken swimming pool construction, you should hence take into account the cost of:

- Adopting the ERSS
- The necessary ERSS design submission to BCA
- Rectification of any resultant damage (should this occur)

Is there any risk if I wish to have a basement or sunken swimming pool for my house, particularly if it is located between intermediate terraces or semi-detached houses?

Construction of basement or sunken swimming pool, especially if it is located between intermediate terraces or semi-detached houses, could affect the adjacent properties if works are not carried out carefully.

This is because there is usually little setback between the proposed basement or sunken swimming pool and the neighbouring properties. Hence ground movement resulting from the excavation works for the basement and sunken swimming pool construction may affect the parts of the neighbouring property such as the remaining party wall (see Diagram Ila.iii on the following page).

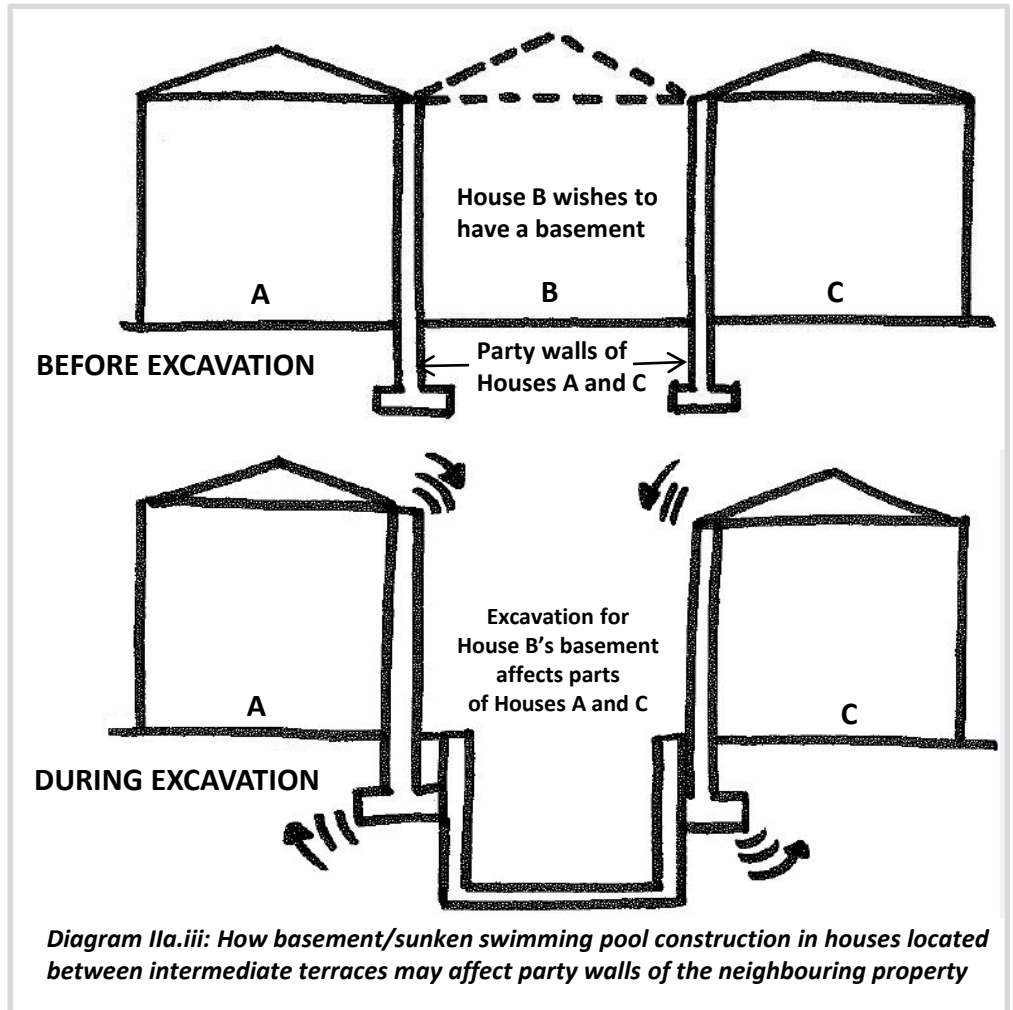
Hence, while basement or sunken swimming pools can be allowed for houses located between intermediate terraces or semi-detached houses, you should take the potential risk into consideration, and adopt necessary mitigating measures to prevent damage to the neighbouring properties.

Note

Earth Retaining and Stabilizing System (ERSS)⁴: This is a system which should be adopted by home owners undertaking projects involving excavation works deeper than 1.5m. The system needs to be designed by a Professional Engineer and submitted to BCA for plan approval.

Part II: Working on the house

a) Conducting piling/excavation works



What happens if my construction works cause damage to the neighbouring properties?

- 1) BCA may revoke the permit for construction works.
- 2) Your Professional Engineer and builder will have to review and consider other systems or additional measures to prevent further damage.
- 3) You should get your builder to rectify the reported damage.

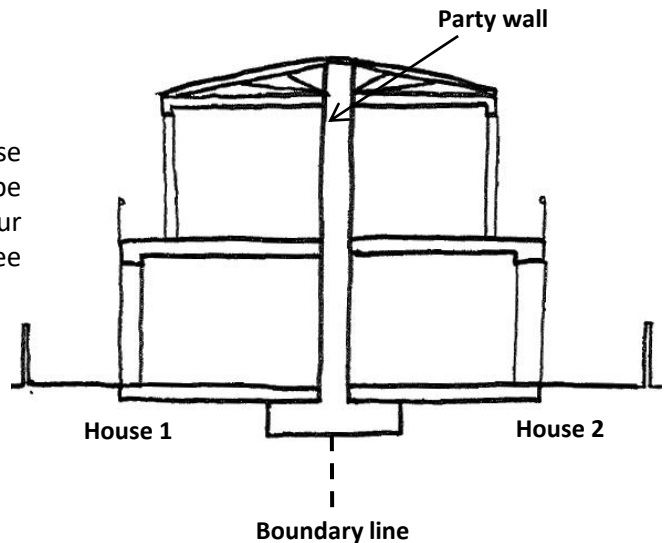
Part II: Working on the house

b) Constructing, extending or treating party walls

What is a party wall?

