Determination 2008/14

Surface water runoff between two adjacent properties at 42 Karaka Street and 72 Upper Queen Street, Auckland

1 The parties and the matter to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004 ("the Act") made under due authorisation by me, John Gardiner, Determinations Manager, Department of Building and Housing ("the Department"), for and on behalf of the Chief Executive of that Department. In this determination, unless otherwise stated, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code (the First Schedule to the Building Regulations 1992).

1.2 The parties are:

(a) The applicant, Mr W A Wilson, the owner of 72 Upper Queen Street ("the neighbour");

(b) Goward Holdings Limited, the owner of 42 Karaka Street ("the owner"), acting through Jones Architects Limited.; and

(c) The Auckland City Council ("the territorial authority").

1.3 The application arises from the neighbour's concerns that:

(a) building work being carried out on the owner's property under a building consent issued by the territorial authority extends over the boundary into the neighbour's property

(b) in the course of carrying out the building work, workmen have entered the neighbour's property and the neighbour's property has been physically damaged

(c) there is no separation between the owner's and the neighbour's drainage systems

(d) water collected or concentrated by the building work is likely to cause damage or nuisance to the neighbour's property.

1.4 I take the matters for determination to be:

(a) whether the building work complies with clauses B1 Structure, E1 Surface water, and F5 Construction and demolition hazards in respect of the protection of the neighbour's property

(b) whether I should confirm, reverse, or modify the territorial authority's decision to grant the building consent.

1.5 In making my decision I have not considered any other aspects of the Act or of the Building Code.

2 The building work and the sequence of events

2.1 The owner is erecting a new four-storey building with basement car-parking under a building consent issued by the territorial authority. Under that consent, a new precast concrete panel basement wall ("the owner's wall") has been constructed near and parallel to the boundary between the neighbour's property and the owner's property. On the other side of that boundary, on the neighbour's property, is an existing concrete blockwork wall ("the neighbour's wall") that is set back various distances from the boundary, see Figure 1. Figures 1, 2, and 3 are taken from the expert's report, see 3.1 below.)

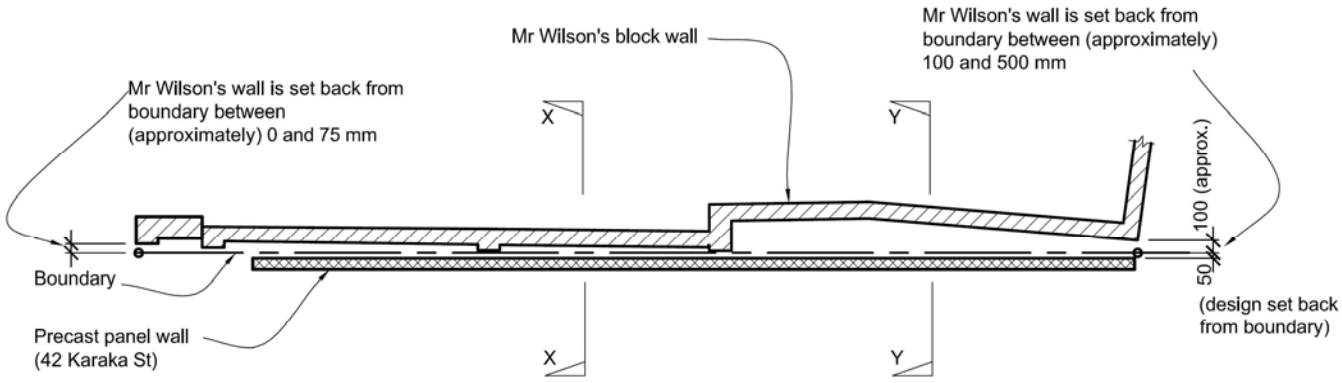

Figure 1: Plan showing the neighbour's wall in relation to the boundary and the owner's wall

2.2 The neighbour's wall was originally a retaining wall but is now free standing. Behind the neighbour's wall is what appears to be a garage or the like with a concrete slab floor at approximately the same level as the corresponding slab floor behind the owner's wall. Each wall has a drain at the base of its face, but in some places there is insufficient distance between the walls for the drains to be at the same level, so that the drain on the owner's side ("the owner's drain") is above the drain

on the neighbour's side ("the neighbour's drain"), see Figures 2 and 3. On top of and perpendicular to the neighbour's wall are steel beams that support a house.

