TTW Taylor Thomson Whitting

Stormwater Drainage and Water Quality Report

IGLU Pty Ltd / 6th August 2018

181172

Structural
Civil
Traffic
Facade
Consulting Engineers

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1.0 Introduction

Taylor Thomson Whitting Pty. Ltd. (TTW) was commissioned to provide civil engineering advice and design to support the proposed development application for IGLU Redfern stage 2 Redevelopment. This report details the Stormwater drainage and water quality concept design for development application (DA) stage only.

1.1 Scope of the report

The report has been prepared to describe and document TTW's proposed civil engineering works for IGLU Redfern Stage 2. This report includes the technical considerations as following:

- Proposed stormwater management plan for buildings and external areas
- Stormwater quality control plan
- Sediment and erosion control plan

1.2 The Site

The site is surrounded by William Ln on the west side, Marian St on the south and Regent St on the east. Refer to Figure 1.0 for site location.

The site generally falls at a grade of 1:20 (4.9%) towards Marian St.

The existing site drains via a pit and pipe system which connects to an existing pit on Marian St.s

Figure 1: Site Location (source: Nearmap)

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2.0 Proposed Development

The proposed development involves demolishing of existing buildings to facilitate the construction of a 17-floor student accommodation. The extent of the development is shown in Figure 2.

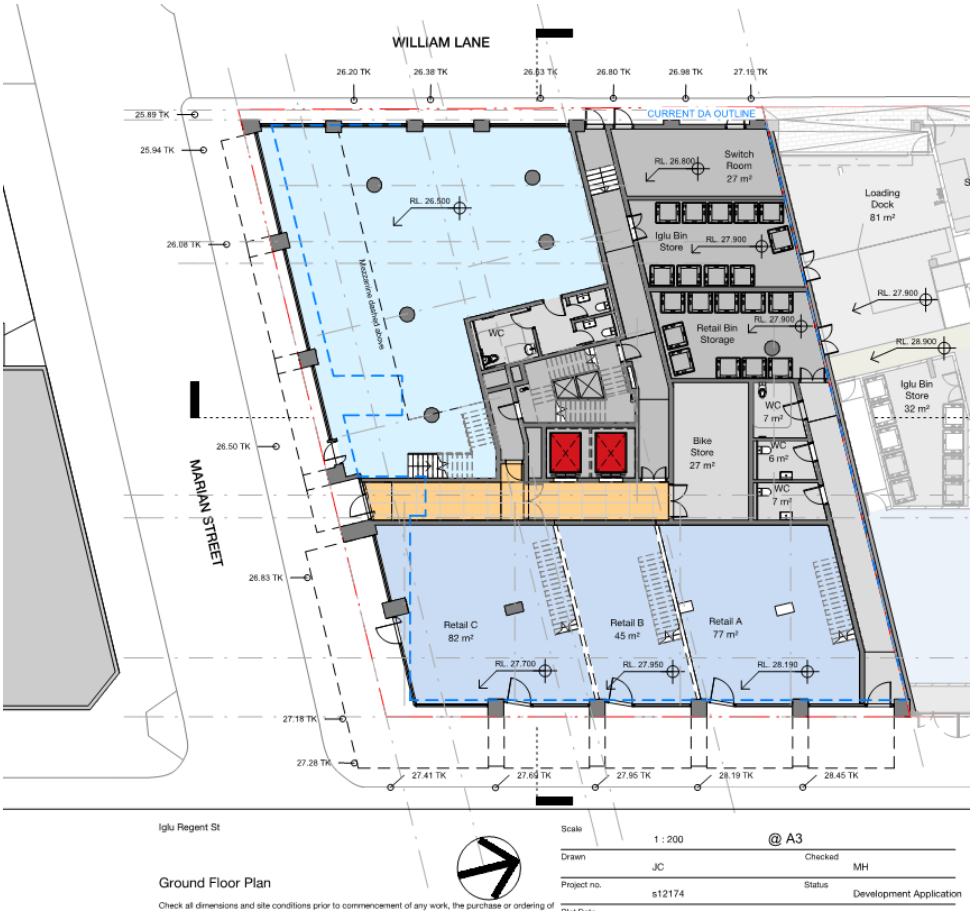

Figure 2: Extent of the Development (date: 20/07/2018)

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3.0 Stormwater Drainage and Disposal Systems

The primary objective of the stormwater management design is to demonstrate the proposed stormwater system complies with council's relevant requirements.

3.1 Stormwater drainage system

The site stormwater system for the development has been designed to capture concentrated flows from impermeable surfaces including floor open to the sky, roofing area, impermeable pavement. The proposed stormwater management system for the development includes:

- Pit and pipe drainage network to collect runoff from areas;
- Stormwater flows up to the 5% annual exceedance probability (AEP) event are conveyed by a minor drainage system; and
- Stormwater flows above the 5% AEP event are conveyed by a major drainage system;

The size, grade and level of the pits, pipes, and overland flow paths have been designed to comply with council's requirements.

The proposed stormwater inground drainage system is proposed to connect to existing Council's in-ground infrastructure near the corner of William Lane and Marian St as shown in

The proposed design has been documented in our **Stormwater and Siteworks Plan** – refer **Appendix A** for details.

