# Water Services Resource Consent Conditions – Assessment of Application Rev C

Date: 01 August 2022 updated 12 August 2022, final 24 August 2022 SR510418 – Jervois Quay WCC Planner - Angela Jones

### **Understanding of Application**

The applicant is applying for a:

• Land Use Consent – to construct a new building on the site.

The scope involves the demolishing the existing car parking area and structure onsite.



It is understood that the development site and adjacent MFC site are held in ownership by WCC with a long term lease (100 year) to the occupants.

# The following assessment and advice notes are to be applied:

# Water Supply Assessment

## **Existing Infrastructure Onsite**

The site is currently dual supplied from:

- Jervois Quay DN150 Cast Iron watermain
- Wakefield Street DN200 Ductile Iron watermain



The applicant claims there is an existing DN40 water supply from the DN200 DI Wakefield watermain which services the existing Royal NZ Ballet building. This service is not shown on Council Records nor are As-Built records provided to prove this connection.

# Proposed Service/Supply:

The applicant requires water supply for:

- Potable water supply for new development inhabitants
- Irrigation of the landscaped areas on site
- Building fire water sprinkler system

The applicant has indicated on their drawing (520408-0000-DRG-CC-0010-A) that they intend to install 2 new connections into the Wakefield Street DN200 DI watermain in order to service the development:

- DN150 DICL PN35 Building Fire Water Sprinkler Feed
- DN90 PE100 Potable Water Supply

These 2 no. new connections appear to be near the location of the existing DN20 water supply connection off the DN200 DI Wakefield Street watermain. The existing connections are not suitable for re-use and will need to be abandoned.



The WWL modelling team have indicated that there is 75-80 m of pressure in the water supply network at the point connection into the DN200 DI Wakefield Street watermain. This modelling result is based on a 2018 model which does not factor in future and proposed and developments. The applicant has advised a fire demand of 52.6 L/s and a domestic flow of 3.1 L/s. Calculations are required to support the assessment and demonstrate that this can be achieved from the public network.

# Wastewater Services Assessment

## **Existing Infrastructure Onsite:**

There are numerous wastewater pipes along Wakefield Street.



The applicant indicates that there is an existing WW service lateral which services the RNZB building (DN unknown). The applicant's drawing suggests that this service lateral connects directly in to the existing DN350 CI Rising main on Wakefield Street although, their reporting and labels indicate they have mistaken this to the DN450 Gravity main.

The applicant has indicated that there is an existing WW storage tank onsite. This tank is adjacent to the RNZB building and is beneath a road accessway. The tank provides storage for the adjacent WWPS located in the MFC car park and is a public wastewater asset. WWL have met with the applicant (22 June 2022) and, following receipt of a preliminary seismic assessment and a structural assessment have agreed a build over of the storage tank.

# The design investigated:

- The likely effects of sea-level/water-table rise as a result of climate change;
- The site's potential magnitude of shaking and onset of liquefaction and resulting consequences for the tank including potential displacement and/or settlement;
- The potential for any interaction effects between the proposed building's piles near the tank and the tank in a seismic event; and
- The factors of safety for buoyancy and any implications as a result of the new building.

# The preliminary seismic and structural design confirm:

- Tank generally compliant with current codes + sea-level rise + potential hazard changes.
- The base of the tank is adequately socketed into the underlying alluviums (below potential liquefaction) to prevent lateral displacement of the tank.
- Unbalanced, seismically induced lateral earth pressures may result in minor settlements (50-100mm) across (or along) the tank. This could result in a small tilt (approx. 0.5 degrees max).
- Tank displacements minimal, proposed pile clearances are satisfactory.
- Flexural demands on tank due to passive soil pressures and pile reactions (for a 1-in-1000 year event) are well within existing tank capacity.
- It is apparent that original design allowed for worst case buoyancy (water at ground level).
- Removal of overburden at eastern end of tank (where proposed to build over) may reduce factors of safety below minimum. Anchor piles or ballast may be required.