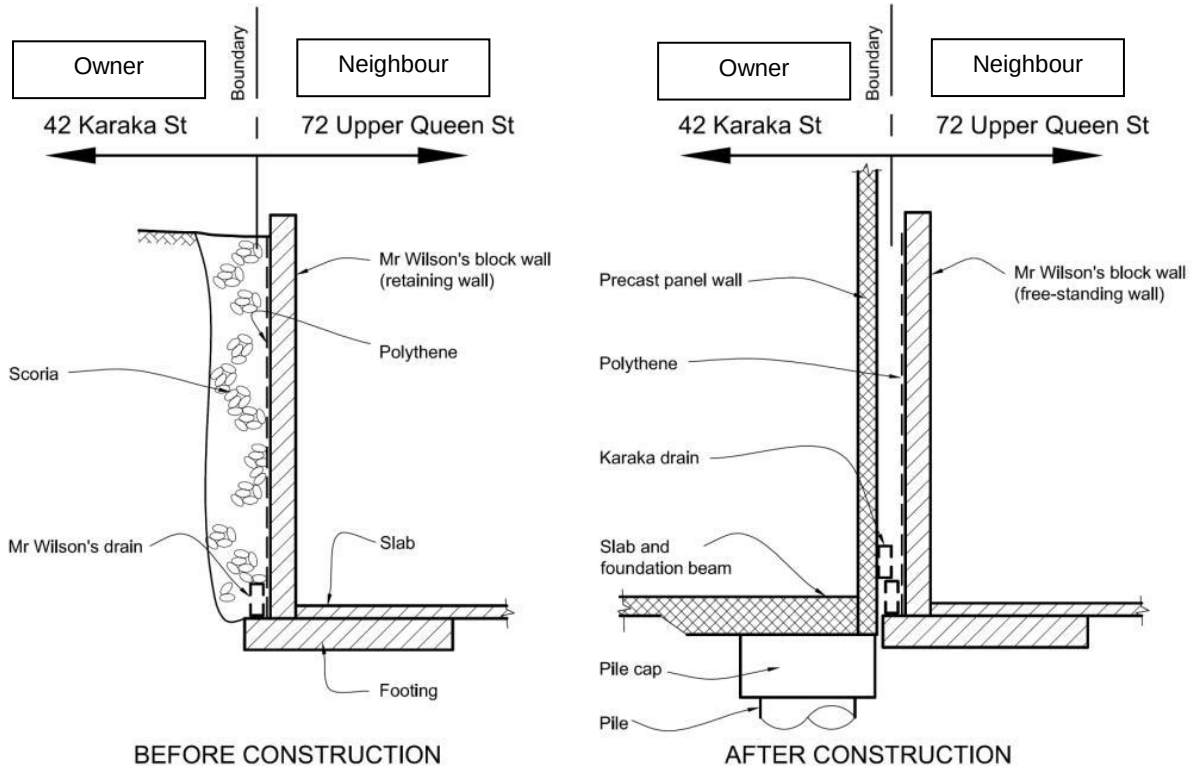

Figure 2 Section XX (see Fig.1)