3.2 Stormwater disposal system

TTW has liaised with Sydney Water Corporation to confirm the On-site Detention (OSD) system requirement for this development. Sydney Water have confirmed that an OSD system is required with a minimum storage of 13cu.m and a permissible site discharge (PSD) of 30l/s. A copy of the correspondence between TTW and Sydney Water is shown in **Appendix B**.

4.0 Stormwater Quality

Increases to impervious areas often results in the increase of gross pollutants, total suspended solids, and phosphorus and nitrogen nutrients. These pollutants are washed away into the stormwater network during rainfall events, transported from their site of origin into downstream waterways.

The water quality control design can provide positive impacts on a site. The proposed water quality control strategies will be arranged to manage rainfall runoff. The preliminary civil engineering design includes number of water quality control measures including:

- Rainwater tank re-use system for irrigation reuse
- Stormwater 360's StormFilter treatment system incorporated within the OSD tank system to provide tertiary stormwater treatment. This water quality control measure uses media-filled cartridges to remove pollutants from stormwater runoff including total suspended solids, hydrocarbon, nutrients and other common pollutants.

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Notwithstanding the pollution reduction targets, the principles of the proposed water quality control approach are in accordance with the recommendations of the City of Sydney Council Guidelines.

5.0 Soil & Erosion Control Plan

Temporary strategies generally refer to the control of sediment erosion and water pollution during the construction phase. The primary risks occur when soil is excavated and exposed to the elements during construction works. It is at this stage that suspended solids and other construction activity associated pollutants can be washed into the receiving stormwater network and subsequently the downstream waterways.

The strategies that are implemented to prevent potential soil degradation and pollution of waterways include the adequate provision of sedimentation and erosion control measures.

The temporary controls that are proposed in the concept plans by TTW will limit the displacement of sediment caused by runoff from disturbed areas, and are designed to remove sediment prior to discharging from site. Refer to Erosion and Sediment Control Plan in **Appendix A** for details.

6.0 Conclusions and Recommendations

To mitigate the impact of the development on the downstream environment we recommend the following:

- The OSD at the proposed site have a minimum volume of 13m^3 to limit the flow to 30L/s for storms up to and including the 100 year ARI storm event. The OSD arrangement is as shown in the Stormwater and SiteWorks Plan C03 in Appendix A.
- Water quality control measures are to be provided to reduce or minimise the development's adverse impact on the environment.
- Erosion and Sediment Control Plan shall be implemented consistent with our documentation C02 in Appendix A to minimise pollutants being washed into the receiving stormwater network/waterways.

Prepared by
TAYLOR THOMSON WHITTING (NSW) PTY LTD

Nemesio Biason
Associate

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Appendix A

Preliminary Siteworks Concept Plan

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IGLU REDFERN STAGE 2

GENERAL NOTES

1. Contractor must verify all dimensions and existing levels on site prior to commencement of works. Any discrepancies to be reported to the SUPERINTENDENT.
2. Strip all topsoil from the construction area. All stripped topsoil shall be disposed of off-site unless directed otherwise.
3. Make smooth connection with all existing works.
4. Compact subgrade under stairs and pavements to minimum 100% standard maximum dry density in accordance with AS 1289 5.1.1

REFERENCE DRAWINGS

1. 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.

	Dwg Title	Dwg No	Rev	Date
BATESSMART	GROUND FLOOR PLAN	A03.101	A	27.04.18
MITCHELL LAND SURVEYORS	DETAIL SURVEY	1241AA	00	14.09.15

SITEWORKS NOTES

1. All basecourse material to comply with North Sydney council's Infrastructure Specification and compacted to minimum 100% standard maximum dry density in accordance with AS 1289 5.1.1.

SURVEY AND SERVICES INFORMATION

SURVEY

Origin of levels : PM 53328
Datum of levels : RL 28.866 A.H.D. AUSTRALIAN HEIGHT DATUM
Coordinate system : MGA
Survey prepared by : MITCHELL
Setout Points : FL 28.45

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 : MITCHELL LAND SURVEYORS
REF:1241AA DATE:14.SEPT.15
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.

CONCRETE NOTES

EXPOSURE CLASSIFICATION : External : B2

CONCRETE

Place concrete of the following characteristic compressive strength f'c as defined in AS 1379.

Location	AS 1379 f'c MPa at 28 days	Specified Slump	Nominal Agg. Size
Footpaths, Kerbs, Stairs	N20	80	20

1. Use Type 'GP' cement, unless otherwise specified.
2. All concrete shall be subject to project assessment and testing to AS 1379.
3. Consolidate by mechanical vibration. Cure all concrete surfaces as directed in the Specification.
4. Unless shown on the drawings, the location of all construction joints shall be submitted to Engineer for review.
5. No holes or chases shall be made in the slab without the approval of the Engineer.
6. Slurry used to lubricate concrete pump lines is not to be used in any structural members.

FORMWORK

1. 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.