The wall of your house that is shared/ will be shared with your neighbour's house (see Diagram IIb.i).

*Diagram IIb.i:
Illustration of a party wall and how it should be situated*



Where should I locate my new party wall?

Right next to the boundary line between your neighbour's house and your own. There should not be any gaps between the new party wall and the boundary line as it will cause problems like water collection leading to mosquito breeding.

Can I hack my existing party wall?

Generally, there should be no hacking of the existing party wall to create a recess to embed new walls, columns or beams. Your contractor should not use the existing party wall as formwork⁵ or support for construction works as this may affect the stability of the party wall. An independent formwork or support system should be used.

If the existing party wall is affected by demolition work to facilitate a "breakaway" or future extension of the house, do plaster and paint the exposed blank wall and treat any exposed roofing on the neighbouring property sensitively as soon as the demolition is complete. The next section provides more information on the "breakaway" situation.

Note

Formwork⁵: Temporary moulds into which concrete or other materials are poured for construction purposes.

Part II: Working on the house

b) Constructing, extending or treating party walls

What happens in a “breakaway” situation?

Such situations arise when a landed housing owner wishes to detach or “breakaway” his /her property from the neighbouring house. For example, to redevelop his/her semi-detached house into a bungalow.

The resultant demolition will turn what used to be a party wall into an exposed blank wall, and might create some exposed roofing on the neighbouring house (see Diagram IIb.ii).

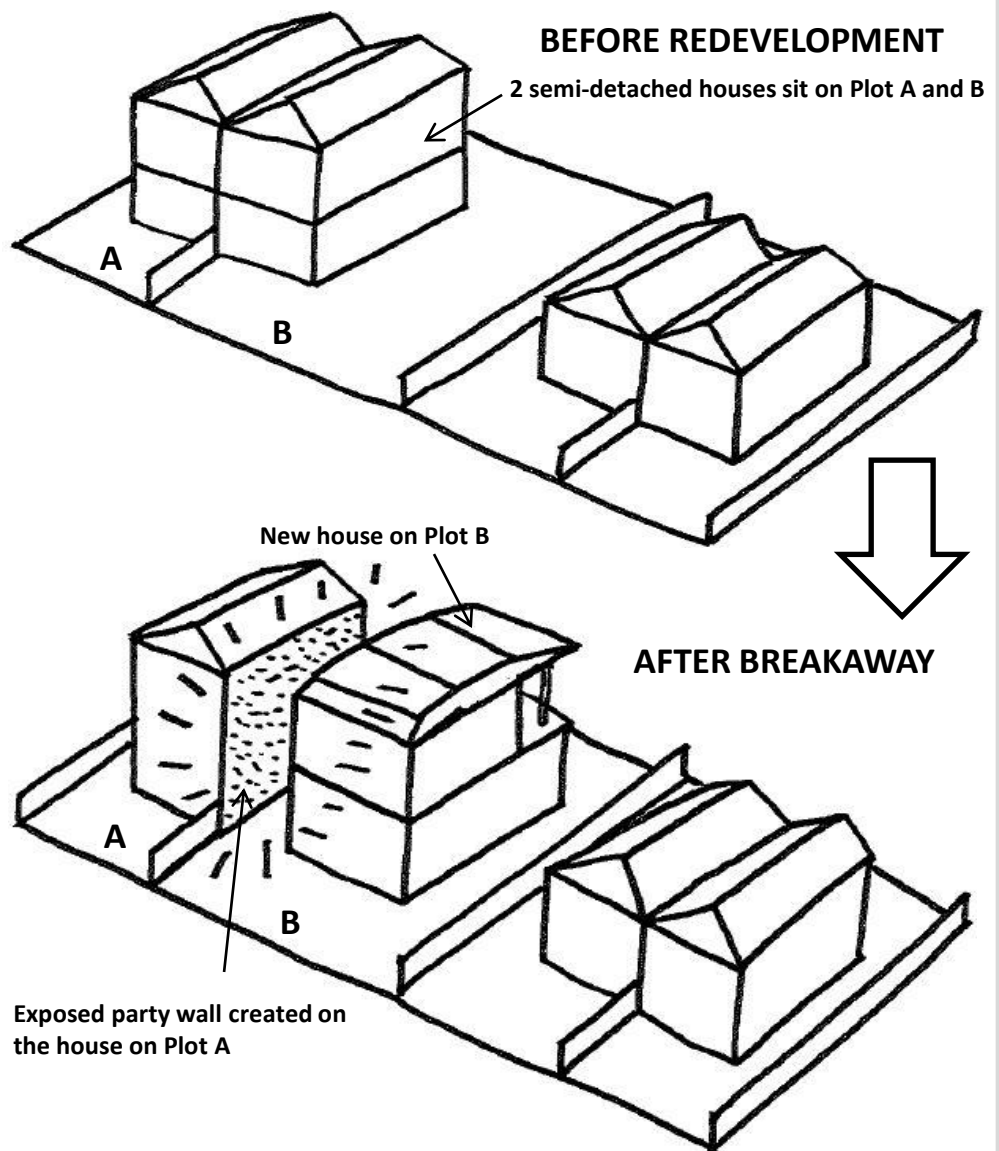


Diagram IIb.ii: Picture/Illustration of the exposed wall resulting from a breakaway

Part II: Working on the house

b) Constructing, extending or treating party walls

What should I do with the remaining wall in a “breakaway” situation?

