



Hunter Water Corporation
ABN 46 228 513 446
Customer Enquiries 1300 657 657
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PO Box 5171
HRMC NSW 2310
36 Honeysuckle Drive
NEWCASTLE NSW 2300

14 April, 2015

Ref: 2014-535

Port of Newcastle Operations Pty Ltd
C/- Sovechles Developments Pty Limited
PO BOX 3131
Merewether NSW 2291

Dear Sir/Madam

HYDRAULIC DESIGN

Hydraulic Design Assessment for Development of Service Station (16 lanes) & Food Offer (919.2m², 165 seats) - Lot 1, DP 1195449, 110 Cormorant Road, Kooragang Island.

Customer number – 3251812847. Premise number – 3411067393.

Works: To supply drinking and fire protection water, sanitary drains and Trade Waste facilities to the proposed development. Review is based upon the application and information contained with-in and design drawings H-01 to H-06 inclusive.

Hunter Water has reviewed the hydraulic design submitted on 9/03/2015 for the above development and now offers the following requirements for connection to Hunter Water's water and sewer infrastructure.

1. Water supply connection criteria:

- 1 x 200mm x 100mm Tee & Valve located in Egret St.
- 1 x 100mm property service.
- 1 x 80mm domestic service bifurcated off the 100mm property service.

Metering:

- 1 x 20mm by-pass meter for the fire hydrant service.
- 1 x 50mm "combination" water meter for the drinking water service.
- 1 x 80mm Dirt Box (257mm) for the drinking water service.

Site Containment:

- 1 x 100mm Double Check Detector Check Assembly (DCDA) inc 1 x 20mm Testable Double Check Valve(DCV) for the by-pass line.
- 1 x 80mm Reduced Pressure Zone Device (RPZD).

Disconnections / Connections:

- There are no disconnections necessary.
- Connect to water and sewer.
- 1 x meter affix.
- 50mm "combination" meter is to be pick up from Hunter Water's meter contractor – Mullaness Plumbing.

Note – For the DCDA, a minimum differential pressure of 20 kPa is required between the main 100mm Double Check Valve (DCV) spring set and the 20mm by-pass DCV spring set. Refer to AS/NZS.2845.1 section 11 for details.

Meter specifications:

Size	Inlet & Outlet	Meter Length	Overall pipe space
20mm	NSW MI Wittworth threaded	154	178
50mm	4 Hole Round Flange Elster combination	300	See surge pipe requirements.

Meter Frame Surge Requirements

Provide a spacer of 10 x the incoming service size in length (1 metre) between main incoming control valve/dirt box and the meter.

Provide a spacer of 5 x the incoming service size in length (500mm) between the meter outlet and the back flow device.

2. **You are required to provide a copy of this assessment to the property owner and the licensed plumbing contractor engaged to carry out the works.**
3. Hunter Water's approval to connect to the water and sewerage systems servicing the above property is subject to compliance with the Hydraulic Design Job Specific Conditions detailed in **Annexure 'A'** and the Hydraulic Design General Conditions as detailed in **Annexure 'B'**.
4. The Hydraulic Design submitted to Hunter Water references the requirements to install a site containment backflow prevention device. Zone backflow prevention devices installed within the development are the responsibility of the designer / licensed plumbing contractor.
5. Hunter Water's records indicate this property as a **high** hazard category. This reference will be recorded for maintenance and testing purposes.
The site containment initial test reports shall be forwarded to Hunter Water within 7 days of installation.
6. **Application & Inspection criteria:**
 - a. **Water & Sewer connections – Application & fees to Hunter Water.**
 - b. **Water Connection inspection – Mandatory booking with Hunter Water.**
 - c. **Trade waste/site containment/sewage pump station inspection – Mandatory booking with Hunter Water on completion of works, (no fee required).**
7. **It should be noted that connection to water and sewer will not be available for this proposal until a Section 50 Compliance Certificate has been issued by Hunter Water for this development.**
8. Hunter Water's review is based upon drawings and documentation submitted with and/or during the application assessment process. All works to be installed shall comply with Hunter Water Requirements, the Plumbing Code of Australia, AS/NZS3500 and any other relevant Australian Standard pertaining to the works to be installed.
9. All main sewer inspection shafts / boundary traps, Hunter Water supplied water meters, grease arrestors, sewerage test points, pumps & any other item of infrastructure or plant installed that may periodically require inspection or testing by Hunter Water employees or their agents, shall be constructed and/or installed to provide a safe access and work environment as required by current WH&S legislation.
10. Approval to connect to water and sewer services is valid for 12 months from the date of issue of this correspondence.