CONCRETE FINISHING NOTES

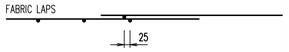
1. All exposed concrete pavements are to be wood float finished.
2. All edges of the concrete pavement including keyed and dowelled joints are to be finished with an edging tool.
3. Concrete pavements with grades greater than 10 % shall be heavily broomed finished.
4. Carborundum to be added to all stair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

REINFORCEMENT NOTES

1. 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

2. Provide bar supports or spacers to give the following concrete cover to all reinforcement unless otherwise noted on drawings.
   Edge Thickenings – 30 top, 65 bottom, 65 sides
3. Cover to reinforcement ends to be 50 mm u.n.o.
4. Provide N12–450 support bars to top reinforcement as required, Lap 500 U.N.O.
5. All cogs to be standard cogs unless noted otherwise.
6. 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.



7. Laps in reinforcement shall be made only where shown on the drawings unless otherwise approved.

KERBING NOTES

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

1. 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.
2. 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.
3. 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.
4. Broomed finished to all ramped and vehicular crossings, all other kerbing or dish drains to be steel float finished.
5. 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.

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 practicably possible 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 practicably possible from existing trees. Advice needs to be sought from Arborist and/or Landscape Architect on measures required to protect trees.

GROUND CONDITIONS

Contractor to be aware of the site geotechnical conditions.

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 practises as per relevant authority to be adopted and appropriate PPE to be used when handling all hazardous materials.

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

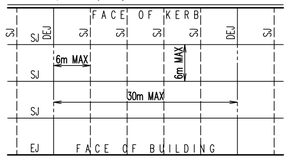
Contractor to be aware site works occur in close proximity to footpaths and roadways. Contractor to erect appropriate barriers and signage to protect site personnel and public.

VEHICLE MOVEMENT

JOINTING NOTES

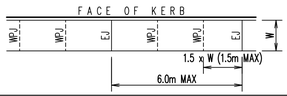
Vehicular Pavement Jointing

1. All vehicular pavements to be jointed as shown on drawings.
2. Keyed construction joints should generally be located at a maximum of 6m centres.
3. Sawn 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.
4. Provide 10mm wide full depth expansion joints between buildings and all concrete or unit pavers.
5. 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.
6. Vehicular pavement jointing as follows.



Pedestrian Footpath Jointing

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



STORMWATER DRAINAGE NOTES

1 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 = 250 mm/hr
5% AEP = 193 mm/hr
(C) Rainfall losses –
Impervious areas: IL = 1.5 mm , CL = 0 mm/hr
Pervious areas: IL =19.8 mm , CL =1.08mm/hr
2. Pipes 300 dia and larger to be reinforced concrete Class "2" approved spigot and socket with rubber ring joints U.N.O.
3. Pipes up to 300 dia shall be sewer grade uPVC with solvent welded joints.
4. Equivalent strength VCP or FRP pipes may be used subject to approval.
5. Precast pits may be used external to the building subject to approval by
6. Enlargers, connections and junctions to be manufactured fittings where pipes are less than 300 dia.
7. Where subsoil drains pass under floor slabs and vehicular pavements, unslotted uPVC sewer grade pipe is to be used.
8. Grates and covers shall conform with AS 3996–2006, and AS 1428.1 for access requirements.
9. Pipes are to be installed in accordance with AS 3725. All bedding to be type H2 U.N.O.
10. Care is to be taken with levels of stormwater lines. Grades shown are not to be reduced without approval.
11. All stormwater pipes to be 150 dia at 1.0% min fall U.N.O.
12. Subsoil drains to be slotted flexible uPVC U.N.O.
13. Adopt invert levels for pipe installation (grades shown are only nominal).
14. All stormwater pipes underneath slabs to be concrete encased as per ESFG guidelines. Refer C01 for detail (TYP).
15. All stormwater pipes underneath slabs to be hydrostatically pressure tested as per TTW specification.
16. Contractor to undertake CCTV of stormwater pipework.

SITEWORKS LEGEND

● F22.20	Finished surface level
F22.00	Finished contour
K&G	Kerb and gutter
IK+TE	Integral kerb with thickened edge
TE	Thickened edge
K&T	Kerb and toe
	Stormwater pit, flow direction and line with
IL10.00 600 ø '2' 1.25% Q=345 L/s IL9.65	Invert level upstream Pipe size and class Pipe grade Flow (Litres per second) Invert level downstream
GD	Grated drain
IR	Intermediate riser with subsoil drainage line (100 dia)
FP	Flushing point with subsoil drainage line (100 dia)
	Concrete encased stormwater line
RW#	Blockwork retaining wall
DEJ	Dowelled expansion joint
KJ	Keyed construction joint
WPJ	Weakened plane joint
EJ	Expansion joint

SURVEY LEGEND

+18.48	Surface level
19	Contour
	Kerb line
SW	Stormwater drainage line
T	Telecommunications line
G	Gas line
W	Water main
S	Sewer line
OH	Aerial Electrical line
EU	Underground Electrical line
EASEMENT FOR (m WIDE)	Easement
/	Fence
	Tree to be retained
	Boundary

PIT SCHEDULE

Note: Grate size does not necessarily reflect pit size, refer pit type details, shown on detail sheets – **C 0 4**
Final internal pit dimensions are to comply with AS3500

