

PROPOSED COMMERCIAL DEVELOPMENT AT 27 VICTORIA AVENUE, CASTLE HILL

GENERAL

G1 These drawings shall be read in conjunction with all architectural and other consultants drawings and specifications and with such other written instructions and sketches as may be issued during the course of the Contract. Any discrepancies shall be referred to the Superintendent before proceeding with any related works. Construction from these drawings, and their associated consultants drawings is not to commence until approved by the Local Authorities.

G2 All materials and workmanship shall be in accordance with the relevant and current Standards Australia codes and with the By-Laws and Ordinances of the relevant building authorities except where varied by the project specification.

G3 All set out dimensions shall be obtained from Architect's and Engineer's details. All discrepancies shall be referred to the Architect and Engineer for decision before proceeding with related work.

G4 During construction the structure shall be maintained in a stable condition and no part shall be overstressed. Temporary bracing shall be provided by the builder/subcontractor to keep the works and excavations stable at all times.

G5 Unless noted otherwise levels are in metres and dimensions are in millimetres.

G6 The alignment and level of all services shown are approximate only. The contractor shall confirm the position and level of all services prior to commencement of construction. Any damage to services shall be rectified at the contractors expense.

G7 Any substitution of materials shall be approved by the Engineer and included in any tender.

G8 All services, or conduits for servicing shall be installed prior to commencement of pavement construction.

G9 Subsoil drainage, comprising 100 agriculture pipe in geo-sacking to be placed as shown and as may be directed by the superintendent. Subsoil drainage shall be constructed in accordance with the relevant local authority construction specification.

G10 The structural components detailed on these drawings have been designed in accordance with the relevant Standards Australia codes and Local Government Ordinances for the following loadings. Refer to the Architectural drawings for proposed floor slabs. Refer to drawings for live loads and superimposed road loads.

DRAINAGE NOTES

D1 All drainage levels to be confirmed on site, prior to any construction commencing.

D2 All pipes within the property to be a minimum of 100 da upvc @ 1% minimum grade, uno.

D3 All pits within the property are to be fitted with 'Yieldlok' or approved equivalent grates:

- Light duty for landscaped areas

- Heavy duty where subjected to vehicular traffic

D4 All pits within the property to be constructed as one of the following:

1) Cast in situ concrete

2) Cast in situ concrete

3) Cement rendered 220mm brickwork subject to the relevant local authority construction specification.

D5 Ensure all grates to pits are set below finished surface level within the property. Top of pit RL's are approximate only and may be varied subject to approval of the engineer. All invert levels are to be achieved.

D6 Any pipes beneath relevant local authority road to be rubber ring jointed RCP, uno.

D7 All pits in roadways are to be fitted with heavy duty grates with locking bolts and continuous hinge.

D8 Provide step joints to stormwater pits greater than 1200 in depth.

D9 Trench back fill in roadways shall comprise sharp, clean granular back fill in accordance with the relevant local authority specification to non-trafficable areas to be compacted by rodding and tamping using a flat plate vibrator.

D10 Where a high early discharge (hed) pit is provided all pipes are to be connected to the hed pit, uno.

D11 Down pipes shall be a minimum of dn100 sw grade upvc or 100 x100 colorbond/zincalume steel, uno.

D12 Colorbond or zincalume steel box gutters shall be a minimum of 450 wide x 150 deep.

D13 Eaves gutters shall be a minimum of 125 wide x 100 deep (or of equivalent area) colorbond or zincalume steel, uno.

D14 Subsoil drainage shall be provided to all retaining walls & embankments, with the lines feeding into the stormwater drainage system, uno.

EROSION AND SEDIMENT CONTROL NOTES

E1 These notes are to be read in conjunction with erosion and sediment control details in this drawing set.

E2 The contractor shall implement all soil erosion and sediment control measures as necessary and to the satisfaction of the relevant local authority prior to the commencement of and during construction. No disturbance to the site shall be permitted other than in the immediate area of the works and no material shall be removed from the site without the relevant local authority approval. All erosion and sediment control measures shall be implemented in accordance with the relevant local authority standards outlined in new department of housing's "managing urban stormwater - soils and constructions".

