Requirements for Local Pressure Sewer Systems as specified under a Building Consent

June 2025

Version	Date
1	December 2022
2	January 2023
3	July 2023
4	Mar 2024
5	June 2025

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Preface

This document sets out the requirements for the installation of a local pressure sewer unit within the property boundary as specified under a Building Consent.

These requirements will be applicable in any and all of the following instances:

- The property is located within a wastewater capacity constraint area and the need to install a local pressure sewer unit as an alternative service solution in an area serviced by gravity sewer has been identified.
- The property is located in a pressure sewer catchment and a boundary kit has been installed at the property boundary to enable connection to the pressure sewer system.
- The property is located in a gravity sewer catchment and the local pressure sewer unit is required due to site grade not accommodating onsite gravity flow to lateral connection.
- When the Local Pressure Sewer System will be vested in Council (residential) or may not be vested (commercial), and whether or not the local pressure sewer unit must be controlled by the Council through the IOTA OneBox Control panel.

This document serves to guide property owners, architects, builders and contractors on the design, installation, maintenance and operation of local pressure sewer units in constraint areas or in pressure sewer catchments, whether or not vested in Council. These pumped systems are referred to as Local Pressure Sewer Systems (**LPSS)** and refers to the pump, chamber and the control panel in this document.

The requirements addressed herein is grouped as follows:

PART A: Scope and General Arrangement

PART B: Approval and Consents

PART C: Technical Specifications

PART D: Installation Requirements

PART E: Vesting of Ownership

PART F: Operations and Maintenance

NOTE: The requirements for the design and installation of pressure sewer systems at subdivision stage is contained in Part 6: Wastewater Drainage of the Christchurch City Council Infrastructure Design Standard (IDS) and Part 3 of the Construction Standard Specifications (CSS) and addresses the infrastructure requirements external to the property boundary.

A. Scope and general arrangement

A.1 Scope

A local pressure sewer system (LPSS) may be required as the wastewater servicing option for a specific property for any one of the following reasons:

1. The property is located in a pressure sewer catchment and the only wastewater servicing option is via an LPSS. In this case the LPSS are subject to the requirements in sections A.2, A.3, and A.4;
2. The development is located in a wastewater capacity constraint area and Council has advised per its "Alternative Solution for Additional Connections in Wastewater Capacity Constraint Areas" that additional development on the site will require the installation of an LPSS. **In this case the pumping system will not be vested in Council,** but will be subject to requriements in sections A.2.2, A.3 and A.4**.**
3. The property is located in a gravity sewer catchment and cannot physically discharge foul water via gravity and a pumping system is required to discharge wastewater into the street sewer. **In this case, the pumping system will not be vested in Council, but must provide 24 hours storage capacity and use pumps that cannot pump in excess of 2 litres per second.**

A.2 LPSS Components

A local pressure sewer system **(LPSS)** vesting with Council as specified herein comprises the following components:

1. Pumping system comprising a pump chamber and pump
2. IOTA OneBox control panel complete with communication cable
3. Power cable and power connection
4. Sealed lid with external vent located minimum 1m from driveable surfaces if the property is located in a 1 in 50 year flood area (https://ccc.govt.nz/services/water-and-drainage/stormwater-and-drainage/flooding/floorlevelmap)
5. Trafficable lid to CSS SD308/2 and external vent if the LPSS is located under or within 1m of drivable surface
6. Discharge pipeline from the pump chamber to the boundary kit (in local pressure sewer catchments) or sewer lateral (in wastewater capacity constraint areas)

A.3 Approved suppliers

Council has approved the following suppliers of pump sets for Local Pressure Sewer Systems to be vested in Council:

www.ecoflow.co.nz
Loren Madden

Pump sets in wastewater capacity constraint areas and Council local pressure sewer catchments must be supplied complete with an IOTA OneBox control panel. This item will be supplied by the pump supplier.

A.4 Typical systems layout

The general arrangement for an LPSS is graphically depicted below and illustrates a typical installation in a local pressure sewer catchment (i.e. where the LPSS discharges to a boundary kit). The arrangement will be similar where the LPSS is installed in a wastewater capacity constraint area, but in this case the LPSS will discharge into the property's sewer lateral as opposed to the boundary box.

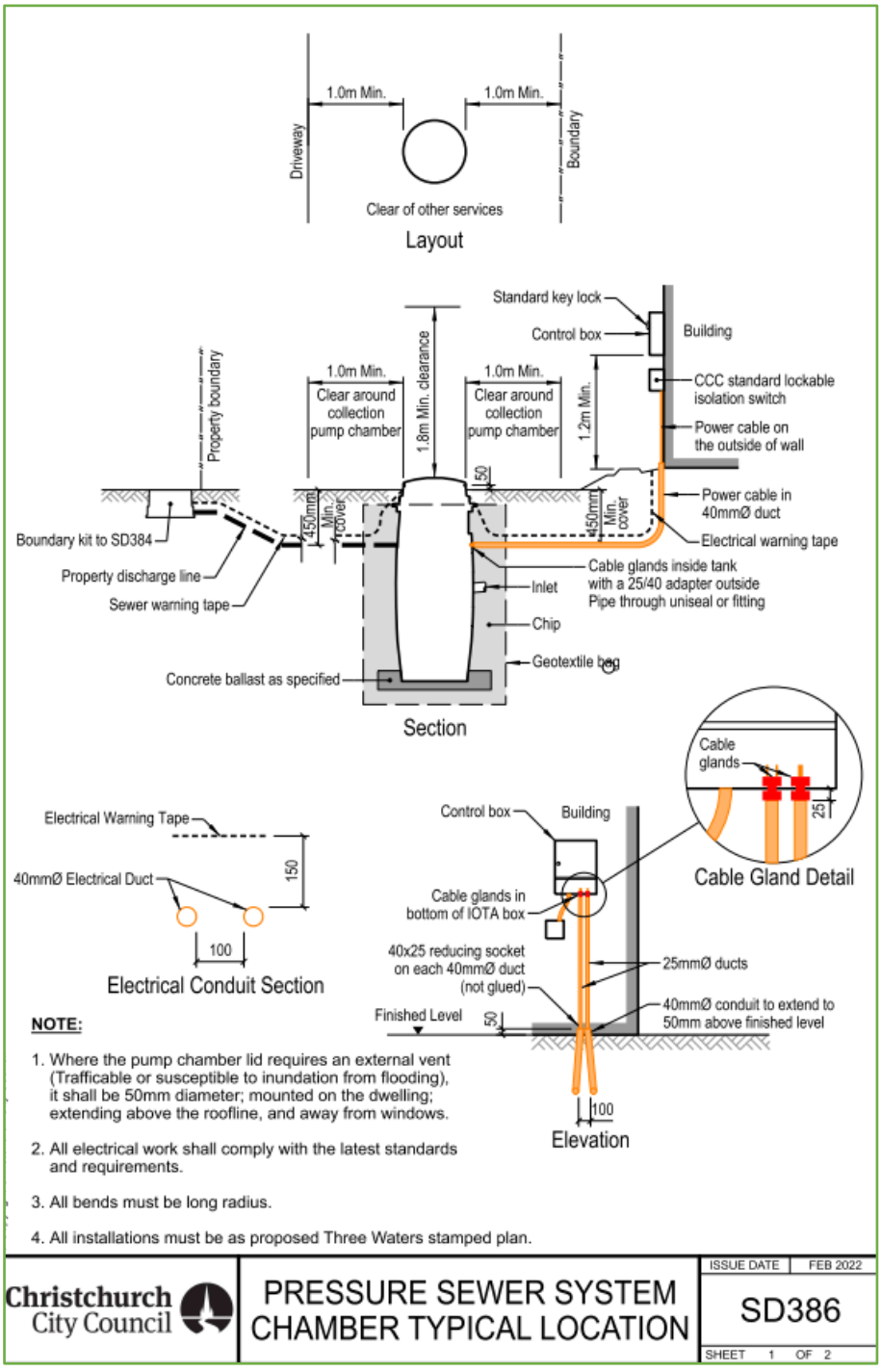


Figure 1 – Local pressure sewer system layout

Source: SD386 of CSS: Part 3

B. Approvals and Consents

B.1 Relevance

Developers must confirm the specific wastewater discharge requirements for the applicable property prior to submitting the building consent application. This can be done through several processes including:

- → Request a Project Information Memorandum (PIM) https://ccc.govt.nz/consents-and-licences/building-consents/before-you-build/project-information-memorandum and provide information relevant to the building project.
- → Obtain wastewater capacity confirmation by e-mailing WastewaterCapacity@ccc.govt.nz and provide information relevant to the building project. The Council will advise via the mailbox above whether or not there is capacity, and if applicable, about any special connection requriements. An LPSS is required in a pressure sewer catchment or where there is a capacity constraint.
- → Check the externally available 3-Waters Wastewater Network Asset map:

  https://gis.ccc.govt.nz/portal/apps/webappviewer/index.html?id=4da339b7aad24d7381ab5ecff4e97165

Once a building consent application has been submitted, the technical aspects of the proposal will be assessed against the requirements of this document. Council may, at any time, place conditions additional to those detailed in this document on the applicant.

B.2 Process

Where advised that an LPSS to be installed as the wastewater servicing option, the applicant will be responsible for the following process steps:

Step 1: Submit a compliant drainage plan and LPSS specifications	Also see: B.3 **Plans and Specifications** Submit to: wastewatercapacity@ccc.govt.nz
Step 2: If vesting with Council, sign and submit transfer documents	Also see: E **Vesting of** Ownership Submit to: wastewatercapacity@ccc.govt.nz
Step 3: If vesting with Council, obtain drainage plan acceptance	Also see: B.3 **Plans and Specifications** Submit to: wastewatercapacity@ccc.govt.nz
Step 4: Procure LPSS components	Also see: C **Technical** specifications
Step 5: Appoint a Council Authorized Drainlayer to install the LPSS	Applies to Council-vesting LPSS and private LPSS in wastewater capacity constraint areas. Must be authorized in category Pressure Sewer Tanks https://ccc.govt.nz/consents-and-licences/construction-requirements/approved-contractors/authorised-drainlayers/
Step 6: Commission the LPSS	Also see: D.2 **Commissioning and Inspection**
Step 7: Submit the Pressure Sewer Construction Statement inclusive of As-Built records	Also see: D.3 **Construction and Commissioning Records**
Step 8: Operate the LPSS according to User Manual	Also see: F **Operations and Maintenance**

B.3 Plans and Specifications

The building consent must be accompanied by a **drainage plan** which clearly illustrates:

- → one LPSS per dwelling if vesting with Council
- → the location of the pump chamber at the front of the house, including approved pump system (section C.1), dimensioned position, and 1 meter clearance requirement around the chamber lid
- → the single sewer pipe from the building into the pump chamber
- → the discharge pump line up to and including the boundary kit if in a local pressure sewer catchment, or sewer lateral if in a gravity catchment in a wastewater capacity constraint area
- → position of the IOTA OneBox Control / power connection on the house at the front
- → (where applicable) arrangement and details of the dry gravity lateral
- → (where applicable) the easement strip marked "A"

The building specifications must include the following:

- → supplier details of pump set to be installed including confirmation of storage tank dimensions
- → confirmation of IOTA OneBox Control

The Three Waters & Waste Team must issue engineering acceptance on a drainage plan that specifies a Council-vesting LPSS location and the proposed sewer connection prior to the issuing of the Building Consent. Plans and specifications to be submitted to wastewatercapacity@ccc.govt.nz .

