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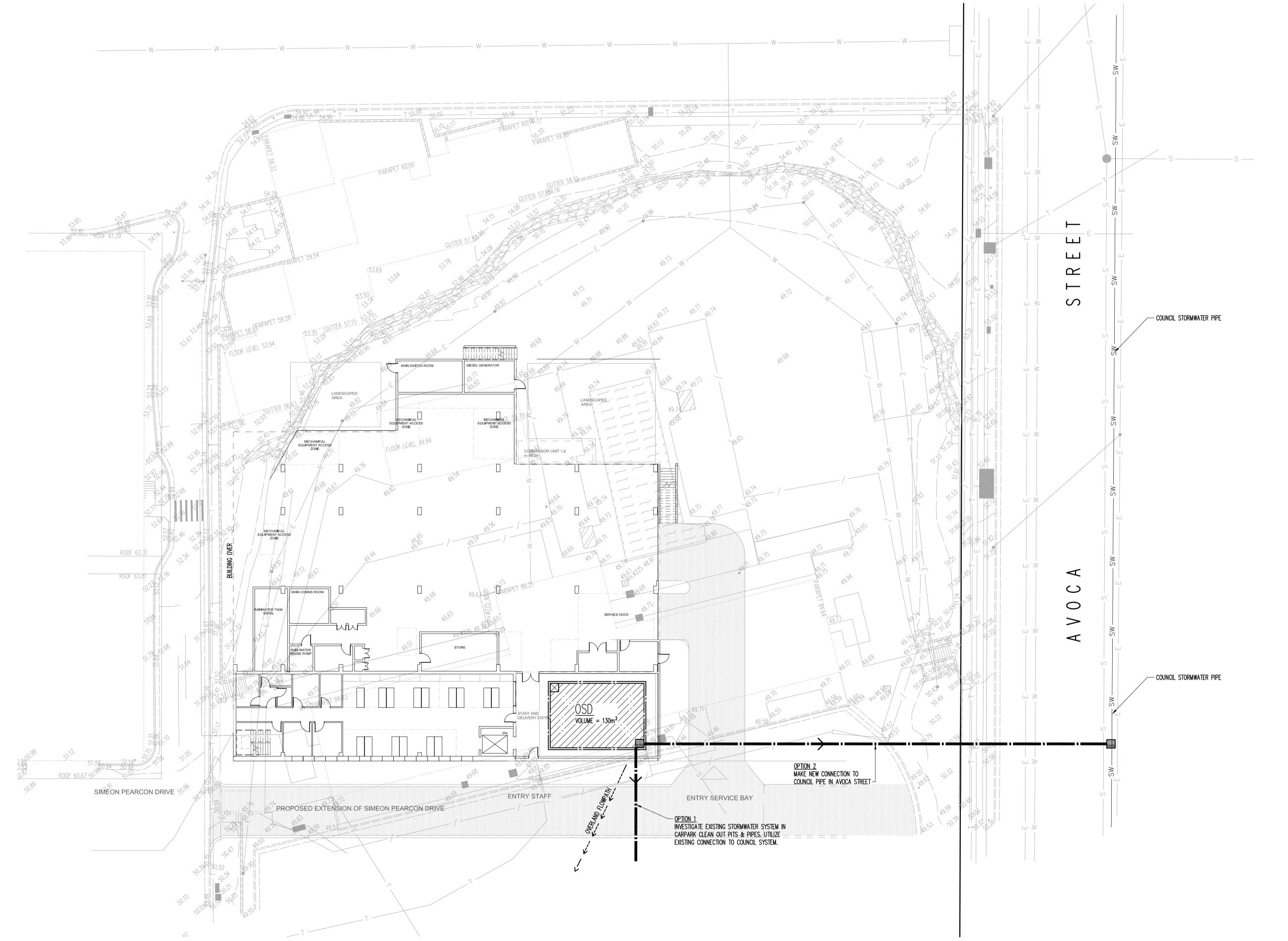
# TaylorThomsonWhitting

Consulting Engineers

48 Chandos Street St.Leonards NSW 2065
T: +61 2 9439 7288 F: +61 2 9439 3146 ttwsyd@ttw.com.au

Taylor Thomson Whitting (NSW) Pty Ltd A.C.N. 113 578 377

RevDescriptionEngDraftDateP1PRELIMINARYCSEN10.12.10



FOR NOTES AND LEGENDS REFER TO DRAWING No C01.