11. Please note that you will be required to make an application for the connection and disconnection of the water and sewer services to Hunter Water's existing systems. This is a mandatory requirement.

Should you have any further inquiries please contact the Enquiries Officer nominated below.

Yours faithfully



Greg Heaney

Trade Waste and Plumbing Team Leader

Enquiries: Matthew Russell
Tel: 1300 657 657
Fax: 02 4979 9711

Attached: 1. Annexure A – Hydraulic Design Job Specific Conditions
2. Annexure B – Hydraulic Design General Conditions



HYDRAULIC DESIGN JOB SPECIFIC CONDITIONS

1. Connection to the existing water main will require the installation of a tee & stop valve. Application shall be made on the enclosed application form.
2. All by-pass meters shall have the inlet and outlet stop taps locked in the open position to prevent tampering. Standard "003 locks" are acceptable. Any cabinet or meter room shall have standard "003 locks" incorporated in the door locking system for Hunter Water access. All water meters enclosed in cabinets or rooms shall have signage affixed to the requirements of Hunter Water.
3. All rooms containing Hunter Water meters, grease arrestors, oil separators etc. that can be locked, shall have security locks installed to suit "003 keying".
 - Oval; metal doors, code 570;
 - Round Lock for solid doors; code 201.
 Doors shall have signage affixed to the satisfaction of Hunter Water.
4. No "quick action/lever style" butterfly valves, ball valves etc. 65mm and greater, shall be installed on meter frames or fire service frames at the site containment area. Only Australian Standard / Water Marked approved, internal and external nylon coated resilient seated valves shall be installed. Fire service isolation valves shall provide visual indication as to the open/closed position.
5. No brass fittings shall be silver brazed or soft soldered between the water main and the outlet of the backflow prevention device located within the meter frame, for sizes 20mm, 32mm, 40mm & 50mm diameter. The connection to the water main shall be made by a compression flare union, positioned to allow easy disconnection between the flared pipe fitting and main tap connection.
6. No approval for the connection of any rain water tanks to Hunter Water's potable water supply is granted.
7. No approval for the connection or the installation of an alternative water supply is granted.
8. All incoming domestic water & fire services shall comply with the Plumbing Code of Australia, AS/NZS 3500, and Hunter Water's water connection and backflow requirements.
9. You shall ensure that any potable water supply points provided for use by mechanical services or other trades shall have the required site containment back flow installed at the point of connection by the nominated plumbing contractor at the time of points being provided. Unlicensed trades are prohibited from installing these devices.
10. All fire hose reels are to be supplied from the potable water meter supply.
11. All valves, pipes & containment devices on fire services shall be painted to comply with AS/NZS3500 with the exception of the main incoming control valve which shall remain in its original manufactured colour as requested by the NSW Fire Brigade.
12. All commissioning & test results for site containment back flow prevention devices' shall be forwarded to Hunter Water within 7 days of installation.
13. Hunter Water recommends the installation of a reflux valve at the outlet of the grease arrestor to protect the facility from sewer overflow.

