

# PYMBLE LADIES COLLEGE GREY HOUSE PRECINCT (GHP) CIVIL WORKS

## GENERAL NOTES

- Contractor must verify all dimensions and existing levels on site prior to commencement of works. Any discrepancies to be reported to the Engineer.
- Strip all topsoil from the construction area. All stripped topsoil shall be disposed of off-site unless directed otherwise.
- Make smooth connection with all existing works.
- Compact subgrade under buildings and pavements to minimum 98% standard maximum dry density in accordance with AS 1289 5.1.1. Compaction under buildings to extend 2m minimum beyond building footprint.
- All work on public property, property which is to become public property, or any work which is to come under the control of the Statutory Authority, the Contractor is to ensure that the drawings used for construction have been approved by all relevant authorities prior to commencement site.
- All work on public property, property which is to become public property, or any work which is to come under the control of the Statutory Authority is to be carried out in accordance with the requirements of the relevant Authority. The Contractor shall obtain these requirements from the Authority. Where the requirements of the Authority are different to the drawings and specifications, the requirements of the Authority shall be applicable.
- For all temporary batters refer to geotechnical recommendations.

## REFERENCE DRAWINGS

- These drawings have been based from, and to be read in conjunction with the following Consultants drawings. Any conflict to the drawings must be notified immediately to the Engineer.

Consultant	Dwg Title	Dwg No	Rev	Date
LTS LOCKLEY	PLAN OF DETAIL AND LEVELS	15263 001DT	L	05/10/21
BVN	GA PLAN - LEVEL 0	AR-B10-00-01	15	12/05/23
	GA PLAN - LEVEL 1	AR-B10-01-01	15	12/05/23
	GA PLAN - LEVEL 2	AR-B10-02-01	15	12/05/23
OCULUS	OVERALL SITEWORKS PLAN	L004	5	28/04/23
	SITE PLAN LEVEL 00	L005	5	28/04/23
	SITE PLAN LEVEL 1	L006	5	28/04/23
	SITE PLAN LEVEL 2	L007	5	28/04/23

## SURVEY AND SERVICES INFORMATION

Origin of levels : FM 50186 RL 116.9m  
 Datum of levels : A.H.D.  
 Coordinate system : MGA  
 Survey prepared by : LTS LOCKLEY  
 Setout Points : -

Taylor Thomson Whitting does not guarantee that the survey information shown on these drawings is accurate and will accept no liability for any inaccuracies in the survey information provided to us from any cause whatsoever.

### UNDERGROUND SERVICES - WARNING

The locations of underground services shown on Taylor Thomson Whittings drawings have been plotted from diagrams provided by service authorities. This information has been prepared solely for the authorities own use and may not necessarily be updated or accurate.

The position of services as recorded by the authority at the time of installation may not reflect changes in the physical environment subsequent to installation.

Taylor Thomson Whitting does not guarantee that the services information shown on these drawings shows more than the presence or absence of services, and will accept no liability for inaccuracies in the services information shown from any cause whatsoever.

The Contractor must confirm the exact location and extent of services prior to construction and notify any conflict with the drawings immediately to the Engineer/Superintendent.

The contractor is to get approval from the relevant state survey department, to remove/adjust any survey mark. This includes but is not limited to; State Survey Marks (SSM), Permanent Marks (PM), cadastral reference marks or any other survey mark which is to be removed or adjusted in any way.

Taylor Thomson Whitting plans do not indicate the presence of any survey mark. The contractor is to undertake their own search.

## BOUNDARY AND EASEMENT NOTE

The property boundary and easement locations shown on Taylor Thomson Whitting drawing's have been based from information received from : LTS LOCKLEY dated 03/07/21

Suit 1, Level 1, 810 Pacific Highway  
 Gordon, NSW 2072 P: 1300 587 000

Taylor Thomson Whitting makes no guarantees that the boundary or easement information shown is correct.

Taylor Thomson Whitting will accept no liabilities for boundary inaccuracies. The contractor/builder is advised to check/confirm all boundaries in relation to all proposed work prior to the commencement of construction. Boundary inaccuracies found are to be reported to the superintendent prior to construction starting.

## SAFETY IN DESIGN

Contractor to refer to Appendix B of the Civil Specification for the Civil Risk and Solutions Register.

### EXISTING SERVICES

Contractor to be aware existing services are located within the site. Location of all services to be verified by the Contractor prior to commencing works. Contractor to confirm with relevant authority regarding measures to be taken to ensure services are protected or procedures are in place to demolish and/or relocate.

### EXISTING STRUCTURES

Contractor to be aware existing structures may exist within the site. To prevent damage to existing structure(s) and/or personnel, site works to be carried out as far as practicable from existing structure(s).

### EXISTING TREES

Contractor to be aware existing trees exist within the site which need to be protected. To prevent damage to trees and/or personnel, site works to be carried out as far as practicable from existing trees. Advice needs to be sought from Arborist and/or Landscape Architect on measures required to protect trees.

### GROUNDWATER

Contractor to be aware ground water levels are close to existing surface level. Temporary de-watering may be required during construction works.

### EXCAVATIONS

Deep excavations due to stormwater drainage works is required. Contractor to ensure safe working procedures are in place for works. All excavations to be fenced off and batters adequately supported to approval of Geotechnical Engineer.

### GROUND CONDITIONS

Contractor to be aware of the site geotechnical conditions. Refer to geotechnical report by (insert report details) for details.

### HAZARDOUS MATERIALS

Existing asbestos products & contaminated material may be present on site. Contractor to ensure all hazardous materials are identified prior to commencing works. Safe working practices as per relevant authority to be adopted and appropriate PPE to be used when handling all hazardous materials. Refer to geotechnical/environmental report by (insert report details) for details.

### CONFINED SPACES

Contractor to be aware of potential hazards due to working in confined spaces such as stormwater pits, trenches and/or tanks. Contractor to provide safe working methods and use appropriate PPE when entering confined spaces.

### MANUAL HANDLING

Contractor to be aware manual handling may be required during construction. Contractor to take appropriate measures to ensure manual handling procedures and assessments are in place prior to commencing works.

### WATER POLLUTION

Contractor to ensure appropriate measures are taken to prevent pollutants from construction works contaminating the surrounding environment.

### SITE ACCESS/EGRESS

Contractor to be aware site works occur in close proximity to footpaths and roadways. Contractor to erect appropriate barriers and signage to protect site personnel and public.

### VEHICLE MOVEMENT

Contractor to supply and comply with traffic management plan and provide adequate site traffic control including a certified traffic marshal to supervise vehicle movements where necessary.

## SITWORKS NOTES

- All basecourse material to comply with RMS specification No 3051 and compacted to minimum 98% modified standard dry density in accordance with AS 1289 5.2.1.
- All trench backfill material shall be compacted to the same density as the adjacent material.
- All service trenches under vehicular pavements shall be backfilled with an approved select material and compacted to a minimum 98% standard maximum dry density in accordance with AS 1289 5.1.1

## EXISTING SERVICES LEGEND

S	Existing sewer
W	Existing water
E	Existing electrical
T	Existing telecommunications
G	Existing gas
SW	Existing stormwater

## CONCRETE FINISHING NOTES

- All exposed concrete pavements are to be broomed finished.
- All edges of the concrete pavement including keyed and dowelled joints are to be finished with an edging tool.
- Concrete pavements with grades greater than 10 % shall be heavily broomed finished.
- Carbundum to be added to all stair treads and ramped crossings U.N.O.

## CONCRETE NOTES

EXPOSURE CLASSIFICATION : External : B2

### CONCRETE

Place concrete of the following characteristic compressive strength f<sub>c</sub> as defined in AS 1379.

Location	AS 1379 f <sub>c</sub> MPa at 28 days	Specified Slump	Nominal Agg. Size
Kerbs	S20	80	20
Retaining wall footing	S40	80	20

- Use Type 'OP' cement, unless otherwise specified.
- All concrete shall be subject to project assessment and testing to AS 1379.
- Consolidate by mechanical vibration. Cure all concrete surfaces as directed in the Specification.
- For all falls in slab, drip grooves, regets, chamfers etc. refer to Architects drawings and specifications.
- Unless shown on the drawings, the location of all construction joints shall be submitted to Engineer for review.
- No holes or chases shall be made in the slab without the approval of the Engineer.
- Conduits and pipes are to be fixed to the underside of the top reinforcement layer.
- Slurry used to lubricate concrete pump lines is not to be used in any structural members.
- All slabs cast on ground require sand blinding with a Concrete Underlay

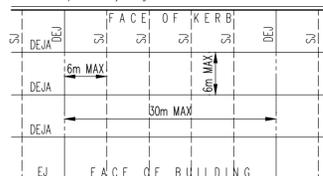
### FORMWORK

- The design, certification, construction and performance of the formwork, falsework and backpropping shall be the responsibility of the contractor. Proposed method of installation and removal of formwork is to be submitted to the superintendent for comment prior to work being carried out.

## JOINTING NOTES

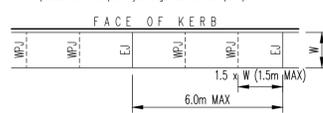
### Vehicular Pavement Jointing

- All vehicular pavements to be jointed as shown on drawings.
- Keyed construction joints should generally be located at a maximum of 6m centres.
- Seam joints should generally be located at a maximum of 6m centres or 1.5 x the spacing of keyed joints, where key joint spacing is less than 4m, with dowelled expansion joints at maximum of 30m centres.
- Provide 10mm wide full depth expansion joints between buildings and all concrete or unit pavers.
- The timing of the saw cut is to be confirmed by the contractor on site. Site conditions will determine how many hours after the concrete pour before the saw cuts are commenced. Refer to the specification for weather conditions and temperatures required.
- Vehicular pavement jointing as follows.



### Pedestrian Footpath Jointing

- Expansion joints are to be located where possible at tangent points of curves and elsewhere at max 6.0m centres.
- Weakened plane joints are to be located at a max 1.5 x width of the pavement.
- Where possible joints should be located to match kerbing and / or adjacent pavement joints.
- All pedestrian footpath jointings as follows (uno).



## KERBING NOTES

Includes all kerbs, gutters, dish drains, crossings and edges.

- All kerbs, gutters, dish drains and crossings to be constructed on minimum 75mm granular basecourse compacted to minimum 98% modified maximum dry density in accordance with AS 1289 5.2.1.
- Expansion joints (EJ) to be formed from 10mm compressible cork filler board for the full depth of the section and cut to profile. Expansion joints to be located at drainage pits, on tangent points of curves and elsewhere at 12m centres except for integral kerbs where the expansion joints are to match the joint locations in slabs.
- Weakened plane joints to be min 3mm wide and located at 3m centres except for integral kerbs where weakened plane joints are to match the joint locations in slabs.
- Broomed finished to all ramped and vehicular crossings, all other kerbing or dish drains to be steel float finished.
- In the replacement of kerbs - Existing road pavement is to be sawcut 900mm from lip of gutter. Upon completion of new kerbs, new basecourse and surface is to be laid 900mm wide to match existing materials and thicknesses. Existing allotment drainage pipes are to be built into the new kerb with a 100mm dia hole. Existing kerbs are to be completely removed where new kerbs are shown.

## REINFORCEMENT NOTES

- Fix reinforcement as shown on drawings. The type and grade is indicated by a symbol as shown below. On the drawings this is followed by a numeral which indicates the size in millimetres of the reinforcement.

N. Hot rolled ribbed bar	grade D500N
R. Plain round bar	grade R250N
SL. Square mesh	grade 500L
RL. Rectangular mesh	grade 500L

- Provide bar supports or spacers to give the following concrete cover to all reinforcement unless otherwise noted on drawings.  
 Footings - 50 top, 50 bottom, 50 sides.  
 Walls - 30 generally.  
 - 30 when cast in forms but later exposed to weather or ground.  
 - .. when cast directly in contact with ground.

- Cover to reinforcement ends to be 50 mm u.n.o.
- Provide N12-450 support bars to top reinforcement as required, Lap 500 U.N.O.
- Maintain cover to all pipes, conduits, regets, drip grooves etc
- All cogs to be standard cogs unless noted otherwise.
- Fabric end and side laps are to be placed strictly in accordance with the manufacturers requirements to achieve a full tensile lap. Fabric shall be laid so that there is a maximum of 3 layers at any location.



- Laps in reinforcement shall be made only where shown on the drawings unless otherwise approved. Lap lengths as per table below.

## RETAINING WALLS

- Drainage shall be provided as shown on the drainage drawings.
- Backfilling shall be carried out after grout or concrete has reached a minimum strength of 0.85 f<sub>c</sub>. Backfilling shall be approved granular material compacted in layers not exceeding 200mm to 95% Standard compaction unless noted otherwise.
- Provide waterproofing to back of walls as specified or noted.
- Where retaining walls rely on connecting structural elements for stability, do not backfill against the wall unless it is adequately propped or the elements have been constructed and have sufficient strength to withstand the loads.
- For all temporary batters obtain geotechnical engineers recommendations.

## TENDER NOTES

- These drawings are preliminary drawings issued for tender as an indication of the extent of works only. They are not a complete construction set of drawings.
- To determine the full extent of work, these drawings shall be read in conjunction with the architectural drawings and other contract documents. Allow for all items shown on architectural and other drawings as not all items are shown on the structural/civil works drawings.
- Should any ambiguity, error, omissions, discrepancy, inconsistency or other fault exist or seem to exist in the documents, immediately notify in writing to the Superintendent.
- Rates shown on the drawings are for the final structure/civil works in place and do not allow for any wastage, rolling margins, over supply or fabrication requirements, etc.

## STORMWATER DRAINAGE NOTES

- Stormwater Design Criteria :  
 (A) Average exceedance probability -  
 1% AEP for roof drainage to first external pit  
 5% AEP for paved and landscaped areas  
 (B) Rainfall intensities -  
 Time of concentration: 5 minutes  
 1% AEP = 200 mm/hr  
 5% AEP = 271 mm/hr  
 (C) Rainfall losses -  
 Impervious areas: IL = 1.5 mm , CL = 0 mm/hr  
 Pervious areas: IL = 38 mm , CL = 2.0 mm/hr
- Pipes 300 dia and larger to be reinforced concrete Class "2" approved spigot and socket with rubber ring joints U.N.O.
- Pipes up to 300 dia may be sewer grade uPVC with solvent welded joints, subject to approval by the engineer
- Equivalent strength VCP or FRP pipes may be used subject to approval.
- Precast pits may be used external to the building subject to approval by Engineer
- Enlargers, connections and junctions to be manufactured fittings where pipes are less than 300 dia.
- Where subsol drains pass under floor slabs and vehicular pavements, unslotted uPVC sewer grade pipe is to be used.
- Grates and covers shall conform with AS 3996-2006, and AS 1428.1 for access requirements.
- Pipes are to be installed in accordance with AS 3725. All bedding to be type H2 U.N.O.
- Care is to be taken with invert levels of stormwater lines. Grades shown are not to be reduced without approval.
- All stormwater pipes to be 150 dia at 1.0% min fall U.N.O.
- Subsol drains to be slotted flexible uPVC U.N.O.
- Adopt invert levels for pipe installation (grades shown are only nominal).