In consultation with your neighbour, you should get your builder to plaster and paint the exposed blank wall as soon as your house is demolished. You should also treat any exposed roofing on their house sensitively to prevent rainwater from seeping in.

What about new/extended party walls in a “non-breakaway” situation?

Proposals to increase the building height or to build a new rear extension (e.g. consisting of a kitchen/study) can create new walls which will look unsightly when viewed from your neighbour’s house, if it is not plastered and painted (see Diagram 11b.iii).

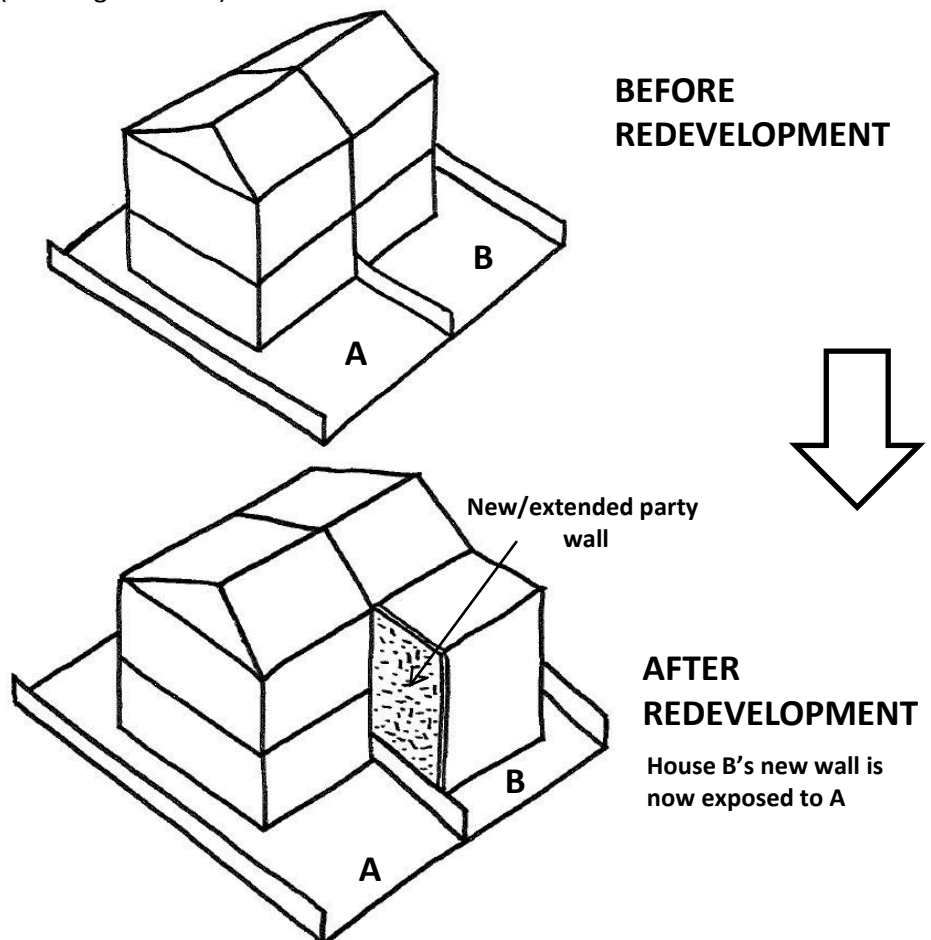


Diagram 11b.iii: Illustration of a new/extended party wall which will look unsightly if it is not plastered and painted

Part II: Working on the house

b) Constructing, extending or treating party walls

What should I do in such situations?

In consultation with your neighbour, you should get your builder to plaster and paint the new/extended party wall and treat any exposed roofing as soon as the extended structures are built.

If there is a need to access your neighbour's land to conduct these works, seek his or her written consent early and explain that the finishing works are for mutual benefit. Appendix A shows a sample of such a letter of consent.

What should I do to prevent rainwater leakage into my neighbour's house?

If your proposed development affects the roof of your neighbour's house, be it in a "breakaway" or "non-breakaway" situation, you should put in place the following measures.

Temporary measures: Have your builder install secured canvas sheeting and temporary flashings⁶ immediately after the party walls are hacked.