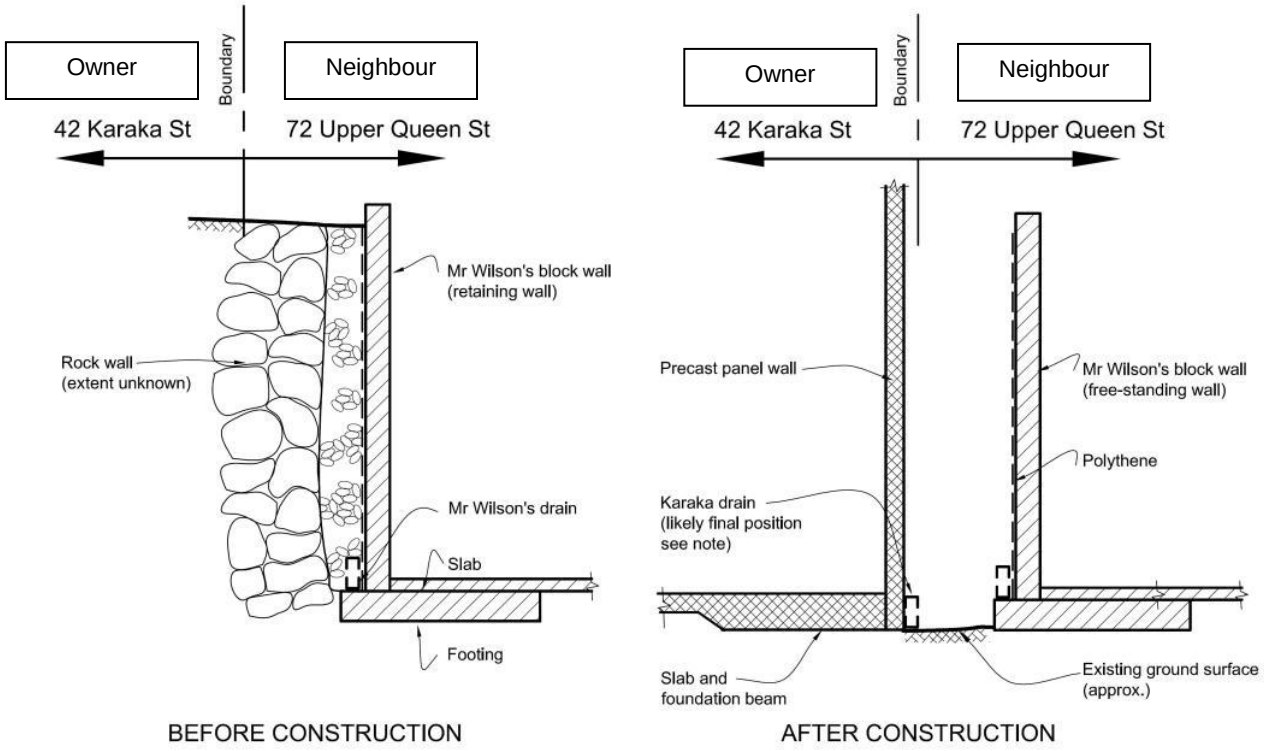

Figure 3 Section YY (see Fig. 1)

2.3 There was originally some dispute between the parties as to the location of the boundary. I understand that has now been resolved and it is agreed that the relationship between the walls and the boundary is as shown in Figure 1.

2.4 In the course of construction of the owner's wall, workmen crossed the boundary into the neighbour's property, and some damage was also done to one of the neighbour's steel beams. The owner's excavations also removed earth and damaged other material on the neighbour's property.

3 The submissions and the expert's report

3.1 On receiving the application for determination I did not fully understand the facts and was in some doubt as to whether the matters concerned came within section 177 so that I had the jurisdiction to determine them. I therefore obtained a report from a firm of consulting engineers ("the expert's report"). The expert visited the site and held discussions with the parties and with the owner's contractor responsible for carrying out the building work.

3.2 I sent copies of a draft of that report and of the final report to the parties and informed them that I had decided to accept the application and proceed with the determination.

3.3 Accordingly, the neighbour's submissions referred to below are largely drawn from the application, whereas the owner's and the territorial authority's submissions are largely drawn from their responses to the expert's report. They are however supplemented by responses by the parties to a draft determination (the draft determination) I first issued to the parties on 4 December 2006, and subsequently re-issued to the parties on 19 December 2007. I have noted those responses in the appropriate sections of this determination.

4. Building work extending over the boundary

4.1 The submissions and the expert's report

4.1.1 In his application, the neighbour submitted that the building consent should not have been granted because the building work did not comply with clause B1 in that parts of the owner's wall extended over the boundary and the plans and specifications showed excavations on the neighbour's property. The neighbour said:

> There is no provision in the Building Act for council to issue works on or over a disputed boundary. . . .

4.1.2 The expert's report said that the boundary dispute had now been settled, the owner's wall itself did not extend over the boundary, but where the gap between the walls was at its narrowest it was impossible to survey the positions of the drains.