Type	Description	Cover (Clear Opening)	Number
A	Kerb inlet pit 1800 lintel	450 x 900 Class D galvanised mild steel grate hinged to frame	
B	Surface inlet pit	600 x 900 Class D galvanised mild steel grate hinged to frame	
C		Existing pit to remain	

CIVIL DRAWING LIST

C01 NOTES & LEGENDS SHEET
C02 EROSION & SEDIMENT CONTROL PLAN & DETAILS
C03 STORMWATER & SITEWORKS PLAN
C04 DETAILS & SECTIONS SHEET

LOCALITY PLAN
NTS

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A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P1	ISSUE FOR APPROVAL	NB	RG	06.08.18

Rev Description Eng Draft Date | Rev Description Eng Draft Date

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Sheet Subject
NOTES & LEGENDS SHEET

Scale : A1 | Drawn RG | Authorised
Job No 181172 | Drawing No C01 | Revision P1
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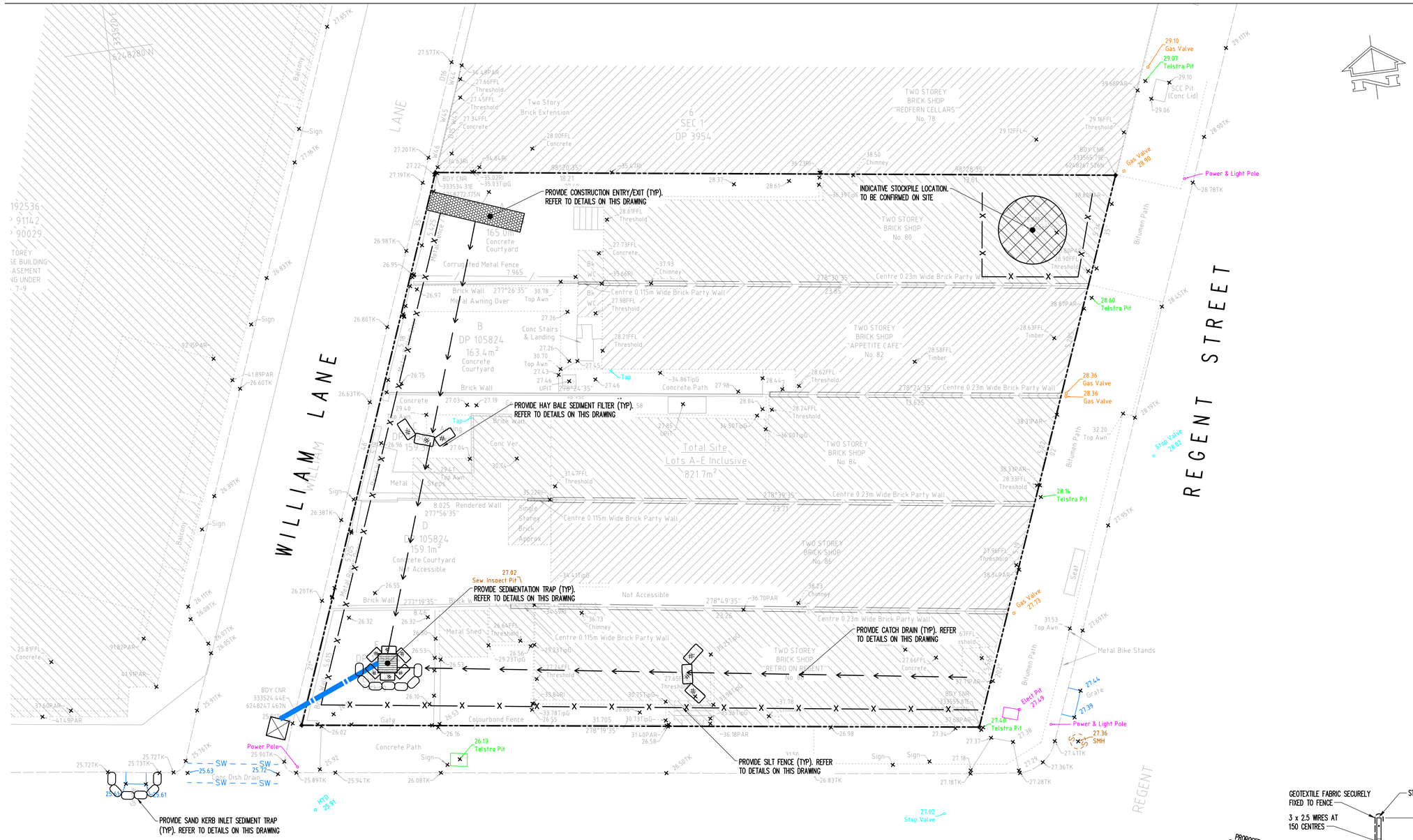
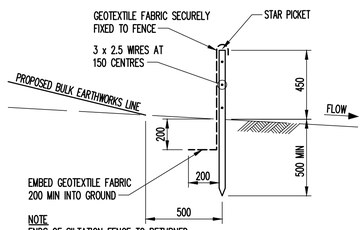
THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C01