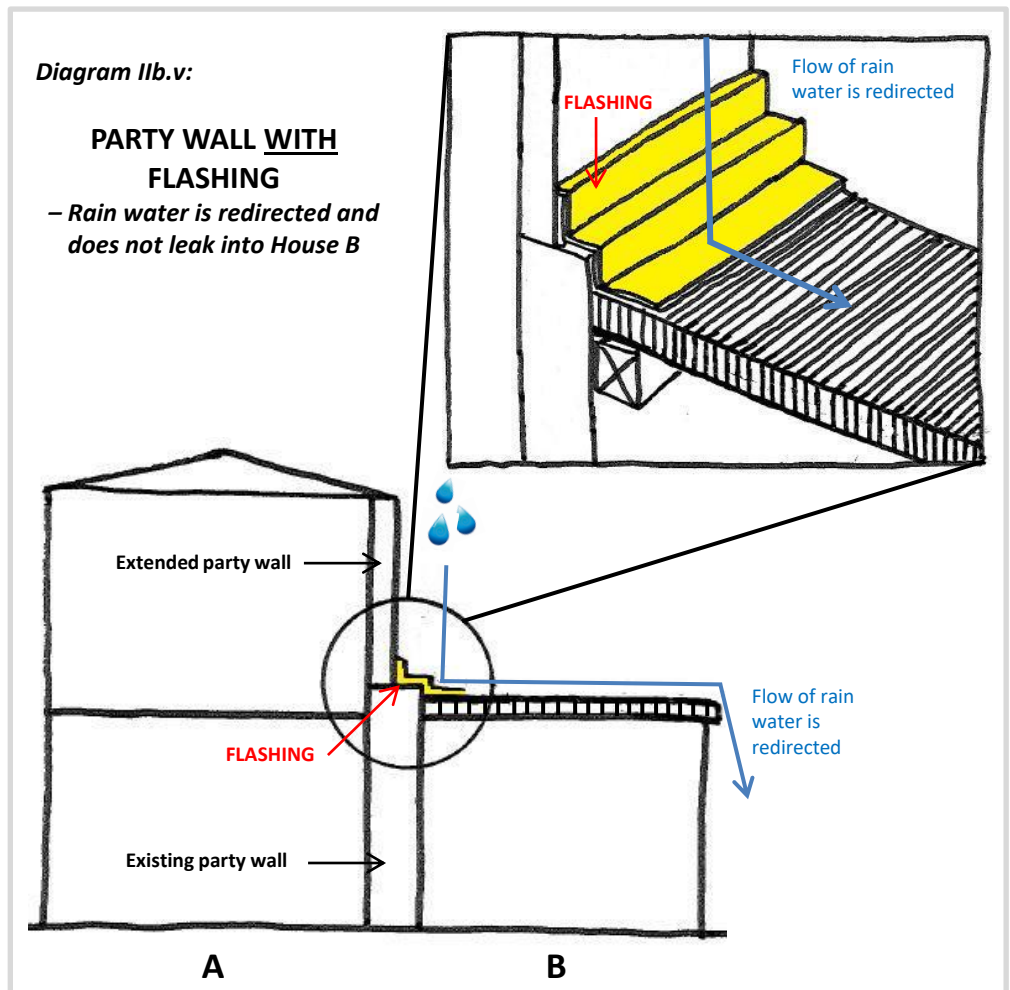
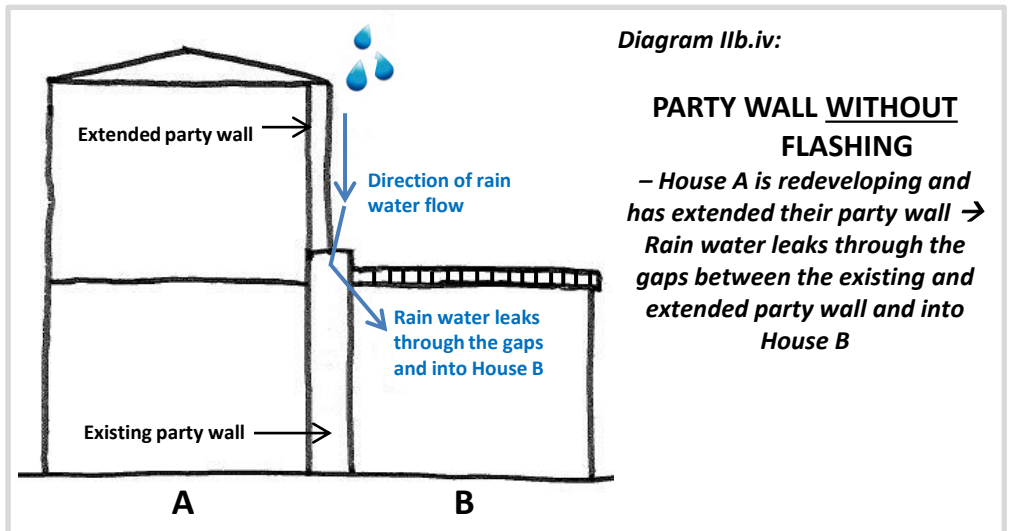
Permanent measures: Have your builder install flashings over the common party wall to prevent rainwater leakage into your neighbour's house. Diagrams IIb.iv and IIb.v on the following page illustrate how such flashings could work.

Before undertaking any of these measures, please obtain your neighbour's written consent. Appendix B shows a sample of such a letter of consent.

Flashings⁶: Thick continuous pieces of impervious material (e.g. sheet metal) installed on a structure to redirect water flow.

Part II: Working on the house

b) Constructing, extending or treating party walls



Part II: Working on the house

c) Locating air-condition condensers

What are the concerns on air-condition condensers?

Some air-con (AC) condensers generate large amounts of heat and noise, potentially causing nuisance to the neighbours.

Air-con condensers should be located on a roof (ie. attic or flat roof) with proper screening. Diagram Ilc.i illustrated where air-con condensers can be located.

Approved air-con ledges should not be converted to any other uses without planning permission from the URA. When purchasing your air-con, try to select a model which does not produce too much noise and hot air.

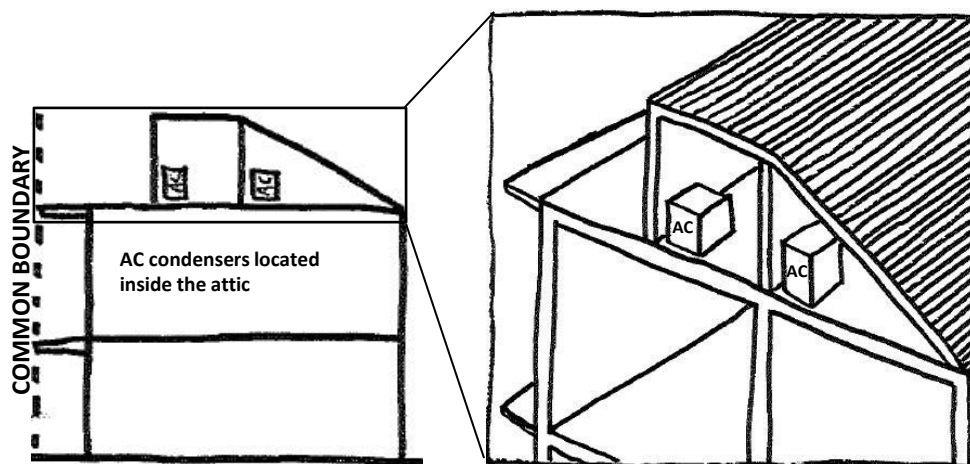


Diagram Ilc.i: Illustration of where air-con condensers can be located

Part II: Working on the house

d) Using reflective materials on the roof/building façade

What should I note when selecting the materials for my roof or façade design?