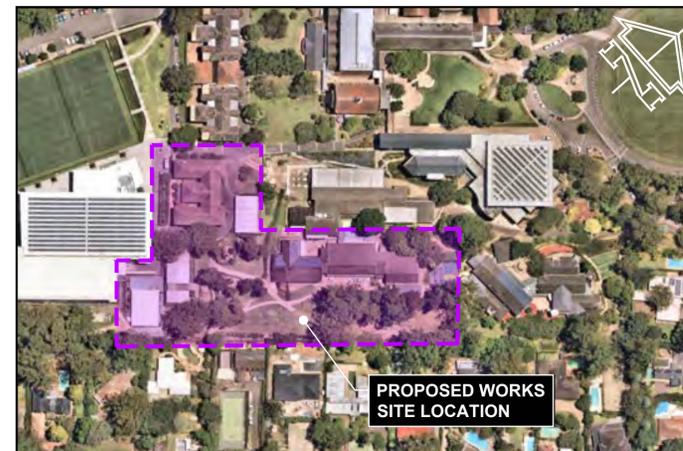
## PIT SCHEDULE

Note: Grate size does not necessarily reflect pit size, refer pit type details, shown on detail sheets - C20  
 Final internal pit dimensions are to comply with AS3500

Type	Description	Cover (Clear Opening)
A	Surface inlet pit	900 x 900 Class C galvanised mild steel grate hinged to frame with Ocean Protect filter insert
B	Junction pit	900 x 900 Class C galvanised mild steel grate hinged to frame with concrete infill
C	Tank Access Lid	900 x 900 Class C galvanised mild steel grate hinged to frame
D	Existing pit	Existing pit to remain
		Existing pit installed during Early Works to be adjusted/reconstructed to suit new work

## SITWORKS LEGEND

● F22.20	Finished surface level
--- F22.00	Finished contour
==== K&G	Kerb and gutter
==== KO	Kerb only
==== RWA	Civil retaining wall
→ [Symbol] →	Stormwater pit, flow direction and line with Invert level upstream Pipe size and class Pipe grade Flow (Litres per second) Invert level downstream
[Symbol]	Grated drain
[Symbol]	Intermediate riser with subsol drainage line (100 dia)
[Symbol]	Flushing point with subsol drainage line (100 dia)
[Symbol]	Down pipe
[Symbol]	Rodding point
[Symbol]	Concrete encased stormwater line
[Symbol]	Overland flow path
[Symbol]	Existing stormwater to remain



LOCALITY PLAN  
 SCALE 1:2000

## DRAWING SCHEDULE

DRAWING NUMBER	DRAWING NAME
C01	COVER SHEET, GENERAL NOTES AND LEGENDS, LOCALITY PLAN AND DRAWING SCHEDULE
C02	SEDIMENT AND EROSION CONTROL PLAN
C03	SEDIMENT AND EROSION CONTROL DETAILS
C04	OVERALL STORMWATER PLAN
C05	LEVEL 00 SITEWORKS
C06	LEVEL 01 SITEWORKS
C07	LEVEL 02 SITEWORKS
C08	RETAINING WALLS AND STAIRS PLAN
C10	LEVEL 00 PAVEMENT PLAN
C11	LEVEL 01 PAVEMENT PLAN
C12	LEVEL 02 PAVEMENT PLAN
C13	BULK EARTHWORKS
C20	TYPICAL DETAILS, SHEET 1
C21	TYPICAL DETAILS, SHEET 2
C50	OSD TANK DETAILS, SHEET 1

# ISSUE FOR CC1

P6	ISSUED FOR TENDER	NB	LA	29.05.23					
P5	ISSUED FOR TENDER	NB	LA	02.02.22					
P4	ISSUED FOR 80% TENDER	NB	LA	22.12.21					
P3	ISSUED FOR 80% TENDER	NB	LA	12.11.21					
P2	ISSUED FOR 50% TENDER	NB	LA	21.10.21	A	ISSUED FOR CC1			
P1	ISSUED FOR SSDA APPROVAL	NB	LA	27.08.21	P7	ISSUED FOR TENDER			
Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date

Architect	Engineer
<b>BVN</b>	<b>TTW</b> Structural Civil Traffic Façade
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Project	Sheet Subject
PYMBLE LADIES COLLEGE GREY HOUSE PRECINCT (GHP) AVON ROAD, PYMBLE NSW 2073	COVER SHEET, GENERAL NOTES AND LEGENDS, LOCALITY PLAN AND DRAWING SCHEDULE

Scale : A1	Drawn	Authorised
N/A	LA	TM
Job No	Drawing No	Revision
211007	C01	A
Plot File Created: Feb 19, 2024 - 5:18pm		

### 1. Erosion Hazard and Sediment Basins

Site Name: PYMBLE LADIES COLLEGE  
 Site Location: AVON ROAD, PYMBLE NSW 2073  
 Precinct/Stage: GREY HOUSE PRECINCT(GHP)  
 Other Details:

Site area	Sub-catchment or Name of Structure	Notes
Total catchment area (ha)	A	
Disturbed catchment area (ha)	0.65	

**Soil analysis (Enter sediment type if known, or laboratory particle size data)**

Sediment Type (C, F or D) if known	From Appendix C (if known)
% sand (fraction 0.02 to 2.00 mm)	
% silt (fraction 0.002 to 0.02 mm)	
% clay (fraction finer than 0.002 mm)	
Dispersion percentage	
% of whole soil dispersible	
Soil Texture Group	D

**Rainfall data**

Design rainfall depth (no of days)	See Section 6.3.4 and particularly Table 6.3 on pages 6-24 and 6-25
Design rainfall depth (percentile)	
x-day y percentile rainfall event (mm)	
Rainfall R factor (if known)	
IFD 2 year 6 hour storm (if known)	10.7

**RULE Factors**

Rainfall intensity (R factor)	2500	Autofilled from above
Soil erodibility (K factor)	0.023	
Slope length (m)	60	
Slope gradient (%)	18	RULE L5 factor calculated for a high hillside ratio
Length/gradient (L/S factor)	5.17	
Erosion control practice (P factor)	1.3	
Ground cover (C factor)	1	

**Sediment Basin Design Criteria (for Type D/F basins only. Leave blank for Type C basins)**

Storage (soil zone design no of months)	2	2	2	2	2	2
Cu Volumetric runoff coefficient	0.89					

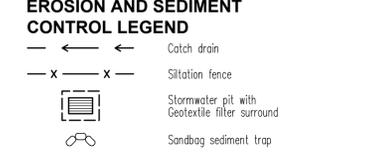
**Calculations and Type D/F Sediment Basin Volumes**

Soil loss (t/ha/yr)	367
Soil Loss Class	4
Soil loss (m <sup>3</sup> /ha/yr)	298
Sediment basin storage (soil volume m <sup>3</sup> )	32
Sediment basin settling (water volume m <sup>3</sup> )	195
Sediment basin total volume (m <sup>3</sup> )	227

NB for sizing of Type C (course) sediment basins, see Worksheet 3 (if required)

City Plan Services Pty Ltd  
 Reference: 200618/1  
 Date: 08/04/2024  
 Construction Certificate  
 Chris Michaels  
 Director  
 BDC1974

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 THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C01



### EROSION AND SEDIMENT CONTROL NOTES

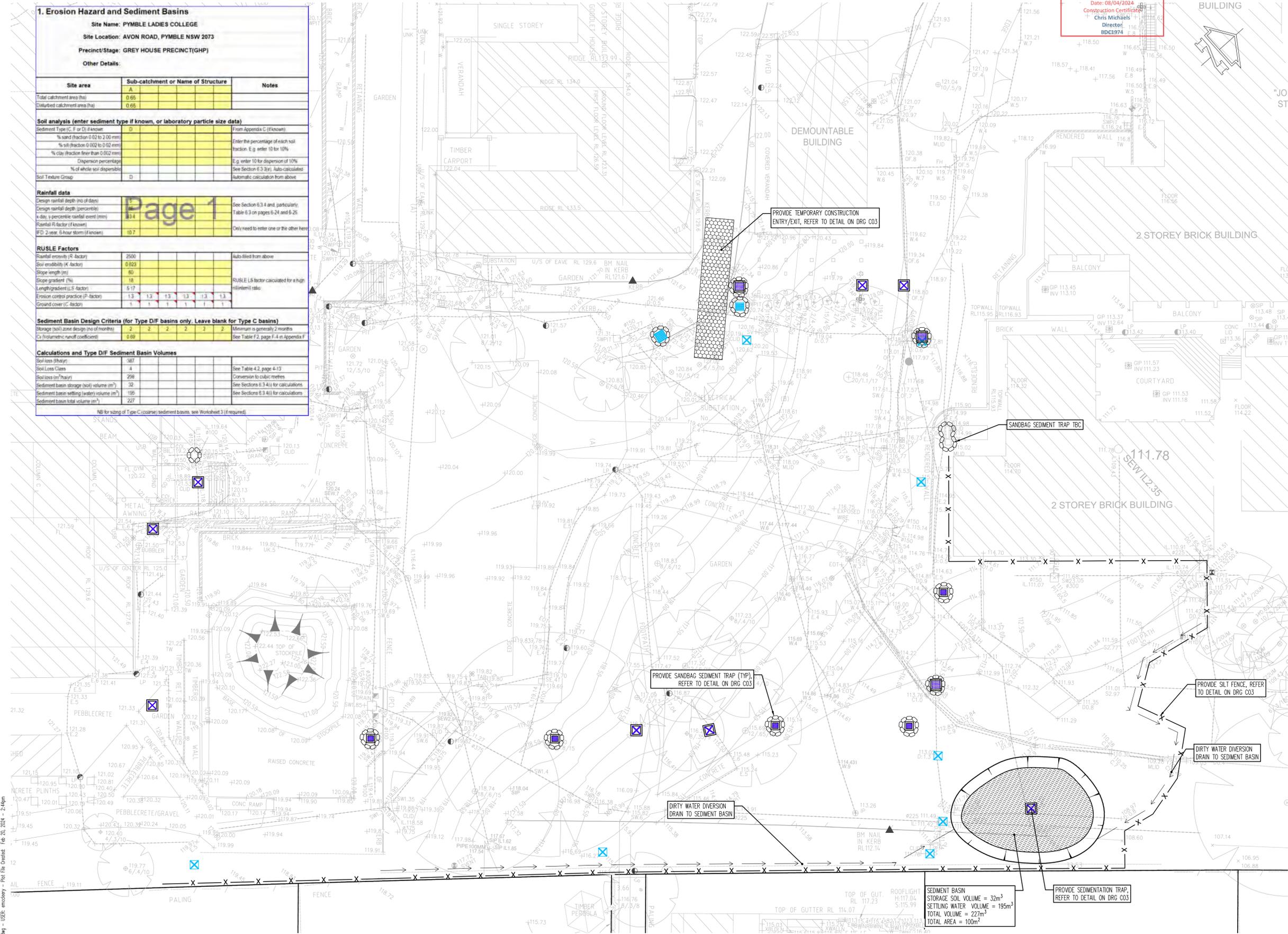
- All work shall be generally carried out in accordance with:
  - Local authority requirements,
  - EPA - Pollution control manual for urban stormwater,
  - LANDDCOM NSW - Managing Urban Stormwater: Soils and Construction ("Blue Book").
- Erosion and sediment control drawings and notes are provided for the whole of the works. Should the Contractor stage these works then the design may be required to be modified. Variation to these details may require approval by the relevant authorities. The erosion and sediment control plan shall be implemented and adapted to meet the varying situations as work on site progresses.
- Maintain all erosion and sediment control devices to the satisfaction of the superintendent and the local authority.
- When stormwater pits are constructed prevent site runoff entering the pits unless silt fences are erected around pits.
- Minimise the area of site being disturbed at any one time.
- Protect all stockpiles of materials from scour and erosion. Do not stockpile loose material in roadways, near drainage pits or in watercourses.
- All soil and water control measures are to be put back in place at the end of each working day, and modified to best suit site conditions.
- Control water from upstream of the site such that it does not enter the disturbed site.
- All construction vehicles shall enter and exit the site via the temporary construction entry/exit.
- All vehicles leaving the site shall be cleaned and inspected before leaving.
- Maintain all stormwater pipes and pits clear of debris and sediment. Inspect stormwater system and clean out after each storm event.
- Clean out all erosion and sediment control devices after each storm event.

### Sequence Of Works

- Prior to commencement of excavation the following soil management devices must be installed.
  - Construct silt fences below the site and across all potential runoff sites.
  - Construct temporary construction entry/exit and divert runoff to suitable control systems.
  - Construct measures to divert upstream flows into existing stormwater system.
  - Construct sedimentation traps/basin including outlet control and overflow.
  - Construct silt lined swales.
  - Provide sandbag sediment traps upstream of existing pits.
- Construct geotextile filter pit surround around all proposed pits as they are constructed.
- On completion of pavement provide sand bag kerb inlet sediment traps around pits.
- Provide and maintain a strip of turf on both sides of all roads after the construction of kerbs.

### WATER QUALITY TESTING REQUIREMENTS

- Prior to discharge of site stormwater, groundwater and seepage water into council's stormwater system, contractors must undertake water quality tests in conjunction with a suitably qualified environmental consultant outlining the following:
- Compliance with the criteria of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000)
  - If required subject to the environmental consultants advice, provide remedial measures to improve the quality of water that is to be discharged into Councils storm water drainage system. This should include comments from a suitably qualified environmental consultant confirming the suitability of these remedial measures to manage the water discharged from the site into Councils storm water drainage system. Outlining the proposed, ongoing monitoring, contingency plans and validation program that will be in place to continually monitor the quality of water discharged from this site. This should outline the frequency of water quality testing that will be undertaken by a suitably qualified environmental consultant.



Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
P6	ISSUED FOR TENDER	NB	LA	28.05.23					
P5	ISSUED FOR TENDER	NB	LA	02.02.22					
P4	ISSUED FOR 80% TENDER	NB	LA	22.12.21					
P3	ISSUED FOR 80% TENDER	NB	LA	12.11.21					
P2	ISSUED FOR 50% TENDER	NB	LA	21.10.21	A	ISSUED FOR CC1	YV	ENS	19.02.24
P1	ISSUED FOR SSOA APPROVAL	NB	LA	27.08.21	P7	ISSUED FOR TENDER	NB	LA	03.07.23

Architect  
**BVN**  
 Telephone +61 2 8297 7200  
 Facsimile +61 2 8297 7299  
 www.bvn.com.au

Engineer  
**TTW** Structural Civil Traffic Façade  
 612 9439 7288 | Level 6, 73 Miller Street, North Sydney, NSW 2060.