# At detailed design the design must ensure:

- 24/7 access to the tank for heavy vehicles must be maintained at all times.
- WWL need to be able to safely undertake long term repairs / refurbishment / renewal. An easement should be granted in favour of WCC to ensure the access.
- The building tenants recognise that this a ciritical infrastructure item which is prone to noisy / smelly maintenance from time to time.

## Proposed Service/Supply:

The applicant is proposing to retain (and presumably upsize) the existing RNZB WW service lateral to a DN150 uPVC in order to service the proposed new building. The connection must be to the DN450 gravity main in Wakefield Street.



WWL confirmed that applicant would be able to discharge into the existing DN450 Concrete Gravity main in Wakefield Street via connection into existing WWMH037123. Correspondence from WWL indicates that this line has 10 L/s spare capacity during 1-year LTS design event. The existing DN450 Concrete Gravity main in Wakefield Street drains to PS005 which pumps to the Moa Point WWTP. The applicant has suggested 9 L/s wastewater discharge and as the local network has capacity for 10 L/s wastewater mitigation is not therefore considered to be required.



# **Stormwater Assessment**

## **Existing Infrastructure Onsite:**

The SW infrastructure onsite receives SW discharge from a private network which services the neighboring MFC.

The SW infrastructure onsite comprises a series of sumps, pipes and mh's which ultimately drain into the 2210mm wide x 1220mm high ovoid stormwater main which discharges stormwater into the harbor at the location of the Ara Moana.



The applicant undertook to complete a CCTV inspection of the 2210mm x 1220mm ovoid stormwater main. CCTV footage confirms this pipe is ovoid in shape, is

constructed from concrete and indicates the pipe is showing signs of ageing but is still in serviceable.

WWL have confirmed (email correspondence, Samir Hermiz) that the existing ovoid stormwater main is at and over design capacity during peak stormwater events and need to remain accessible for upgrade / repair.

# Flood Assessment:

WWL flood maps indicate that the site is at risk of flood (0.01 - 0.5m) during 1/100 year flood events. The flood maps indicate the flooding varies across the site.



The applicant has undertaken some initial flood risk assessment (Aurecon). Simulations were run for 1/100 ARI event with allowance for the effects of climate change. Model results indicate:

- 20 mm increase for 10 year ARI + Climate change
- 30 mm increase for 100 year ARI + Climate change

These results indicate that most existing buildings in the area of the proposed development can be expected to flood in a 100yr ARI+CC event. The results have been demonstrated to be less than minor and as the flooding in this area is largely tidal it is not considered that further mitigation is required.

Model results confirm the proposed development floor levels to be marginally higher than the existing building. WWL confirmed with the applicant's result that based on modelling results the FFL of the development should be >3.03 m (200 mm above the RL of the 100yr+CC simulation model result of 2.83 m)



The applicant has provided freeboard to the top of slab (as opposed to underside of slab as typically required by WWL). The applicant has stated that this has been agreed with WCC BC team on the basis of that:

- 1) The flood level has been verified through modelling,
- 2) The slab will not be effected by flood waters
- 3) The slab is very thick and FFL to the underside would be unduely restrictive.

Liaison with the applicant, WWL LDT Senior Engineers and WWL Flood Modelling Team has confirmed:

- 1) A 200 mm freeboard is acceptable given the tolerances / certainity provided within the model.
- 2) Freeboard is typically applied to the base of the concrete slab to protect the damp proof membrane from being effected by flood water.

The applicant has confirmed that the floor can be constructed to be resilient to potential flood effects. On this basis, and the basis of the assessment above the proposed FFL to the top of the floor slab is considered acceptable. A condition should be put on the consent requiring the floor to be flood resilient.

During these discussions the applicant has confirmed that there may be basement areas with a lower FFL. The applicant has confirmed that these areas will not be habitable, will not contain any building services equipment and will be flood resilient / easy to clean after a flood event. This is acceptable but will need to be conditioned.