B.4 Documents to vest ownership

When advised to install a Council-vesting LPSS, the Council will also provide the documentation required for enabling the transfer of ownership of the LPSS once installed. These documents are further addressed in **Part E: Vesting of Ownership.**

B.5 Development Contribution rebates

The cost of installing the LPSS complete will be borne by the developer / property owner.

A Development Contribution (DC) rebate for the Wastewater Collection component of the DC is available where the LPSS is required due to the property being within a wastewater capacity constraint area. For properties within a local pressure sewer catchment (i.e. where no gravity discharge option is available), no rebate will be applicable and the full Wastewater Collection DC is payable.

C. Technical specifications

C.1 Pumping Systems

The approved LPSS for residential applications are as presented below.

E/One Grinder Pump System

C.2 Storage Volume

The pump chamber must be sized to store 24 hours average dry weather flow.

For single dwellings the wet well storage volume is based on the following formula which represents 24 hour average dry weather flow generated by a standard residential household:

> Minimum storage volume:
>
> 220 litre/day x 2.7 persons per dwelling = 594 litres per dwelling

The total storage volume represents the sewage stored between the pump start level and the overflow level (refer to **Figure 2**). This volume excludes the volume taken up by the pump, pipework and its mountings.

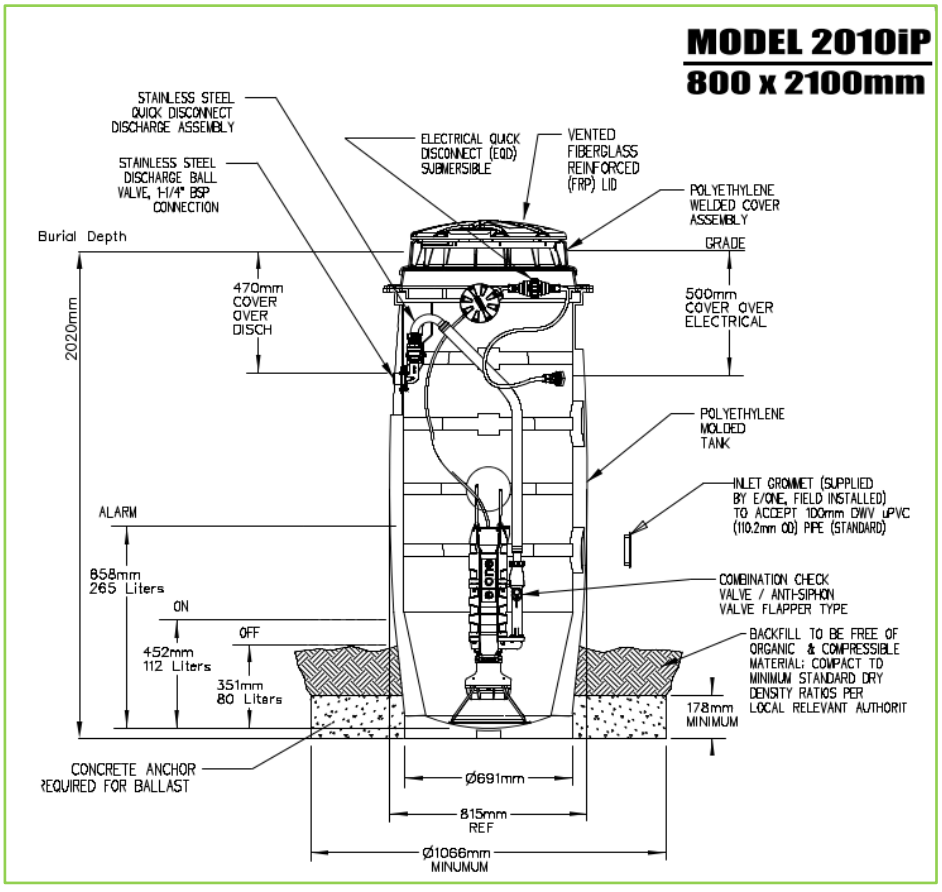


Figure 2 – Pump Chamber Operating Range
Source: https://www.ecoflow.co.nz/grinder-pumps

Where the standard domestic LPSS pump chamber is not large enough to provide the minimum storage required (24 hours average dry weather flow), a larger chamber must be used and the number of pumps required may also need to increase to two (duplex), three (triplex), four (quadplex) or more. The E/One pumps are able to meet these requirements. Note that in these situations each pump must be supplied with an IOTA OneBox Controller. In non-standard applications, the designer, developer or property owner must liaise with the Council during the design phase to ensure that the selected pump and storage meets the Council requirements. Unlined concrete tanks are not suitable for non-standard applications. Refer to corrosion prevention measures in the *Christchurch City Council Infrastructure Design Standard* and the *Christchurch City Council Odour and Corrosion Management Design Guide*.

C.3 Location

The LPSS must be located as follows:

- locate where visible and accessible from the **site access**, i.e. road frontage, property's driveway, dwelling's front area**.** If gravity flow from the dwelling's pipes to the Council-vesting LPSS at the front of the property cannot be achieved, design to include a private pumping system upstream to pump to the Council LPSS.
- locate within the setback area
- locate preferably in a non-trafficable area
- locate where a car will not likely park
- access to the pump chamber and control box must always be readily available
- take into account possible future developments or building extensions on the site
- **do not fence off** the pump chamber or control panel
- control panel on a building, either on a front-facing wall, or within 300mm of the front corner of a side wall, minimum 1.2m from the ground
- provide at least 1 m clearance from structures and other assets
- locate outside foundation zones of influence
- consider vehicle access for repairs or sucker trucks
- minimise disruption to the property
- achieve best aesthetics possible

For LPSS in wastewater capacity constraint areas, the location of the pump chamber is especially important to enable the future conversion from a LPSS to a gravity sewer at minimal cost. Refer to section C.8.3 Dry gravity lateral for the requirements of a dry gravity pipeline.

Refer to Figures 3, 4 and 5 for LPSS location requirements.