E3 Place straw bales length wise in a row as parallel as possible to the site contours, uno. Bales ends to be secured with 100mm x 10mm wire, secured to the row. Bales are to be placed 1.5m to 2m down slope from the toe of the disturbed batter, uno.

E4 Council approved fibre fabric to be attached to 1450mm deep geogrids, towards disturbed surfaces. Fabric to be a minimum of 2000gsm or better. Fibre fabric to pegs with wire as recommended with manufacturers specifications. Fabric joints to have a minimum of 150mm overlap. Wire to be strung between posts with filter fabric overlap to prevent sagging.

E5 Stabilised erodex points to remain intact until finished driveway is complete. Construction of erodex points to be maintained and repaired as required so that its function is not compromised. Construction of erodex point to be in accordance with the detail contained within this drawing set.

E6 All drainage pipe inlets to be capped until:

- downpipes connected

- pits constructed and protected with silt barrier

E7 Provide and maintain silt traps around all surface inlet pits until catchment is revegetated or paved.

E8 The contractor shall regularly maintain all erosion and sediment control devices and remove accumulated silt from such devices such that more than 60% of their capacity is left. All the silt to be placed outside the limit of works. The period for maintaining these devices shall be at least until all disturbed areas are revegetated and further as may be directed by the superintendent or council.

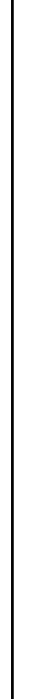
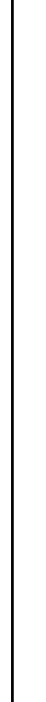
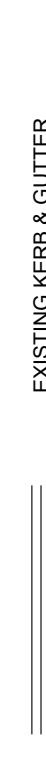
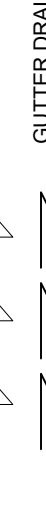
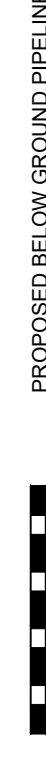
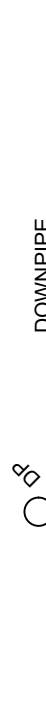
E9 The contractor shall implement dust control by regularly wetting down (but not saturating) disturbed area. Topsoil shall be shipped and stockpiled outside hazard areas such as drainage lines. The topsoil shall be respread later on areas to be revegetated and stabilised only, (i.e. all bogpaths, batters, silt retaining areas, basins and catchdrains). Topsoil shall not be respread on any other areas unless specifically instructed by the superintendent. If they are to remain for longer than one month stockpiles shall be protected from erosion by a silt fence or other approved erosion control measures. If necessary, by fencing barriers or drains downstream of a stockpile to retard silt laden runoff.

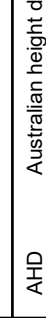
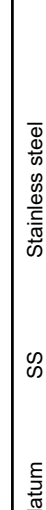
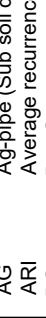
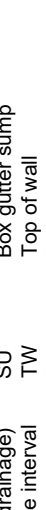
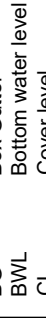
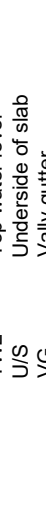
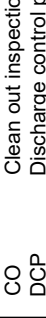
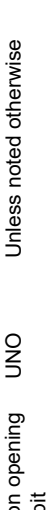
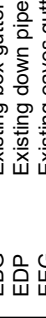
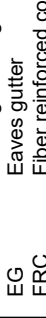
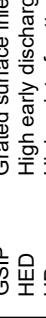
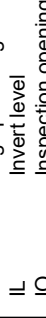
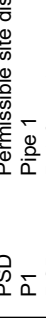
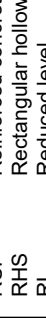
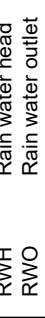
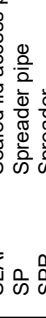
E10 Lay 200 wide minimum turf pits on 100 topsoil behind all beds and gravel with 1000 topsoil volume every 6000 and around structures immediately after backfilling as per the relevant local authority specification.

E11 The contractor shall grass seed at disturbed areas with an approved mix as soon as practicable after the completion of earthworks and regrading.

E12 Revegetate all trenches immediately upon completion of backfilling.