Finally it is noted that the proposed site is located adjacent to roads and within close proximity to the coast. The applicant has provided an assessment of the potential risk to the development as a result of wave action. The assessment concludes:

- The depth of flooding on the roads is in the order of 1m and vehicle movement would not be expected.
- The modelling is based on a dynamic tidal boundary in the Wellington Harbour with a peak elevation of 2.1m WVD (Wellington Vertical Datum – 1953). This level assumes that mean high water spring (MHWS) is used as the design, plus an allowance for sea-level rise and potentially storm surge and reduced atmospheric pressure (refer Regional Standard for Water Services, Wellington Water, v3.0, Dec 2021). It does not explicitly include an allowance for wave set-up and run-up.
- The building is located 200m away from the harbour and will be build with a finished floor level of 3.03m WVD. The main risk of wave attack to the MFC Building would be from a north-eastern direction. The risk of waves reaching the new proposed building and causing damage due to inundation is considered very low due to:
- The limited fetch length of approximately 10km, which is not expected to create waves large and powerful enough to reach the building.

- The extreme storm conditions are to coincide with MHWS and high tide window. The joint probability of occurrence reduces the likelihood of such an event.
- The large number of buildings and barriers to pass (i.e. Frank Kitts Park, Rowing Club, Wharewaka Building, lagoon, pedestrian overbridge, vegetation). These structures will cause the waves to break and diffract (curve around structures), which reduces the wave height.

This assessment is accepted and it is not considered necessary to increase the freeboard for potential wave action.

# Proposed Service/Supply:

The applicant proposes to realign and upgrade the existing DN300 and DN375 public SW network onsite to accommodate the new buildings footprint and foundations. It is not clear from the applicant's information if/how they will connect the upstream discharge from the private network which services the MFC. It is understood that the MFC is also on land owned by WCC and no additional approvals are therefore considered necessary for the modification of this private lateral.

The applicant proposes to use a SW treatment device to treat site runoff. It is not clear how the treated runoff will be further discharged into the existing 2210mm x 1220 mm ovoid main. The treatment system must be provided on the private network.



Applicant claims that site surface assessment indicates that there is no change to the impervious surface area of the site between the pre and post development site.

WWL have confirmed (email correspondence, Samir Hermiz) that construction over/replacement/rehabilitation of the the existing ovoid main requires specialist input and design. WWL confirm the downstream ovoid stormwater main is at full

capacity during SW events – SW neutrality or betterment for this development is required as a result.

The applicant is proposing to retain the existing ovoid stomwater main and has designed the building to allow long term maintenance access to be retained such that the main can be repaired in the future if required.

The principles of the proposed design are:

- the final structural bay at the eastern end of the building would be cantilevered from L1 up, such that no foundations would be built over the culvert.
- the ground floor would be constructed of easily demountable walls and a lightweight surface treatment (e.g. similar to pavement) would form the floor, allowing easy access for any work required on the culvert in the future.
- the space would be used by building occupiers for bike parking or something similar a use which can be relatively easily relocated at short notice.
- the cost of demounting and reconstructing this space would fall to the building owner. This
  would be captured in an easement instrument which would also protect WW's rights to
  access and repair/maintain the culvert.

The ovid pipe has an IL of approximately 0 m and with the building construction will be approximately 3 m below the ground floor slab. The Regional Specification for Water Services drawing DR09 any building above the main would need to be at least 4m above the proposed ground level (depth to IL + 1m). This would put the L1 canterlever at 7 m RL to the underside of the floor slab.



No planting will be accepted over the ovid pipe.

A condition requiring a pre and post construction inspection of the public assessts has been proposed by the applicant (meeting minutes 22 June 2022).

managing the site, there was high confidence that WW would be kept properly informed and given reasonable opportunity to attend at site as required. It is also agreed that a condition assessment of both assets before and after the works should be a condition of consent.