Project  
**PYMBLE LADIES COLLEGE**  
**GREY HOUSE PRECINCT (GHP)**  
 AVON ROAD, PYMBLE NSW 2073

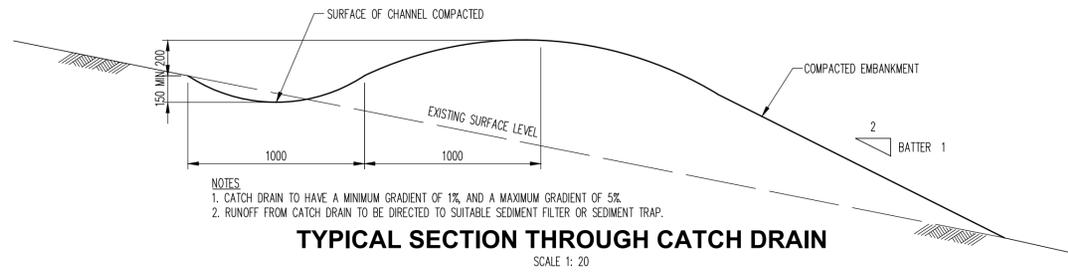
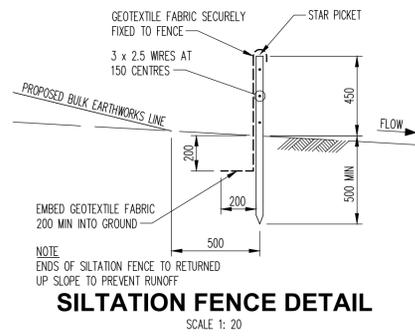
Sheet Subject  
**EROSION AND SEDIMENT CONTROL PLAN**

Scale: A1  
 1:200  
 Drawn: LA  
 Authorised: TM

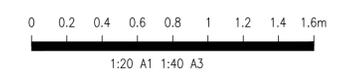
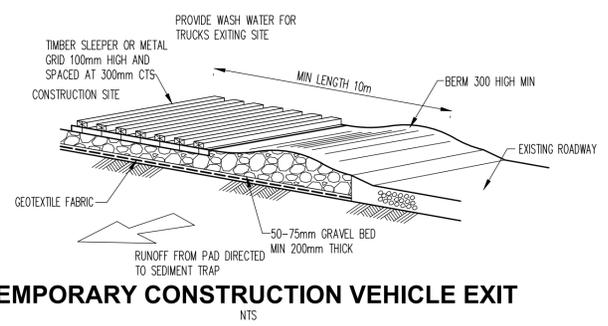
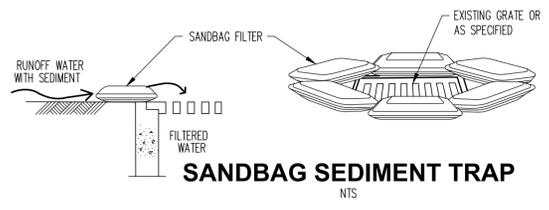
Job No: 211007  
 Drawing No: C02  
 Revision: A

Plot File Created: Feb 20, 2024 - 2:44pm

# ISSUE FOR CC1



- NOTES  
 1. CATCH DRAIN TO HAVE A MINIMUM GRADIENT OF 1%, AND A MAXIMUM GRADIENT OF 5%.  
 2. RUNOFF FROM CATCH DRAIN TO BE DIRECTED TO SUITABLE SEDIMENT FILTER OR SEDIMENT TRAP.



**ISSUE FOR CC1**

Filename: C01.dwg - User: mcsweeney - Plot File Created: Feb 20, 2024 - 2:59pm

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
P6	ISSUED FOR TENDER	NB	LA	29.05.23										
P5	ISSUED FOR TENDER	NB	LA	02.02.22										
P4	ISSUED FOR 80% TENDER	NB	LA	22.12.21										
P3	ISSUED FOR 80% TENDER	NB	LA	12.11.21										
P2	ISSUED FOR 50% TENDER	NB	LA	21.10.21	A	ISSUED FOR CC1	YY	ENS	19.02.24					
P1	ISSUED FOR SSDA APPROVAL	NB	LA	27.08.21	P7	ISSUED FOR TENDER	NB	LA	03.07.23					

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Project  
**PYMBLE LADIES COLLEGE  
 GREY HOUSE PRECINCT (GHP)**  
 AVON ROAD, PYMBLE NSW 2073

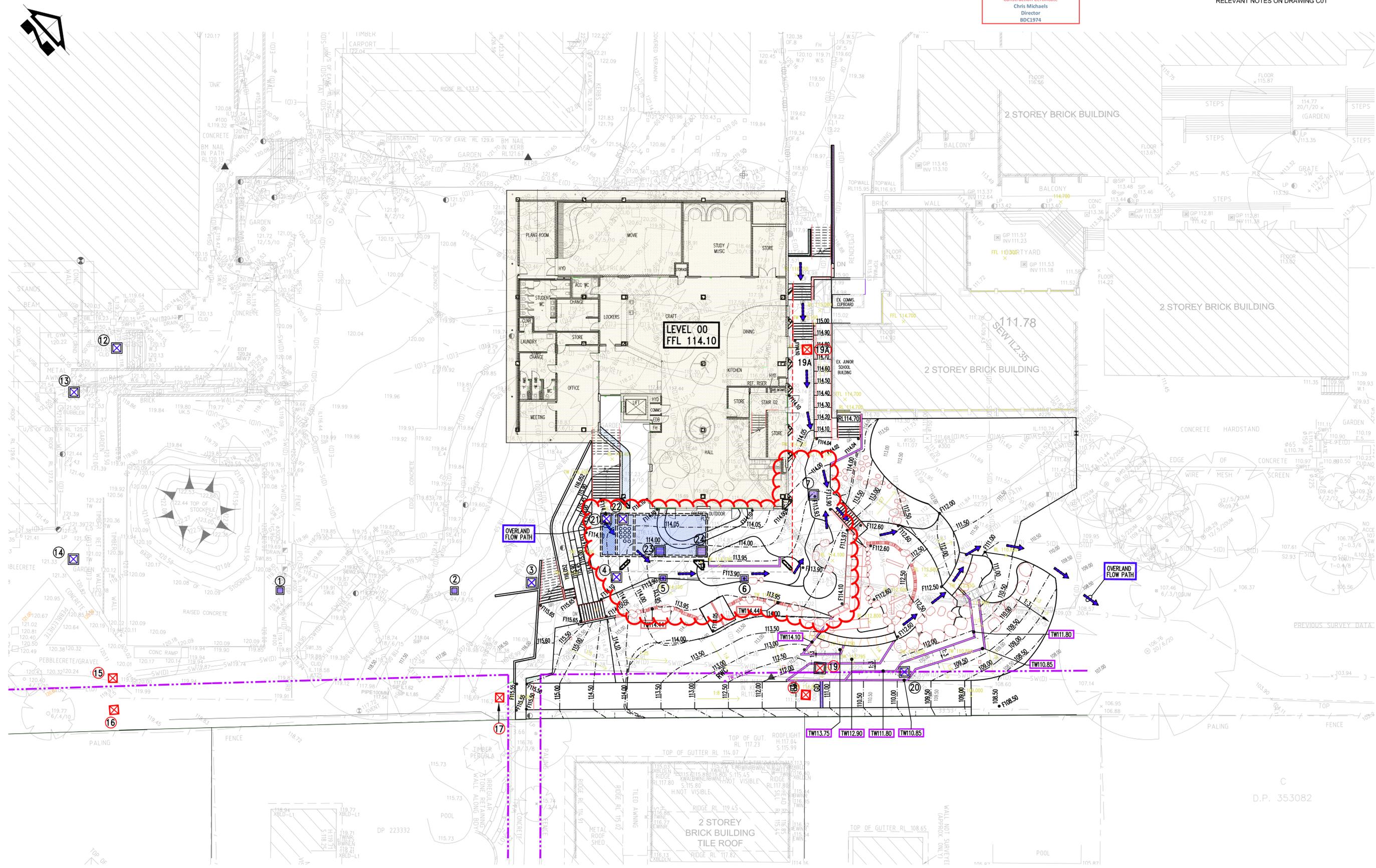
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**EROSION AND SEDIMENT  
 CONTROL DETAILS**

Scale	Drawn	Authorised
AS SHOWN	LA	NBA
Job No	Drawing No	Revision
211007	C03	A
Plot File Created: Feb 20, 2024 - 2:50pm		



City Plan Services Pty Ltd  
 Reference: 200618/1  
 Date: 08/04/2024  
 Construction Certificate  
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Reference: C05.dwg - User: jody - User: jody - Plot File Created: Feb 19, 2024 - 5:12pm

A1

Rev	Description	Eng	Draft	Date
P6	ISSUED FOR TENDER	NB	PM	02.02.22
P5	ISSUED FOR 80% TENDER	NB	PM	22.12.21
P4	ISSUED FOR 80% TENDER	NB	PM	12.11.21
P3	ISSUED FOR 50% TENDER	NB	PM	21.10.21
P2	ISSUED FOR SSDA APPROVAL	NB	PM	27.08.21
P1	PRELIMINARY	NB	PM	23.08.21

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
A	ISSUED FOR CC1	YY	ENS	19.02.24	P9	ISSUED FOR TENDER	NB	LA	03.07.23	P8	ISSUED FOR TENDER	NB	PM	29.05.23
P7	ISSUED FOR TENDER	NB	PM	22.02.22										

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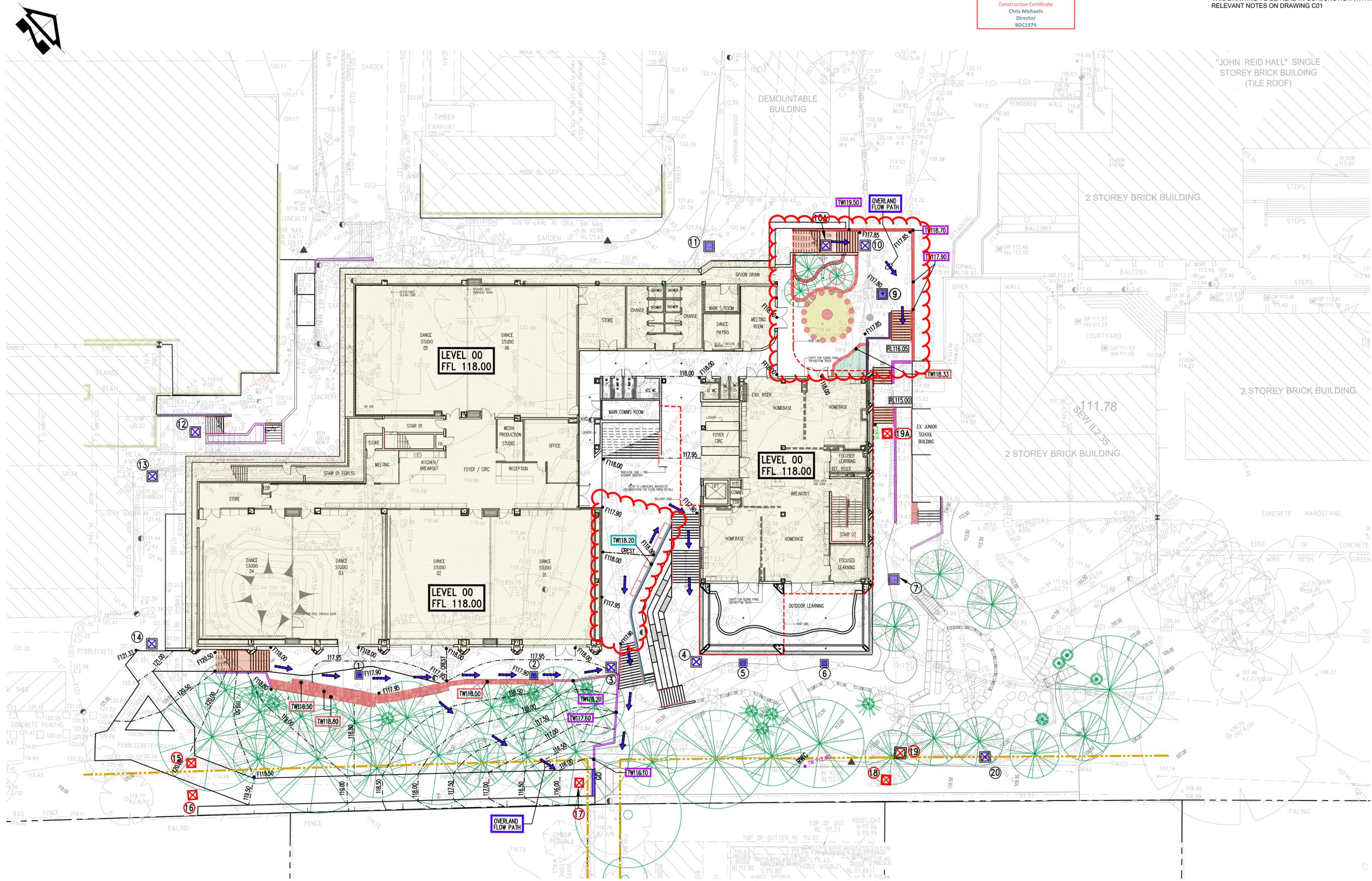
Engineer  
**TTW** Structural Civil Traffic Façade  
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Project  
**PYMBLE LADIES COLLEGE  
 GREY HOUSE PRECINCT (GHP)**  
 AVON ROAD, PYMBLE NSW 2073

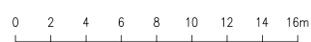
Sheet Subject  
**LEVEL 00  
 SITWORKS PLAN**

Scale: A1  
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 Drawn: PM  
 Authorised: TM  
 Job No: 211007  
 Drawing No: C05  
 Revision: A  
 Plot File Created: Feb 19, 2024 - 5:12pm

**ISSUE FOR CC1**



Reference: C06.dwg - User: mwh/ah - Plot File Created: Feb 19, 2024 - 5:33pm



Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
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P5	ISSUED FOR 80% TENDER	NB	PM	22.12.21										
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P3	ISSUED FOR 50% TENDER	NB	PM	21.10.21	P9	ISSUED FOR TENDER	NB	LA	03.07.23					
P2	ISSUED FOR SSDA APPROVAL	NB	PM	27.08.21	P8	ISSUED FOR TENDER	NB	PM	29.05.23					
P1	PRELIMINARY	NB	PM	23.08.21	P7	ISSUED FOR TENDER	NB	PM	22.02.22					