> [The owner's drain] is a perforated polythene drain, rectangular in cross-section, wrapped in a geotextile sock, overall dimensions 170 mm high and 42 mm wide.
>
> . . . if the [owner's drain] is hard up against the outside face of[the owner's wall] small portions of it may lie over the boundary at points where the wall is less than 42 mm off the boundary. [The neighbour] has a similar drain at the back of [the neighbour's wall, and] . . . at several points . . . the outside face of [the neighbour's wall appears to be] right on the boundary. Thus [the owner's drain], or portions of it, very likely lies over the boundary.

4.1.3 The territorial authority said that it was now established that the building work did not extend over the boundary.

4.2 Discussion

4.2.1 It appears that at worst both the owner's drain and the neighbour's drain might extend a few millimetres over the boundary. Those few millimetres might be ignored as trivial on the basis that the law is not concerned with trifles. However, I do not do so, in this case, because the point is not trivial to the neighbour.

4.2.2 I do not know whether the territorial authority was aware of the boundary dispute when it granted the building consent so that it might have reasonably believed that the neighbour's wall was right on the boundary. However, for the reasons discussed below, I consider that the state of the territorial authority's knowledge about the boundary to be irrelevant to the issuing of the building consent.

4.2.3 I read sections 75 and 76 as applying to the construction of a building on two or more allotments that are held in fee simple by the same owner. That is not the case here.

4.2.4 The neighbour argues in effect that the territorial authority should not have granted the building consent in respect of building work that extends over the legal boundary between the neighbour's and the owner's properties. Such a situation is not uncommon, and not only with retaining walls, see for example Determination 2002/9 where ramp access to a building was constructed on two titles. Other obvious examples are shop verandahs over public sidewalks, party walls centred on boundaries, and so on. In each case, it will be necessary for the owner of the building to obtain permission from the owner of any other property for the work to extend over that property, and usually such agreement will be formally recorded in a legal instrument such as a party wall agreement, an easement, or the like. However, I can find nothing in the Act that authorises a building consent authority to refuse to grant a building consent unless satisfied that such an agreement is, or will be, in place.

4.2.5 On the contrary, section 49 says:

> (1) A building consent authority must grant a building consent if it is satisfied on reasonable grounds that the provisions of the building code would be met if the building work were properly completed in accordance with the plans and specifications that accompanied the application.
> (2) However, a building consent authority is not required to grant a building consent until it receives—
> (a) any charge fixed by it in relation to the consent; and
> (b) any levy payable under section 53.

In other words, the only grounds on a territorial authorities are entitled to refuse to grant a building consent are failure to comply with the Building Code and failure to pay charges and levies.

4.2.6 The neighbour referred to clause B, presumably because the protection of other property is an objective of clause B1 (as it is of other clauses). However, section 16 says:

> The building code prescribes functional requirements for buildings and the performance criteria with which buildings must comply in their intended use.

In other words, the mandatory provisions of the Building Code are the performance criteria, not the objectives. None of the performance criteria in the Building Code refer to buildings extending over a legal boundary, although some performance criteria relate to the protection of other property, and those are discussed below as relevant.

4.2.7 I conclude that the territorial authority had no power to refuse to grant the building consent on the grounds that the building work extended over the boundary to the neighbour's property. Of course, that does not mean that it was lawful to carry out such work without permission from the neighbour.

5 Entry on and damage to the neighbour's property

5.1 The submission and the expert's report

5.1.1 The neighbour said:

> Council [has] . . . demonstrated an inexplicable disregard for the provisions of the building code and [*sic*] to the safety of other property. . . . By issuing a consent prior to addressing the known issues and by allowing work to continue on and over the disputed boundary council has provided tacit approval . . . for the excavation and damage to the adjacent property, in clear breach of clause B and F of the Building Code. . .
>
> . . . it has now become apparent that the building concerned can not be erected as designed, from with in the legal boundary of the site in question. This is clearly an issue which ought to have been addressed prior to issue of the building consent . . .
>
> To date, approximately 10 cubic metres of the [neighbour's] property has been unlawfully excavated; the waterproof lining and drainage system has been destroyed; and a steel beam supporting the adjacent house has been seriously damaged. Prima facie, none of the provisions of [clause F5] have been provided for.