LIENI

HEALTH INFRASTRUCTURE NSW@HEALTH

Health Infrastructure

PROJECT
PRINCE OF WALES HOSPITAL
MENTAL HEALTH INTENSIVE CARE UNIT

101418

TTW PROJECT NUMBER

BUILDING POW MHICU

DESIGN STAGE SCHEMATIC DESIGN

TATUS

PRELIMINARY

DRAWING TITLE

STORMWATER CONCEPT PLAN

PRELIMINARY

CI-MHICU-002 P1

Plot File Created: Dec 15, 2010 - 10:08am



- ANGLE FIRST STAKE TOWARDS

PREVIOUSLY LAID STRAW BALE

UNDISTURBED AREA

EXISTING SURFACE LEVEL

SEDIMENTATION TRAP

STORMWATER PIT

STAKES DRIVEN 600

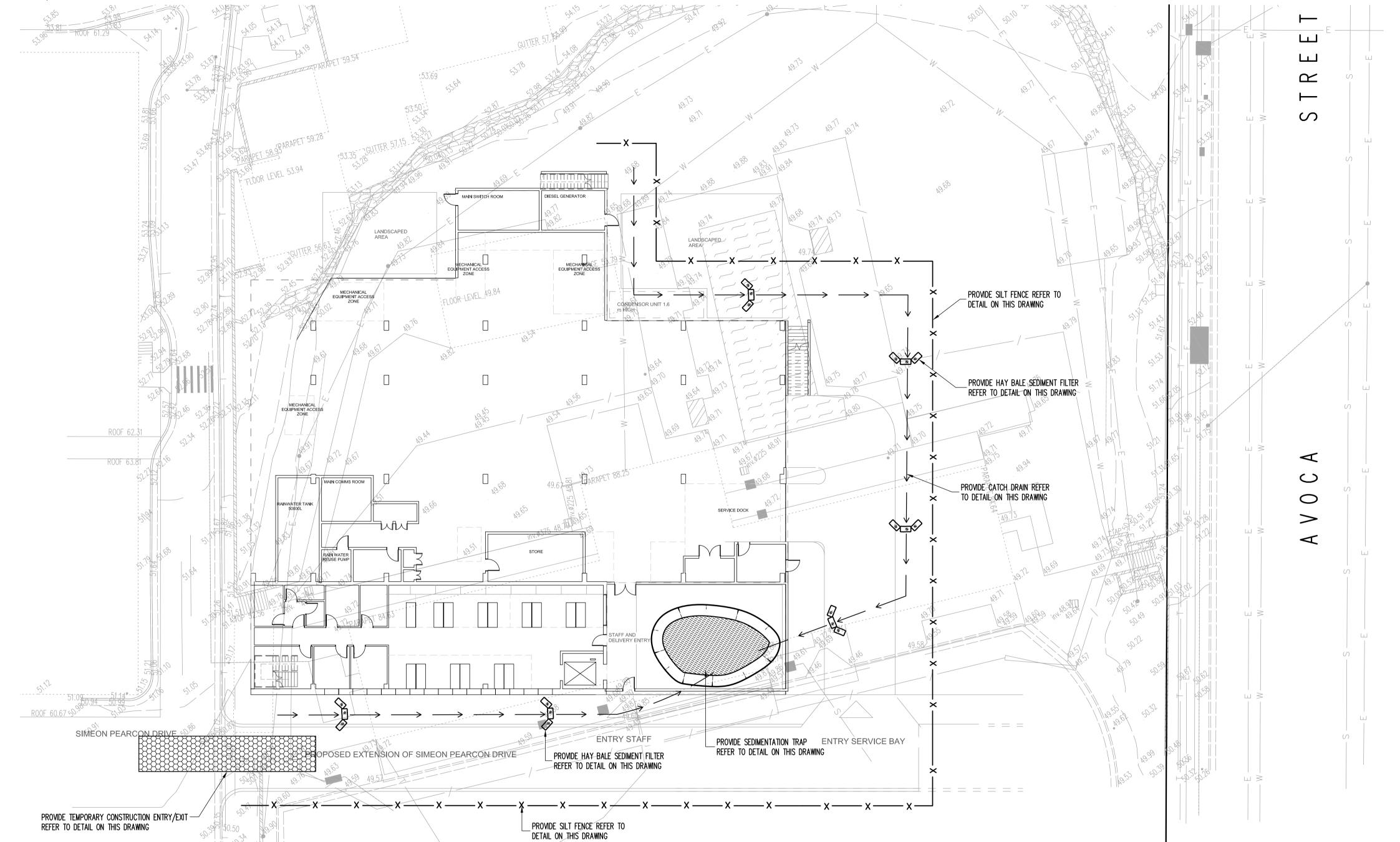
INTO THE GROUND-

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

STRAW BALE SEDIMENT FILTER

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

DISTURBED AREA



### 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 <u>drawings and notes are</u> 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. . Minimise the area of site being disturbed at any one time.

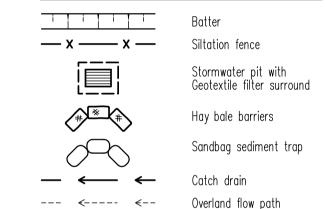
6. Protect all stockpiles of materials from scour and erosion. Do not

- 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
- 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
- 11. Maintain all stormwater pipes and pits clear of debris and sediment. Inspect stormwater system and clean out after each
- 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 silt fences below the site and across all potential runoff sites.
- 1.2. Construct temporary construction entry/exit and divert runoff to suitable control systems.
- 1.3. Construct measures to divert upstream flows into existing stormwater system.
- 1.4. Construct sedimentation traps/basin including outlet control and
- 1.5. Construct turf lined swales.
- 1.6. 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.

### EROSION AND SEDIMENT CONTROL LEGEND



FOR NOTES AND LEGENDS REFER TO DRAWING No C01.