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Project  
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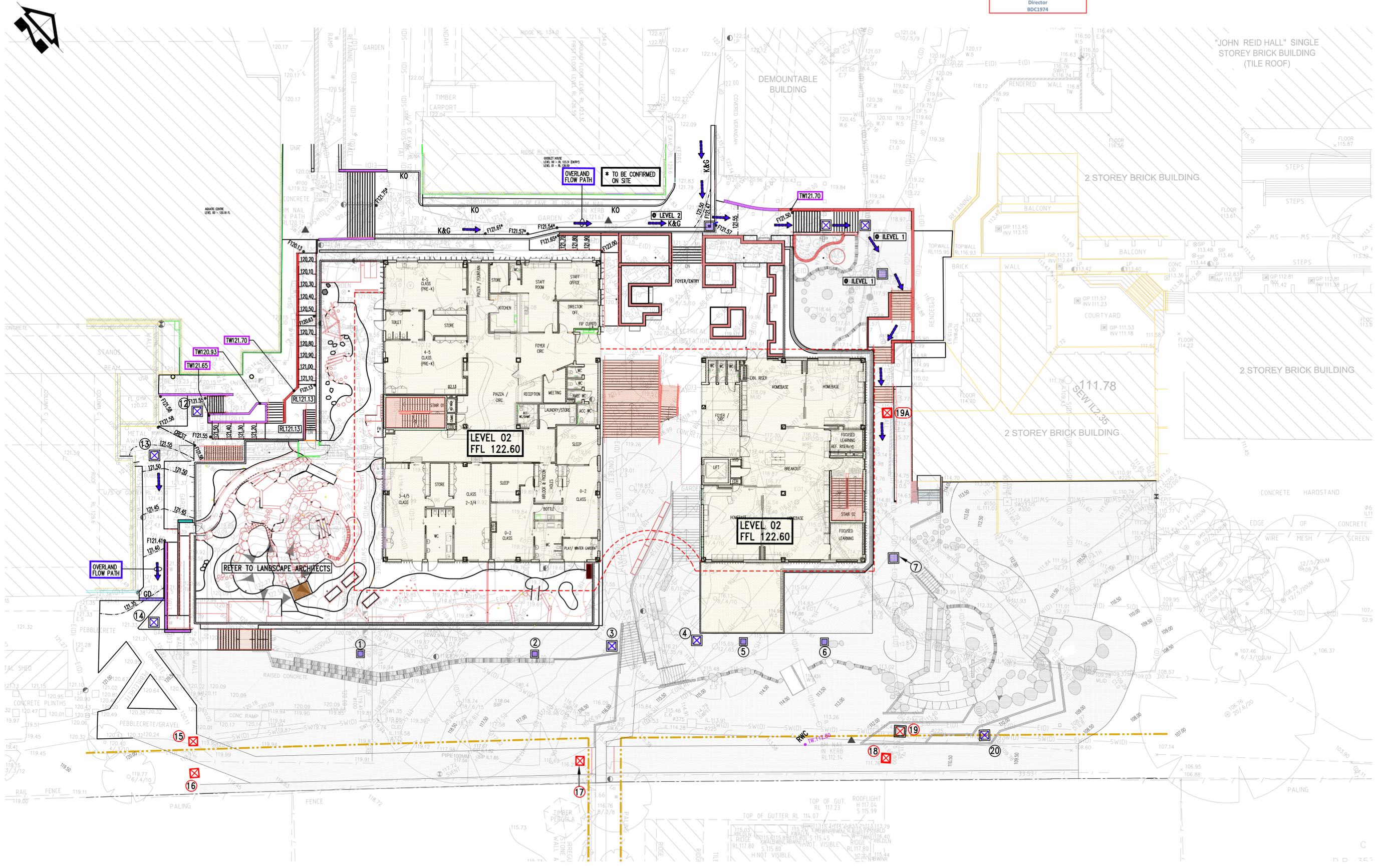
Sheet Subject  
**LEVEL 01  
 SITeworks PLAN**

**ISSUE FOR CC1**

Scale: A1 1:200	Drawn PM	Authorised TM
Job No 211007	Drawing No C06	Revision A
Plot File Created: Feb 19, 2024 - 5:33pm		

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 Reference: 200618/1  
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Filename: C01.dwg - User: whay - Plot File Created: Feb 19, 2024 - 5:08pm

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P5	ISSUED FOR BOX TENDER	NB	PM	22.12.21					
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P3	ISSUED FOR SOX TENDER	NB	PM	21.10.21	P9	ISSUED FOR TENDER	NB	LA	03.07.23
P2	ISSUED FOR SSDA APPROVAL	NB	PM	27.08.21	P8	ISSUED FOR TENDER	NB	PM	29.05.23
P1	PRELIMINARY	NB	PM	23.08.21	P7	ISSUED FOR TENDER	NB	PM	22.02.22

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date

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**PYMBLE LADIES COLLEGE  
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Sheet Subject

**LEVEL 02  
 SITWORKS PLAN**

Scale: A1  
 1:200

Drawn  
 PM

Authorised  
 NIB

Job No  
 211007

Drawing No  
 C07

Revision  
 A

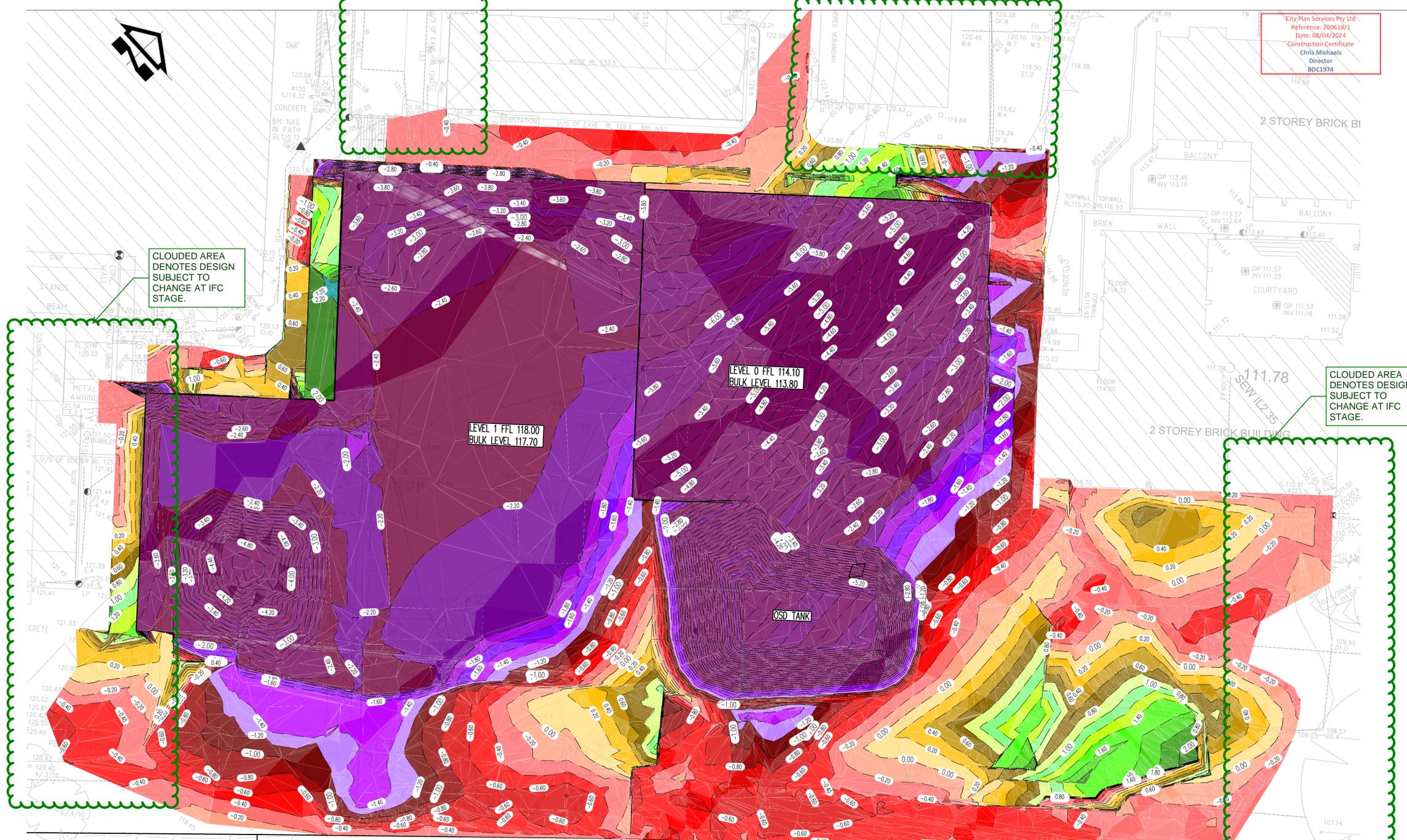
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**ISSUE FOR CC1**

City Plan Services Pty Ltd  
Reference: 2006189/1  
Date: 08/04/2024  
Construction Certificate  
Chris Michaels  
Director  
BDC1974

Cut and Fill Depth Table

Number	Minimum Elevation	Maximum Elevation	Color
1	-7.800	-7.600	Dark Purple
2	-7.600	-7.400	Purple
3	-7.400	-7.200	Dark Purple
4	-7.200	-7.000	Purple
5	-7.000	-6.800	Dark Purple
6	-6.800	-6.600	Purple
7	-6.600	-6.400	Dark Purple
8	-6.400	-6.200	Purple
9	-6.200	-6.000	Dark Purple
10	-6.000	-5.800	Purple
11	-5.800	-5.600	Dark Purple
12	-5.600	-5.400	Purple
13	-5.400	-5.200	Dark Purple
14	-5.200	-5.000	Purple
15	-5.000	-4.800	Dark Purple
16	-4.800	-4.600	Purple
17	-4.600	-4.400	Dark Purple
18	-4.400	-4.200	Purple
19	-4.200	-4.000	Dark Purple
20	-4.000	-3.800	Purple
21	-3.800	-3.600	Dark Purple
22	-3.600	-3.400	Purple
23	-3.400	-3.200	Dark Purple
24	-3.200	-3.000	Purple
25	-3.000	-2.800	Dark Purple
26	-2.800	-2.600	Purple
27	-2.600	-2.400	Dark Purple
28	-2.400	-2.200	Purple
29	-2.200	-2.000	Dark Purple
30	-2.000	-1.800	Purple
31	-1.800	-1.600	Dark Purple
32	-1.600	-1.400	Purple
33	-1.400	-1.200	Dark Purple
34	-1.200	-1.000	Purple
35	-1.000	-0.800	Dark Purple
36	-0.800	-0.600	Purple
37	-0.600	-0.400	Dark Purple
38	-0.400	-0.200	Purple
39	-0.200	0.000	Dark Purple
40	0.000	0.200	Purple
41	0.200	0.400	Dark Purple
42	0.400	0.600	Purple
43	0.600	0.800	Dark Purple
44	0.800	1.000	Purple
45	1.000	1.200	Dark Purple
46	1.200	1.400	Purple
47	1.400	1.600	Dark Purple
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50	2.000	2.200	Purple
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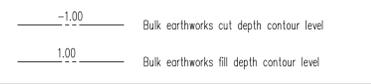


**BULK EARTHWORKS NOTES**

- All bulk earthworks setout from grid lines U.N.O.
  - Temporary batters at a slope of 1(H):1(V) U.N.O.
  - Excavated material may be used as structural fill provided,
    - it complies with the specification requirements for fill material,
    - the placement moisture content complies with the Geotechnical Consultants requirements, and allows filling to be placed and proofrolled in accordance with the specification. Where necessary the Contractor must moisture condition the excavated material to meet these requirements.
  - Compact fill areas and subgrade to not less than:
 

Location	Standard dry density (AS 1289 5.1.1.)	Moisture (OMC)
Under building slabs on ground:	98%	±2%
Under roads and carparks:	98%	±2%
Landscaped areas:	95%	±2%
  - Before placing fill, proof roll exposed subgrade with a 10 tonne minimum roller to test subgrade and then remove soft spots (areas with more than 3mm movement under roller). Soft spots to be replaced with select fill U.N.O.
  - Contractor shall place safety barriers around excavations in accordance with relevant safety regulations.
  - For interpretation of bulk earthworks foot print line shown on the bulk earthworks drawings refer to the bulk earthworks construction legend.
  - Bulk earthwork drawings are not to be used for detailed excavation.
  - Refer to Geotechnical Report prepared by - JKGeotechnics
- 337755Cp12 dated 26/04/2021 and 337755Cp1 dated 08/02/2021

**BULK EARTHWORKS LEGEND**

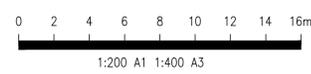


**NOTE:**

- Refer architectural and structural drawing for detail excavation for pad footings.
- Depth of lift should be confirmed with supplier.
- Bulk quantities represent difference between existing ground levels and bulk earthworks levels. No adjustment factors have been included.
- Bulk earthworks does not include detailed excavation for lift pits, footings, services, etc.
- Set down: 300mm.

**Cut/Fill Summary**

Name	2d Area	Cut	Fill	Net
Bulk Earthworks Calc	6026sqm	11480 Cu. M.	580 Cu. M.	10900 Cu. M. Cut



**ISSUE FOR CC1**

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
A	ISSUED FOR CC1	VY	ENS	19.02.24										
P1	PRELIMINARY	VY	ENS	13.02.24										