Reflection of sunlight off a development's pitch roof/curved roof or building façade to the neighbouring property could cause glare and discomfort to neighbours living in nearby landed houses or apartments. Please see illustrative Diagrams Ild.ii and Ild.iii on the following page.

To reduce glare, you are encouraged to **avoid** using highly reflective materials for your roof/façade. Such materials include highly reflective glass or shiny finishing (see Diagram Ild.i below for an example) If this is unavoidable, you should take appropriate measures to reduce the impact of the reflectance, e.g. by putting an anti-glare, non-reflecting coating on a metal roof.

Attention should also be paid to colour and texture. Smooth and light coloured roof covering reflects more light and can cause discomfort to neighbours on bright sunny days.

You should also pay attention to the other factors affecting the amount of glare. These include the orientation, pitch, and the extent of roof/façade with reflective surfaces.



Diagram Ild.i: Shiny finishing which should be avoided when selecting material for your roof/façade

Part II: Working on the house

d) Using reflective materials on the roof/building facade

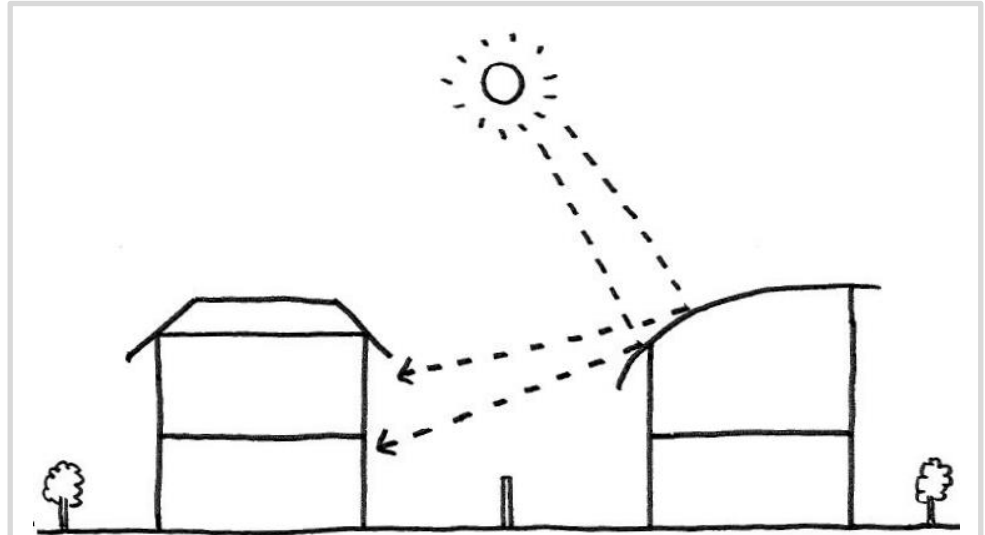


Diagram IId.ii: Glare/reflection of sunlight from a development's new curved roof to the adjacent landed house

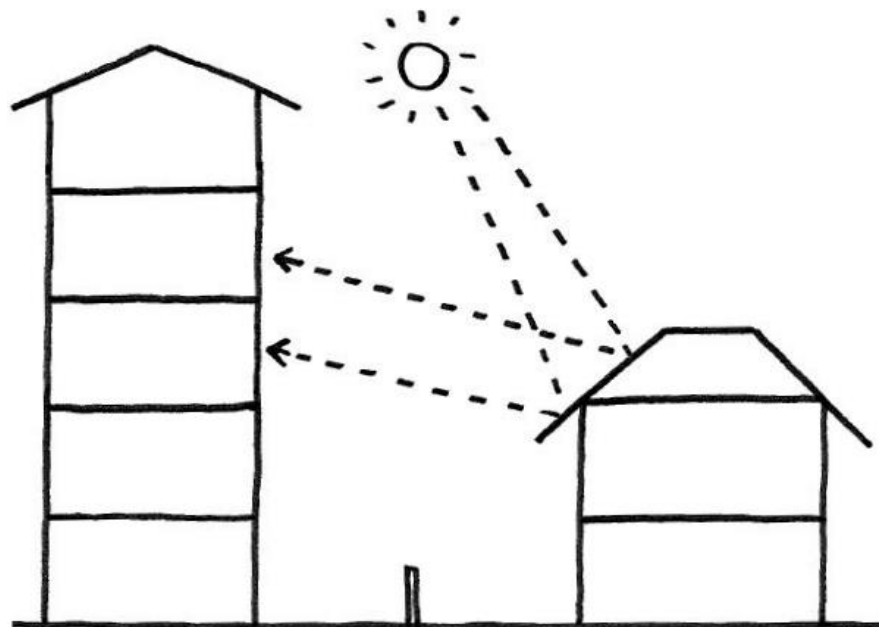


Diagram IId.iii: Glare/reflection of sunlight from a development's new pitch roof to the adjacent apartment

Part III: Working on the general compound

a) Constructing, extending, or shifting boundary walls

What is a boundary wall?

The wall located at the boundary line that defines the ownership of your property. The wall is normally used to separate your garden/yard from your neighbour's property and the state land in front of your house where the public road / drain is located.