E13 When any devices are to be handed over to council they shall be in clean and stable condition.

STANDARD LINE TYPES AND SYMBOLS	
 PROPOSED KERB & GUTTER	 OVERLAND FLOW PATH
 EXISTING KERB & GUTTER	 GUTTER DRAINAGE DIRECTION
 PROPOSED BELOW GROUND PIPELINE	 DOWNPIPE
 PROPOSED SUSPENDED PIPELINE	 DOWNPIPE WITH SIDE OVERFLOW
 EXISTING PIPELINE	 PERVIOUS (GRASSED) AREAS
 SUBSOIL DRAINAGE LINE	 EXISTING (PRE-DEVELOPMENT) RL
 PROPOSED KERB INLET PIT	 POST DEVELOPMENT RL
 EXISTING KERB INLET PIT	 GRADED IMPERVIOUS AREA (ROOF, CONC SLABS ETC)
 PROPOSED JUNCTION OR INLET PIT	 SEDIMENT FENCE
 EXISTING JUNCTION OR INLET PIT	 CROSSING PIPES
 DESIGN CENTRELINE	 NODE POINT
 EXISTING EDGE OF BITUMEN	
 TELECOMMUNICATION CONDUIT	
 GAS MAIN	
 WATER MAIN	
 SEWER MAIN	
 UNDERGROUND ELECTRICITY CABLES	
 PERMANENT MARK & S.S.M.	
 BENCHMARK SURVEY STATION	

STANDARD LINE TYPES AND SYMBOLS	
 AND	 SS
 ARI	 BG
 BWL	 CO
 CO	 DCP
 DRP	 DRP
 EBG	 EDP
 EDP	 EDP
 EDP	 EDP
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RECOMMENDED MAINTENANCE SCHEDULE			
DISCHARGE CONTROL PIT (DCP)	FREQUENCY	RESPONSIBILITY	PROCEDURE
Inspect flap valve and remove any blockage.	Six monthly	Owner	Remove grate. Ensure flap valve moves freely and remove any blockages or debris.
Inspect screen and clean.	Six monthly	Owner	Remove grate and screen if required and clean it.
Inspect & remove any blockage of orifice.	Six monthly	Owner	Remove grate & screen to inspect orifice. see plan for location of dip.
Inspect dop pump & remove any sediment-sludge	Six monthly	Owner	Remove grate and screen. Remove sediment/sludge build-up and check orifice and flap valve clear.
Inspect grate for damage or blockage.	Six monthly	Owner	Check both sides of grate for corrosion, (especially corners and welds) damage or blockage.
Inspect return pipe from storage and return any blockage.	Six monthly	Owner	Remove grate and screen. ventilate underground storage if present. open flap valve and remove any blockages in return line. Check for sludge/debris on upstream side of return line.
Inspect outlet pipe and remove any blockage.	Six monthly	Maintenance Contractor	Remove grate and screen. ventilate underground storage if present. Check orifice and remove any blockages in outlet pipe. Flush outlet pipe to confirm it drains freely. Check for sludge/debris on upstream side of return line.
Check fixing of step irons is secure.	Six monthly	Maintenance Contractor	Remove grate and ensure fixings secure prior to placing weight on step iron.
Inspect overflow weir & remove any blockage.	Six monthly	Maintenance Contractor	Remove grate and open cover to ventilate underground storage if present. ensure weir clear of blockages.
Empty basket at overflow weir (if present).	Six monthly	Maintenance Contractor	Remove grate and ventilate underground storage chamber if present. Empty basket. check fixings secure and not corroded.
Check attachment of orifice plate to wall of pit (gaps less than 5 mm)	Annually	Maintenance Contractor	Remove grate and screen. ensure plate mounted securely, tighten fixings if required. seal gaps as required.
Check attachment of screen to wall of pit.	Annually	Maintenance Contractor	Remove grate and screen. ensure screen fixings secure. repair as required.
Check screen for corrosion.	Annually	Maintenance Contractor	Remove grate and examine screen for rust or corrosion, especially at corners or welds.
Check attachment of flap valve to wall of .	Annually	Maintenance Contractor	Remove grate. Ensure fixings of valve are secure.
Check flap valve seals against wall of pit.	Annually	Maintenance Contractor	Remove grate. fill pit with water and check that flap seals against side of pit with minimal leakage.
Check any hinges of flap valve move freely.	Annually	Maintenance Contractor	Remove grate. Test valve hinges by moving flap to full extent.
Inspect dop walls (internal and external if appropriate) for cracks or spalling.	Annually	Maintenance Contractor	Remove grate to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Check step irons for corrosion.	Annually	Maintenance Contractor	Remove grate. Examine step irons and repair any corrosion or damage.
Check orifice diameter correct and retains sharp edge.	Five yearly	Maintenance Contractor	Compare diameter to design (see work-as- executed) and ensure edge is not pitted or damaged.
STORAGE			
Inspect & remove any blockage of orifice.	Six monthly	Owner	Remove grate and screen. remove sediment/sludge build-up.
Check orifice diameter correct and retains sharp edge.	Six monthly	Owner	Remove blockages from grate and check if pit blocked.
Inspect screen and clean.	Six monthly	Owner	Remove debris and floatable material likely to be carried to grates.
Check attachment of orifice plate to wall of pit (gaps less than 5 mm).	Annually	Maintenance Contractor	Remove grate to inspect internal walls. repair as required. Clear vegetation from external walls if necessary and repair as required.
Check attachment of screen to wall of pit.	Five yearly	Maintenance Contractor	Compare actual storage available with work-as executed plans. If volume less is greater than 5%, arrange for reconstruction to replace the volume lost. Council to be notified of the proposal.
Check attachment of screen to wall of pit.	Five yearly	Maintenance Contractor	Check along drainage lines and at pits for subsidence likely to indicate leakages.

NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE

REV	DATE	DESCRIPTION	BY
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**PROPOSED COMMERCIAL DEVELOPMENT
AT 27 VICTORIA AVENUE, CASTLE HILL
FOR PGH ENVIRONMENTAL PLANNING**

GENERAL NOTES

JOB NUMBER: 220248	DWG NUMBER: C00.01	ORIGINAL SIZE: A1
DESIGNED BY: F.I.	DATE: AUGUST 2022	
DRAWN BY: F.I.	SCALE: N.T.S.	



NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE

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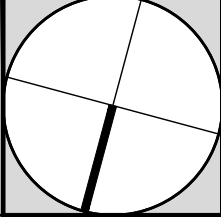
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**PROPOSED COMMERCIAL DEVELOPMENT
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FOR PGH ENVIRONMENTAL PLANNING**

EXTERNAL CATCHMENT PLAN

JOB NUMBER:	DWG NUMBER:	ORIGINAL SIZE:
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DESIGNED BY:	DATE:	
F.I.	AUGUST 2022	
DRAWN BY:	SCALE:	
F.I.	N.T.S.	

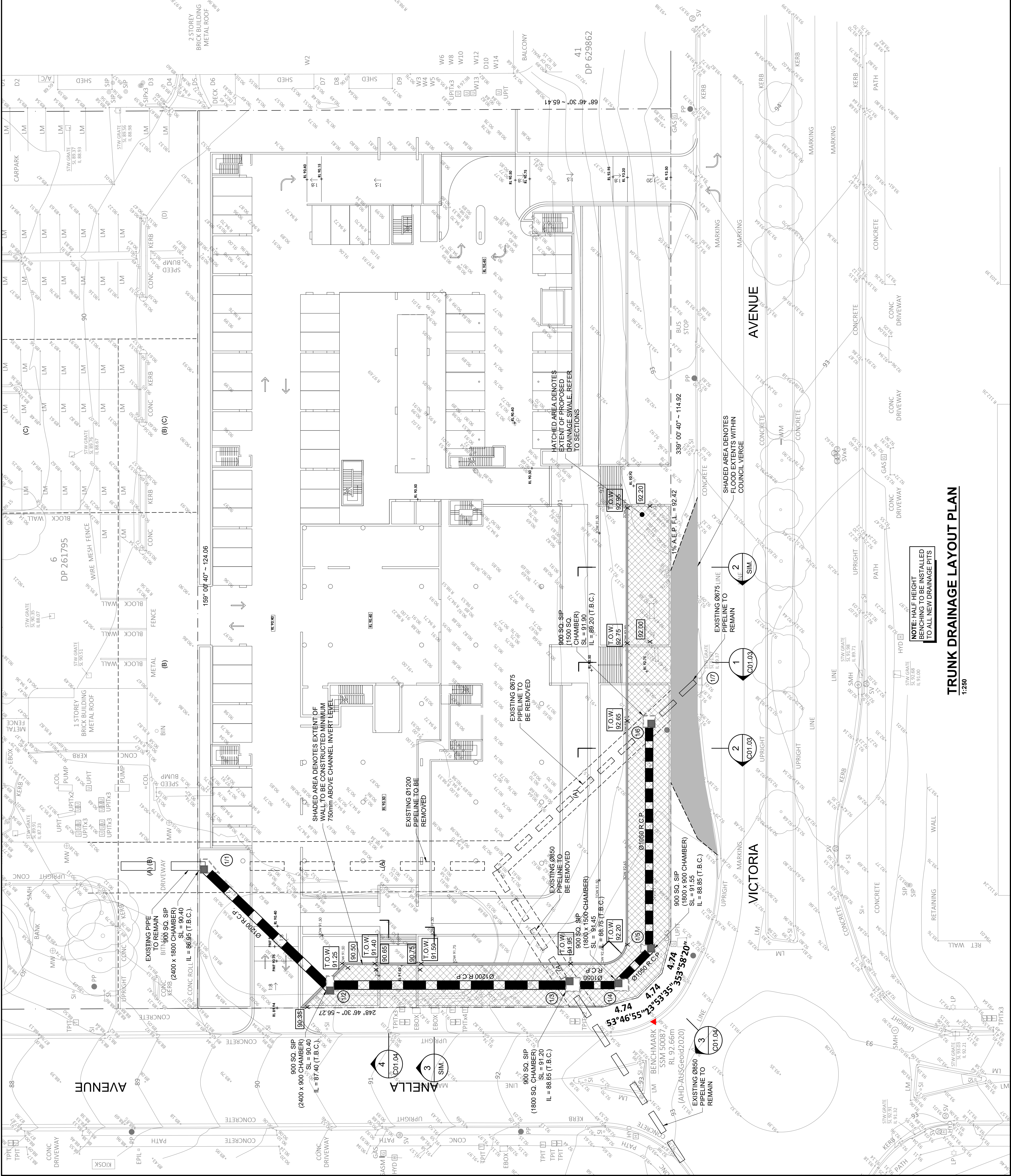


EXTERNAL CATCHMENT PLAN
1:250

STORMWATER DESIGN SUMMARY
COUNCIL: THE HILLS SHIRE COUNCIL
100 YEAR, 5 MIN STORM
20 YEAR, 5 MIN STORM
TOTAL SITE AREA
= 240 mm/h
= 181 mm/h
= 8094 m²

STORMWATER DRAINAGE NOTES
- ALL DRAINAGE LINES SHALL BE UPVC (CLASS SH)
- STORMWATER DRAINAGE SHALL BE 1% FALL UNLESS OTHERWISE SPECIFIED
- ALL DRAINAGE LINES SHALL BE LAID @ 1% FALL MIN. UNLESS OTHERWISE SPECIFIED

- LEGEND**
- X 100/00 PROPOSED FINISHED SURFACE LEVEL
 - PROPOSED BELOW GROUND PIPELINE
 - EXISTING PIPELINE
 - EXISTING PIPELINE TO BE REMOVED
 - PROPOSED SURFACE INLET PIT
 - DRAINAGE NODE POINT
 - OVERLAND FLOW PATH



NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE

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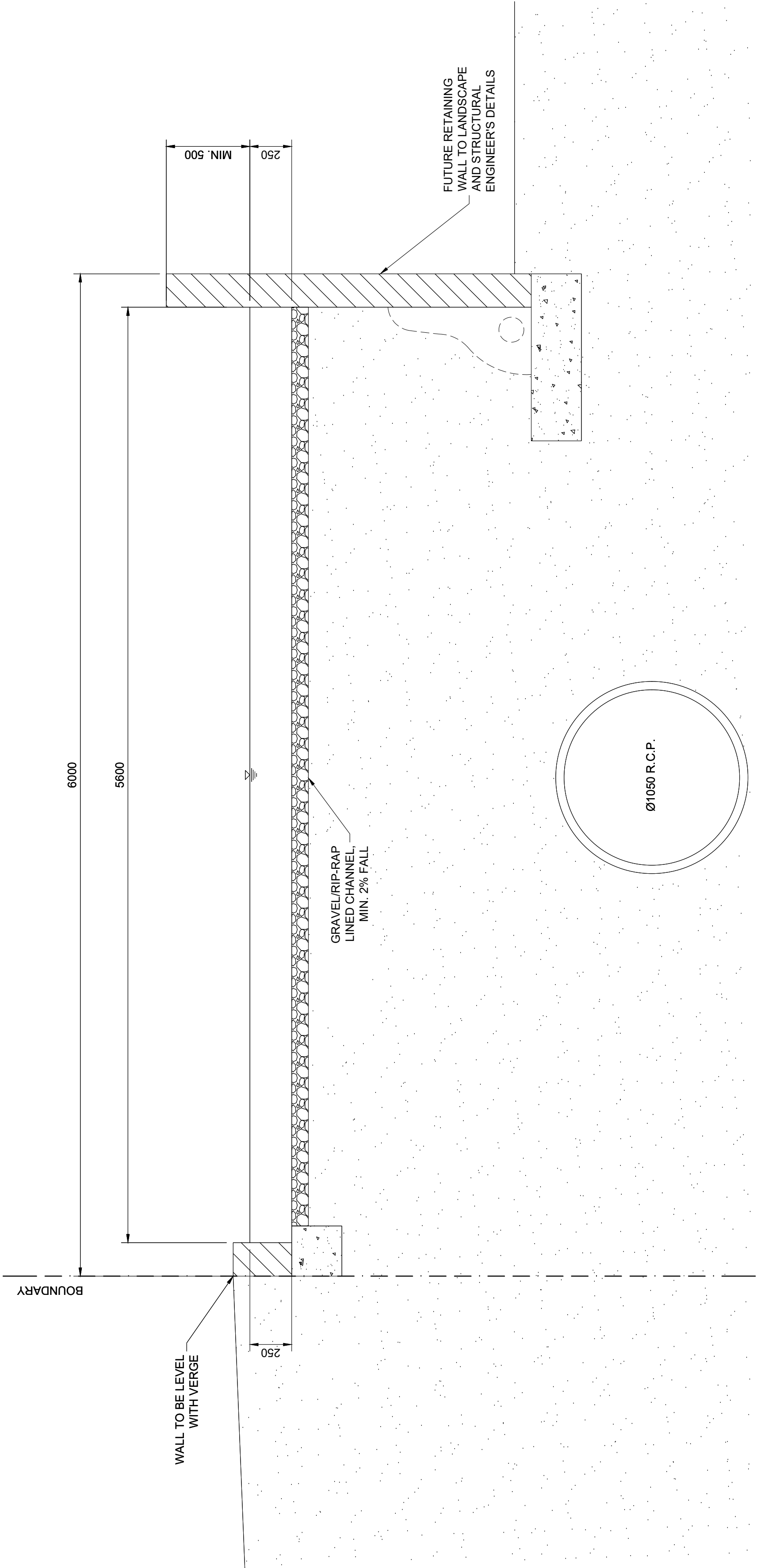
**PROPOSED COMMERCIAL DEVELOPMENT
AT 27 VICTORIA AVENUE, CASTLE HILL
FOR PGH ENVIRONMENTAL PLANNING**