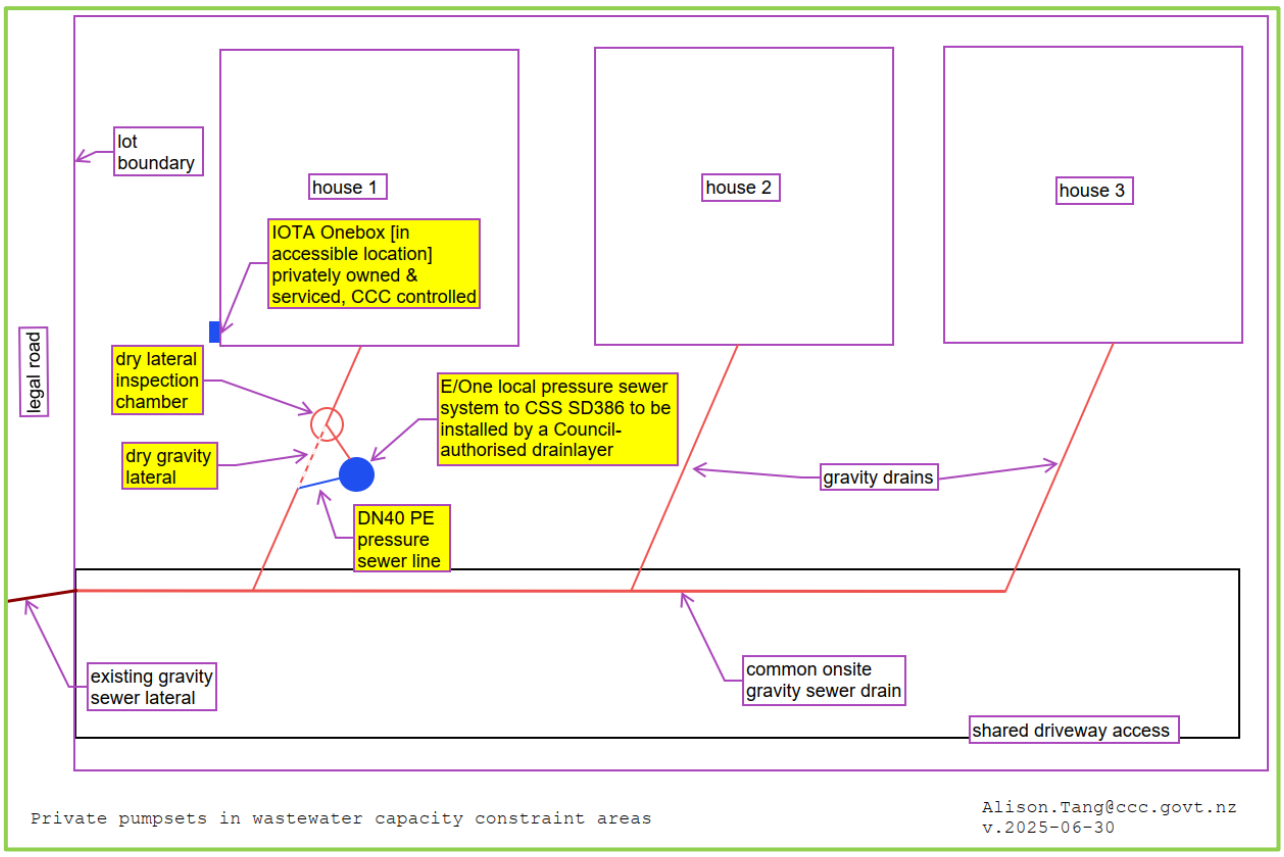


Figure 3 – LPSS location in a capacity constraint area

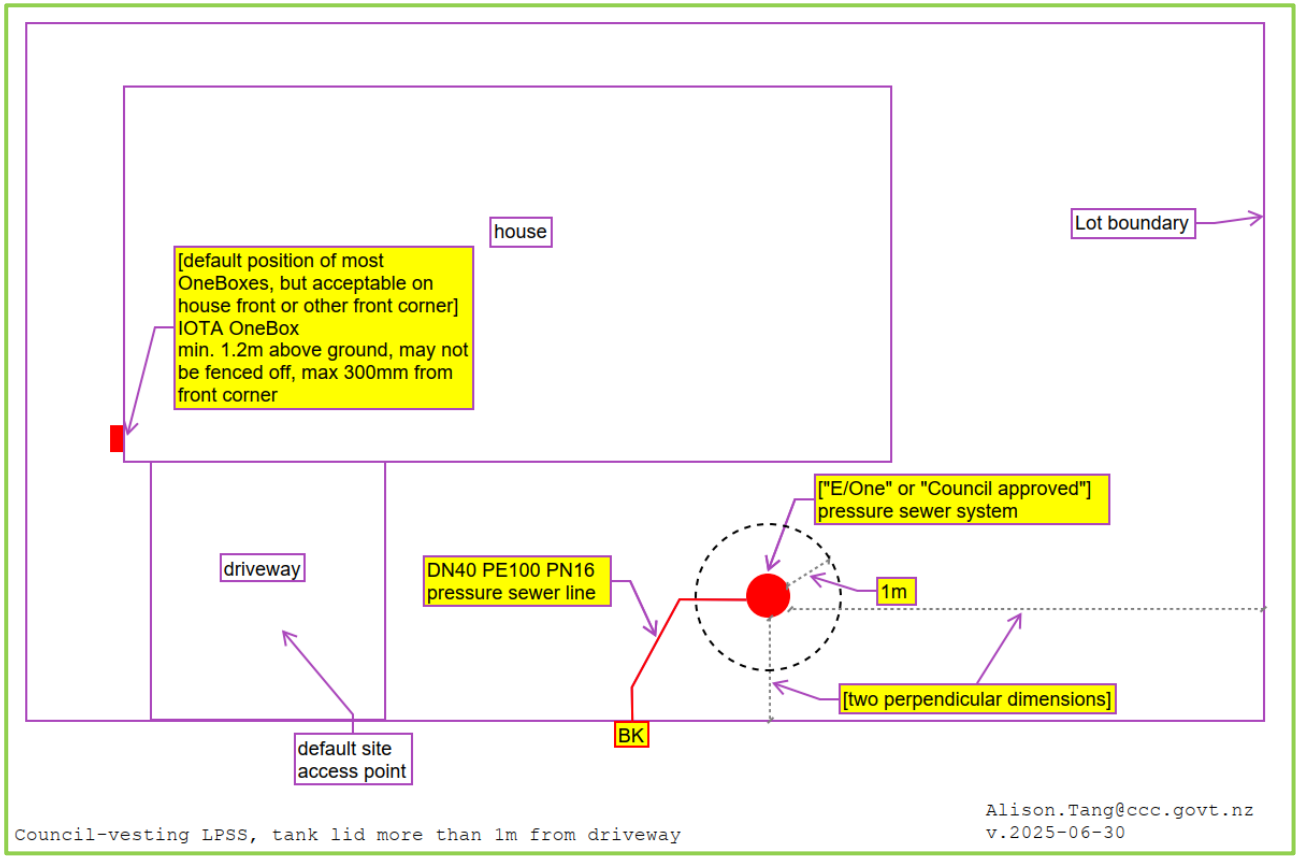


Figure 4 – LPSS location in a pressure sewer catchment, standard lid

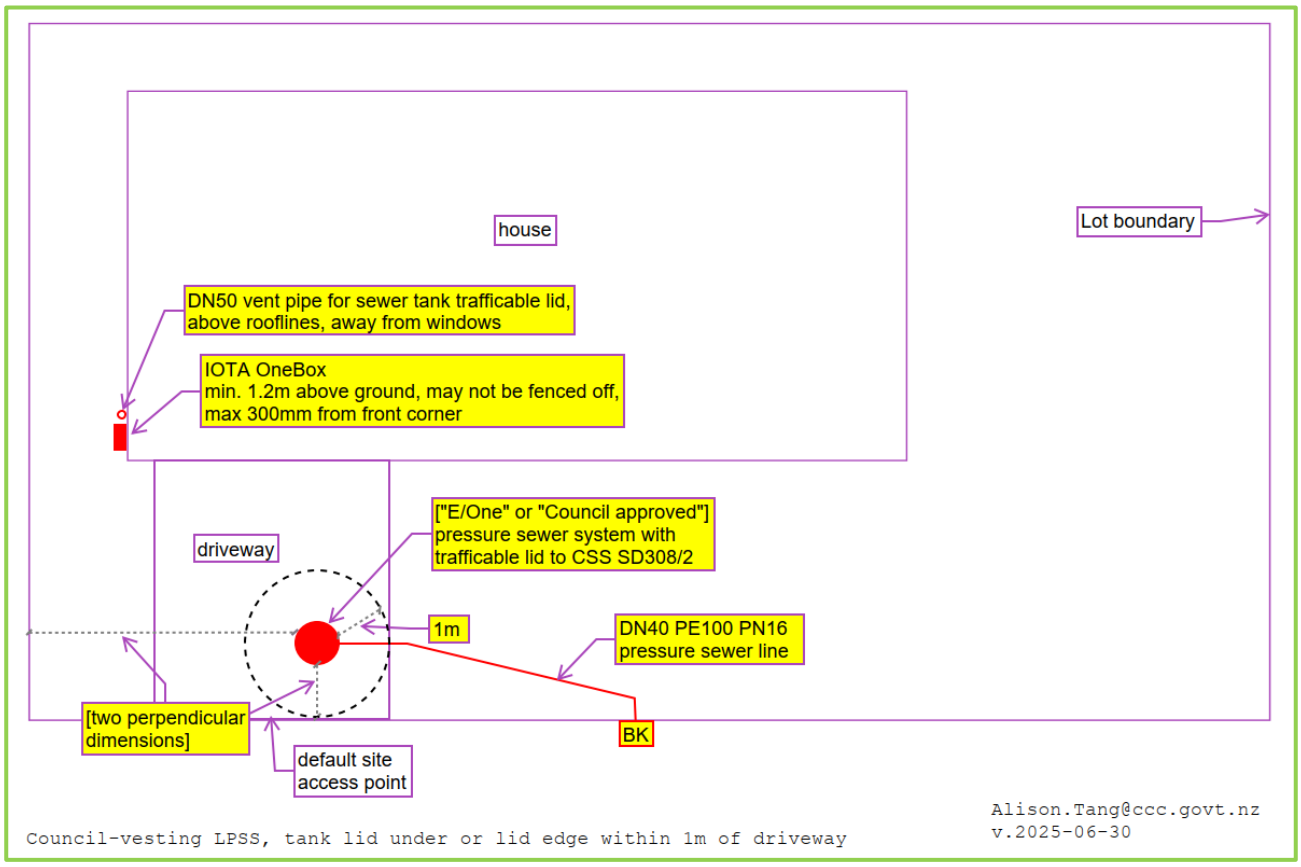


Figure 5 – LPSS location in a pressure sewer catchment, trafficable lid

C.4 Chamber installation

Install the pump chamber underground, with only the top of the chamber lid visible (see **Figure 5)**.

Figure 5 –Pump chamber completed installation position

The pump chamber must be installed to resist buoyancy forces under hydrostatic conditions. The buoyant forces are dependent on the local groundwater level, and being equivalent to the weight of water displaced by the volume of the chamber.

The chamber shall be installed complete with a concrete ballast anchor (precast or in situ pour) to prevent flotation of the tank. The buoyant force is resisted by the weight of the pump chamber and effective weight of the concrete base and the associated wedge of backfill materials. A geotextile sleeve shall be provided within the excavation in all cases. The concrete base and backfill requirements are detailed in **Appendix A**.

Where the groundwater table is deeper than 4 metres, the property owner can request a relaxation of the above requirements.

All penetrations through the pump chamber must be sealed watertight.

C.5 IOTA OneBox Control Panel

The approved pump control panel for any LPSS is the **IOTA OneBox Control Panel** (refer to Figure 6).

The OneBox will be connected into IOTA's telemetry system which enables the Council to remotely monitor and control the LPSS. In a storm event, the pump can be prevented from pumping, so that there is no additional flow from the site when the downstream network is full or until such time as the pump chamber reaches a critical peak.

Ecoflow will supply the IOTA OneBox control panel with the pump and pump chamber.

The standard features of the control panel include:

- Power to be supplied from an independent circuit from the dwelling's main switch board.
- A 20amp 'D' Curve circuit breaker is to be used for a Simplex (one pump) system.
- No RCD Device to be installed.
- A lockable isolation switch near the panel (supplied by the pumpset supplier).
- 240V +/- 10% to Alarm Panel (216V to 264V).

Figure 6 – Control panel completed installation position

The IOTA OneBox Control panel shall be mounted on the side of the dwelling at an appropriate height for ease of access in the event of an alarm. The installation must meet the following requirements:

- mounted on an external wall of the house
- closest position to the pump chamber
- accessible for maintenance i.e. in an area which is not fenced off
- a minimum of 1.5 m from location of gas cylinders
- a minimum of 1.2 m from ground level to the base of the Alarm Panel

Where more than one pump is provided, <u>each</u> pump msust be supplied with an IOTA OneBox Controller.

C.6 Electrical Connection

Specify electrical equipment that complies with the relevant New Zealand Standards.

The pump supplier will provide a standard 15 metre power cable, however a longer cable can be provided where the dwelling is more than 15 metres from the pump chamber. The cable must be installed underground in a rigid conduit to the location of the IOTA OneBox Control Panel and must be connected through the bottom of the panel. If the cable is greater than 15 metres long, the conduit must be sized up. The conduit must not extend into the panel. The power cable shall extend into the panel and have a compression gland installed inside the panel. Seal the conduit to prevent corrosive gases or moisture travelling up the conduit into the cabinet, using foam rubber, foam sealant or similar which can easily be unsealed if the plug and power cable require removal. Leave approximately 2 metres of power cable inside the pump chamber to allow pump removal for maintenance purposes.