SILTATION FENCE DETAIL

SCALE 1: 20

EROSION AND SEDIMENT CONTROL NOTES

1. All work shall be generally carried out in accordance with
   (A) Local authority requirements,
   (B) EPA – Pollution control manual for urban stormwater,
   (C) LANDCOM NSW – Managing Urban Stormwater: Soils and Construction ("Blue Book").
2. Erosion and sediment control drawing 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 adopted to meet the varying situations as work on site progresses.
3. Maintain all erosion and sediment control devices to the satisfaction of the superintendent and the local authority.
4. When stormwater pits are constructed prevent site runoff entering the pits unless silt fences are erected around pits.
5. Minimise the area of site being disturbed at any one time.
6. Protect all stockpiles of materials from scour and erosion. Do not stockpile loose material in roadways, near drainage pits or in watercourses.
7. 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.
8. Control water from upstream of the site such that it does not enter the disturbed site.
9. All construction vehicles shall enter and exit the site via the temporary construction entry/exit.
10. All vehicles leaving the site shall be cleaned and inspected before leaving.
11. Maintain all stormwater pipes and pits clear of debris and sediment. Inspect stormwater system and clean out after each storm event.
12. Clean out all erosion and sediment control devices after each storm event.

Sequence Of Works

1. Prior to commencement of excavation the following soil management devices must be installed.

1.1. Construct temporary construction entry/exit and divert runoff to suitable control systems.
1.2. Construct measures to divert upstream flows into existing stormwater system.
1.3. Construct sedimentation traps/basin including outlet control and overflow.
1.4. Construct turf lined swales.
1.5. Provide sandbag sediment traps upstream of existing pits.
2. Construct geotextile filter pit surround around all proposed pits as they are constructed.
3. On completion of pavement provide sand bag kerb inlet sediment traps around pits.
4. Provide and maintain a strip of turf on both sides of all roads after the construction of kerbs

Stock piles

Stock piles are to be set up with approved sediment control devices on the lower slope. Stoke piles are reserve of materials stored on site for later use in construction or landscaping. This includes timber, mulch, top soil, gravel, sand etc. Building waste is also to be protected in a separate area if possible.

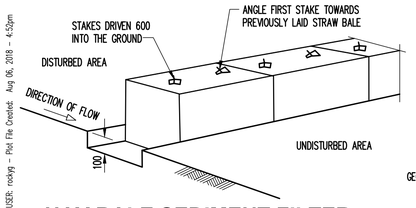
WATER QUALITY TESTING REQUIREMENTS

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 environment 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.

EROSION AND SEDIMENT CONTROL LEGEND

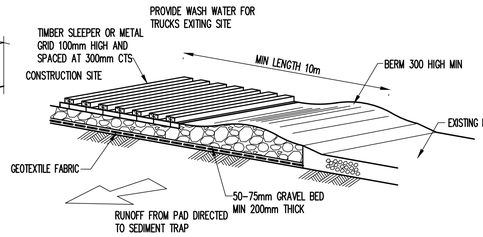
- Stormwater pit with Geotextile filter surround
- Temporary construction entry/exit
- Sandbag sediment trap
- Catch drain
- Silt fence
- Hay bale sediment filter



HAY BALE SEDIMENT FILTER

NTS

NOTE: STAKE TO BE EITHER TAR COATED STAR OR 50 x 50 HARDWOOD



TEMPORARY CONSTRUCTION VEHICLE EXIT

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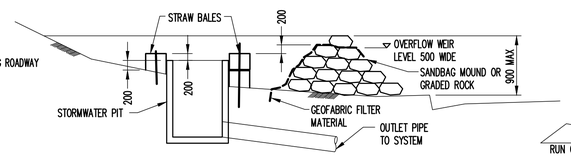
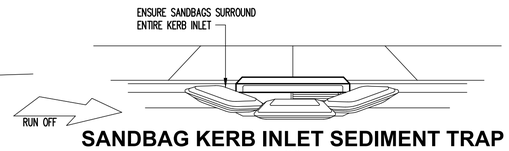


SEDIMENTATION TRAP

NTS



SANDBAG KERB INLET SEDIMENT TRAP

NTS

TYPICAL SECTION THROUGH CATCH DRAIN

SCALE 1: 20

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Rev	Description	Eng	Draft	Date
P2	ISSUE FOR APPROVAL	NB	RG	06.08.18
P1	ISSUE FOR COMMENTS	NB	AI	24.07.18

Rev Description Eng Draft Date | Rev Description Eng Draft Date

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612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project
IGLU REDFERN STAGE 2, 80-88 REGENT STREET, REDFERN, NSW 2016