Where should I situate my boundary wall?

Right next to the boundary line. There should not be any gaps between the boundary wall and the boundary line as it will cause problems like water collection leading to mosquito breeding.

How high is my boundary wall allowed to be?

Typically, 1.8m. Planning permission from URA is required for boundary walls exceeding that height. If your boundary wall is of a different height from your neighbour's for reasons such as differences in ground level, please discuss the finishing and maintenance details for the wall with your neighbour (see Diagram IIIa.i).

Who should maintain House B and C's boundary wall? How should this be done?

If B and C were to maintain their own walls, they may need permission to access their neighbour's land. If A and B would like to plaster their neighbour's walls, they would need permission from the affected neighbour.

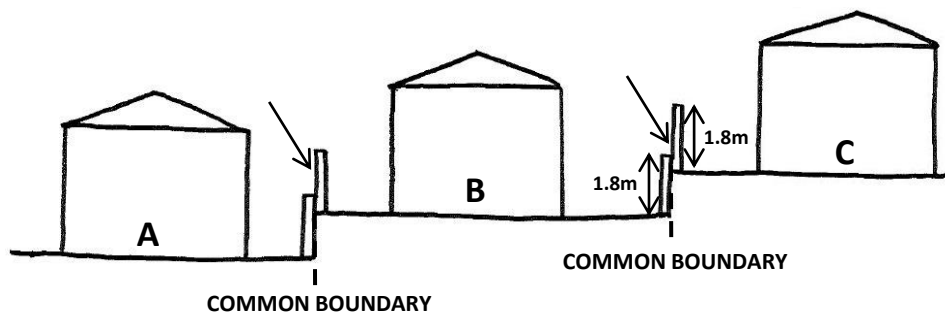


Diagram IIIa.i: Illustration of why neighbours with boundary walls of different heights need to work out finishing and maintenance details

Can I replace my existing chainlink fence with a brickwall?

Check if the chainlink fence is actually common property between you and your neighbour. If so, discuss your proposed replacement with your neighbour first.

Part III: Working on the general compound

b) Building new swimming pools

What is the difference between “raised” and “sunken” swimming pools?

Raised swimming pools: one that is placed above ground or is partially sunken into the ground (see Diagram IIIb.i)

Sunken swimming pools: one that is fully sunken into the ground (see Diagram IIIb.ii)

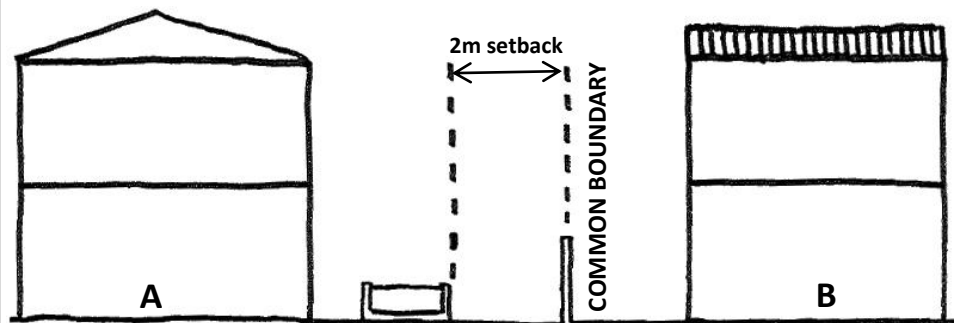
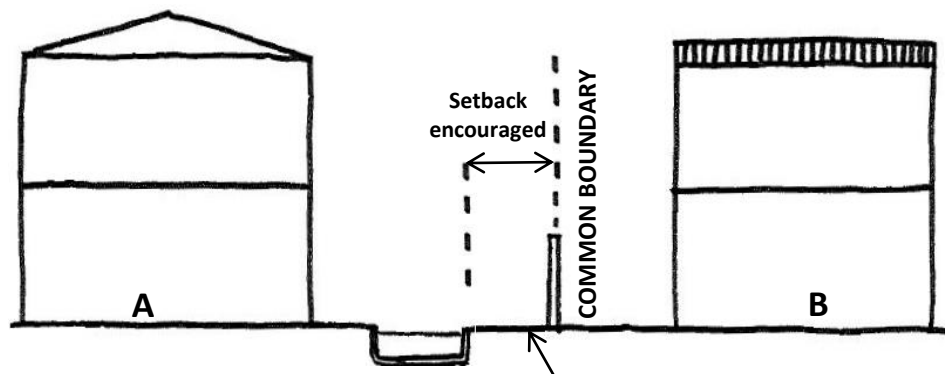


Diagram IIIb.i: Illustration of a raised swimming pool outside the 2m side setback



Although sunken swimming pools can be allowed to abut the common boundary, providing some setback between the sunken swimming pool and the common boundary is highly encouraged to prevent any impact on the neighbouring property.

To prevent splashing of water into the neighbour’s property, you should also provide a solid boundary wall separating the pool from your neighbour’s property.

Diagram IIIb.ii: Illustration of a sunken swimming pool with setback from the solid boundary wall to prevent any impact on the neighbouring property

Part III: Working on the general compound

b) Building new swimming pools

What precautions should I take when building a raised swimming pool within my property?

As a raised swimming pool is a structure which may affect your neighbour, there must be setback⁷ of at least 2m from the common boundary.

What precautions should I take when building a sunken swimming pool?

Though sunken swimming pools can be allowed to abut the common boundary, providing some setback between the swimming pool and the common boundary is highly encouraged. This is because the excavation needed to create the sunken pool may cause ground movement which could impact neighbouring properties.

Providing setback between the sunken pool and the common boundary will also reduce the possibility of water splashing into your neighbour's property and minimise disturbance to your neighbours.