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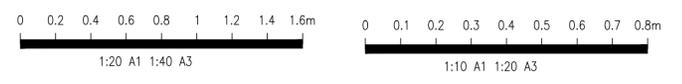
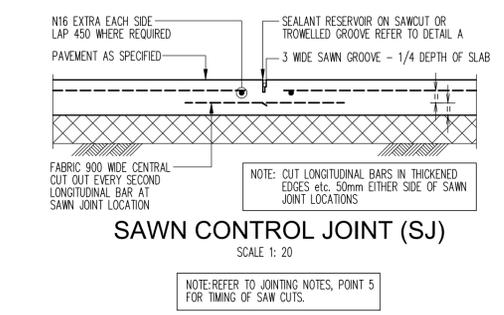
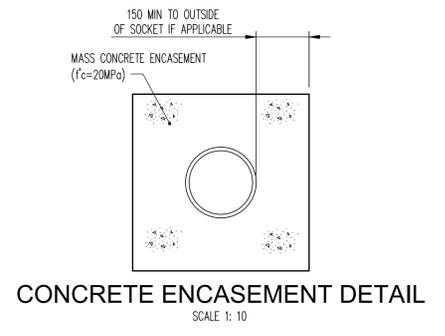
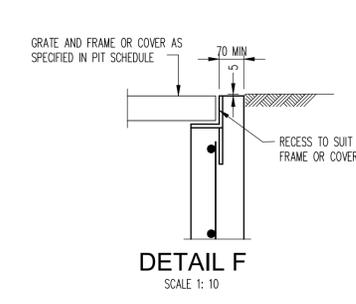
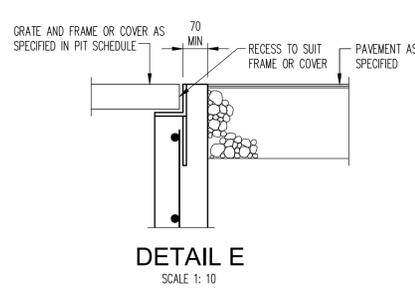
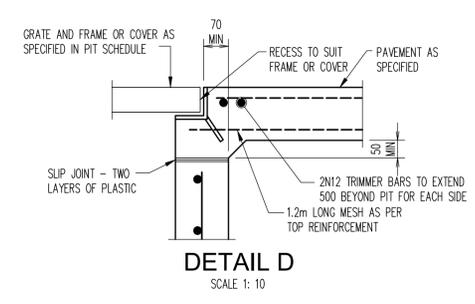
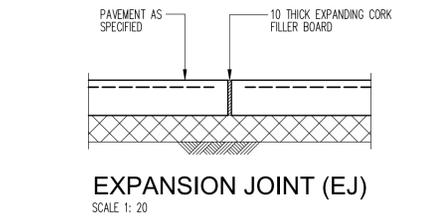
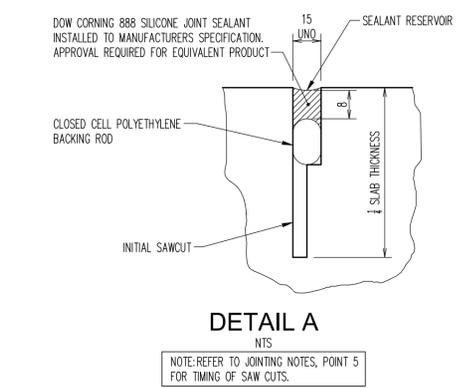
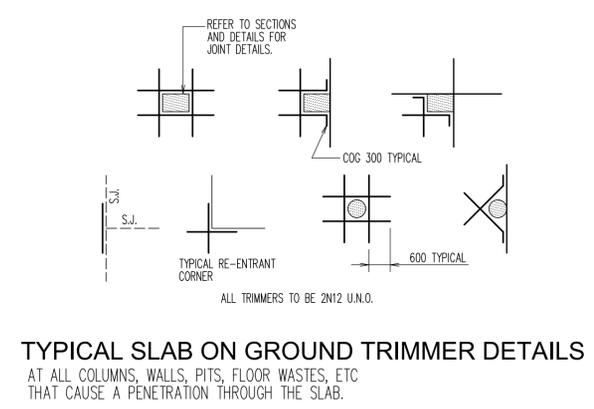
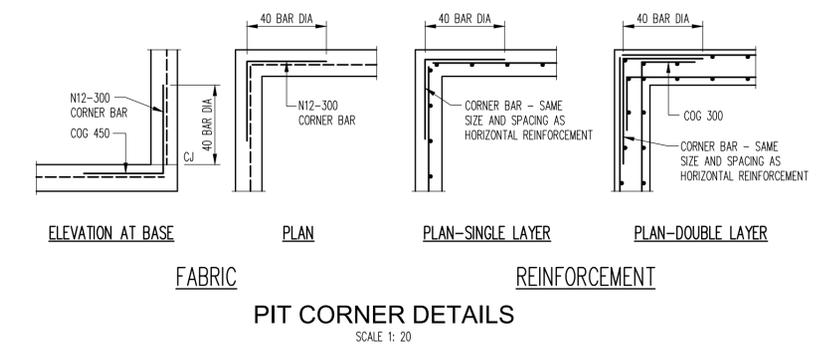
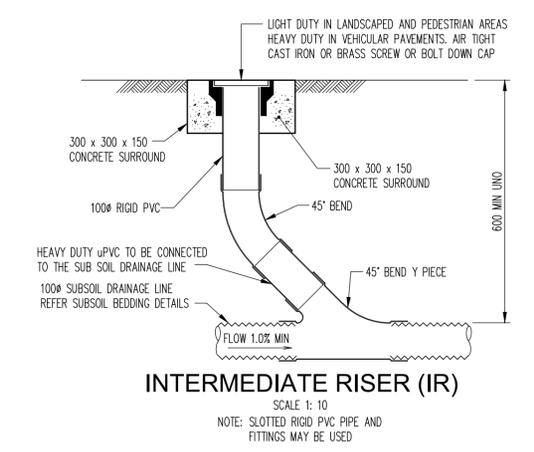
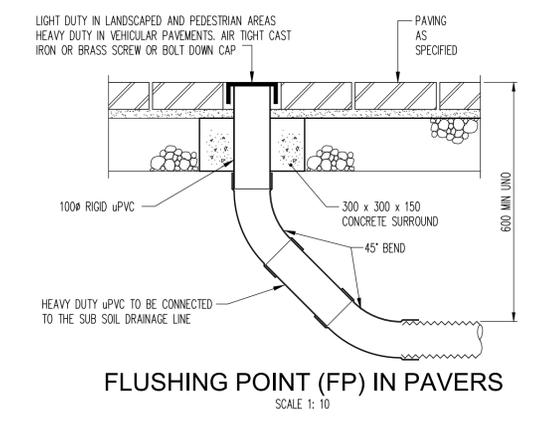
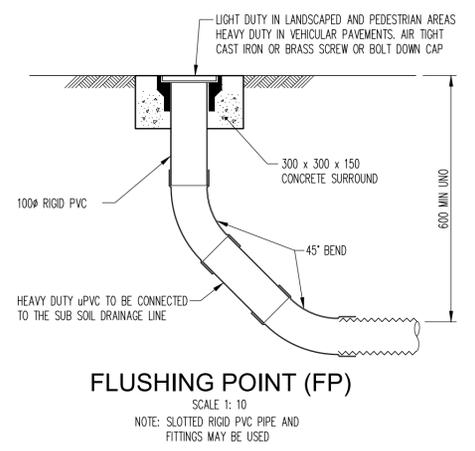
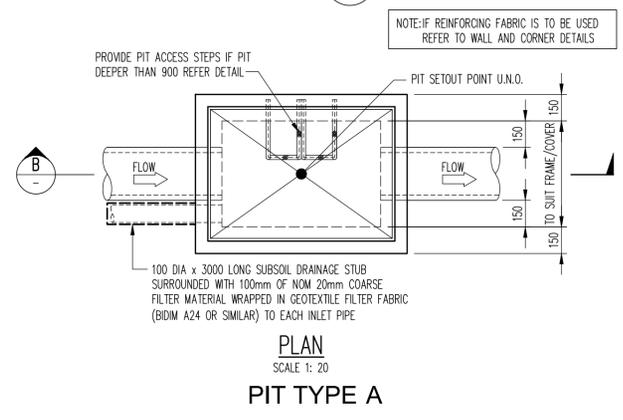
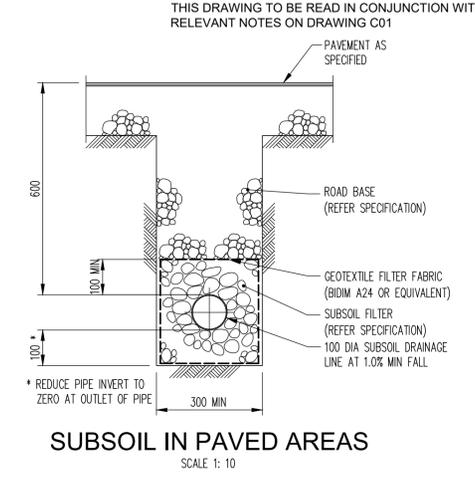
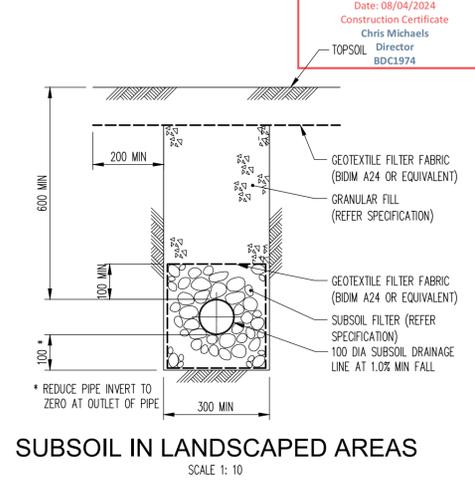
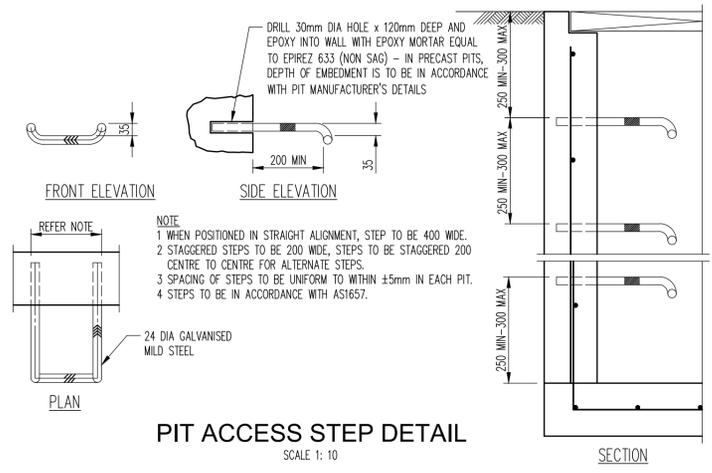
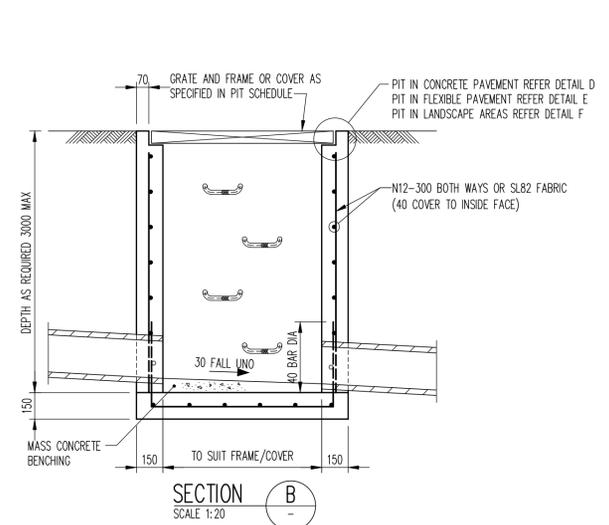
Project  
**PYMBLE LADIES COLLEGE GREY HOUSE PRECINCT (GHP)**  
AVON ROAD, PYMBLE NSW 2073

Sheet Subject  
**BULK EARTHWORKS**

Scale: A1 1:200 Drawn: ENS Authorised: TM  
Job No: 211007 Drawing No: C13 Revision: A  
Plot File Created: Feb 20, 2024 - 12:36pm

City Plan Services Pty Ltd  
 Reference: 200618/1  
 Date: 08/04/2024  
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**ISSUE FOR CC1**

Reference: C20.dwg - ISSUE month - File: File Created: Feb 19, 2024 - 3:26pm

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
P6	ISSUED FOR TENDER	NB	LA	29.05.23					
P5	ISSUED FOR TENDER	NB	LA	02.02.22					
P4	ISSUED FOR 80% TENDER	NB	LA	22.12.21					
P3	ISSUED FOR 80% TENDER	NB	LA	12.11.21					
P2	ISSUED FOR 50% TENDER	NB	LA	21.10.21	A	ISSUED FOR CC1	YV	ENS	19.02.24
P1	ISSUED FOR SSDA APPROVAL	NB	LA	27.08.21	P7	ISSUED FOR TENDER	NB	LA	03.07.23

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Project  
**PYMBLE LADIES COLLEGE GREY HOUSE PRECINCT (GHP)**  
 AVON ROAD, PYMBLE NSW 2073

Sheet Subject  
**TYPICAL DETAILS, SHEET 1**

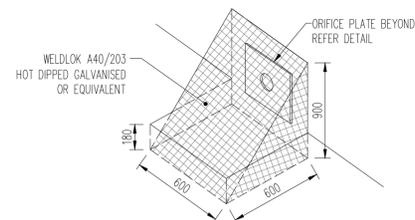
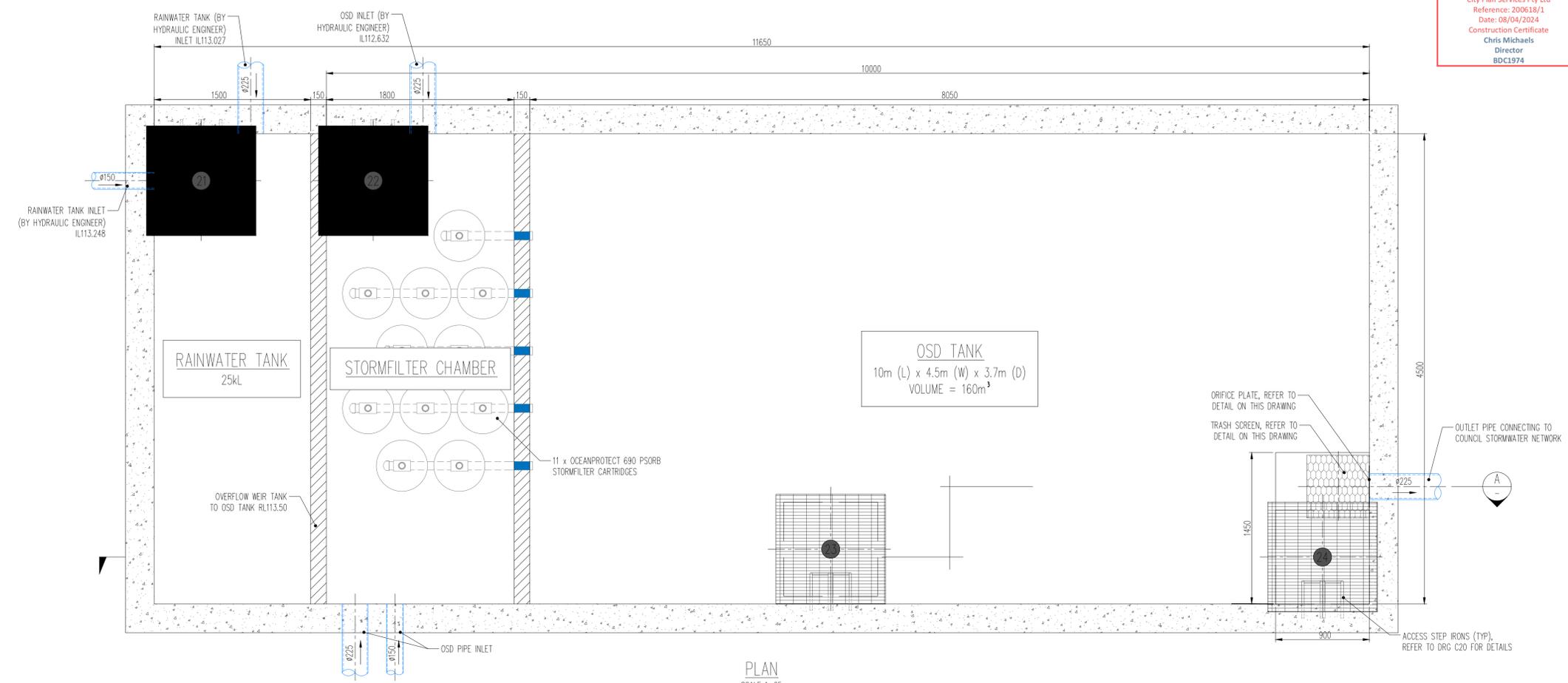
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 Job No: **211007**  
 Plot File Created: Feb 19, 2024 - 3:26pm