The applicant has asked that the conditions allow alternative options (relining and or diversion such that the building can be extended with / without build over of the public main). WWL have already advised the applicant (Samir Hermiz) that the existing public main is under capaty and pressurised in high flow situations, and as a result:

- The diversion of this main (increasing its length) will not be possible.
- The replacement of this pipe with circular pipes will not likely achieve sufficient capacity
- Re-lining that reduces the culvert capacity will not be acceptable.
- A box culvert may be possible.

In the absence of a viable alternative the conditions have been written to reflect the approved solution but allow 'unless otherwise agreed', to allow options for alternative options to be discussed in the future with Wellington Water.

The proposed works will need to be completed under a Public Drainage Permit issued by the Wellington Water Land Development Team. In addition to the standard requirements the following 'Pre and During Construction' conditions are required to be imposed:

- The consent holder must prepare a contingency plan which is submitted to Wellington Water for approval inorder to respond to an emergency situation should the stormwater main be damaged during construction works.
- The stormwater main must be accurately located and any building piles are set back to the approved distances.
- The methodology for installation of the piles does transfer any additional forces onto the stormwater main.
- Continuious monitoring of the stormwater main (including CCTV and for settlement) is undertakin during the construction works and both pre and prost construction condition data is provided to Wellington Water LD Team.
- That the applicant/consent holder and its contractors carries appropriate insurances to remedy any damages caused to the public stormwater and any other three waters assets.
- In the event of any damage to the stormwater main all works that may further damage the stormwater main is ceased and the agreed emergency plan is activated.

### **Proposed Land Use Conditions and Advice Notes:**

It is considered that the flood conditions, build over of the public wastewater and public stormwater culvert with associated ongoing management / maintenance require conditions as opposed to advice notes for this LU consent. It may be possible to separate out some of the servicing conditions to advice notes however this would result in duplication of a number conditions / notes and it was felt that it was better to simply provide standard conditions / advice notes.

## **Engineering Standards**

- a) The consent holder must comply with the requirements of the Wellington City Council Code of Practice for Land Development (either its current version or replacement document), unless otherwise modified by condition(s) of the consent or agreed in writing by the Wellington Water Land Development Team. These are the engineering standards for mitigating adverse effects on the environment from earthworks, traffic (roading and vehicle access), wastewater and stormwater drainage, water supply and utility structures.
- b) No construction shall start prior to the following engineering plans in relation to water supply, stormwater or wastewater drainage, being accepted in writing by the Wellington Water Land Development Team:
  - (i) engineering plans and design certificate,
  - (ii) specifications,
  - (iii) Design documentation (assessment, detailed drawings and calculations) to support build over / near the Wellington Water;
    - $\circ$  wastewater storage tank
    - o 2210mm x 1220mm ovid stormwater main.

Specifically the design documentation shall include, but not be limited to:

- The specific requirements outlined in conditions (f) and (g) below.
- A contingency plan outlining an emergency situation response should the public infrastructure (in particular the stormwater main) be damaged during construction works.
- $\circ$  A construction methodology including methodology for installation of all piles to ensure they do transfer any additional forces onto the public infrastructure.
- Insurance Certificates demonstrating that the applicant/consent holder and its contractors carry appropriate insurances to remedy any damages caused to the public infrastructure.
- c) Where existing buildings have been or are to be demolished or replaced, the end of the existing private water, stormwater and wastewater lateral(s) must be abandoned / decommissioned including disconnecting from the public main (water) and capping at the shared private drain (stormwater and wastewater). It is required that Council be advised of the final treatment by way of including the location of capping on the final as-built plan.

#### Advice Notes:

- 1. Where drainage works are required, permits **in addition** to this resource consent are required: namely
  - Building Consent for private drains,
  - Public Drainage Permit

Some of the engineering plans and specifications in the consent condition above are to be submitted during the application stage for these permit(s).

2. Scheme and other indicative layout plans submitted as part of the application will be used by Council for information purposes only. These plans will not be used for granting approval under the condition above. Approvals will only be given on detailed engineering plans. 3. Prior to connection, an application for water supply and wastewater / stormwater (if required) is required to be made to Wellington City Council. All works must be inspected and tested by the Wellington Water, Water and Drainage Inspector.