You should also take other measures to prevent the splashing of water into your neighbour's property such as building a solid boundary wall separating the pool from your neighbour's property (see Diagram IIIb.ii on the previous page).

Note

Setback⁷: Distance between a building/ structure and the site boundary.

A guide to URA's setback requirements can be found at:

<http://www.ura.gov.sg/dc/e-advisor/index.html>

Part III: Working on the general compound

b) Building new swimming pools

Would my new swimming pool affect my neighbours' boundary or retaining walls?

Yes. Swimming pools add surcharge load which could increase the vertical stress on the ground. This could destabilise your neighbour's boundary or retaining walls.

What can I do about this?

Your Professional Engineer should check that the additional load from the new swimming pool does not affect the stability of your neighbour's boundary or retaining walls. You may wish to ask for a certification of the structural integrity of these existing walls from your Professional Engineer.



If you are proposing a sunken swimming pool, you should also ask your engineer and builder to adopt a suitable Earth Retaining and Stablising System (ERSS) or take appropriate measures to avoid instability and damage to your neighbours' boundary or retaining walls.

Part IV: Avoiding or handling disputes

a) General advice

How should I handle disputes with my neighbours resulting from the construction process?

- 1) Talk to your neighbours to understand the reason for the unhappiness.
- 2) Try to address their concerns. This will help maintain good neighbourly relations in the long term.
- 3) If the disputes cannot be resolved, you can check with the relevant government agencies to see if they can be of assistance.

However, there are some private matters concerning property rights for which government agencies do not intervene. These include encroachment and access issues.

If there are such disputes, you can consider seeking legal advice or mediation services at the Community Mediation Centre (<http://app2.mlaw.gov.sg/cmc/>).



You may also choose to follow some of the tips on how to avoid or handle disputes concerning **construction noise**, **encroachment** of building structures and the **splashing of water** from swimming pools and roof eaves. These can be found in Parts IV(b) to (d).

Part IV: Avoiding or handling disputes

b) Construction noise

Should I be concerned about the noise my construction works may generate?

Yes. Noise from construction works at landed houses can potentially cause disturbance to neighbours and the neighbourhood.

You should hence try to minimise construction noise when carrying out building works so that you and your neighbours can enjoy a quiet and peaceful living environment.

What good practices should I adopt to minimise the noise impact of my construction works?

- 1) Abide by the rules of the National Environment Agency (NEA), who regulates noise generated at construction sites. More information on these rules can be found at: http://app2.nea.gov.sg/topics_noise.aspx.
- 2) Give your neighbours prior notice of the dates and timings of noisy construction work.
- 3) Tell your builder to take noise mitigating measures such as installing noise barriers which help to reduce disturbance to your neighbours.
- 4) Remind your builder to minimise construction noise as much as possible and discourage them from working at night.

To give feedback on noise pollution or find out more about NEA's noise pollution regulations, you may contact the NEA Call Centre at 1800-CALL-NEA (1800-2255 632).



Part IV: Avoiding or handling disputes

c) Encroachment of building structures

What is “encroachment”?

Encroachment occurs when you have structures sitting on your neighbour’s land, or protruding into their air space (see Diagram IVc.i). Encroachment can be onto adjoining State Land too.

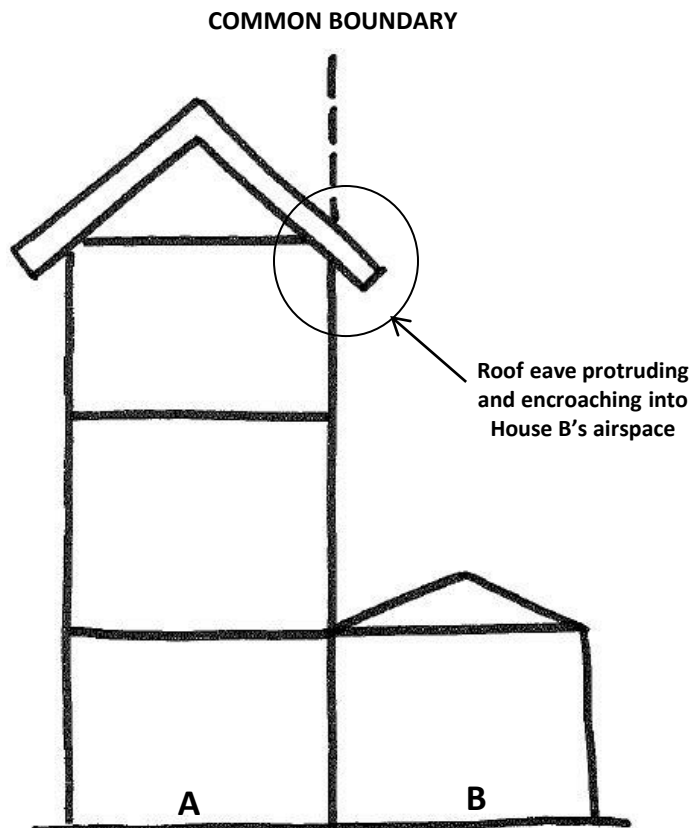


Diagram IVc.i: Illustration of a scenario where encroachment has occurred. House A's roof eave has encroached into the airspace of House B.

Part IV: Avoiding or handling disputes

c) Encroachment of building structures



Encroachment should be avoided as it infringes on your neighbour's property rights and may become a source of dispute between you and your neighbour. Please check your plans and work with your QP and builder to ensure that your construction works do not result in any encroachment.

How do I know if there is an encroachment?

This can be established through a land survey, which is a survey of structures and other topographical features with reference to the legal boundary line. You need to engage a land surveyor to carry out the survey.

My works have already encroached onto my neighbour's property. What should I do?