Connect and hardwire the pumping unit to the main switch board using a dedicated circuit breaker at the property's meter box. Connect power to the pump via a quick disconnect coupling as per the manufacturer's instructions.

C.7 Communication Cables

Cables for the high level alarm and level sensor must be installed in a separate rigid conduit (separate from power conduit) and connected to the IOTA OneBox Control Panel as per the supplier instructions. Leave an additional length of cable inside the tank.

The connection to the panel shall be through the bottom and shall be glanded to ensure a waterproof panel. The conduit shall not extend into the plane. Seal the conduit to prevent corrosive gases or moisture traveling up the conduit into the panel, using foam rubber, foam sealant or similar.

C.8 Discharge Pipeline

The discharge pipeline must be sized as follows:

- DN40 PE100 PN16 pipes for a standard dwelling or simplex pumpset
- For duplex or triplex pumpsets, the PE100 PN16 pipe must be sized by the pumping system supplier and must achieve a minimum self cleansing velocity of 0.7 m/s.

Polyethylene pipes shall be pressure tested in accordance with the Christchurch City Council Construction Standard Specification. Alternatively, the necessary Quality Assurance Records shall be submitted to confirm compliance of the batch from which the pipe has been sourced.

The area above the discharge pipeline shall be easily accessible and be kept clear of structures for ease of access to the pipe for repair and maintenance or replacement. A standard 1 metre separation distance from the pipe to any permanent structure to be maintained to comply with the Water Supply and Wastewater Bylaw 2022.

The minimum cover to the discharge pipe shall be:

- 450 mm in non-trafficable areas.
- 600 mm in areas with vehicular traffic.

Detection wires or location tape shall be laid over the discharge pipeline to aid later location.

A schedule of materials approved for use on the Council's infrastructure is available at https://www.ccc.govt.nz/consents-and-licences/construction-requirements/approved-materials-list/search.

C.8.1 Boundary kit connection

Where the LPSS is installed in a pressure sewer catchment, each pumping system must discharge into its own boundary kit (Refer to the Christchurch City Council Construction Standard Specification for standard details of the Boundary Kit – SD 384). Shared connections into a single boundary kit will not be accepted.

All bends shall be pre-fabricated polyethylene fittings. Compression couplers shall not be used.

C.8.2 Discharge to gravity

Where an LPSS is installed in a wastewater capacity constraint area, the discharge pipeline will connect to the gravity sewer within the property. No connection will be accepted to the sewer lateral, sewer main or manhole external to the property.

C.8.3 Dry gravity lateral

LPSS in wastewater capacity constraint areas are temporary installations and should be converted to gravity as and when capacity becomes available in the network. For LPSS installations in wastewater capacity constraint areas, a dry gravity sewer must be installed simultaneously with the LPSS to allow such future transition.

The dry gravity lateral connection must be positioned to support future gravity flow to the sewer lateral. The pump chamber must therefore be offset from the gravity flow path.

An inspection pit must be installed at the point where the flow is diverted towards the pump chamber. Internal benching must be provided and dry-packed for the lateral not in use.

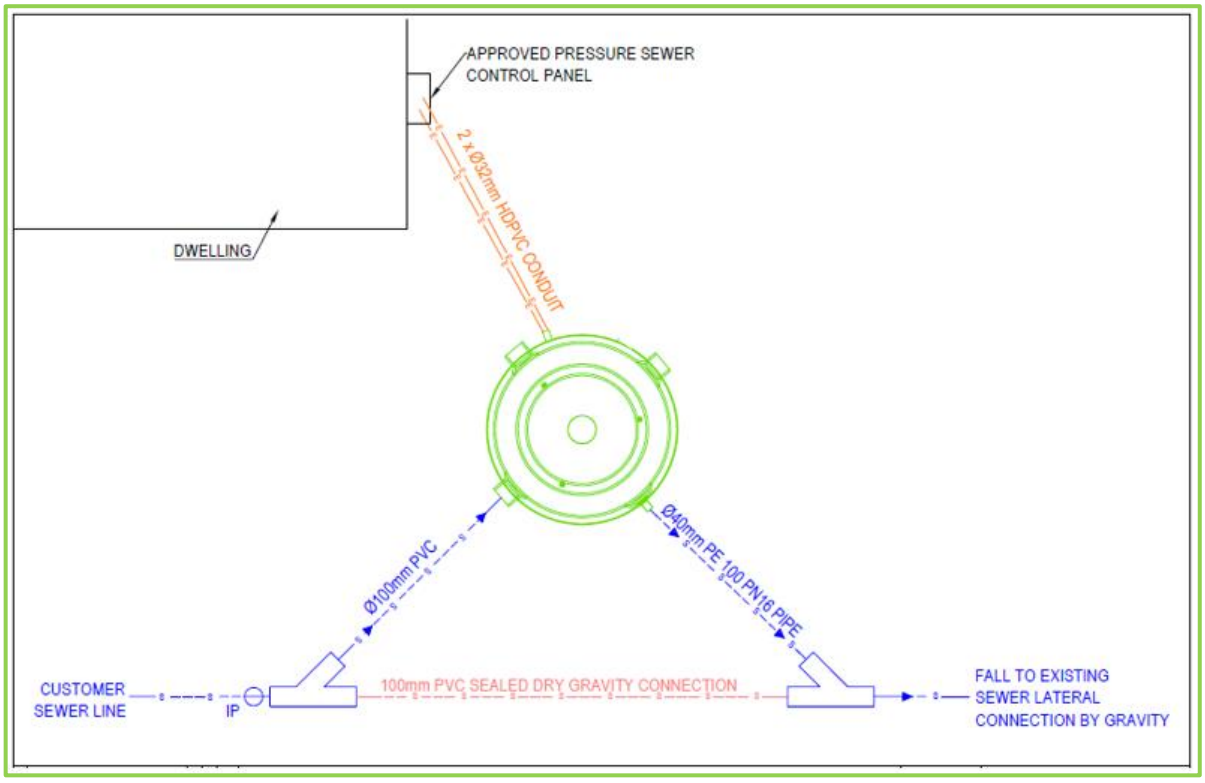


Figure 7 – Schematic illustrating the dry gravity lateral detail

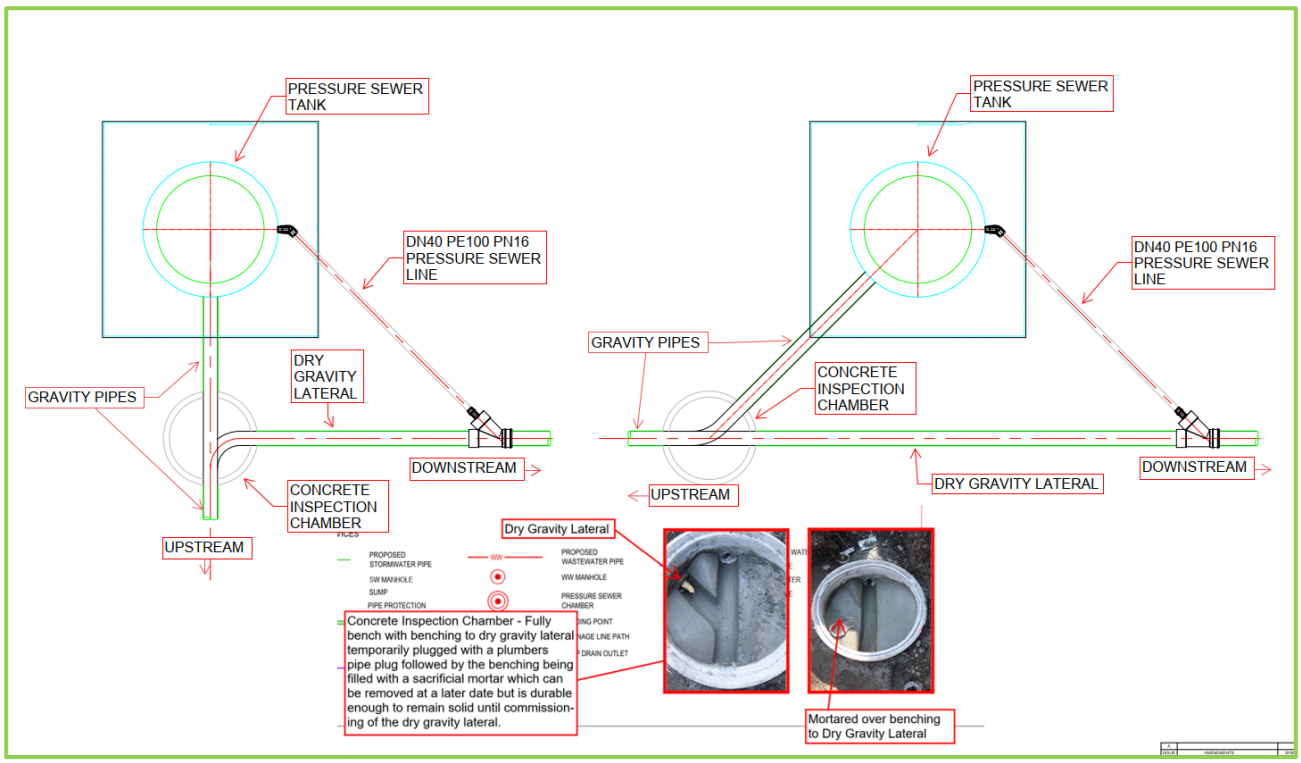


Figure 8 – Dry gravity lateral connection details

D. Installation requirements

D.1 Authorization to install

The installation of the LPSS shall be carried out by a Council Authorised Drainlayer authorized in the Pressure Sewer Tanks category. These are listed on the Christchurch City Council web page at https://ccc.govt.nz/consents-and-licences/construction-requirements/approved-contractors/authorised-drainlayers/

Site welding may only be performed by suppliers on the register of Christchurch City Council Approved Polyethylene Welders which can be obtained from https://ccc.govt.nz/assets/Documents/Consents-and-Licences/construction-requirements/Approved-PE-Welder-Register.pdf

For compliance with Council's quality assurance requirements for polyethylene pipes, it is recommended that the discharge pipeline (PE100 pipe) and fittings be sourced from the pump set supplier complete with the necessary Quality Assurance Records.