#### Water supply connections

- *d)* The consent holder shall provide the building with a separate appropriately sized metered water service pipe connected to a water supply main for domestic supply. An engraved plastic tag reading "WATER SUPPLY MANIFOLD FOR (Street No)" is to be secured to the manifold clearly showing which property is served by the manifold. An RPZ-type backflow preventer is required if the connection is greater than 20mm DI.
- *e)* The consent holder shall provide for fire-fighting requirements in accordance with the NZ Fire Service Code of Practice for Firefighting Water Supplies NZS PAS 4509:2008 [and the Code of Practice for Land Development], and;
  - i. Calculations are to be provided to Council by a suitably qualified engineer to certify that there is sufficient pressure and flow for the development to meet the Code of Practice for Land Development requirements. Calculations are to be based on pressure logging (seven day log) and flow readings taken from the nearest hydrant.
  - ii. If a separate fire connection is required, a separate application for the fire connection must be submitted to Council, along with detailed calculations as per (i) and a layout plan showing the proposed connection. The design of the fire service connection and sprinkler system shall allow for any head loss incurred by the required backflow prevention containment device.
  - iii. The consent holder shall provide all fire connections/sprinkler connections with a double check detector check backflow prevention containment device.

Advice Note 1: Upgrading of the existing water infrastructure (including additional fire hydrants) and / or onsite solutions (booster pumps, sprinklers or tanks) may be required if the Code requirements cannot be achieved or if the proposal will have a detrimental effect on existing users.

*Advice Note 2:* A backflow device of a commercial or industrial site is required to be added to the building warrant of fitness (BWOF) compliance schedule for the property.

Advice Note 3: Please note that permission is required prior to using or testing hydrants.

*Advice Note 4:* Where the manifold is located that can be identified as clearly serving a specific lot, an engraved plastic tag may not be required.

## Wastewater and Stormwater Build Near Public Infrastructure

Prior to Construction Commencing:

- f) The consent holder may build over the existing public wastewater storage tank. No construction shall start prior to the detailed design documentation, being accepted in writing by the Wellington Water Land Development Team, including but not limited to;
  - (i) Engineering plans and design certificate,
  - (ii) Specifications,
  - (iii) Seismic and Structural Design Assessment and Calculations, including assessment of:
    - The likely effects of sea-level / water table rise as a result of climate change,
    - o The potential magnitude of shaking and onset of liquefaction and the
    - consequences for the tank including potential displacement and / or settlement,
    - The potential for any interaction effects between the proposed building's piles near the tank and the tank in a seismic event, and
    - $\circ$   $\;$  The factors of safety for buoyancy and implications as a result of the new building,
  - (iv) Safety in Design Assessment, including

- $\circ$  24 / 7 access to the tank for operation / maintenance purposes,
- Methodology for maintenance / eventual replacement.
- g) Unless otherwise agreed with the Wellington Water Land Development Team, the consent holder may build over the existing public 2210mm wide x 1220mm high ovoid stormwater main. No construction shall start prior to the detailed design documentation, being accepted in writing by the Wellington Water Land Development Team, including but not limited to;
  - (i) Engineering plans and design certificate,
  - (ii) Specifications,
  - (iii) Safety in Design Assessment, including
    - o 24 / 7 access to the tank for operation / maintenance purposes,
    - Methodology for maintenance / eventual replacement.
  - h) Prior to construction commencing on site the ovoid stormwater main and wastewater storage tank must be accurately located on site.

#### Advice Note:

- 1. Any panels / features within the stormwater main easement must be lightweight and easily removable to a height of at least  $\frac{4m}{4m}$  above existing ground level.
- 2. The foundation design must comply with the requirements of the Regional Standard for Water Services V3 to ensure the building piles / foundations are appropriately set back from the public infrastructure.
- **3.** Any alteration or addition to the existing public drainage network is required to be carried out under a Public Drainage Permit (as distinct from a Building Consent) issued by the Wellington Water Land Development Team.