CLIENT

HEALTH INFRASTRUCTURE **NSW@HEALTH** 

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Health Infrastructure

PROJECT PRINCE OF WALES HOSPITAL MENTAL HEALTH INTENSIVE CARE UNIT

101418

TTW PROJECT NUMBER

BUILDING POW MHICU

DESIGN STAGE SCHEMATIC DESIGN

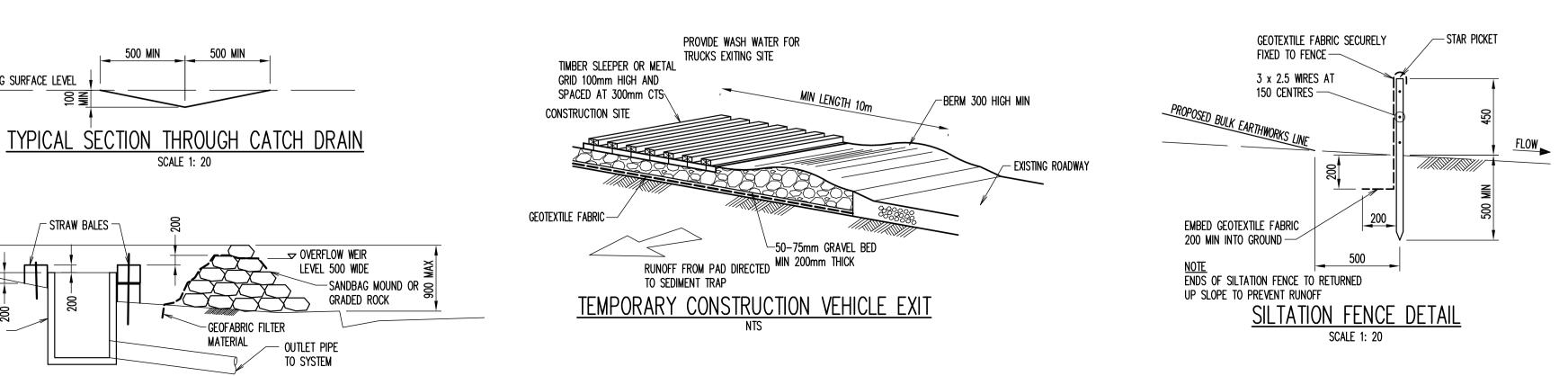
STATUS

**PRELIMINARY** 

DRAWING TITLE

Scale at A1 1:200 uno.

**EROSION AND** SEDIMENT CONTROL PLAN



DRAWING NUMBER Plot File Created: Dec 15, 2010 - 10:09am

# 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
- 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 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
- 5. 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.
- 6. For all temporary batters refer to geotechnical recommendations.

### 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.

<u>Consultant</u>	<u>Dwg Title</u>	<u>Dwg No</u>	<u>Rev</u>	<u>Date</u>
CRAIG & RHODES	DETAIL SURVEY	096-10	1	23.08.10
BVN	FLOOR PLAN LOWER GRD	AR-MHICU-DA-D-B1	06	02.12.10

# PIT SCHEDULE

**Note:** Grate size does not necessarily reflect pit size, refer pit type details, shown on detail sheets — C10 Final internal pit dimensions are to comply with AS3500

Туре	Description	Cover (Clear Opening)	Number	
A	Kerb inlet pit 1800 lintel	450 x 900 Class D galvanised mild steel grate hinged to frame	????????	
В	Surface inlet pit	600 x 900 Class D galvanised mild steel grate hinged to frame	????????	
С	Junction pit	600 x 900 Class D cast iron cover with concrete infill	????????	
D		Existing pit to be demolished and removed	????????	
E		Existing pit to remain	????????	

# SURVEY AND SERVICES INFORMATION

<u>Survey</u>

Origin of levels : SSM. 51804 RL.65.572 Datum of levels : A.H.D. AUSTRALIAN HEIGHT DATUM Coordinate system : MGA Survey prepared by: CRAIG & RHODES

Setout Points : SSM. 50498 SSM. 51804 Taylor Thomson Whitting does not guarantee that the survey information

### whatsoever. <u>UNDERGROUND SERVICES - WARNING</u>

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

shown on these drawings is accurate and will accept no liability for any

inaccuracies in the survey information provided to us from any cause

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

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

# SITEWORKS NOTES

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

- 1. All basecourse material to comply with RTA specification No 3051 and compacted to minimum 98% modified standard dry density in accordance with AS 1289 5.2.1.
- 2. All trench backfill material shall be compacted to the same density
- as the adjacent material. 3. 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