Sheet Subject
DEMOLITION PHASE: EROSION & SEDIMENT CONTROL PLAN & DETAILS

Scale : A1	Drawn	Authorised
1:100	AI	

Job No	Drawing No	Revision
181172	C201	P2

Plot File Created: Aug 06, 2018 - 4:52pm

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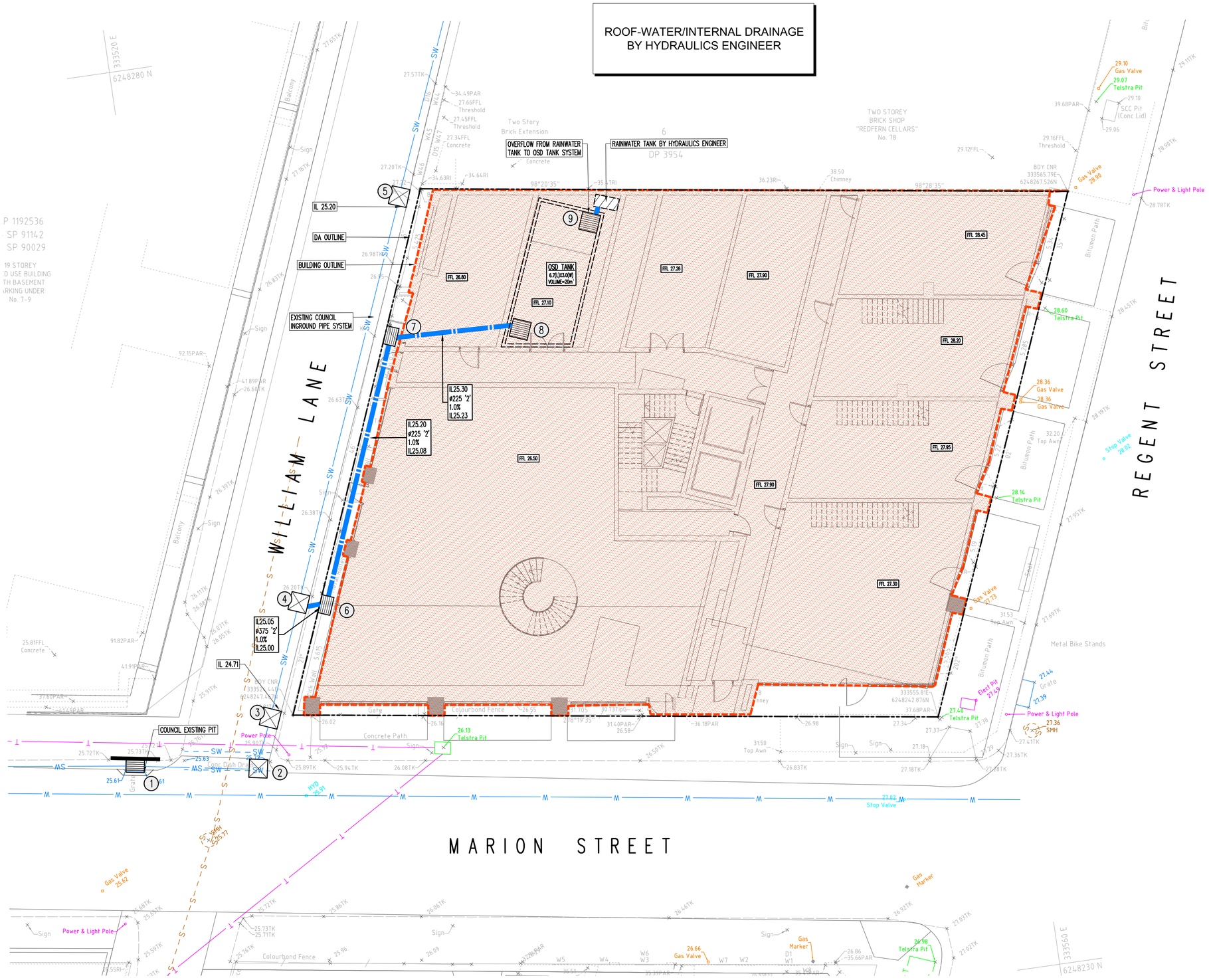

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P1	ISSUE FOR APPROVAL	NB	RG	06.08.18

Rev Description Eng Draft Date

Rev Description Eng Draft Date

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Civil Engineer

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612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project