14. Customer Acknowledgement shall be returned completed in full to Hunter Water.
15. Please read and install sewer pump out system in accordance with the attached Technical Specification and AS/NZS3500.
16. Floor wastes within food preparation areas and/or adjacent to food storage units/areas are to have removable basket strainers combined with secondary strainers permanently fixed in the trap.
17. Ensure trade waste vents comply with current requirements.
18. Hunter Water recognise this development to be located within a Non-Boundary Trap Area.
19. Make application for a Trade Wastewater Agreement - complete the application in full and return to Hunter Water (copy attached).
20. An injection of water via a well washer shall be provided in order to flush the existing "pump to sewer" rising main of potential septic waste. This operation shall be configured to operate in conjunction with the programmed pump operation times of 10.00 AM and 10.00PM. The water injection volume shall be a minimum of 900 litres per activation. Hunter Water reserves the right to increase/decrease this volume pending the quality of discharge to Hunter Water's receiving sewer access chamber.



HYDRAULIC DESIGN GENERAL CONDITIONS

1. The design is to comply with the provisions of:
 - (i) Plumbing Code of Australia: Plumbing and Drainage
 - (ii) Australian Standards: Plumbing & Drainage (AS/NZS 3500)
 - (iii) Hunter Water's Trade Waste Policy, Backflow Prevention Policy, Plumbing and Drainage Guidelines and related policies/guidelines.
2. All plumbing and drainage work is to be carried out by a plumbing contractor licensed by NSW Fair Trading. Materials and installation shall comply with the above codes. Inspections required by Hunter Water are to be arranged prior to the commencement of any work on the site.
3. Hunter Water accepts no responsibility for the design, installation, operational functionality or performance of the plumbing and drainage system.
4. **Trade Wastewater Dischargers:**

Hunter Water is responsible for the approval of all trade waste facility designs and sizing, by means of reviewing hydraulic design submissions.

All developments with the potential to discharge trade wastewater into Hunter Water's sewerage system will be required to make application for a Trade Waste Agreement. A Trade Wastewater Agreement application form is available on Hunter Water's website on www.hunterwater.com.au

Please note: (All concrete grease arrestors installed in Hunter Water's area of operation are to be coated internally with an approved material prior to their installation.)
5. All new developments that have the potential to discharge trade waste to Hunter Water's sewerage system are to have a 150mm boundary trap installed at the connection point to the sewer main. (This is to allow Hunter Water's trade waste officers to carry out sampling of the developments trade waste discharge).
6. Strata Title developments require the Body Corporate as Hunter Water's customer. A separate application by the Body Corporate for issue of sub meters is to be accompanied by a copy of the registered strata plan. Sub meters are to be accessible at all times.
7. Fire hose reels shall only be connected to a metered service. They are to be designed and constructed in accordance with the Building Code of Australia.
8. **Fire Services** - An Australian Standard Approved **Testable Double Detector Check Backflow Prevention Device** is to be installed at the boundary as a property site containment device. A minimum differential pressure of 20 kPa is required between the sets AS/NZS2845.1 clause 11.4.2.