5.1.2 The expert's report said:

(a) material that had been retained by the neighbour's wall, mainly scoria provided for drainage, had been removed but as the neighbour's wall was now free-standing the scoria was no longer needed. The same applied to the "waterproof lining", which was in fact polythene sheeting placed between the wall and the scoria

(b) the neighbour's drainage system had consisted of the scoria above a drain. The scoria had been removed but the expert could not establish whether the neighbour's drain had suffered any damage

(c) the damaged steel beam had been replaced and the matter had been resolved to the owner's satisfaction.

5.1.3 The owner said that the neighbour's property had in fact benefited from the building work because the neighbour's wall was no longer a retaining wall and would not be exposed to hydrostatic pressure.

5.1.4 The territorial authority said:

(a) As to the excavation and the polythene sheeting:

> The approved site plan . . . clearly show [sic] the rock and masonry walls that are intended to be removed from site. Any consequential damage to rock and masonry walls have not been approved by Council.
>
> Where excavations are required on or over adjoining boundaries there is no provision under the Building Act 2004 to limit entry to complete the proposed works. This is in the Council's view a civil matter, which is dealt with under alternative legislation between effected [*sic*] parties.

(b) As to the steel beam:

> We have considered clause F5 of the New Zealand Building Code which refers to CONSTRUCTION AND DEMOLITION HAZARDS and the building consent was issued based on this consideration.

In any case, said the territorial authority, the building work was beneficial to the neighbour's property, and the application for the determination should have been rejected on the grounds that it was not genuine or was vexatious or frivolous.

5.2 Discussion

5.2.1 It is not disputed that, in the course of the building work, there was unauthorised entry on and damage to the neighbour's property. The question is whether the territorial authority should not have granted the building consent on the grounds that the approved building work could not be done without such entry and damage.

5.2.2 I take no account of the owner's and the territorial authority's submissions that the building work was beneficial to the neighbour's property. That is a subjective opinion that is not necessarily shared by the neighbour, and on the view I take of the matter is not relevant to this determination.

5.2.3 As for entry on the neighbour's property, for the reasons set out in respect of building work extending over the boundary, see 4.2 above, I take the view that the territorial authority had no power to refuse to grant the building consent because some of the work concerned would necessitate entry on the neighbour's property. Of course, that does not mean that it was lawful to carry out such work without permission from the neighbour.

5.2.4 As for damage to the neighbour's property, and assuming, but not deciding, that such damage should have been foreseen by the territorial authority when it granted the building consent, the question is whether that would have been grounds on which it could have refused to grant the consent. In other words, whether the fact that carrying out the consented building work would cause such damage meant that the work did not comply with the Building Code (see 4.2.5 above).

5.2.5 The neighbour mentioned "clauses B and F of the Building Code", which I take to refer to clause B1 Structure and clause F5 Construction and demolition hazards. As mentioned in 4.2.6 above, the mandatory provisions of the Building Code are the performance criteria.

5.2.6 The relevant performance criteria of clause B1 are:

> **B1.3.5** The demolition of *buildings* shall be carried out in a way that avoids the likelihood of premature collapse.
>
> **B1.3.6** *Sitework*, where necessary, shall be carried out to:
>
> (a) Provide stability for *construction* on the site, and
>
> (b) Avoid the likelihood of damage to *other property*.
>
> **B1.3.7** Any *sitework* and associated supports shall take account of the effects of:
>
> (a) Changes in ground water level,
>
> (b) Water, weather and vegetation, and
>
> (c) Ground loss and slumping.

5.2.7 I take the view that the words "damage to other property" are limited to effects on other property that have not been agreed to by the owner of the other property. The construction of a retaining wall, for example, will frequently involve excavation of other property. As mentioned above, such excavation cannot lawfully be carried out without the permission of the owner of the other property. However, once such permission has been granted, then to my mind the excavation cannot properly be described as "damage". This is not a situation in which damage to other property will affect the design of the building work so as, for example, to allow for imposed loads from the displacement of earth or other consequences of the building work.