#### **During Construction**

i) During construction the consent holder shall implement continuious monitoring of the public ovoid stormwater main and wastewater tank (including regular CCTV inspection and monitoring for settlement). The monitoring shall continue for the duration of the construction works on site. Any defects / changes from the pre development state and, or damage to the public infrastructure that occurs during construction shall be immediately brought to the attention of the Wellington Water Land Development Team and all work halted until an emergency plan, amended design, methodology and, or remedial works are agreed with the Wellington Water Land Development Team and implemented by the consent holder. All costs incurred to implement the amended design, methodology and, or remedial works will be at the expense of the consent holder.

#### Advice Note:

- 1. All public drainage work is required to be carried out by a suitably experienced Registered Drainlayer; who is employed by a contractor who has an approved Health and Safety Plan and Public Liability Insurance
- 2. CCTV inspection shall be carried out by the consent holder in accordance with the New Zealand Pipe Inspection Manual. A pan tilt camera shall be used and lateral connections shall be inspected from inside the main.

Following completion of the construction works, and / or Prior to application for s224:

- j) At the completion of the works, and / or prior to application for s224 all pre and prost construction condition data, including a post construction CCTV inspection must be provided to Wellington Water Land Development Team for review and approval.
- k) The development of this site will require:
  - i. the public wastewater storage tank to be amended to facilitate the build over.
  - ii. foundations to be installed within close proximity to public infrastrure assets.

These works shall be inspected on site and certified by a suitably qualified Structural Engineer and at the conclusion of the engineering works, and prior to s224 approval, the consent holder

is to provide an as-built detailing the amendments to the wastewater storage tank and the exact location of all foundations in relation to the existing wastewater storage tank and ovoid stormwater main to demonstrate apportate clearance in accordance with the approved design. A PS4 certificate shall be provided for the public wastewater storage tank and foundations.

1) Any new defects identified post-development must be repaired by the consent holder prior to application for s224 certification. All costs incurred for repairs post development will be at the expense of the consent holder.

# Wastewater and Stormwater Connections

m) The unit title development must be provided with a suitably sized, separate and direct stormwater and wastewater lateral connections to a public stormwater and wastewater network a location accepted in writing by the Wellington Water Land Development Team.

# Stormwater Management (Treatment and Neutrality)

- n) To avoid impact on the receiving network and environment, stormwater management (treatment and neutrality) is required. The stormwater management system(s) (treatment and detention device(s)) shall be designed to treat stormwater runoff and provide stormwater neutrality for all rainfall events up to and including the 1% AEP (1 in 100 year) event. The stormwater management system must be approved in writing by the Wellington Water Land Development Team and the following aspects must be met.
  - (i) The consent holder must construct an approved stormwater management system or systems in accordance with plans approved under the Building Consent and agreed with the Wellington Water Land Development Team.
  - (ii) The stormwatwer management system must be designed to:
    - treat stormwater runoff from the site to for contaminants.
      - so that the total stormwater discharge post-development from the site for all rainfall events up to the 1% AEP plus climate change event must be less than or equal to the stormwater runoff flows prior to the development.
  - (iii) The consent holder must ensure that all connections to the system(s) are trapped to minimise debris entering the system.
- Prior to Engineering Approval, the consent holder will be required to prepare a draft Operation and Maintenance Manual for all stormwater device(s) setting out the principles of the general operation and maintenance for the stormwater system(s) and associated management devices. The draft Operations and Maintenance Manual shall be submitted to the Wellington Water Land Development Team for approval and is to include, but not be limited to:
  - (i) a detailed technical data sheet
  - (ii) details of who will hold responsibility for short-term and long-term maintenance of the stormwater devices
  - (iii) a programme for regular maintenance and inspection of the stormwater system
  - (iv) a programme for the collection and disposal of debris and sediment collected by the stormwater management device or practices
  - (v) a programme for post storm maintenance
  - (vi) general inspection checklists for all aspects of the stormwater system, including visual check of roadside sumps and outfalls
  - (vii) a programme for inspection and maintenance of vegetation associated with the stormwater devices.
- p) Bare galvanised, zinc alum or unpainted metal (including copper) may result in contamination of stormwater runoff upon corrosion of surfaces and therefore shall not be used for exterior construction, including but not limited to roofing, cladding, gutters and downpipes.
- q) The site has been provided with a stormwater management system to treat and detain stormwater runoff. The owner's of the parent parcel must follow the required operation,