D.2 Commissioning and Inspection

The applicant shall give the appropriate notice (usually a minimum of 48 hours') of any inspection requirements to the building inspector. An initial inspection of the pump chamber installation will be required to ensure the appropriate concrete surround / backfill around the pump chamber and that the necessary requirements have been complied with.

The LPSS must be commissioned by the pumping system supplier. Once commissioned, the building inspector must be notified to perform the final inspection.

D.3 Construction and Commissioning Records

The Pressure Sewer Construction Statement (Form B082) must be completed by the person responsible for commissioning the system and must be submitted to the Building Inspector at the time of the final inspection. Form B082 is available at https://www.ccc.govt.nz/consents-and-licences/building-consents/building-consent-forms-and-guides and is also copied in Appendix C.

Completion of the Pressure Sewer Construction Statement confirms that:

- Commissioning has been successfully completed including flushing of the private gravity drainage pipes from each gulley trap to the pump chamber.
- There is no building/construction debris left in the gravity pipes or gulley traps that could damage the pump or block the small bore discharge pipeline and fittings downstream of the pump.
- The pump has been installed to the manufacturers standard and is operational.
- A compliant pressure test has been carried out in compliance with *CSS: Part 3 clause 14.3* – Discharge Pipelines on the portion of the pressure sewer within Council property **or** the Discharge Pipeline has been supplied from an approved batch and Quality Assurance Records are attached.
- Installation and commissioning has been carried out by a Council Authorised Drainlayer (Pressure Sewer Tanks).
- The manufacturer's warranty period from the date of final commissioning has been issued.

Submit as-built records when applying for the Code Compliance Certificate, including:

- Confirmed location drawing with actual final dimensions from the dwelling and the legal boundaries to pump chamber, discharge pipeline, power cable and the control panel location.

- Pump make model and serial number.
- Pipe diameters, materials and weld tests records.
- (where applicable) the easement facility identified as a 2 metre x 2 metre square from the edget of the chamber cover.

D.4 Asset Data

Supply the asset data pick-up sheet in a format acceptable to the Council. Refer to **Appendix B** for the Asset Data Pick Up Sheet template.

E. Vesting of Ownership

E.1 Vesting requirements for residential properties

Where a LPSS is installed to service a residential property the ownership of the system will be vested in Council complete with all components a defined in A.2: **LPSS Components** above. The vesting of ownership will enable Council to monitor, control and maintain the LPSS. Monitoring and control of the pumping system occurs via the IOTA OneBox Control Panel and the Council's IOTA web portal.

The gravity sewer system (foul water drainage) within the property including all gulley traps, gravity sewers to the pump chamber and the dry gravity lateral will remain vested in the property owner.

The property owner will be responsible for ensuring the correct operation of the pumping system and also for the power costs of operating the system.

E.2 Vesting instruments

The instruments for vesting ownership depends on whether a consent notice has been registered on the property title

E.2.1 Deed of Transfer

When a property is located within a pressure sewer catchment, a consent notice would generally be registered on the title of the property pursuant to section 221 of the Resources Management Act. The consent conditions require that ownership and control of the local pressure sewer system is vested in Council. The Deed of Transfer provides commitment by the owner and will be recorded against the property file.

E.2.2 Easement Agreement

Where a property has not been provided with a consent notice against its title or where a property is required to install a LPSS due to its location in a local pressure sewer catchment, the vesting of ownership will occur by agreement. The agreement referred to as the **Easement Agreement** (Appendix F) enables Council to create and register an Easement under the provision of the Land Transfer Act 1952.

If Council decides to establish the easement, the **Easement Instrument** (Appendix G) will be used and the stipulated area shall be demarcated as a 2 metre by 2 metre area over the pump chamber.

E.3 Vesting process

As outlined in section B.2 Process, the transfer of ownership occurs after the commissioning of the LPSS and simultaneous with the submission of the Pressure Sewer Construction Statement and As-Built records as part of the Code Compliance process. The vesting instruments must be submitted prior to the issue of the LPSS engineering plan acceptance under the Building Act 2004 in respect of the Building Consent.

The vesting process is complete once the owner has submitted either a) the signed Deed of Transfer or b) the signed Easement Agreement to wastewatercapacity@ccc.govt.nz. Council will exercise its right to create and register an Easement under its discretion.

E.4 Commercial and industrial properties

The ownership of a LPSS installed to service a commercial or an industrial property will remain with the property owner. The property owner agrees that Council may access the control system via Council's IOTA web portal in order to:

- Monitor the flow into Council's wastewater system including during wet weather and to ensure (where applicable) compliance with discharge restrictions;
- Inhibit pumping during wet weather events in order to manage downstream capacity of the wastewater network (realizing that the pump control will manage the level of wastewater in the chamber to avoid overflow).

F. Operations and Maintenance

F.1 Operations responsibility

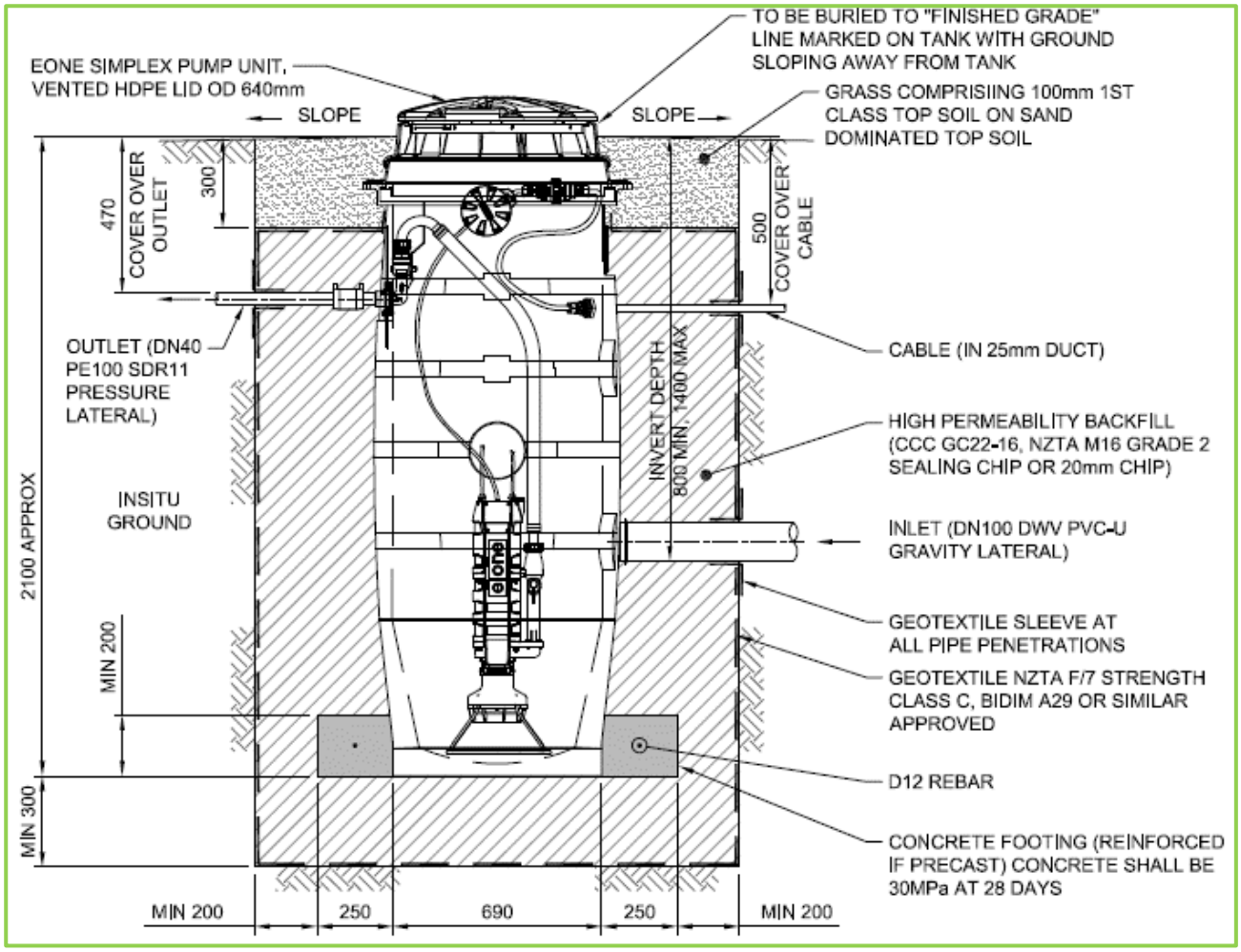
The property owner shall ensure adherence with the operational requirements of the local pressure sewer system and if in breach of this obligation, the property owner shall promptly at the property owner's expense properly and substantially repair and make good all injury or damage caused to the local pressure sewer system. If the property owner fails to promptly comply with this obligation then the Council may perform the obligation and recover any costs incurred from the Property Owner.

The property owner shall in all instances ensure that the operational requirements are adhered to by the occupier of the dwelling / property and that the occupier is provided with a copy of the *Home Owner's Manual*.

F.2 Problems and troubleshooting

Appendix H provides a quick reference to what to do in case of a problem with the LPSS.