5.2.8 Thus the building work would not have complied with clause B1 if it had not included siteworks where necessary to avoid damage to the neighbour's property. However, there has been no suggestion that any siteworks could have prevented the damage to the neighbour's property that actually occurred.

5.2.9 The relevant performance criteria of clause F5 are:

> **F5.3.1** Suitable construction methods shall be used to avoid the likelihood of tools or materials falling onto places where people might be present.
>
> **F5.3.2** Where construction or demolition work presents a hazard in places to which the public has access, barriers shall be provided and shall . . .

> **F5.3.3** Where a construction or demolition site contains any hazard which might be expected to attract the unauthorised entry of children, the hazard shall be enclosed to restrict access by children.
>
> **F5.3.4** Suitable barriers shall be constructed to provide a safe route for people where . . .

5.2.10 There is no relation between the relevant performance criteria of clause F5 and the damage to the neighbour's property that actually occurred.

5.2.11 I conclude that the territorial authority had no power to refuse to grant the building consent on the grounds that the neighbour's property was not protected to the extent required by clauses B1 and F5. Of course, that does not mean that it was lawful to excavate the neighbour's land and damage the neighbour's steel beam without permission from the neighbour.

5.2.12 However, if such damage was done, then it clearly would have been contrary to the requirements of the Building Code, and the territorial authority could (had it been aware of the work) issued a notice to fix relating to the non-compliance.

6 Separation between drainage systems

6.1 The submissions and the expert's report

6.1.1 The neighbour submitted that the building consent should not have been granted because the building work did not comply with clause E1 in that there was "no separation" between the two systems. The neighbour said:

> The floor levels of the respective properties appear to be similar, accordingly nothing prevents storm water or ground water flowing from the proposed system to existing system [*sic*]. Given waters [*sic*] inherent characteristic of finding the path of least resistance, it appears most likely that water will flow from the proposed building to our existing system.

6.1.2 The expert's report said that the owner's drain had not yet been connected to the owner's stormwater system. Where there was sufficient gap between the walls, the owner's drain would be at the same level as or lower than the neighbour's drain, but where the gap between the two walls as at its narrowest, the owner's drain was placed above the neighbour's drain. Where that was the case, water would flow in the owner's drain only when the neighbour's drain was full.

6.1.3 The territorial authority said:

> In Council's view, [the neighbour's drain] has been assessed as now being redundant, as the proposed sub-floor drainage at [the owner's property] will adequately deal with any sub soil water on site.

6.2 Discussion

6.2.1 The relevant provisions of clause E1 are:

> **E1.3.1** Except as otherwise required under the Resource Management Act 1991 for the protection of other property, *surface water]*, resulting from an event having a 10 percent probability of occurring annually and which is collected or concentrated by *buildings* or *sitework*, shall be disposed of in a way that avoids the likelihood of damage or nuisance to *other property*.
>
> **E1.3.3** Drainage systems for the disposal of surface water shall be constructed to:
>
> (a) Convey surface water to an appropriate outfall . . .
>
> (d) Provide reasonable access for maintenance and clearing blockages,
>
> (e) Avoid the likelihood of damage to any outfall . . .

6.2.2 I take the neighbour's complaint to be that, where the owner's drain is above the neighbour's drain, surface water that would otherwise be conveyed to the owner's drainage system is in fact conveyed to the neighbour's drain. However, the neighbour's drain will convey that water to the existing outfall. I have no reason to doubt that the neighbour's drain can cope with the water concerned and convey it to the existing outfall. I have no reason to doubt that the existing outfall is in fact appropriate. Of course, if that part of the neighbour's drain is removed, or becomes blocked, then the owner's drainage system will itself deal with the water concerned.

6.2.3 I conclude that the neighbour's drainage system complies with clauses E1.3.3(a) and (e) in relation to the owner's property.