maintenance and renewal of the system(s), set out in the operation and maintenance manual, to ensure the system is in full working order at all times.

r) The consent holder cannot increase stormwater discharge, through an increase in nonpermeable areas, without Council approval; as an increase in stormwater discharge may result in failure of the stormwater detention systems.

*Advice Note:* The consent holder may also require Greater Wellington Regional Council approval for the proposed stormwater management system.

<u>Note:</u> Upon the issue of the certificate pursuant to section 224 or at such earlier time as may be required, a Consent Notice pursuant to section 221 will be issued. The Consent Notice will specify conditions (q) and (r) including all advice notes to be registered against the Computer Freehold Register to issue in respect of the parent parcel.

#### Minimum Floor Levels

- s) Any residential-building constructed on the site must have a minimum floor level of 3.03 m RL (Wellington 1953 Datum).
- t) The consent holder may apply the minimum floor level to the top of the concrete floor slab provided they demonstrate that the concrete floor slab construction (including any damp proof membrane requirements) below 3.03 m RL (Wellinton 1953 Datum) is flood resilient (will not be impacted / effected by potential flooding).
- Any basement floor level sited below the minimum floor level of 3.03 m RL (Wellington 1953 Datum) must be designed to be flood resilient and easy to clean out after a flood event. The design shall be presented to Council for approval and shall include but not be limited to:
  - i. Minimising / protecting flood entrance points to the basement (servicing vents, entrances etc).
  - ii. Not locating any critical building services / plant rooms within the basement,
  - iii. Locating all basement services (where possible) above 2.83 m RL.
  - iv. Use of flood resilient materials.
  - v) Any basement area would be subject to a residual flood hazard and prior to application for s224 the consent holder shall provide a flood management plan for the future owner(s) / occupiers. The flood management plan shall be submitted to the Wellington Water Land Development Team for approval and shall as a minimum outline the flood hazard and appropriate measures for managing / mitigating the effect of any flooding.

Advice Note: In addition to this resource consent the proposed development will also require assessment by the Wellington City Council under S71 to 73 of the Building Act, 2004. Granting of this resource consent does automatically guarantee that building consent will be granted.

#### <u>As-builts</u>

- w) At the conclusion of the engineering works and prior to s224 approval, the consent holder is to submit as-built drawings that meet the requirements of Wellington Water Regional As-built Specification for Water Services for water supply, wastewater and stormwater drainage.
- x) Once an as-built plan has been submitted and within one month of completion of the drainage works and/or before vesting of assets or application pursuant to s224, the consent holder is required to arrange for a final inspection with the Wellington Water Senior Drainage Inspector.

Advice Note: Where possible, all as-built plans are to be submitted in both hard copy (PDF) and electronically. Electronic copies are to be submitted in CAD format (.DWG file) drawn in the NZGD 2000 New Zealand Transverse Mercator' coordinate system.

Advice Note 2: Wellington Water Ltd are updating to the New Zealand Vertical Datum 2016 (NZVD2016) on 1 July 2022. Hence Engineering Plans and As-Built plans will be required to be in terms of the NZVD2016 from 1 July 2022. Prior to 1 January 2023 either Wellington Vertical Datum 1953 or NZVD2016 will be accepted.

#### Easements

y) The consent holder shall provide easements in gross in favour of Council over all public stormwater and public wastewater mains to be vested in Council that are located within the parent parcel.