TRUNK DRAINAGE LAYOUT PLAN

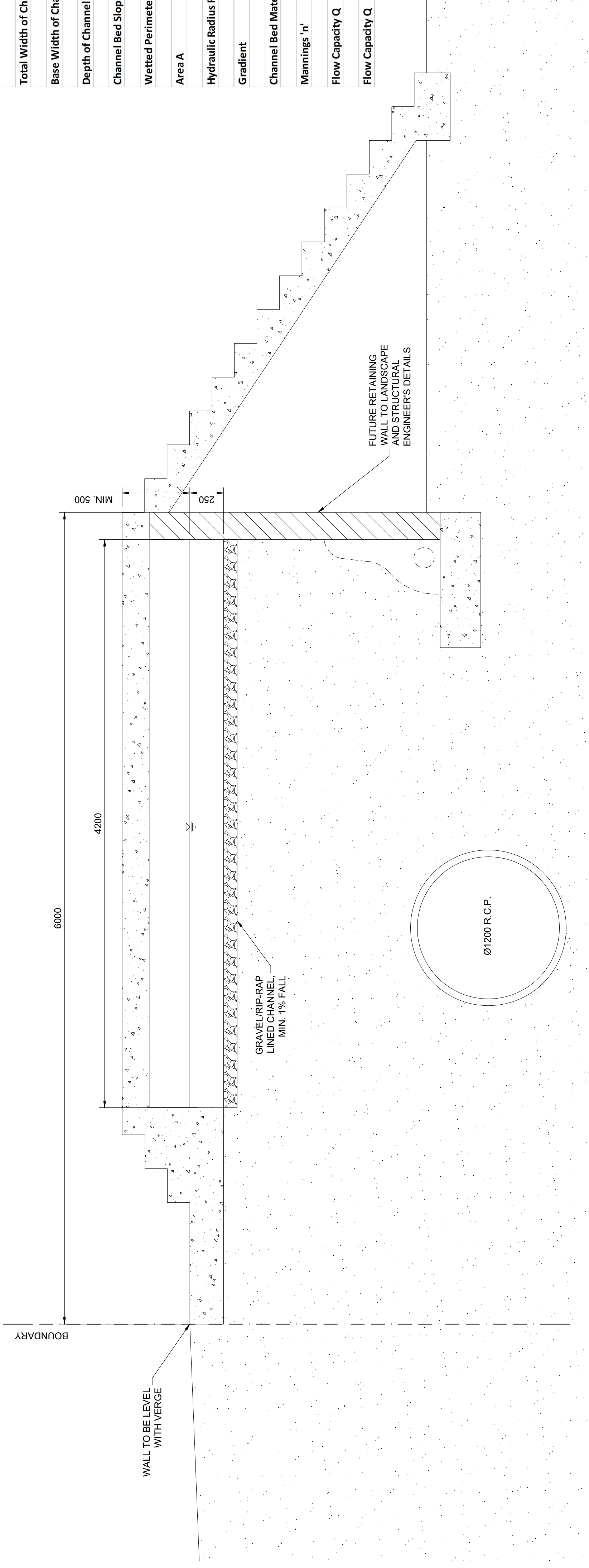
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220248	C01.02	A1
DESIGNED BY:	DATE:	
F.I.	AUGUST 2022	
DRAWN BY:	SCALE:	
F.I.	N.T.S.	

TRUNK DRAINAGE LAYOUT PLAN
1:250

NOTE: HALF HEIGHT
BENCHING TO BE INSTALLED
TO ALL NEW DRAINAGE PITS



SECTION 3
1:20
C01.02



SECTION 4
1:20
C01.02

Required Capacity	2840	l/s
Total Width of Channel	5.8	m
Base Width of Channel B	5.8	m
Depth of Channel	0.25	m
Channel Bed Slope 1:	0.00	
Wetted Perimeter Pw	6.30	m
Area A	1.45	m2
Hydraulic Radius R	0.23	m
Gradient	2.0%	
Channel Bed Material	Rip Rap	
Mannings 'n'	0.02	
Flow Capacity Q	3.83	m3/s
Flow Capacity Q	3831.9	l/s
	OK	

Required Capacity	2330	l/s
Total Width of Channel	4.2	m
Base Width of Channel B	4.2	m
Depth of Channel	0.25	m
Channel Bed Slope 1:	0.00	
Wetted Perimeter Pw	4.70	m
Area A	1.05	m2
Hydraulic Radius R	0.22	m
Gradient	2.0%	
Channel Bed Material	Rip Rap	
Mannings 'n'	0.02	
Flow Capacity Q	2.72	m3/s
Flow Capacity Q	2720.0	l/s
	OK	

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**PROPOSED COMMERCIAL DEVELOPMENT
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DRAINAGE CHANNEL DETAILS SHEET 2

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