You are advised to remove the encroachment as soon as possible, or discuss with your neighbour to settle the matter amicably. If there is a dispute, you may wish to seek mediation services or legal advice.

Part IV: Avoiding and handling disputes

d) Splashing of water from swimming pools /roof eaves

What structures may cause water to splash into my neighbour's property?

Swimming pools, roof eaves⁸ and sun-shading devices .

What should I do if I already have / wish to propose these structures near the common boundary between my house and my neighbour's?

You should take measures to prevent water from the roof from splashing onto your neighbour's properties, such as installing flashings on your own house to redirect the water flow vertically downwards (see Diagram IVd.i).

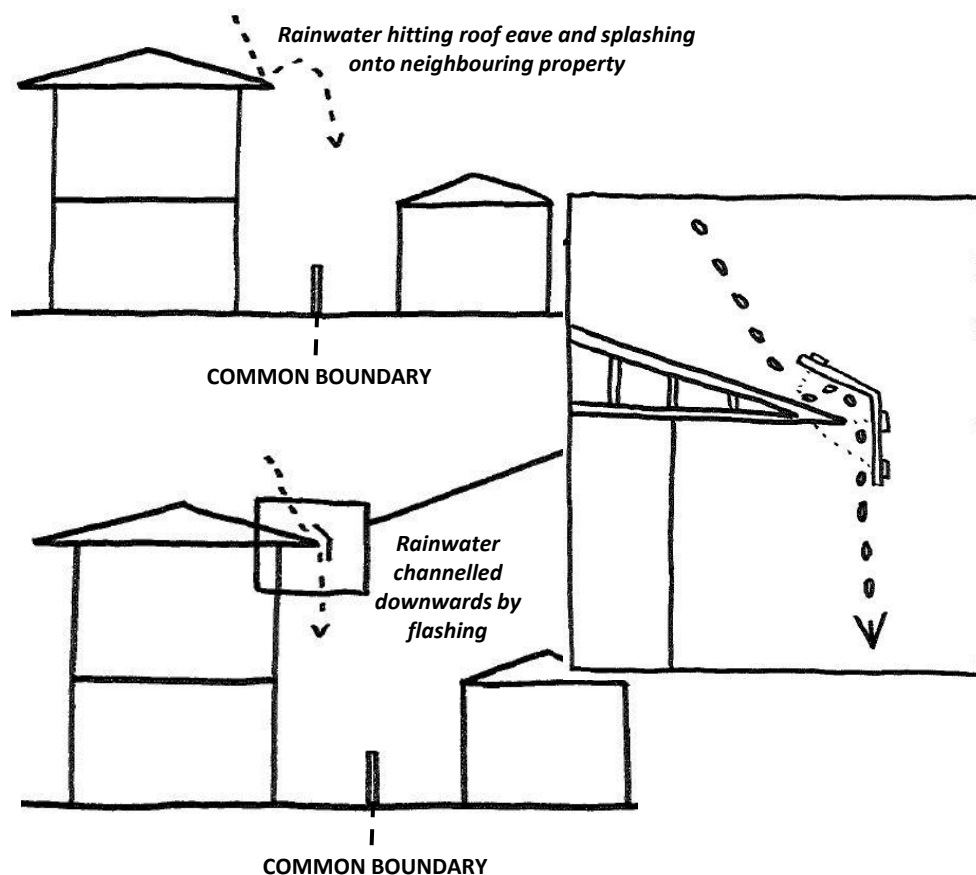


Diagram IVd.i: A roof eave rectified with flashing to prevent splashing of water into the neighbouring lot by redirecting water flow vertically downwards

Note

Roof eaves⁸: Lower edges of a roof which usually project beyond the building walls.



Being considerate and responsible will help to ensure a better living environment for you and your neighbours.

Appendix A

Sample of written consent from neighbours whose consent for land access is required due to construction on the subject site

(Please amend the letter to suit your purposes or circumstances.)

To the Owner of 23 Sunflower Avenue:

We, the Owner and Builder of construction works at 25 Sunflower Avenue, would like to seek your consent to allow access to your land for the following reasons:

- To plaster and paint the new/extended* party wall
- To treat my/your* exposed roofing
- To erect scaffolding
- Any other measures: N.A.

We will take the necessary precautionary measures to prevent any damage to your property and we undertake to rectify any damage caused to your property in the course of these works as indicated above. Thank you.

Yours faithfully

Mr Samuel Tan
Owner of 25 Sunflower Avenue
(Date of letter)

Mr Peter Lim
Builder of 25 Sunflower Avenue
(Date of letter)

I consent to grant access from (start date from which access is required) to (end date from which access is no longer required) (*estimate*).

Yours faithfully

Mr John Doe
Owner of 23 Sunflower Avenue
(Date of letter)

*Please delete accordingly.

Appendix B

Sample of written consent from neighbours potentially affected by leakage due to construction on the subject site

(Please amend the letter to suit your purposes or circumstances.)

To the Owner of 23 Sunflower Avenue:

We, the Owner and Builder of construction works at 25 Sunflower Avenue, would like to seek your consent to implement the following measures to prevent our construction works from causing leakage into your house.

- To install secured canvas sheeting on your party wall on a *temporary* basis
- To install a *permanent* flashing on our common party wall
- To install a *permanent* flashing/coping* on your roof
- Any other measures: N.A.

We will take the necessary precautionary measures to prevent any damage to your property and we undertake to rectify any damages caused to your property in the course of these works as indicated above. Thank you.

Yours faithfully

Mr Samuel Tan
Owner of 25 Sunflower Avenue
(Date of letter)

Mr Peter Lim
Builder of 25 Sunflower Avenue
(Date of letter)

I consent to the above measures.

Yours faithfully

Mr John Doe
Owner of 23 Sunflower Avenue
(Date of letter)

*Please delete accordingly.