7 Water collected or concentrated by the building work

7.1 The submissions and the expert's report

7.1.1 The neighbour said:

> It is reasonably foreseeable that when a 15 metre high concrete slab wall is erected, that in at least 10% weather conditions rain water will be driven onto that wall. Accordingly the water will then cascade down the wall to become surface water. Clauses E1.3.1, E1.3.2, E1.3.3 of the building code provide that surface water shall be drained in such a manner to avoid concentration and damage to adjacent buildings and property. There is also a Common Law requirement to avoid passing concentrated water on to the adjacent property. In this design it seems clear that the matter has not been considered. Therefore in 10% weather conditions 1000s of litres per hour will be concentrated into a small cavity with neither separation nor design to address the issue. The torrent of water will wash out the scoria backfill and with no provision for drainage, will flow into both properties. There is also concern that neither property will have access to redress, remedy, or maintain such issues.

7.1.2 The expert's report said:

> Normal building drainage design with respect to drain flows and capacities considers rainfall on horizontal and sloping surfaces but not usually vertical surfaces. Usually runoff from vertical surfaces is dealt with by detailing drains or flashings between walls to prevent nuisance to neighbours. In this instance there is a drain at the base of the gap between the two walls which will more than handle the expected flow.

7.1.3 The territorial authority said:

> The designer proposes to install a 50mm thick . . . coredrain to the outer face of [the owner's wall]. In most cases (as is typical) a flashing would be installed between the two buildings with the lower wall collecting and disposing of any surface water run off. Unfortunately, the practical solution is not an option given the current situation between the property owners. . . .
>
> . . . there is currently no provision in the building code at this time for the consideration of vertical stormwater runoff from the face of a building.
>
> Council calculates [that in a] 40 mm/hr . . . design storm [the runoff from the neighbour's wall will be] 3,640l [*sic*] L/hr (1.0 L/sec). This flow of water is comfortably handled by a 50 mm dia pipe, which has the capacity of about 2.0 L/sec flowing full at 1 M/sec [*sic*]. We conclude therefore that the provision for stormwater from the façade of the building is adequately provided for.

7.2 Discussion

7.2.1 The neighbour referred to clauses E1.3.1, E1.3.2, and E1.3.3 of the Building Code. Clauses E1.3.3(a) and (e) are discussed in 6.2 above. Clause E1.3.2 relates to surface water entering buildings. I have been given no information to suggest that the owner's drainage system is inadequate to prevent water from entering the neighbour's building. That leaves clauses E1.3.1 and E1.3.3(d), see 6.2.1 above.

7.2.2 As to clause E1.3.1, relating to damage to other property, surface water running off the owner's wall on to the neighbour's property will not "wash out the scoria backfill" but will pass through it to the owner's drain (or, in some places, to the neighbour's drain). That is why the scoria is used. Accordingly, I do not consider that such runoff will cause damage or nuisance to the neighbour's property, provided that the scoria continues to perform its function.

7.2.3 As to clause E1.3.3(d), relating to access for maintenance and clearing blockages, as I understand the situation, blockages in the owner's drain could be cleared by rodding or the like though the drain itself, which can be achieved without the need for access between the two buildings. However, it is possible that such access will be necessary in the event, for example, of siltation or other effects preventing the free flow of surface water to the collecting drain. As the territorial authority said, in most cases that possibility is addressed by installing a flashing between the two buildings. In the absence of a flashing or other provision to prevent the need for access, I concluded in the draft determination issued on 4 December 2006 (see paragraph 3.3) that the building work does not comply with clause E1.3.3(d).

7.2.4 The owner, through its architect, responded to the draft determination by letter dated 14 December 2006. The owner said it did not accept the decision in the draft determination because:

- there is no conceivable situation that would cause a failure of the drain and scoria back-fill
- there are two drains in the cavity so presumably both will require access

- the owner's drain was installed after an on-site conference attended by Auckland City inspection staff, client, contractor and architect. The coredrain is not shown on any building consent.

The owner offered to remove its "coredrain that extends over the boundary by a few millimetres – a trivial amount."

7.2.5 The territorial authority responded to the draft determination by letter dated 12 December 2006. Its letter indicated that it agreed with the decision in the draft determination but wished to comment on paragraph 7.2.3. It said it believed had taken reasonable steps to mitigate the likelihood of blockage and the need for ongoing maintenance. Nonetheless it suggested two options other than leaving "the sub-terrain drainage as it is on the basis that in its current form it will meet the objects of the code as near as is practical."