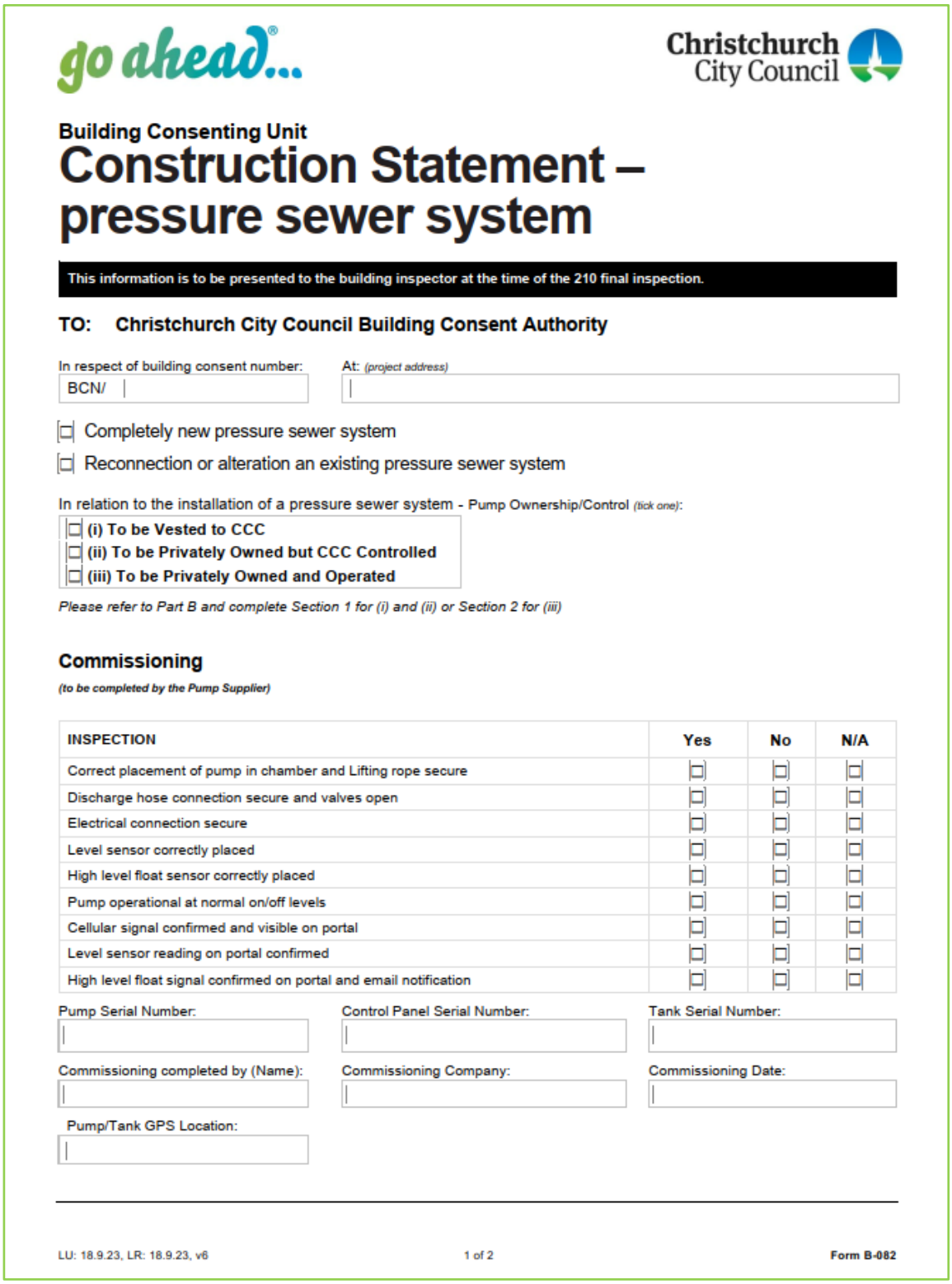
Appendix A: Pump Chamber Backfill Detail



Where the groundwater table is deeper than 4 metres, the property owner can request a relaxation of the above requirements.

Appendix B: Construction Statement – pressure sewer system & Asset Data Pick Up Sheet

https://www.ccc.govt.nz/assets/Documents/Consents-and-Licences/building-consents/B082ConstructionStatementPressureSewerSystem.pdf



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Christchurch City Council

Building Consenting Unit

Construction Statement – pressure sewer system

This information is to be presented to the building inspector at the time of the 210 final inspection.

TO: Christchurch City Council Building Consent Authority

In respect of building consent number: BCN/

At: *(project address)*

☐ Completely new pressure sewer system

☐ Reconnection or alteration an existing pressure sewer system

In relation to the installation of a pressure sewer system - Pump Ownership/Control *(tick one)*:

☐ **(i) To be Vested to CCC**
☐ **(ii) To be Privately Owned but CCC Controlled**
☐ **(iii) To be Privately Owned and Operated**

Please refer to Part B and complete Section 1 for (i) and (ii) or Section 2 for (iii)

Commissioning

(to be completed by the Pump Supplier)

INSPECTION	Yes	No	N/A
Correct placement of pump in chamber and Lifting rope secure	☐	☐	☐
Discharge hose connection secure and valves open	☐	☐	☐
Electrical connection secure	☐	☐	☐
Level sensor correctly placed	☐	☐	☐
High level float sensor correctly placed	☐	☐	☐
Pump operational at normal on/off levels	☐	☐	☐
Cellular signal confirmed and visible on portal	☐	☐	☐
Level sensor reading on portal confirmed	☐	☐	☐
High level float signal confirmed on portal and email notification	☐	☐	☐

Pump Serial Number:

Control Panel Serial Number:

Tank Serial Number:

Commissioning completed by (Name):

Commissioning Company:

Commissioning Date:

Pump/Tank GPS Location:

LU: 18.9.23, LR: 18.9.23, v6 1 of 2 **Form B-082**

Electrical

Electrical Certificate Number:

Note: Electrical connection to be on a dedicated 20A D curve circuit breaker and the electrical certificate for this installations is to be sent to the Council for Code Compliance along with this B-082 form.

PART B – Please complete Section 1 or 2 below

(to be completed by the Certifying Drainlayer)

Section 1 – for Systems that will be Vested to Council or Private Systems that are Council Controlled

I _____ *(print name)* certify that the installation of the specified pressure sewer system has been carried out in accordance with the manufacturer's instructions, the current approved building code and the current requirements of Christchurch City Council's Infrastructure Design Standards and Construction Specification Standards.

INSPECTION	Yes	No	N/A
Flushing of gravity lateral completed	☐	☐	☐
Clearance of debris from pump chamber	☐	☐	☐
Site layout schematic completed show off set boundary to house detailed on site layout for:			
- Consented Tank location	☐	☐	☐
- Pressure line	☐	☐	☐
- Boundary box	☐	☐	☐
- Control panel	☐	☐	☐
- Dry lateral in constraint area	☐	☐	☐

Certifying Drainlayer Name: | Certifying Drainlayer Registration Number: | Signature and Date:

(Certifying Drainlayer to be a CCC Authorised Drainlayer (Pressure Sewer System))

Note: A detailed As-built design is to be completed for the items above and sent to the Council for Code Compliance along with this B-082 form.

Section 2 – for Systems that will be Privately Owned and Operated

(to be completed by the Certifying Drainlayer)

I _____ *(print name)* certify that the installation of the specified pressure sewer system has been carried out in accordance with the manufacturer's instructions, the current approved building code, the current requirements of Christchurch City Council's Infrastructure Design Standards and Construction Specification Standards and The Private Sewer Pump Station Specification.

INSPECTION	Yes	No	N/A
Flushing of gravity lateral completed	☐	☐	☐
Clearance of debris from pump chamber	☐	☐	☐
Site layout schematic completed show off set boundary to house detailed on site layout for:			
- Consented Tank location	☐	☐	☐
- Pressure line	☐	☐	☐
- Boundary box	☐	☐	☐
- Control panel	☐	☐	☐
- Dry lateral in constraint area	☐	☐	☐

Certifying Drainlayer Name: | Certifying Drainlayer Registration Number: | Signature and Date:

Note: A detailed As-built design is to be completed for the items above and sent to the Council for Code Compliance along with this B-082 form.

Appendix C: Deed of Transfer

DEED OF TRANSFER OF OWNERSHIP OF LOCAL PRESSURE SEWER SYSTEM

DEED dated this day of 20__

BETWEEN _____ ("the Owner")

AND **CHRISTCHURCH CITY COUNCIL** ("the Council")

BACKGROUND

A. The Owner is the owner of the property situated at _____ which is legally described as Lot___ on Deposited Plan_____ and comprised in Record of Title_____ ("the Property").
B. The Owner is the owner of the Property and has applied for a building consent under the Building Act 2004 ("the Building Consent") to erect a dwelling house on the Property ("the House").
C. The Property is subject to a number of resource consent conditions as evidenced by a Consent Notice registered against the Record of Title to the Property ("the Consent Conditions").
D. The Consent Conditions include a requirement that the Property is to be served by a local pressure sewer system comprising a pump, a storage chamber, a boundary kit, and an IOTA OneBox control panel installed in accordance with the Council's requirements for local pressure sewer systems specified under the Building Consent ("the Local Pressure Sewer System").
E. The Consent Conditions require that ownership and control of the Local Pressure Sewer System is to be vested in the Council and that the Owner will enter into a deed to so transfer or vest ownership and control in the Local Pressure Sewer System in the Council prior to the issue of a code compliance certificate under the Building Act 2004 in respect of the Building Consent.
F. The purpose of this Deed is to satisfy that requirement.

AGREEMENT

In order to give effect to the Background above, the Owner hereby irrevocably transfers and vests without consideration title, ownership and control of the Local Pressure Sewer System in the Council.

SIGNED by the Owner
in the presence of: _____

_____
Signature of witness

_____
Name of witness

_____
Address of witness

SIGNED by the **CHRISTCHURCH CITY COUNCIL** under delegated authority
in the presence of: _____

_____
Signature of witness

_____
Name of witness

_____
Address of witness

Appendix D: Easement Agreement

THIS AGREEMENT dated this day of 20__

BETWEEN _____("the Owners")

AND **CHRISTCHURCH CITY COUNCIL** ("CCC") pursuant to section 17 of the Public Works Act 1981

BACKGROUND

A The Owners are the owners of the property situated at _____which is legally described as Lot___on Deposited Plan_____and comprised in Record of Title_____ ("the Property").

B The Owners have agreed that the dwelling house erected, or to be erected, on the Property is to be served by a local pressure sewer system comprising a pump, a storage chamber, a boundary kit, and an IOTA OneBox control panel in accordance with the Council's requirements, such system to be supplied by either EcoFlow Limited or Aquatec and installed by a Council authorised drainlayer ("the Local Pressure Sewer System") and have agreed to install the Local Pressure Sewer System at their cost in that part of the Property as is shown on the attached plan and marked "A" ("the Easement Strip").

C The parties have agreed that ownership and control of the Local Pressure Sewer System is to be vested in CCC and that the Owner will grant to CCC a right to drain sewage easement in gross ("the Easement") over the Easement Strip.

D The parties wish to record their agreement in writing.

IN CONSIDERATION of the arrangements referred to in the Background above and the covenants contained in this agreement it is agreed as follows:

1. The Owner hereby irrevocably transfers to and vests, without consideration, title, ownership and control of the Local Pressure Sewer System in CCC.