HUNTER WATER CORPORATION

A.B.N. 46 228 513 446

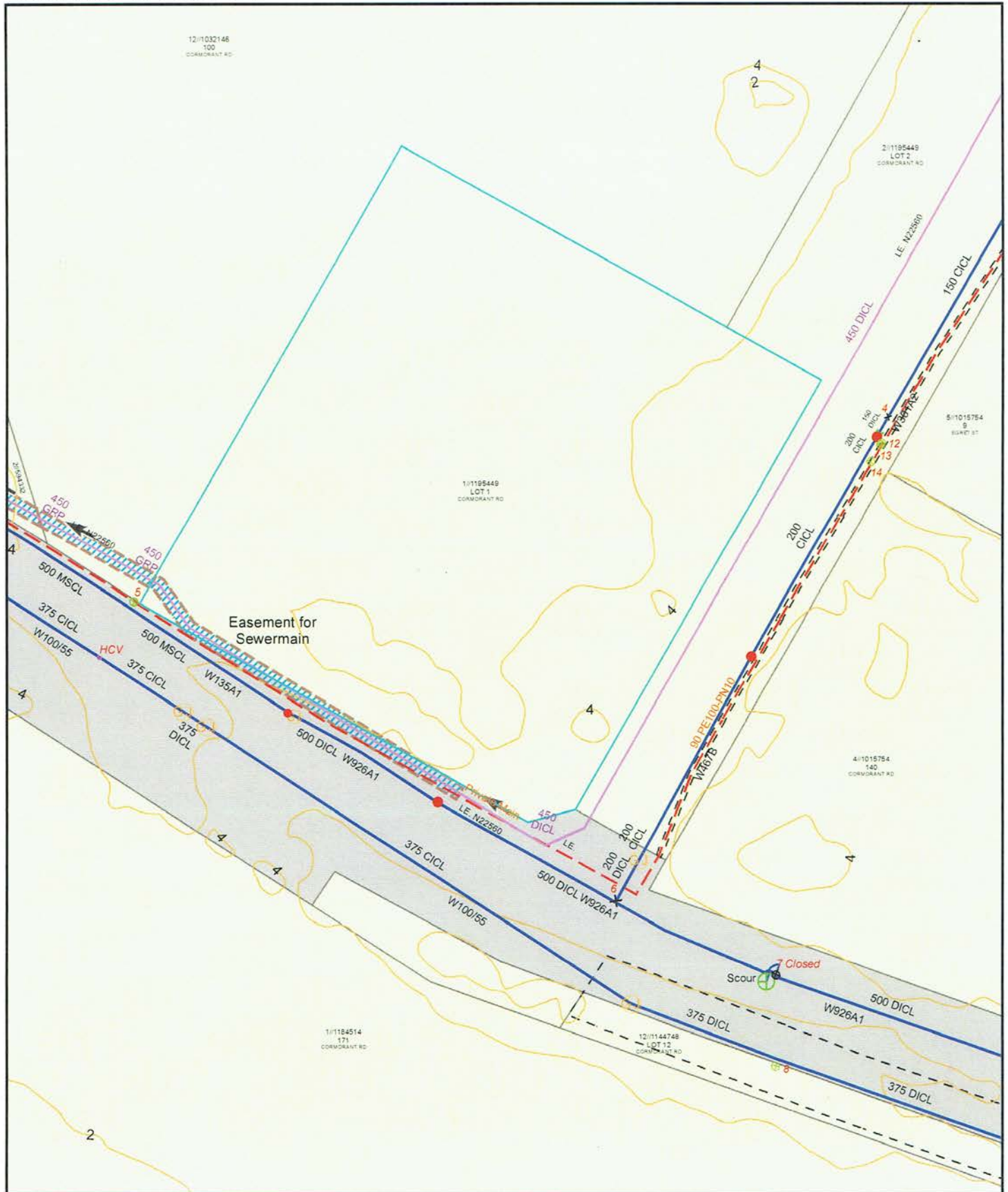


TRIM NUMBER: 2014-535

PROPERTY ADDRESS:

LOT/SECTION/DP: 1//1195449

LOT 1 CORMORANT RD, KOORAGANG, 2304



SEWER POSITION APPROXIMATE ONLY. SUBJECT PROPERTY BOLDED.
ALL MEASUREMENTS ARE METRIC.

IF A SEWERMAIN IS LAID WITHIN THE BOUNDARIES OF THE LOT, SPECIAL REQUIREMENTS FOR THE PROTECTION OF THE SEWERMAIN
APPLY IF DEVELOPMENT IS UNDERTAKEN. IN THESE CASES, IT IS RECOMMENDED THAT YOU SEEK ADVICE ON THE SPECIAL
REQUIREMENTS PRIOR TO CONSTRUCTION. PHONE 1300 657 657, FOR MORE INFORMATION.

IMPORTANT:

ANY INFORMATION ON THIS PLAN MAY NOT BE UP TO DATE
AND THE CORPORATION ACCEPTS NO RESPONSIBILITY FOR ITS
ACCURACY.

Date: 23/05/2014 User: masongj

Scale: at A4 1:1,500

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SEWER/WATER/RECYCLED WATER
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