IGLU REDFERN STAGE 2, 80-88 REGENT STREET, REDFERN, NSW 2016

Sheet Subject

STORMWATER & SITEWORKS PLAN

Scale : A1

Drawn: RG

Authorised

Job No: 181172

Drawing No: C03

Revision: P1

Plot File Created: Aug 06, 2018 - 4:52pm

FileName: C03.dwg – USER: rockyg – Plot File Created: Aug 06, 2018 – 4:52pm

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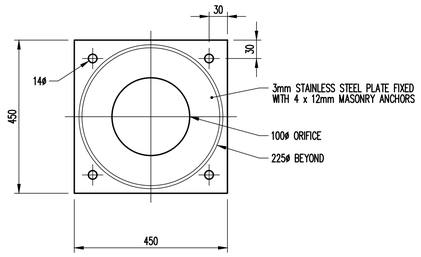
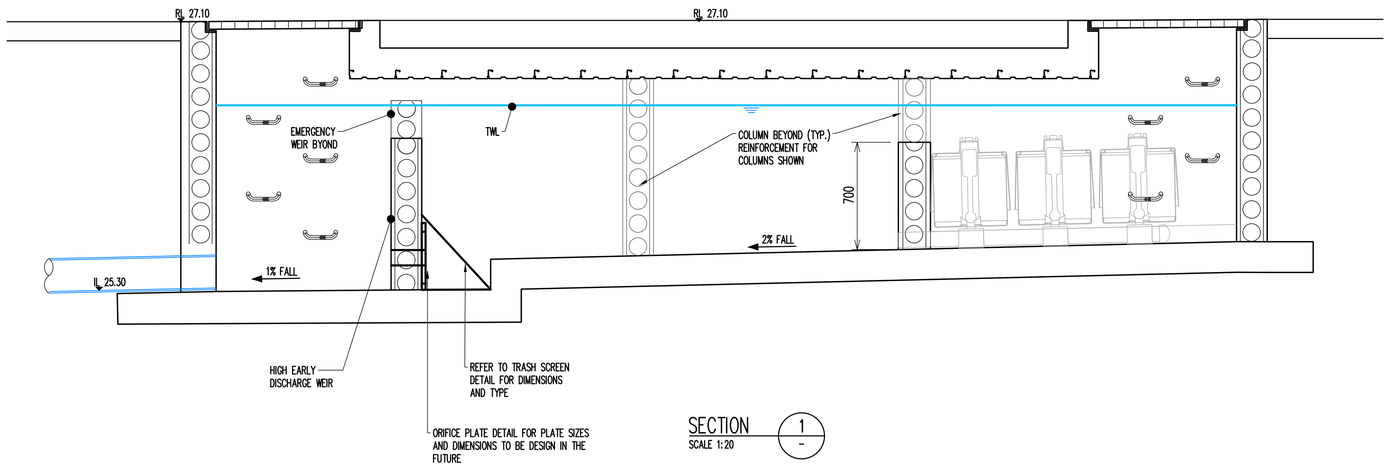
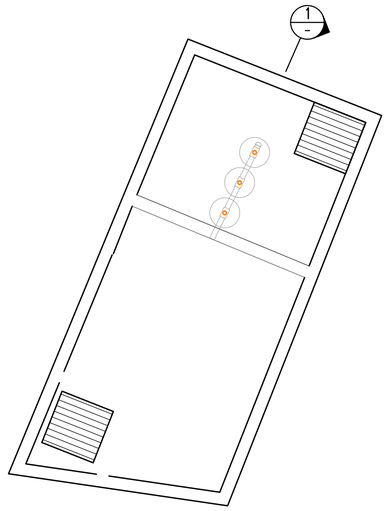


ORIFICE PLATE DETAIL

SCALE 1: 5



SECTION 1 / -
SCALE 1:20



PLAN 2 / -
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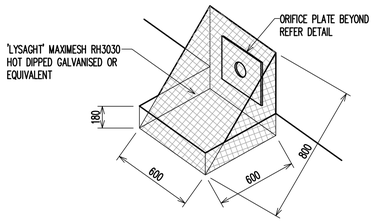
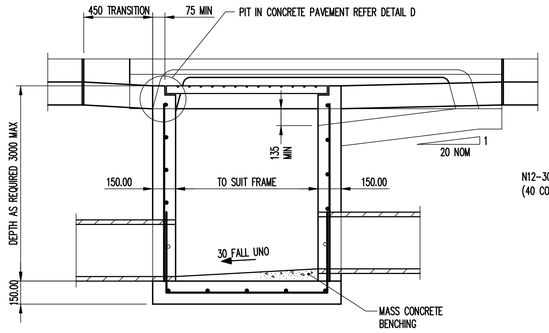


TRASH SCREEN DETAIL

NTS



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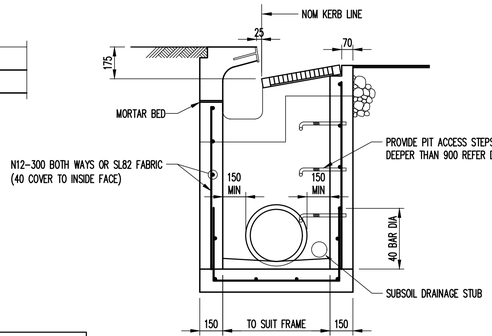
NOTE:IF REINFORCING FABRIC IS TO BE USED REFER TO WALL AND CORNER DETAILS



SECTION 3 / -
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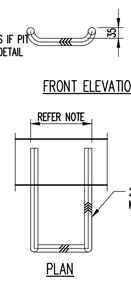
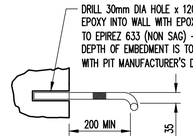


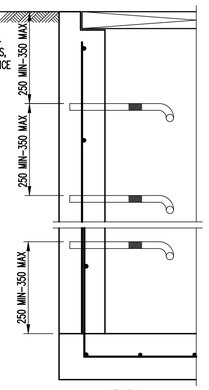
PLAN



FRONT ELEVATION

SIDE ELEVATION

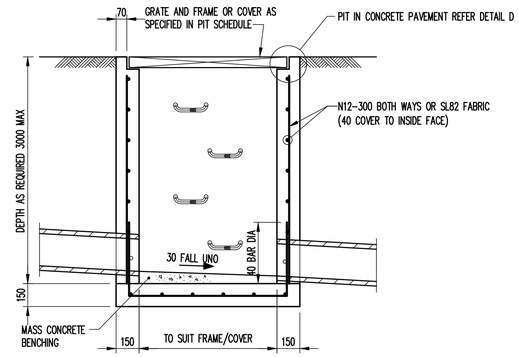
NOTE
1 WHEN POSITIONED IN STRAIGHT ALIGNMENT, STEP TO BE 400 WIDE.
2 STAGGERED STEPS TO BE 200 WIDE, STEPS TO BE STAGGERED 200 CENTRE TO CENTRE FOR ALTERNATE STEPS.
3 SPACING OF STEPS TO BE UNIFORM TO WITHIN ±8mm IN EACH PIT.