2. The Council may create and register the Easement under the provisions of the Land Transfer Act 2017 for the protection of the Local Pressure Sewer System and may register a compensation certificate against the above described Record of Title to the Property under the provisions of the Public Works Act 1981 pending registration of the easement instrument creating the Easement ("Easement Instrument").

3. The Owners agree to execute, immediately upon request, the Easement Instrument necessary to create the Easement over the Easement Strip.

4. The Easement Instrument creating the Easement shall be prepared by CCC's solicitors at the cost of the CCC.

5. The form of the Easement Instrument creating the Easement shall be in the form attached to this Agreement or, if not attached, the Council's standard form of right to drain sewage easement in gross instrument as certified by the Council's solicitor.

6. The Owners shall immediately, when required to do so by CCC, provide at their cost to CCC all necessary consents or releases of documents registered against the Record of Title to the Property to enable registration of the Easement Instrument.

7. CCC agrees that it, subject to the Owners' obligations under clause 6, will be responsible for all survey, Council, Land Information New Zealand and any other expenses relating to the creation of the Easement and registration of the Easement Instrument.

8. The Owners hereby authorise and permit CCC and its employees or contractors from the date of this agreement to enter upon the Property to survey the Easement Strip.

9. In no circumstances, and notwithstanding any other provision in this agreement, will CCC be obliged to have completed registration of the Easement Instrument by any particular date, nor will the Owners make any claim against CCC for any delays that may occur in completing registration.

10. CCC shall be responsible to meet the Owners' reasonable legal costs in relation to this agreement and the registration of the Easement Instrument.

11. As CCC has agreed to accept ownership and responsibility for the Local Pressure Sewer System, and the costs associated with that, the Owners agree to accept these obligations of CCC in lieu of compensation under the Public Works Act 1981 in respect of the Easement. The Owners acknowledge that this constitutes full payment by CCC of any compensation payable under the Public Works Act 1981 to the Owners in respect of the Easement

SIGNED by the **OWNERS**)
[by its director(s) if a company])
in the presence of:)

_____
Signature of witness

_____
Name of witness

_____
Address of witness

SIGNED by the)
CHRISTCHURCH CITY COUNCIL)
under delegated authority)
in the presence of:)

_____
Signature of witness

_____
Name of witness

_____
Address of witness

Appendix E: Easement Instrument

Form 22

Page 1 of 7

Easement instrument to grant easement or *profit à prendre*

(Section 109 Land Transfer Act 2017)

Grantor

Grantee

Grant of Easement or Profit à prendre

The Grantor being the registered owner of the burdened land(s) set out in Schedule A **grants to the Grantee** (and, if so stated, in gross) the easement(s) ~~*or profit(s) à prendre*~~ set out in Schedule A, with the rights and powers or provisions set out in the Annexure Schedule(s)

Schedule A *Continue in additional Annexure Schedule, if required*

Purpose of easement or *profit*	Shown (plan reference) DP	Burdened Land (Record of Title)	Benefited Land (Record of Title) or in gross
Right to drain sewage		Lot DP ( )	In gross

Form 22 - continued

Page 1 of 7

Easements or *profits à prendre* rights and powers (including terms, covenants and conditions)

Delete phrases in [ ] and insert memorandum number as required; continue in additional Annexure Schedule, if required

Unless otherwise provided below, the rights and powers implied in specified classes of easement are those prescribed by the Land Transfer Regulations 2018 and/or Schedule Five of the Property Law Act 2007

The implied rights and powers are hereby **[varied]** ~~**[negatived] [added to]** or **[substituted]**~~ by:

~~[Memorandum number , registered under section 209 of the Land Transfer Act 2017]~~

[the provisions set out in Annexure Schedule 2]

Insert instrument type

Easement

Continue in additional Annexure Schedule, if required

ANNEXURE SCHEDULE 2

Right to drain sewage

1. Interpretation

1.1 In this Easement Instrument unless the context otherwise requires:

Utilities means any structure, pole or other appurtenant structure for the provision of utilities or services supplied to or used on the land including but not limited to electricity, gas, telephone, storm water, sewage and water.

Easement Facility in relation to the right to drain sewage, means pipes, conduits, pumps, tanks (with or without headwalls), manholes, valves, surface boxes, other equipment suitable for that purpose (whether above or under the ground), and anything in replacement or substitution, and includes any Local Pressure Sewer System.

Local Pressure Sewer System means a wastewater conveyance system comprising a pump and storage chamber, complete with IOTA OneBox control panel.

Easement Area has the meaning given to it in Schedule 5 of the Land Transfer Regulations 2018.

1.2 In the interpretation of this Easement Instrument:

(a) words importing the singular or plural number shall be deemed to include the plural and singular number respectively;

(b) the headings appearing are inserted only as a matter of convenience and in no way define, limit or describe the scope or intent of the clauses of this Easement Instrument nor in any way affect this Easement Instrument;

(c) references to any party include that party's executors, administrators, and assigns, or being a company, its successors and assigns;

(d) all covenants on the part of the Grantor shall be deemed to be covenants by each of the registered owners included in the term "Grantor" and shall jointly and severally bind each of the registered owners and their respective executors, administrators, successors and assigns.

2. Grant of rights, powers, and privileges

2.1 The Grantee (to the exclusion of the Grantor and any other party) shall have the full free uninterrupted and unrestricted right liberty and licence at all times hereafter:

(a) to drain, discharge and convey sewage and other waste material and waste fluids (including trade wastes, other than condensing or cooling water) in a free and unimpeded flow (except during any periods of necessary cleaning and repairing) and in any quantity through the Easement Facility and over the Easement Area, and for that purpose;

Continuation of Annexure Schedule 2

(b) to lay, make, construct, maintain, alter or repair the Easement Facility as the Grantee shall from time to time think fit.

2.2 The Easement Facility referred to in 2.1(a) and (b) is the Easement Facility laid or to be laid along the Easement Area marked on Deposited Plan .

2.3 No power is implied in respect of any easement for the Grantor to determine the easement for breach of any provision of this Easement Instrument (whether express or implied) or for any other cause, it being the intention of the parties that the easement shall subsist until it is surrendered in writing.

3. Grantee's rights

3.1 For the purpose of performing any duty or in the exercise of any rights implied in this Easement Instrument the Grantee may:

(a) enter upon the burdened land by the most practicable route from the nearest public street across any part of the burdened land;

(b) remain on the burdened land for a reasonable time for the purposes of completing any work;

(c) bring on to the burdened land such materials, tools, equipment, machinery, vehicles or other things as may be necessary for the purposes of completing any work;

(d) leave any vehicle or equipment on the burdened land for a reasonable time if work is proceeding;

(e) sink and make trenches and shafts on the Easement Area;

(f) excavate any clay, gravel, shingle, stones, and earth from the Easement Area;

(g) inspect, maintain, cleanse, repair, extend, remove, enlarge or replace the Easement Facility;

(h) generally do and perform such acts and things in or upon the Easement Area as may be necessary or proper for or in relation to any of the purposes of this easement.

4. Grantor's obligations

4.1 The Grantor will not:

(a) plant trees upon or permit any tree roots to grow within the Easement Area;

(b) build over or erect any buildings or other improvements upon, or permit any Utilities to be located within, the Easement Area unless the siting, erection or location of such building or other improvements or Utilities is expressly consented to in writing by the Grantee, such consent to be at the sole discretion of the Grantee;

(c) do or permit or suffer to be done anything which may in any way injure or damage the Easement Facility or interfere with the free flow and passage of any

Continuation of Annexure Schedule 2

matter through the Easement Facility or use the Local Pressure Sewer System otherwise than in accordance with the Grantee's operational requirements as notified to the Grantor from time to time. If the Grantor is in breach of this obligation, then:

(i) in respect of the Easement Facility other than the Local Pressure Sewer System, the Grantor shall promptly at the Grantor's expense properly and substantially repair and make good all injury or damage caused to the Easement Facility other than the Local Pressure Sewer System and restore such free flow and passage. If the Grantor fails to promptly comply with this obligation then the Grantee may perform the obligation and recover any costs incurred from the Grantor.

(ii) in respect of the Local pressure Sewer System only, the Grantor shall promptly notify the Grantee of any injury or damage to the Local Pressure Sewer System and the Grantee will as soon as reasonably possible following receipt of such notification undertake any repair or maintenance work that the Grantee considers, acting reasonably, to be necessary or required to the Local Pressure Sewer System; and the Grantee may recover from the Grantor the costs incurred by the Grantee in undertaking such repair or maintenance work.

4.2 The Grantor shall ensure that the Local Pressure Sewer System is connected at all times to an electricity supply and agrees to be exclusively responsible for the cost of the electricity required to operate it.

5. Grantee's obligations

5.1 The Grantee shall at its own cost:

(a) install (except where the creation of this easement is part of a subdivision in which case the Grantor will install the Easement Facility at its own cost), maintain and cleanse the Easement Facility so that it is not or does not become a nuisance or annoyance to the Grantor;

(b) remove and carry away all surplus clay, gravel, shingle, stones and earth which may be excavated from the Easement Area;

(c) upon the Grantee disturbing the surface of the Easement Area for any reason, without delay restore the same as nearly as possible to its original condition PROVIDED THAT if any building, improvements, or Utilities are erected or located within the Easement Area without the written consent of the Grantee as required by clause 4.1(b) of this instrument, then the Grantee shall not be required to restore any such building, improvements, or Utilities;

(d) repair and make good any damage which may be done to any fence building or improvement, or to any part of the burdened land, in the exercise by the Grantee of any of the rights granted by this Easement Instrument but the Grantee shall not be responsible for the cost of removing or damaging any fence building improvements or trees upon, or any tree roots growing within, the Easement Area as prohibited under clause 4.1(a).

Insert instrument type

Easement

Continuation of Annexure Schedule 2

6. Easement facility to be property of Grantee

6.1 The Easement Facility and any other structures, plant or equipment erected or installed by the Grantee on the Easement Area or any other structures, plant or equipment required to vest in the Grantee pursuant to a condition of a subdivision consent shall be the property of the Grantee.