The two options were to:

- install inspection chambers/rodding points to service the drainage
- remove the drainage as installed by the owners.

The applicant made no comment on or suggestions concerning changes to the draft determination.

7.2.6 On 19 December 2007 I re-issued the draft determination (see paragraph 3.3).

7.2.7 In a letter dated 22 January 2008 the owner responded to the re-issued draft determination, noting that "all the subsoil, stormwater and sewer connections have been completed and signed off by Auckland City. 'All systems are working well and no problems have been experienced with the ground water conditions." The response went on to say that:

- there is no conceivable situation that would cause a failure of the drain
- if the owner's core drain is the cause of this issue then the owner will remove it.

7.2.8 The owners said that "if the determination is issued as proposed then the territorial authority will require changes to the consent and additional works to be put in place before the CCC is issued."

7.2.9 The owners said the determination should be altered to delete clause 9.1(a) and (b) and confirm that the construction complies with the Building Code including E1.3.3(d).

7.2.10 In a letter dated 30 January 2008 the territorial authority commented on the re-issued draft determination. The territorial authority noted that:

> …this building has gone through one winter and we have not been notified of any issues in relation to the provision of the current drainage or any impacts on other property due to the construction of the subsoil drainage……

We consider ….that the owners of 42 Karaka Street have taken reasonable steps to mitigate the likelihood blockage and the need for ongoing maintenance.

The sub-terrain storm water drainage is installed in a geotextile fabric sock to prevent silt contamination.

The drainage is covered in free draining Scoria aggregate to ensure unrestricted water movement.

The drainage at present can be serviced in part where it exits the internal car park cesspit.

The balance of the drainage between the two properties could also be serviced with the inclusion of an inspection chamber or rodding point at either end but this would be in Councils view impractical. The flexible drain would limit the use of any maintenance tool to clear the drain in the event of an unlikely blockage.

Council had given consideration to the fact that no soil will be placed in the cavity. The only other possible contaminates (sic) would be atmospheric pollutants which pose no threat to the performance of the drain.

Options

1. Install inspection chambers/rodding points to service the drainage

2. Remove the drainage as installed by the owners of 42 Karaka Street

3. Leave the sub-terrain drainage as it is on the basis that in its current form it will meet the objects of the code as near as is practical.

In Council's view option 3 provides adequate assurances that the code provisions will be met. This formed the basis for the original approval to install additional drainage in the event that Mr Wilson's drain was defective.

7.2.11 The applicant responded to the re-issued draft determination in an email dated 1 February 2008. In summary, the applicant disputed the findings of the draft determination saying, amongst other things, that:

- the determination clearly relied on calculations by the territorial authority which were incorrect. Other errors were also highlighted

- the height and gradient of the owner's core drain meant that it would not operate as intended and water would only be collected by the applicant's drain.

- scoria surrounding the core drain had been removed during construction

- If the gap between the applicant's wall and owners building was to be flashed this would divert water from the owner's building onto the applicant's property.

7.2.12 I have taken account of the applicant's submission in the context of the period of time over which the sub-terrain drain as built appears, according to the territorial authority, to have functioned satisfactorily. I have also considered it in the context of the expert evidence I have received during the protracted course of this determination.

7.2.13 I take the view that I am entitled to take into account the period of time that has elapsed since the disputed drainage system was installed and during which it has, according to the territorial authority, performed without causing any concerns. In the absence of any independent evidence to the contrary I am satisfied that the drainage system has been proven, in service, to comply with Clause E1 of the building Code. In particular I note that more than 12 months has elapsed since the draft determination was sent to the parties, and in that time no independent evidence as to non-compliance with Clause E1 has been provided to me or, according to the territorial authority, to it.

7.2.14 I also note that in the event that the drainage system ceases to work satisfactorily the territorial authority has powers and responsibilities under section 164 of the Act to require the owner to fix a building that is not complying with the Building code.

8 Decision

8.1 In accordance with section 188 of the Act, I hereby:

(a) determine that the building work does comply with clause E1.in respect of the protection of the neighbour's property.

(b) confirm the territorial authority's decision to grant the building consent.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 10 March 2008.

John Gardiner
Manager Determinations.