The easement must:

- comply with the requirements of the Regional Standard for Water Services V3, December 2021, and
- cover the full extent of the structures, and
- include areas required access / turning for maintenance vehicles.
- z) The parent parcel contains a large public wastewater storage tank, the consent holder shall provide an easement instrument for the ongoing access to the public wastewater storage tank and shall include specific provisions, in plain English about the respective obligations of the parties to the easement in relation to access for routine maintenance and / or eventual upgrade. The easement instrument shall include wording to the effect that:
  - The owner(s) of the parent parcel must ensure 24 / 7 access to the easement area to enable Council to complete routine, emergency maintenance and / or eventual upgrade of the structure.
  - The routine and emergency maintenance of the wastewater storage tank will generate foul odours and whilst Council will endeavour to plan maintenance for quiet periods it is expected that routine and emergency maintenance will impact on the site occupation and use. It will be the owner(s) responsibility to manage the site including the potential exposure to foul odours during periods of routine and emergency maintenance.
- aa) Unless otherwise agreed with the Wellington Water Land Development Team, the parent parcel contains a large public stormwter main and the consent holder shall provide an easement instrument for the ongoing access to the public stormwater asset and shall include specific provisions, in plain English about the respective obligations of the parties to the easement in relation to access for routine maintenance and / or eventual upgrade / replacement. The easement instrument shall include wording to the effect that:
  - Any 'panels' / features installed / constructed within / across the easement to a height of at least 4 m must be fully removable and must be removed by the owner(s) of the parent parcel and / or their representative within 24 hours of receiving notification from Council that access is required to the public stormwater main.
  - Any 'panels' / features installed / constructed within / across the easement to a height of at least 4 m that are not removed within 24 hours of receiving notification from Council that access is required to the public stormwater main will be removed by Council at the owner(s) expense.
  - Council will not be liable for any damage to any 'structural panels' / features that they are required to remove.
  - All costs associated with removing, storing and replacing any 'panels' / features installed / constructed within / across the easement to a height of at least 4 m must be born by the owner(s) of the parent parcel.

bb) The parent parcel contains a large public wastewater storage tank.

The owner(s) of the parent parcel must ensure 24/7 access to the easement area to enable Council to complete routine, emergency maintenance and / or eventual upgrade of the structure.

The routine and emergency maintenance of the wastewater storage tank will generate foul odours and whilst Council will endeavour to plan maintenance for quiet periods it is expected that routine and emergency maintenance will impact on the site occupation and use. It will be the owner(s) responsibility to manage the site including the potential exposure to foul odours during periods of routine and emergency maintenance.

- cc) The parent parcel contains a large public stormwter main, The owner(s) of the parent parcel must comply with the following on an ongoing basis:
  - Any 'structural panels' / features installed / constructed within / across the easement to a height of at least 4 m must be fully removable and must be removed by the owner(s) of the parent parcel and / or their representative within 24 hours of receiving notification from Council that access is required to the public stormwater main.
  - Any 'strucutral panels' / features installed / constructed within / across the easement to a height of at least 4 m that are not removed within 24 hours of receiving notification from Council that access is required to the public stormwater main will be removed by Council at the owner(s) expense.
  - Council will not be liable for any damage to any 'structural panels' / features that they are required to remove.
  - All costs associated with removing, storing and replacing any 'structural panels' / features installed / constructed within / across the easement to a height of at least 4 m must be born by the owner(s) of the parent parcel.

<u>Note:</u> Unless otherwise agreed with the Wellington Water Land Development Team, upon the issue of the certificate pursuant to section 224 or at such earlier time as may be required, a Consent Notice pursuant to section 221 will be issued. The Consent Notice will specify conditions (y) and (z) to be registered against the Computer Freehold Register to issue in respect of the parent parcel of this subdivision.

**Prepared by:** 

Zeean Brydon

Date: 26 August 2022

Contractor on Behalf of the Wellington Water Land Development Team