Drawn  
 LA  
 Drawing No: **C20**

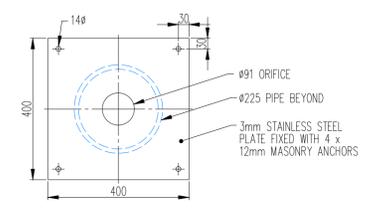
Authorised  
**TM**  
 Revision  
**A**

City Plan Services Pty Ltd  
 Reference: 200618/1  
 Date: 08/04/2024  
 Construction Certificate  
 Chris Michaels  
 Director  
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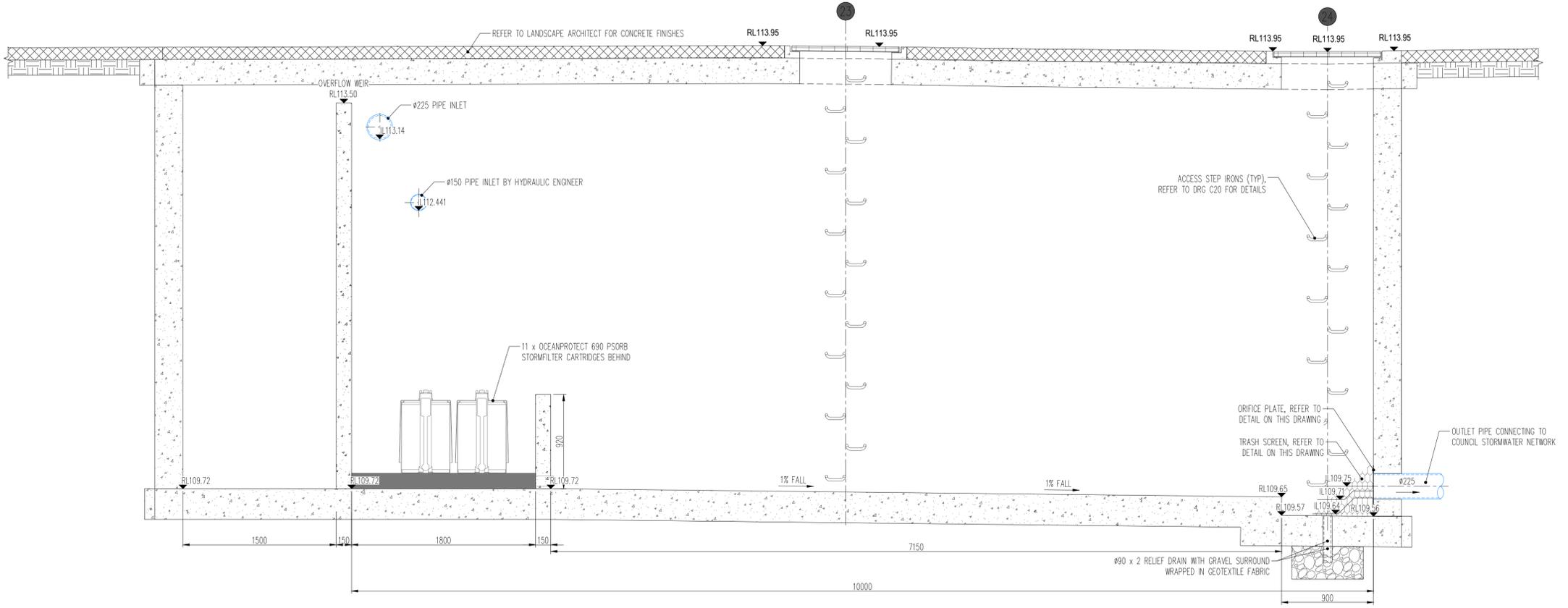
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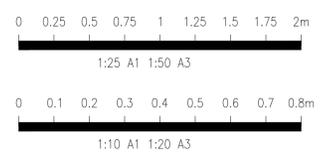
**TRASH SCREEN DETAIL**  
NTS



**ORIFICE PLATE DETAIL**  
SCALE 1:10



**SECTION A-A**  
SCALE 1:25



File Name: C50.dwg - User: mcsweeney - Plot File Created: Feb 19, 2024 - 5:38pm

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
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P1	ISSUED FOR SSDA APPROVAL	NB	LA	27.08.21	P7	ISSUED FOR TENDER	NB	LA	03.07.23					

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Project  
**PYMBLE LADIES COLLEGE GREY HOUSE PRECINCT (GHP)**  
 AVON ROAD, PYMBLE NSW 2073

Sheet Subject  
**OSD TANK DETAILS, SHEET 1**

Scale	Drawn	Authorised
AS SHOWN	LA	TM
Job No <b>211007</b>	Drawing No <b>C50</b>	Revision <b>A</b>
Plot File Created: Feb 19, 2024 - 5:38pm		

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### HYDRAULIC LEGEND

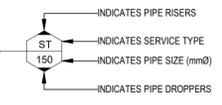
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	NON-POTABLE COLD WATER SERVICE
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	HOT WATER RETURN
	WARM WATER FLOW
	WARM WATER RETURN
	SANITARY DRAINAGE
	VENT PIPE
	TRADE WASTE
	CONDUIT
	FLUE
	GAS SERVICE
	SEWER RISING MAIN
	STORMWATER DRAINAGE
	RAINWATER DRAINAGE
	SIPHONIC STORMWATER DRAINAGE
	STORMWATER OVERFLOW
	STORMWATER RISING MAIN
	STORMWATER SUB-SOIL
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	CAST IN SERVICE
	INSULATED SERVICE

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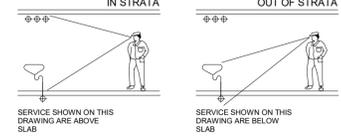
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	EXISTING HOT WATER FLOW
	EXISTING HOT WATER RETURN
	EXISTING WARM WATER FLOW
	EXISTING WARM WATER RETURN
	EXISTING SANITARY DRAINAGE
	EXISTING VENT PIPE
	EXISTING TRADE WASTE
	EXISTING CONDUIT
	EXISTING FLUE
	EXISTING GAS SERVICE
	EXISTING SEWER RISING MAIN
	EXISTING STORMWATER DRAINAGE
	EXISTING RAINWATER DRAINAGE
	EXISTING SIPHONIC STORMWATER DRAINAGE
	EXISTING STORMWATER OVERFLOW
	EXISTING STORMWATER RISING MAIN
	EXISTING STORMWATER SUB-SOIL
	EXISTING FIRE HYDRANT SERVICE
	EXISTING FIRE SPRINKLER/DRENCHER SERVICE

### SYSTEM ACCESSORIES LEGEND

	PUMP
	CLEAR OUT
	FIRE HOSE REEL
	FIRE HYDRANT
	DUAL FIRE HYDRANT
	STORMWATER PIT (600x600)
	OVERFLOW GULLY
	BOUNDARY TRAP
	TUNDISH
	WATER METER
	GAS METER
	HOT WATER UNIT
	SEWER MAINTENANCE SHAFT
	STORMWATER SPREADER
	RAINWATER OUTLET
	PLANTER DRAIN
	FLOOR WASTE
	SHOWER
	WATER CLOSET
	BASIN
	URINAL
	SINK



### DESIGN ZONES



### SYSTEM ACCESSORIES LEGEND

	BALANCING VALVE
	STOP VALVE
	BALL VALVE
	SOLENOID VALVE
	MONITORED GATE VALVE
	PATH VALVE
	REDUCED PRESSURE ZONE DEVICE
	GAS REGULATOR
	REFLUX VALVE
	NON RETURN VALVE
	CHECK VALVE
	DOUBLE CHECK VALVE
	GAS VALVE
	GAS CONTROL VALVE
	PRESSURE LIMITING VALVE
	PRESSURE REDUCTION VALVE (ADJUSTABLE)
	THERMOSTATIC MIXING VALVE MANIFOLD
	AIR ADMITTANCE VALVE
	HOSE TAP
	FIRE DRENCHER

### VALVE ABBREVIATIONS

AST	- ANGLE STOP TAP	NRV	- NON RETURN VALVE
AAV	- AIR ADMITTANCE VALVE	OPSO	- OVER PRESSURE SHUT OFF REGULATOR
AP	- ACCESS PANEL	PLV	- PRESSURE LIMITING VALVE
AV	- AIR ELIMINATION VALVE	PRV	- PRESSURE REDUCTION VALVE
BFV	- BUTTERFLY VALVE	PTR	- PRESSURE/TEMPERATURE RELIEF VALVE
BV	- BALL VALVE (GAS)	RGBV	- RECESSED GAS BAYONET VALVE
BAV	- BALANCING VALVE	RPZD	- REDUCED PRESSURE ZONE DEVICE
CV	- CHECK/CONTROL VALVE	RST	- RECESSED STOP TAP
DCV	- DUAL CHECK VALVE	RV	- REFLEX VALVE
DOV	- DRAIN OR TEST VALVE	STP	- STOP TAP
ESOV	- EMERGENCY SHUT OFF VALVE	SV	- STOP VALVE
FHV	- FIRE HYDRANT VALVE	TDVC	- TESTABLE DUAL CHECK VALVE
GV	- GATE VALVE	TEV	- TEMPERING VALVE
HFV	- HANDS FREE VALVE	TMV	- THERMOSTATIC MIXING VALVE
HT	- HOSE TAP	TPR	- TEMPERATURE AND PRESSURE RELIEF VALVE
IV	- ISOLATION VALVE	TV	- THROTTLING VALVE
		VCG	- VALVE GROUP

### FLUID FLOW AND MATERIAL ABBREVIATIONS

AHD	- AUSTRALIAN HEIGHT DATUM	L/s	- FLOW IN LITRES PER SECOND
Br	- BRASS	mm	- MILLIMETRES
BRH	- BLUE RHINO	m	- METRES
CI	- CAST IRON	m <sup>2</sup>	- METRES SQUARED
CONC	- CONCRETE	MDPE	- MEDIUM DENSITY POLYETHYLENE
CICL	- CAST IRON CEMENT LINED	MJ	- MEGAJOULE
CP	- CHROME PLATED	ms	- VELOCITY OF FLOW IN METRES PER SECOND
Co	- COPPER	mmHd	- PRESSURE IN METRES HEAD
DICL	- DUCTILE IRON CEMENTED LINE	OD	- OUTSIDE DIAMETER
FRC	- FIBRE GLASS REINFORCED CEMENT	PE	- POLYETHYLENE
FU	- FIXTURE UNITS	PP	- POLYPROPYLENE
GMS	- GALVANISED MILD STEEL	RCP	- REINFORCED CONCRETE PIPE
HDPE	- HIGH DENSITY POLYETHYLENE	RHS	- RECTANGULAR HOLLOW SECTION GALVANISED STEEL
ID	- INSIDE DIAMETER	SS	- STAINLESS STEEL
kPa	- PRESSURE IN KILOPASCALS	PVC-U	- UNPLASTICISED POLYVINYL CHLORIDE
kW	- KILOWATT	VCP	- VITRIFIED CLAY PIPE
L	- LITRES		

### GENERAL ABBREVIATIONS

AAV	- AIR ADMITTANCE VALVE	K	- KAMILOK FITTING WITH CAP & CHAIN
AFFL	- ABOVE FINISHED FLOOR LEVEL	KB	- KITCHEN BASIN
AC	- AIR CONDITIONING	KHW	- KITCHEN HOT WATER
AHB	- ACCESSIBLE HANDWASH BASIN	KIP	- KERB INLET PIPE
AWC	- ACCESSIBLE WATER CLOSET	KS	- KITCHEN SINK
AD	- AERIAL DRAINAGE	LD	- LIGHT DUTY
B	- BASIN	LL	- LOW LEVEL
BG	- BOX GUTTER	LS	- LAB SINK
BID	- BIDET	LT	- LAUNDRY TUB
BM	- BAIN-MARIE	LTG	- LONGITUDINAL TRENCH GRATE
BPS	- BED PAN STERILISER	MD	- MEDIUM DUTY
BPW	- BED PAN WASHER	ML	- MID LEVEL
BT	- BOUNDARY TRAP	NPCW	- NON-POTABLE COLD WATER
BU	- BUBBLERS	No.	- NUMBER
BRT	- BUBBLER TROUGH	OF	- OVERFLOW
BTH	- BATH	OFG	- OVERFLOW GULLY
BTW	- BUCKET TRAP FLOOR WASTE	OSD	- ON SITE DETENTION TANK
BWU	- BOILING WATER UNIT	PA	- PLASTER ARRESTOR
CHW	- CHILLED WATER	PCW	- POTABLE COLD WATER
CL	- CEILING LEVEL	PRO	- PARAPET RAINWATER OUTLET
C.I.	- CAST-IN PIPEWORK	QT	- QUENCHING TANK
CO	- CLEAROUT	REF	- REFRIGERATOR
CP	- CHROME PLATED	RF	- REDUCED LEVEL
CS	- CLEANERS SINK	RPZD	- REDUCED PRESSURE ZONE DEVICE
CTE	- CONNECT TO EXISTING	RWO	- RAINWATER OUTLET
CV	- CHAMBER VENT	RV	- RELIEF VENT
CW	- COLD WATER	SBF	- STANDARD BAYONET FITTING
D	- DRAINAGE	SD	- SAFE DRAIN
DCP	- DISCHARGE CONTROL PIT	SDU	- SANITARY NAPKIN DISPOSAL UNIT
DE	- DIESEL EXHAUST	SEP	- SIDE ENTRY PIT
DF	- DRINKING FOUNTAIN	SEW	- SEWER
DGCP	- DOUBLE GRATED GULLY PIT	SH	- SLOP HOPPER
DL	- DILUTION PIT	SHR	- SHOWER
DP	- DOWNPIPE	SIP	- SEWER INSPECTION PIT
DTU	- DRAINAGE TURN-UP	SK	- SINK
DW	- DISHWASHER MACHINE	SMH	- SEWER MANHOLE
DWG No.	- DRAWING NUMBER	SP	- SOIL PIPE
DWV	- DRAINAGE WASTE AND VENT	SRM	- SEWER RISING MAIN
EG	- EAVES GUTTER	SRO	- SIDE ROOF OUTLET
EJ	- EXPANSION JOINT	SS	- SUB-SOIL PIPE
EKI	- EXTENDED KERB INLET	SSHR	- SAFETY SHOWER
EX	- EXISTING	SSL	- STRUCTURAL SLAB LEVEL
EW	- EYE WASH	ST	- SANITARY/DRAINAGE STACK
FD	- FIRE DRENCHER	SW	- STORM WATER
FFL	- FINISHED FLOOR LEVEL	SWMH	- STORMWATER MANHOLE
FGL	- FINISHED GROUND LEVEL	SWP	- STORM WATER PIT
FH	- FIRE HYDRANT	SWRM	- STORMWATER RISING MAIN
FHBV	- FIRE HYDRANT BOOSTER VALVE	TD	- TUNDISH
FHR	- FIRE HOSE REEL	TK	- TOP OF KERB
FU	- FIXTURE UNIT	TTD	- TRAPPED TUNDISH
FW	- FLOOR WASTE	TTG	- TRENCH GRATE
G	- GAS	TW	- TRADE WASTE
GA	- GREASE ARRESTOR	TWL	- TOP WATER LEVEL
GD	- GRATED DRAIN	TYP	- TYPICAL
GFW	- GARBAGE FLOOR WASTE	UG	- UNDERGROUND
GST	- GREASE STACK	UNO	- UNLESS NOTED OTHERWISE
GT	- GAS TURRET	UR	- URINAL
GL	- GROUND LEVEL	US	- UNDERSIDE
GM	- GAS METER	USFL	- UNDERSIDE FLOOR LEVEL
GO	- GUTTER OUTLET	VB	- VACUUM BREAKER
GW	- GREASE WASTE	VB	- VANITY BASIN
GWV	- GREASE WASTE VENT	VFW	- VINYL FLOOR WASTE
GW	- GLASS WASHER	VP	- VENT PIPE
HD	- HEAVY DUTY	WC	- WATER CLOSET
HP	- HIGH POINT	WD	- WINDOW DRENCHER
HP	- HOT PLATE	WL	- WATER LEVEL
HL	- HIGH LEVEL	WM	- WASHING MACHINE
HR	- HALF ROUND	WME	- WATER METER
HT	- HOSE TAP	WP	- WASTE PIPE
HW	- HOT WATER	WT	- WASH TROUGH
HWF	- HOT WATER FLOW	WW	- WARM WATER
HHW	- HOT WATER HEATER	WWF	- WARM WATER FLOW
HWR	- HOT WATER RETURN	WWR	- WARM WATER RETURN
HWU	- HOT WATER UNIT	YG	- YARD GULLY
IPMF	- INDUCT PIPE MICA FLAP	Ø	- DIAMETER
IRR	- IRRIGATION		
IS	- INSPECTION SHAFT		
IL	- INVERT LEVEL		
IM	- ICE MACHINE		
IO	- INSPECTION OPENING		