SECTION

PIT ACCESS STEP DETAIL

SCALE 1: 10



SECTION 1 / -
SCALE 1:20

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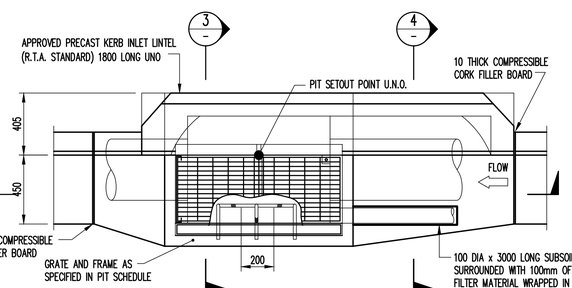
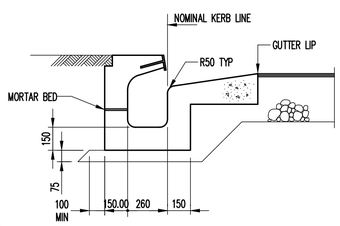
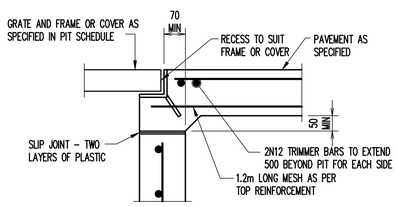


PLAN
SCALE 1: 20

PIT TYPE A

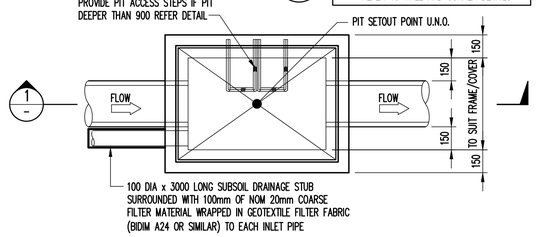


SECTION 4 / -
SCALE 1:20



DETAIL D

SCALE 1: 10



PLAN
SCALE 1: 20

PIT TYPE B

FileName: C04.dwg - USER: rgilfillan Plot File Created: Aug 06, 2018 - 4:53pm

A1 0 1 2 3 4 5 6 7 8

Rev	Description	Eng	Draft	Date
P1	ISSUE FOR APPROVAL	NB	RG	06.08.18

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Civil Engineer

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IGLU REDFERN STAGE 2, 80-88 REGENT STREET, REDFERN, NSW 2016

Sheet Subject

DETAILS & SECTIONS SHEET

Scale : A1	Drawn	Authorised
	RG	

Job No	Drawing No	Revision
181172	C04	P1

Plot File Created: Aug 06, 2018 - 4:53pm

Appendix B

Correspondence between TTW and Sydney Water

© Taylor Thomson Whitting

Nemesio Biason Jr

From: JEYADEVAN, JEYA <JEYA.JEYADEVAN@sydneywater.com.au>
Sent: Tuesday, 3 April 2018 8:47 AM
To: Nemesio Biason Jr
Subject: RE: 80-88 Regent St, Redfern

Nemesio,

Please send any future stormwater enquiry including On Site Detention requirements to the following email address:

stormwater@sydneywater.com.au

The On Site Detention requirements for the 821.7 square meters site at 80-88 Regent Street Redfern, are as follows:

- On Site Detention 13 cubic meter
- Permissible Site Discharge 30 L/s

The approval for the On Site Detention would only be given as part of the Section 73 application for this development. The On Site Detention is to be designed according to the above values and submitted to Sydney Water for approval with the Section 73 application. The following details are to be included in your submission for On Site Detention approval:

- Location of the On Site Detention in relation to the development
- Location of the On Site Detention in relation to overall stormwater network of the property
- Plan and Elevation of the On Site Detention tank with all dimensions
- Orifice plate calculation

Best Regards

Jeya Jeyadevan | **Senior Capability Assessor**

Customer Delivery | Sydney Water
Level 7, 1 Smith St Parramatta NSW 2150
PO Box 399 Parramatta NSW 2124
T 8849 6118 | **Mobile** 0409 318 827 | **Email** jeya.jeyadevan@sydneywater.com.au
sydneywater.com.au

From: Nemesio Biason Jr [mailto:Nemesio.BiasonJr@ttw.com.au]
Sent: Thursday, 29 March 2018 3:39 PM
To: JEYADEVAN, JEYA <JEYA.JEYADEVAN@sydneywater.com.au>
Subject: 80-88 Regent St, Redfern

Hi Jeya,
Trust all is well.

We're proposing to redeveloped no 80-88 Regent St, Redfern. The total site area is 822sq.m.
Do we require OSD system? If so please advise us on the requirements.

Regards,
Nem