7. Limitation of liability

7.1 Any right of action which shall at any time accrue to the Grantee by reason of breach or non-observance by the Grantor of any of the covenants contained in this Easement Instrument may be enforced by the Grantee only against:

(a) the registered owner for the time being of that part of the Easement Area in respect of which such breach or non-observance shall occur; and

(b) the registered owner at the time of such occurrence,

to the intent that the liability of any registered owner of the Easement Area shall cease (except as to any breach or non-observance occurring during the period of ownership of that registered owner) upon registration of a transfer of ownership.

8. Default

8.1 If the Grantor or the Grantee does not meet the obligations implied or specified in any easement:

(a) the party not in default may serve on the defaulting party written notice requiring the defaulting party to meet a specific obligation and stating that, after the expiration of seven working days from service of the notice of default, the other party may meet the obligation;

(b) if, at the expiry of the seven working day period, the party in default has not met the obligation, the other party may:

(i) meet the obligation; and

(ii) for that purpose, enter the burdened land.

(c) the party in default is liable to pay the other party the cost of preparing and serving the default notice and the costs incurred in meeting the obligation;

(d) the other party may recover from the party in default, as a liquidated debt, any money payable under this clause.

9. Arbitration

9.1 If any dispute arises between the parties relating to this Easement Instrument, that dispute shall be determined by a single arbitrator should the parties agree upon one, or failing agreement, by a single arbitrator to be appointed by the President for the time being of the New Zealand Law Society, in accordance with the Arbitration Act 1996 or any statute enacted in substitution of that Act and for the time being in force.

10. General provisions

Insert instrument type

Easement

Continuation of Annexure Schedule 2

10.1 Nothing contained or implied in this Easement Instrument shall be construed so as:

(a) to compel the Grantee to exercise all or any of the rights granted by this Easement Instrument at any time and the Grantee may commence, discontinue or resume the exercise of all or any such rights at will;

(b) to abrogate, limit, restrict or abridge any of the rights, powers or remedies vested in the Grantee by statute.

10.2 The Grantor shall pay the Grantee's reasonable costs of the preparation, registration, variation and any surrender of this Easement Instrument including the staff processing costs and/or the legal costs incurred by the Grantee in relation to preparation, registration, variation and surrender of this Easement Instrument.

10.3 The following provisions are applicable to the easement granted by this Easement Instrument:

(a) the rights, powers and privileges conferred on the Grantee by this Easement Instrument are in substitution for the definition of "Easement Facility" and the rights and powers set out in clauses 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14 of Schedule 5 of the Land Transfer Regulations 2018 but the remaining provisions of the Land Transfer Regulations 2018 shall apply to this Easement Instrument;

(b) where there is a conflict between the provision of the Fifth Schedule of the Property Law Act 2007 and the Fifth Schedule of the Land Transfer Regulations 2018, the provisions of the Fifth Schedule of the Property Law Act 2007 will prevail;

(c) where there is a conflict between the provisions of the Fifth Schedule of the Land Transfer Regulations 2018 or the Fifth Schedule of the Property Law Act 2007 and the provisions of this Easement Instrument, the provisions of this Easement Instrument will prevail.

Appendix F: User Guideline

https://ccc.govt.nz/services/water-and-drainage/wastewater/maintenance-and-repairs/ownership/

https://ccc.govt.nz/assets/Documents/Services/Wastewater/20-404174-Local-Pressure-Sewer-System-User-Guide.pdf

Your guide to the local pressure sewer system

For problems call

Christchurch City Council

(03) 941 8999

Updated June 2022

1

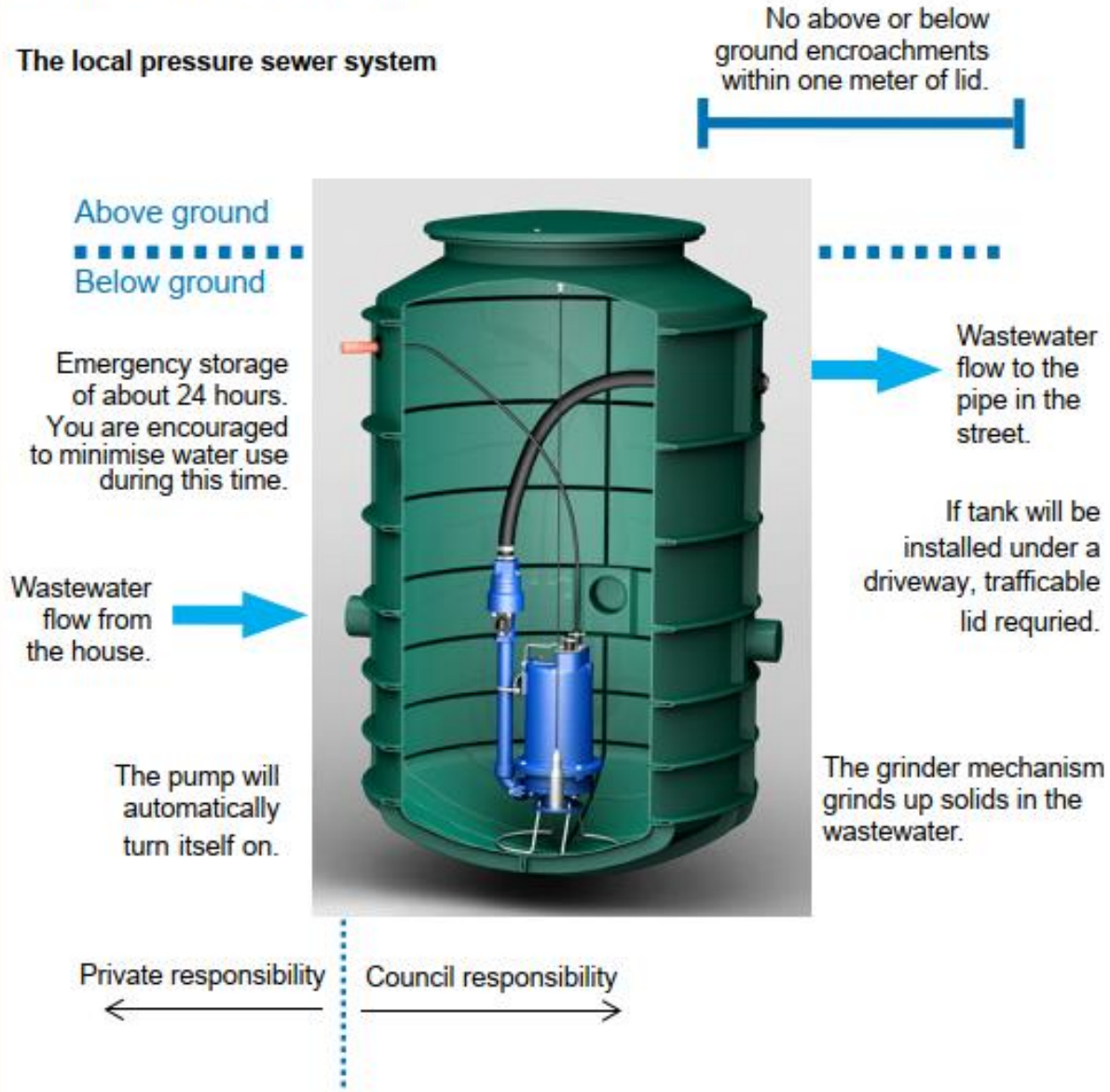
The local pressure sewer system

The wastewater system for this property is a local pressure sewer system.

A local pressure sewer system includes an individual pump and tank. The pump is located within the tank. The tank is located underground and you will only see the lid at the surface. Wastewater from your house flows through a pipe (a private lateral) to the tank. The tank then pumps the wastewater to the pipe in the street. From the street the wastewater goes to the wastewater treatment plant.

The pressure wastewater system is very reliable and robust. There is very little you need to do and very little that can go wrong.

The local pressure sewer system



2

The system control panel

The IOTA OneBox Control Panel

The approved pump control panel for the pressure wastewater system is the IOTA OneBox Control Panel, which will be supplied by the system manufacturer.

It is very important that the IOTA OneBox is installed in compliance to the following specifications:

The IOTA OneBox Control Panel

Mounted on an external wall of the house (typically on corner nearest garage door)

Visible from the driveway, street, or right-of-way.

Power must always be on, and is supplied via dwelling's power.

Accessible for maintenance. **IOTA OneBox <u>may not be fenced off.</u>**

May not be painted over.

A minimum of 1.2 m from ground level to base of IOTA OneBox.

Using the system

There are a few things you need to know to ensure that the pressure wastewater system runs smoothly. The system operates like a normal wastewater system. It takes wastewater from your toilet, sink, shower, bath, dishwasher, and washing machine and transfers it to the wastewater pipes in the street, and onto the wastewater treatment plant.

As with normal gravity systems, to avoid blockages and damage to the pressure wastewater system there are a number of items that should not be disposed of via the system.

- glass
- metal
- gravel or sand, including aquarium stone
- seafood shells
- socks, rags or clothes
- plastic
- diapers, sanitary napkins or tampons
- wet wipes

- kitty litter
- explosives
- flammable materials
- lublicating oil, grease
- strong chemicals
- petrol, diesel
- storm water run off.

Before you go on holiday

Before you go on holiday, even if it is for a few days, do not shut off the power. You may flush the local pressure sewer system before you go. This is to avoid the possibility of the system becoming smelly while you are away. **To flush the system simply run a tap in the kitchen or bathroom sink for about five minutes before you go.**

Taking care of the system

- Do not flush any inappropriate items through the system.
- Do not put heavy weights on the lid of the tank. The lid can be walked on, but this should be avoided.
- Do not touch the valves in the boundary kit.
- Do not turn off the power to the pump unless evacuating in an emergency or if there is a broken wastewater pipe.
- Do not cover the unit in any way. This includes covering it with dirt, garden mulch, or concrete.
- Ensure access to the unit is available at all times.
- If you are going on holiday, even for just a few days, you should flush the system before you go. Simply run clean water down your kitchen or bathroom sink for five minutes (5 mins).
- If you do accidentally break a pipe between the pump and the street contact the Christchurch City Council on (03) 941 8999 immediately and tell them what happened. While waiting for the pipe to be repaired, minimise the amount of wastewater going through the system.
- Contact the Christchurch City Council on (03) 941 8999 if you install a swimming or spa pool.
- Contact the Christchurch City Council on (03) 941 8999 if you are making any modifications to your home which may affect the system (for example a house addition).
- Do not attempt to repair the system yourself. Always call the Christchurch City Council on (03) 941 8999.