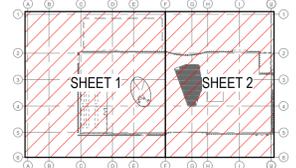
### GENERAL NOTES

- THIS PLAN MUST NOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY PURPOSE OTHER THAN ORIGINALLY INTENDED WITHOUT APPROVAL FROM JHA CONSULTING ENGINEERS.
- THIS PLAN SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL, OTHER CONSULTANTS DRAWINGS, SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE. REFER TO THE ARCHITECT FOR DECISIONS BEFORE PROCEEDING WITH ANY WORK.
- ALL WORKS TO BE IN ACCORDANCE WITH THE HYDRAULIC SERVICES SPECIFICATION, AUTHORITIES REQUIREMENTS, PLUMBING CODE OF AUSTRALIA, AS3500, ASS601, AS 2444, AS 2419, AS 2118.1, AS2441, AS1530, CURRENT NCC & NSW HEALTH DEPT.
- CONFIRM LOCATION, SIZE AND LEVELS OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORK.
- DISCONNECT AND REMOVE ALL EXISTING REDUNDANT SERVICES TO AUTHORITIES APPROVAL.
- LOCATIONS & FIXING OF PIPEWORK SHALL BE SUBJECT TO CO-ORDINATION WITH OTHER DESIGN DISCIPLINES, ie STRUCTURAL, MECHANICAL, ELECTRICAL AND OTHER SERVICES ENGINEERS.
- ALL LOCATIONS OF EXISTING SERVICES MAINS TO BE CONFIRMED BY MEANS OF DIAL BEFORE YOU DIG, PIPE LOCATOR AND TRACING PRIOR TO COMMENCEMENT OF WORKS.
- ALL WORKS TO INCLUDE TESTING & INSPECTIONS. OBTAIN REQUIRED CERTIFICATES ON COMPLETION & PAYMENT OF RELEVANT FEES.
- THE HYDRAULIC CONTRACTOR SHALL ALLOW IN THE TENDER TO SUBMIT PHOTO BASED INSPECTION AND TEST PLANS ESPECIALLY FOR SERVICE PENETRATIONS THROUGH FIRE AND SMOKE WALLS. REFER TO ARCHITECTURAL DRAWINGS FOR DEMOLITION PLAN AND SCOPE OF WORKS.
- ALLOW TO CLEAN / FLUSH OUT ALL EXISTING STORMWATER DRAINAGE.
- ALLOW TO SAWCUT/REMOVE HARD SURFACES AREAS AS REQUIRED TO COMPLETE THE INSTALLATION. ALLOW TO MAKE GOOD SURFACES UPON COMPLETION.
- CHECK EXISTING ELECTRICAL EARTHING TO METALLIC PLUMBING SERVICES. PROVIDE TEMPORARY EARTHING CABLES BETWEEN SERVICES WHICH ARE TO BE CUT, TERMINATED OR EXTENDED. CONFIRM WITH SITE ELECTRICIAN FOR SAFE PROCEDURES.
- CONTRACTOR IS TO SET OUT & DIMENSION ALL PENETRATIONS & GAIN APPROVAL FROM STRUCTURAL ENGINEER BEFORE WORK COMMENCES. PROVIDE SEPARATE PENETRATION FOR EACH SERVICE SO AS TO ENSURE ADEQUATE FIRE STOPPING. ALL PIPE PENETRATIONS SHALL BE FITTED WITH APPROVED FIRE STOP COLLARS/ DEVICES TO CONFORM TO AS1530.
- WATER, WASTE & GAS PIPES LOCATED WITHIN JOINERY CABINETS, SINK CUPBOARD etc. SHALL BE ARRANGED IN A MANNER SO AS NOT TO OBSTRUCT THE FREE SPACE AS FAR AS PRACTICAL INSTALLATION PERMITS.
- PROVIDE FLOOR CONTROL TO ALL FIXTURES. REFER FIXTURE/FAUCET SCHEDULE.
- ALL WORK IS TO COMPLY WITH ALL AUTHORITY REQUIREMENTS, RELEVANT AUSTRALIAN STANDARDS AND THE NATIONAL CONSTRUCTION CODE.
- THE DOCUMENTS REPRESENT DESIGN CONCEPT ONLY. IT IS THE SUB CONTRACTORS RESPONSIBILITY TO DEVELOP DETAILED DRAWINGS, FULLY CO-ORDINATED WITH ALL SERVICE DISCIPLINES, NEW AND EXISTING STRUCTURE AND ARCHITECTURAL DOCUMENTATION.
- THE SUB-CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE DETAILED DESIGN, CALCULATIONS AND SUBMISSIONS, SUPPLY AND INSTALLATION OF ALL SERVICES, CERTIFICATION AND APPROVALS, COMMISSIONING, TESTING & HANDOVER.
- THE SUB-CONTRACTOR IS TO ALLOW FOR THE PAYMENT OF ALL FEES AND CHARGES LEVIED BY THE VARIOUS AUTHORITIES AND PREPARE ALL SUBMISSIONS AS REQUIRED TO FACILITATE THE CONSTRUCTION OF ALL SERVICES.
- CONTRACTOR TO CONFIRM IF A CURRENT PRESSURE & FLOW APPLICATION IS IN PLACE PRIOR TO CONNECTING TO THE AUTHORITY WATER MAIN & MAKE NEW APPLICATION PRIOR TO STARTING WORKS ON-SITE.
- DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS GOVERN.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS SHALL BE VERIFIED ON SITE BEFORE PROCEEDING WITH THE WORK. THE CLIENT SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES.
- THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACTS, SPECIFICATIONS, REPORTS AND DRAWINGS.

### REVISIONS / AMENDMENTS

Rev	Date	Description	Verified
H	15/03/24	ISSUED FOR CC1	K.G.

### KEY PLAN



**CONSTRUCTION ISSUE**

JHA "CONSTRUCTION ISSUE" DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF THE BUILDING SERVICES. CONTRACTOR REMAINS RESPONSIBLE TO PROVIDE DIMENSIONED SHOP DRAWINGS COORDINATED WITH OTHER SERVICES AND THE BUILDING STRUCTURE.



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PROJECT  
**PYMBLE LADIES COLLEGE,  
 GREY HOUSE PRECINCT**

AVON ROAD,  
 PYMBLE, NSW 2073

TITLE  
**HYDRAULIC SERVICES  
 LEGEND OF SYMBOLS AND  
 GENERAL NOTES**

### CONSTRUCTION ISSUE

DRAWN	A.C.	SCALE @ A1
CHECKED	K.G.	
APPROVED	P.I.	<b>NTS</b>
CREATED	FEB 2024	
JOB No.	240031	
DRAWING No.	<b>HY-000-01</b>	REV
		<b>H</b>



**LOCATION PLAN**  
NOT TO SCALE

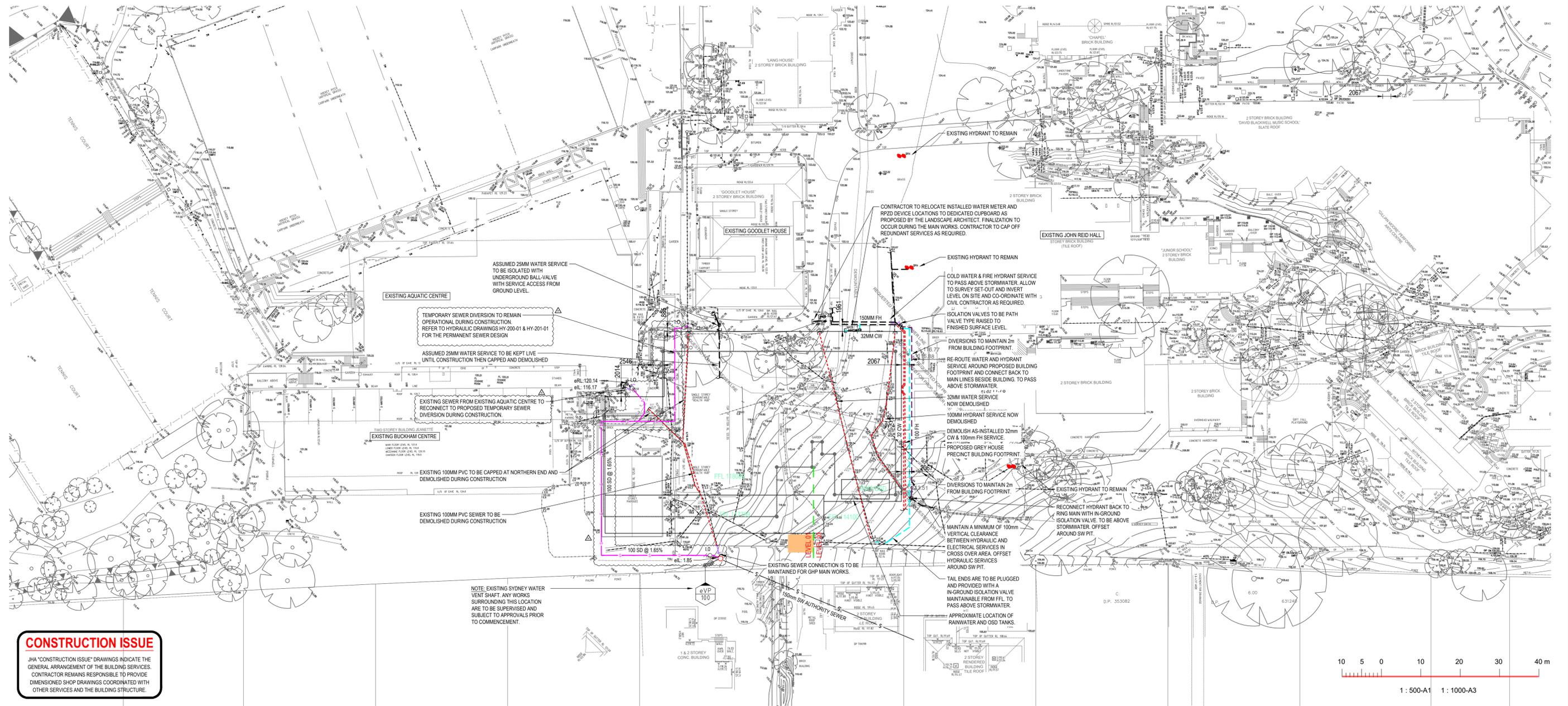
City Plan Services Pty Ltd  
Reference: 20061871  
Date: 08/04/2024  
Construction Certificate  
Chris Michaels  
Director  
BDC

**LEGEND:**

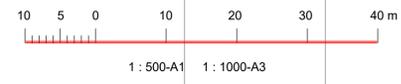
- DEMOLISH EXISTING SERVICE
- CAPPED OFF END
- ⊗ ISOLATION VALVE
- PROPOSED SEWER
- PROPOSED POTABLE WATER
- PROPOSED HYDRANT
- EXISTING SERVICE

**NOTES:**

1. CONTRACTOR TO ALLOW TO ISOLATE, DRAIN DOWN AND RE-CHARGE PRESSURE SERVICES AS REQUIRED.
2. CONTRACTOR TO REFER TO SURVEYORS PLANS, WSC INFORMATION & DEMOLITION LAYOUTS IN CONJUNCTION WITH THIS DRAWING.
3. ALL REDUNDANT SERVICES ARE TO BE TERMINATED IN AN APPROVED MANNER.
4. CONTRACTOR TO ALLOW TO PROVIDE ISOLATION VALVES AS NOTED.
5. CONTRACTOR TO NOTE THAT LOCATIONS AND SIZES OF EXISTING SERVICES SHOWN ON THIS PLAN ARE ONLY APPROXIMATE. THE CONTRACTOR IS TO ALLOW TO UNDERTAKE SITE INVESTIGATIONS TO CONFIRM LOCATIONS, LEVELS, SIZES AND MATERIALS.
6. REFER TO CIVIL ENGINEERS DOCUMENTATION FOR AFFECTED STORM WATER WORKS.
7. CONTRACTOR IS TO NOTE THAT TEMPORARY FIRE HYDRANT, DOMESTIC WATER AND SANITARY DRAINAGE SERVICES ARE TO BE PROVIDED DURING EXCAVATION WORKS. CONTRACTOR TO PROVIDE FINAL SERVICES DEVIATION METHODOLOGIES TO SUPERINTENDENT PRIOR TO COMMENCING ANY WORKS ON SITE. CONTRACTOR TO PROTECT TEMPORARY SERVICES IN AN APPROVED MANNER SO AS TO PREVENT MECHANICAL DAMAGE.
8. ALL PIPE LOCATIONS HAVE BEEN TAKEN FROM AVAILABLE SURVEY INFORMATION DRAWING 15263 001DT DATED 23/05/21

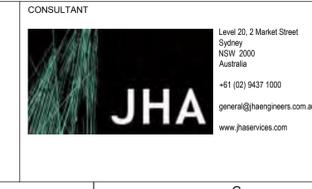
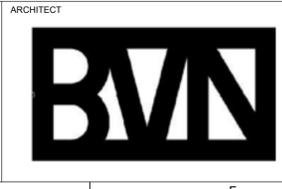
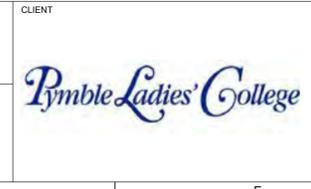


**CONSTRUCTION ISSUE**  
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REVISIONS / AMENDMENTS				REVISIONS / AMENDMENTS			
Rev	Date	Description	Verified	Rev	Date	Description	Verified
7	H	15.03.24	ISSUED FOR CC1	K.G.			

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PROJECT  
**PYMBLE LADIES COLLEGE, GREY HOUSE PRECINCT**  
AVON ROAD, PYMBLE, NSW 2073

TITLE  
**HYDRAULIC SERVICES HYDRAULIC EARLY WORKS PLAN**

<b>CONSTRUCTION ISSUE</b>		SCALE @ A1
DRAWN	A.C.	<b>1:500</b>
CHECKED	K.G.	
APPROVED	A.C.	
CREATED	FEB 2024	
JHA JOB No.	240031	
DRAWING NO.	<b>HY-100-00</b>	REV
		<b>H</b>

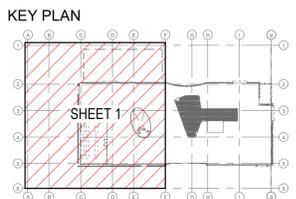


GENERAL NOTES:  
 1. FOR EXTERNAL STORMWATER DRAINAGE, REFER TO CIVIL ENGINEERS DRAWINGS.  
 2. UNDERTAKE GROUND WATER TESTING DURING CONSTRUCTION TO CONFIRM GROUND WATER LEVEL AND FLOW RATE.

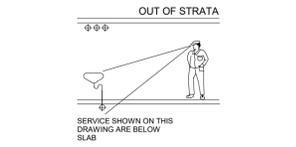
City Plan Service Pty Ltd  
 Reference: 20061371  
 Date: 08/04/2024  
 Construction Certificate  
 Chris Michaels  
 Director  
 RW/DC1974

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CLIENT  
**Pymble Ladies' College**



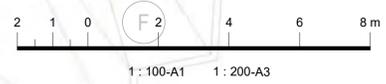
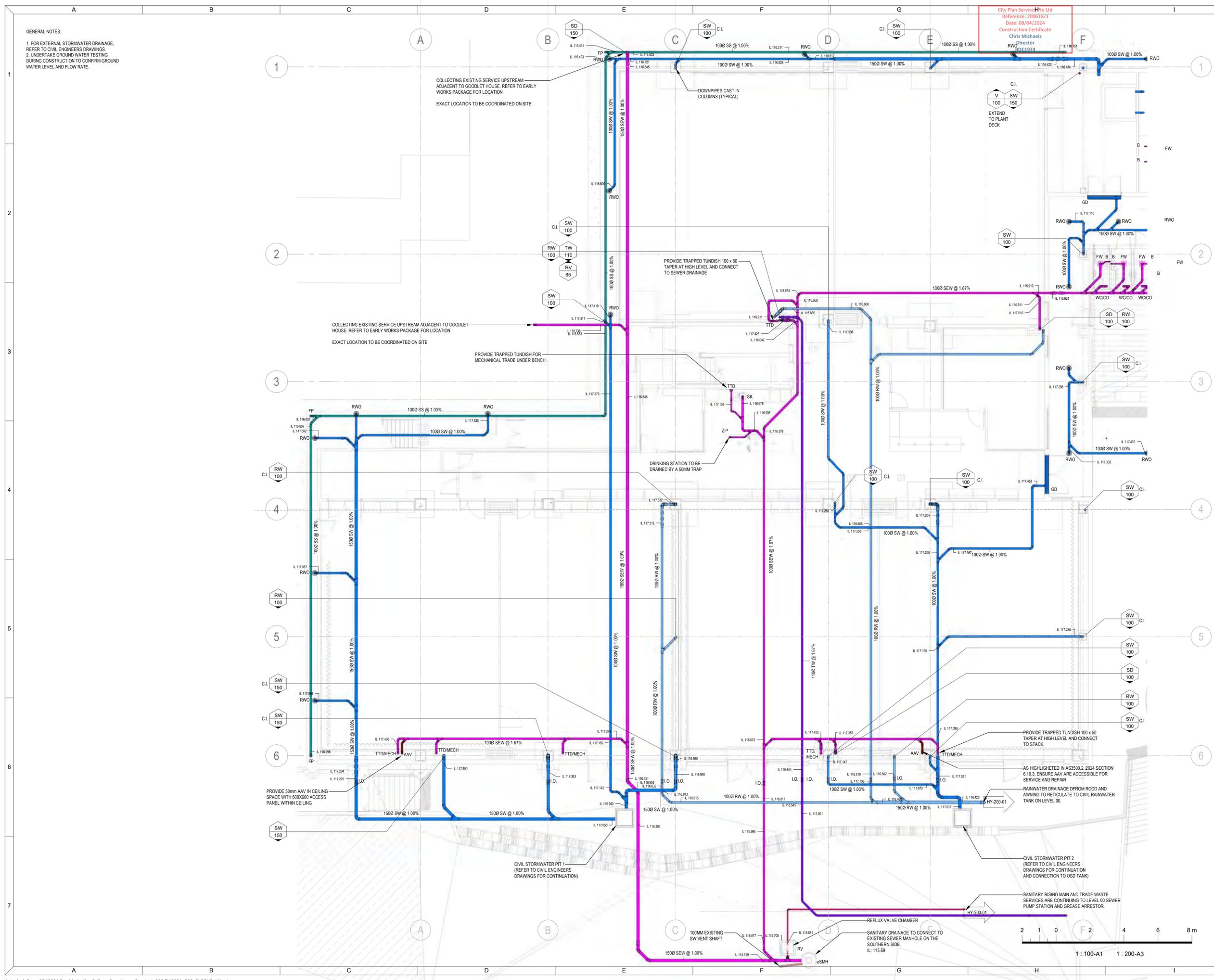
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PROJECT  
**PYMBLE LADIES COLLEGE, GREY HOUSE PRECINCT**  
 AVON ROAD, PYMBLE, NSW 2073

TITLE  
**HYDRAULIC SERVICES LEVEL 01 DRAINAGE LAYOUT - SHEET 1**

**CONSTRUCTION ISSUE**

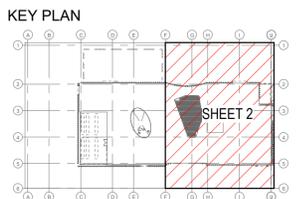
DRAWN	A.C.	SCALE @ A1
CHECKED	K.G.	1 : 100
APPROVED	A.C.	
CREATED	FEB 2024	
JOB No.	240031	
DRAWING No.	<b>HY-201-01</b>	REV
		<b>H</b>



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REVISIONS / AMENDMENTS				
Rev	Date	Description	Issued For	Verified
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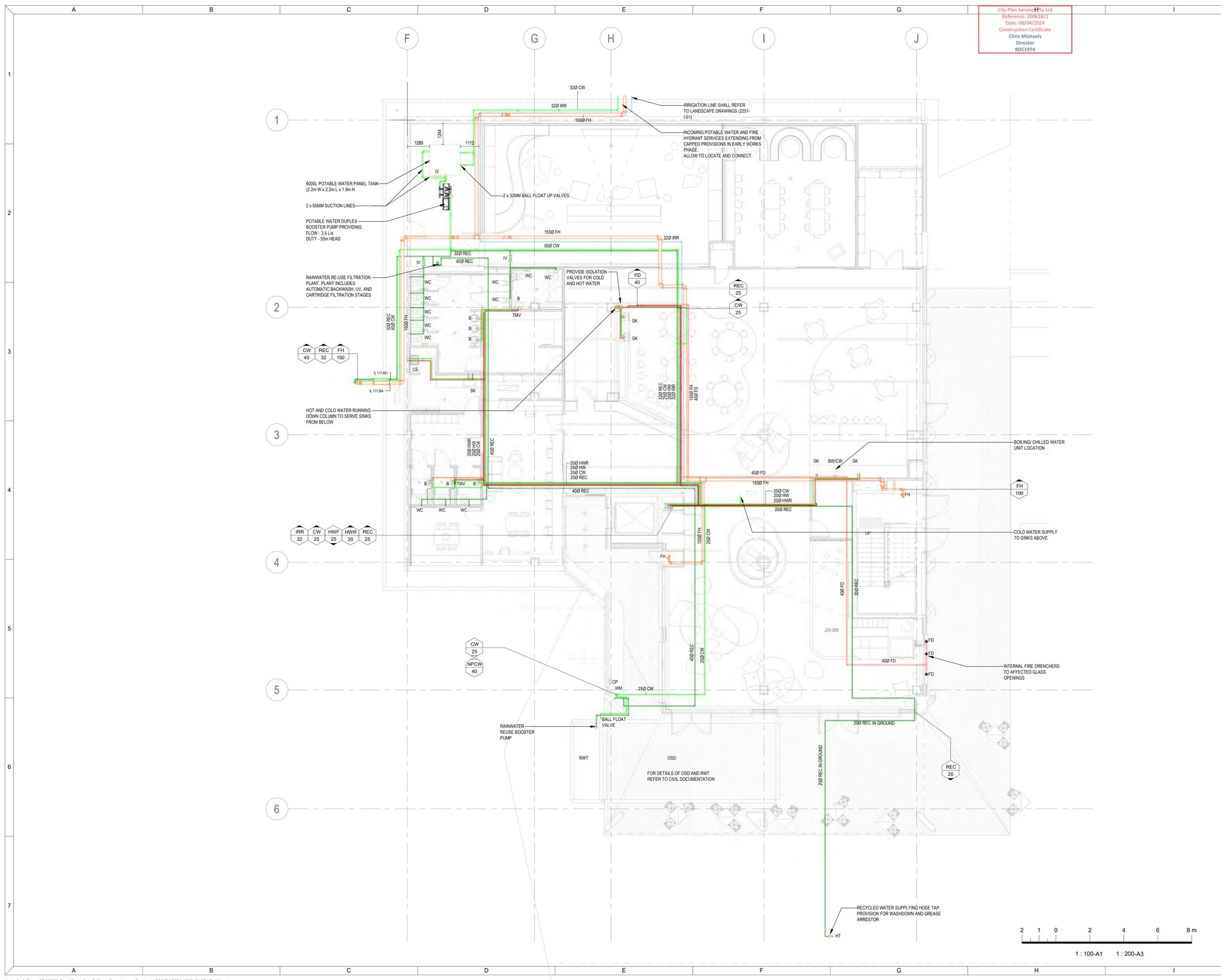
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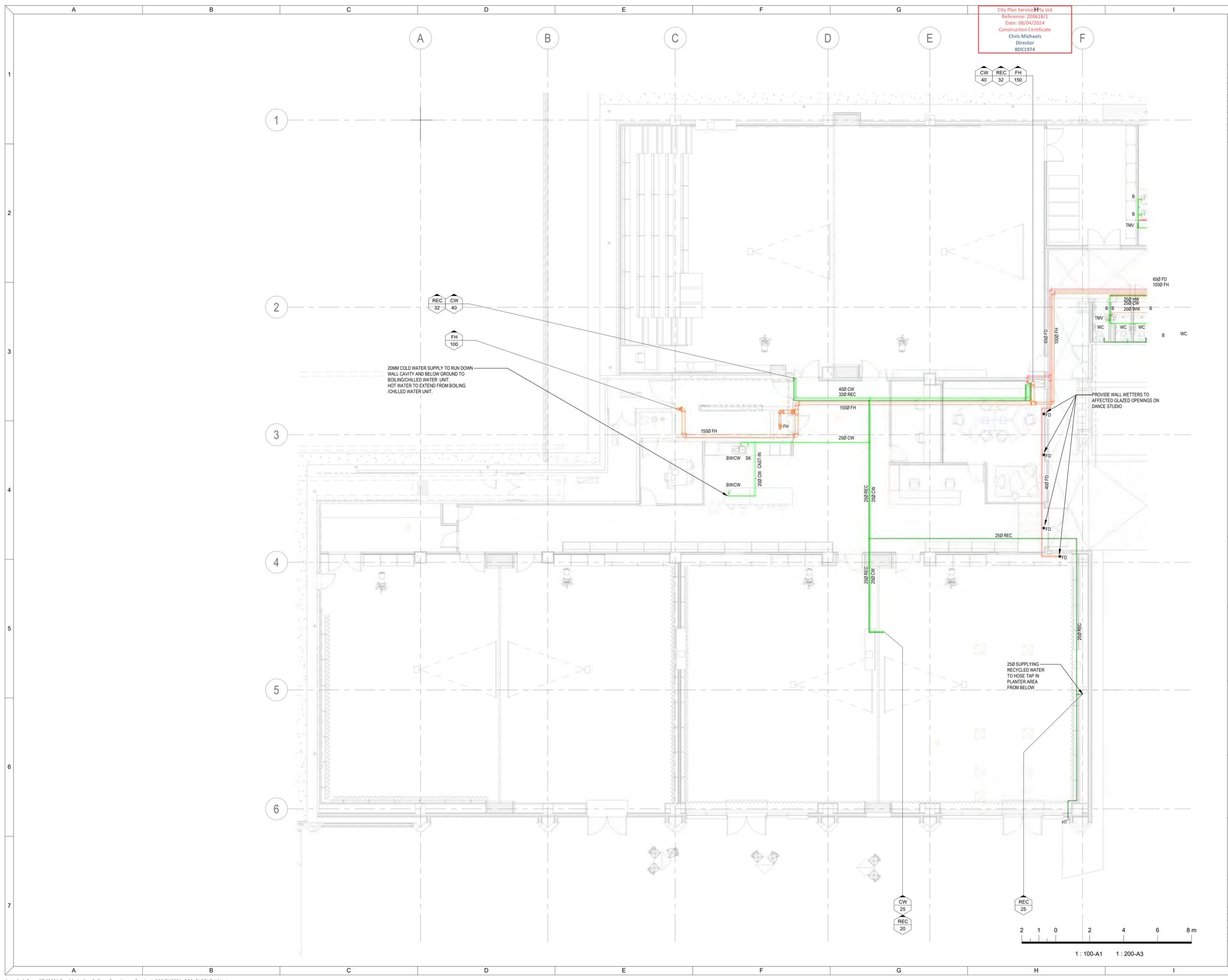
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 GREY HOUSE PRECINCT**  
 AVON ROAD,  
 PYMBLE, NSW 2073

TITLE  
**HYDRAULIC SERVICES  
 GROUND FLOOR WATER & GAS  
 LAYOUT - SHEET 2**

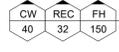
**CONSTRUCTION ISSUE**

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APPROVED	A.C.	
CREATED	FEB 2024	
JOB No.	240031	
DRAWING No.		REV
<b>HY-300-01</b>		<b>H</b>



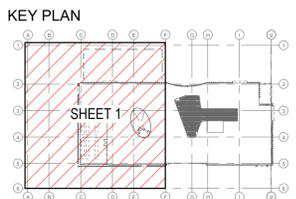


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 Date: 08/04/2024  
 Construction Certificate  
 Chris Michaels  
 Director  
 BDC1974



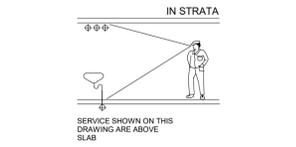
All dimensions to be verified on site prior to commencement of on-site work and/or off-site prefabrication. Figure dimensions to be taken in preference to scaled dimensions. This drawing is copyright and remains the property of JHA Consulting Engineers. Reproduction in whole or part of these drawings without written consent constitutes an infringement of copyright.

REVISIONS / AMENDMENTS				
Rev	Date	Description	Verified	
H	15.03.24	ISSUED FOR CC1		K.G.



**CONSTRUCTION ISSUE**

JHA "CONSTRUCTION ISSUE" DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF THE BUILDING SERVICES. CONTRACTOR REMAINS RESPONSIBLE TO PROVIDE DIMENSIONED SHOP DRAWINGS COORDINATED WITH OTHER SERVICES AND THE BUILDING STRUCTURE.



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PROJECT

**PYMBLE LADIES COLLEGE,  
 GREY HOUSE PRECINCT**

AVON ROAD,  
 PYMBLE, NSW 2073

TITLE

**HYDRAULIC SERVICES  
 LEVEL 01 WATER & GAS LAYOUT  
 - SHEET 1**

**CONSTRUCTION ISSUE**

DRAWN	A.C.	SCALE @ A1
CHECKED	K.G.	1 : 100
APPROVED	A.C.	
CREATED	FEB 2024	
JOB No.	240031	
DRAWING No.		REV
<b>HY-301-01</b>		<b>H</b>