# STORMWATER DRAINAGE NOTES

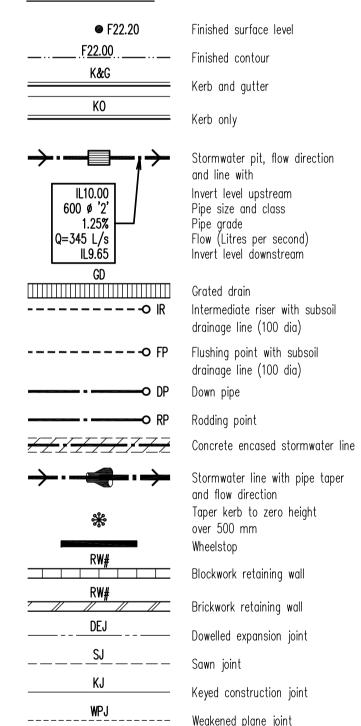
1 Stormwater Design Criteria (A) Average recurrence interval -1:100 years for roof drainage to first external pit 1:20 years for paved and landscaped areas (B) Rainfall intensities -Time of concentration: 6 minutes 1:100 years = 254 mm/hr1:20 years = 200 mm/hr (C) Runoff coefficients -Roof areas: Roads and paved areas:  $C_{20} = 0.9$ 

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

Landscaped areas:  $C_{20} = 0.6$ 

- 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 Engineer 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).

# SITEWORKS LEGEND



Expansion joint

— Tied keyed joint

----- Guard Rail

── ← Grass catch drain

< - <--- Overland flow path

# SURVEY LEGEND



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- as they are constructed. 3. On completion of pavement provide sand bag kerb inlet sediment
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- after the construction of kerbs.

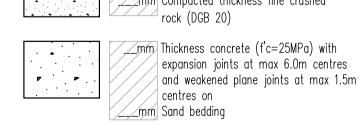
# PAVEMENT LEGEND

<u>NOTES</u>	
	rete shall conform to AS2150 and the specification
2. Pavement base Reference XYZ	ed on geotechnical report by ?????????????????? Date 06.06.06
	Thickness asphaltic concrete (AC10) on Compacted thickness fine crushed
	rock (DGB20) on

rock (DGS40)
Thickness asphaltic concrete (AC10) or Compacted thickness fine crushed rock (DGB20) on Compacted thickness fine crushed

\_\_\_mm Compacted thickness fine crushed

rock (DGS40)
mm Thickness concrete (f'c=32MPa) with SL92 fabric (40 top cover)mm Compacted thickness fine crushe





\_\_\_mm Thick mortar bedding on \_\_\_mm Thickness concrete (f'c=32MPa) with SL72 fabric (40 top cover) on \_\_\_mm Compacted thickness fine crushed rock (DGB20)

\_\_\_mm Pavers to Architects specification on

# CONCRETE NOTES

### **EXPOSURE CLASSIFICATION:** External: B1

Place concrete of the following characteristic compressive strength f'c

Location	AS 1379 f'c MPa	Specified	Nomina
	at 28 days	Slump	Agg. Si
Paths	\$25	80	20
Pits	\$25	80	20
Footings	\$32	80	20
Driveways	S32	80	20

- . Use Type 'GP' cement, unless otherwise specified.
- 3. Consolidate by mechanical vibration. Cure all concrete surfaces as
- 4. For all falls in slab, drip grooves, reglets, chamfers etc. refer to
- 5. Unless shown on the drawings, the location of all construction joints shall be submitted to Engineer for review.
- reinforcement layer. 8. Slurry used to lubricate concrete pump lines is not to be used in
- 9. All slabs cast on ground require sand blinding with a Concrete

1. The design, certification, construction and performance of the being carried out.

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

Plain round bar Sauare mesh

2. Provide bar supports or spacers to give the following concrete

weather or ground.

- 40 when cast directly in contact with ground. . Cover to reinforcement ends to be 50 mm u.n.o.

Maintain cover to all pipes, conduits, reglets, drip grooves etc 6. Laps in reinforcement shall be made only where shown on the drawings unless otherwise approved. Lap lengths shall be 40

8. 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.

as defined in AS 13/9.			
Location	AS 1379 f'c MPa at 28 days	Specified Slump	Nominal Agg. Size
Paths Pits Footings Driveways	S25 S25 S32 S32	80 80 80 80	20 20 20 20 20

- 2. All concrete shall be subject to project assessment and testing to
- directed in the Specification.
- Architects drawings and specifications.
- 6. No holes or chases shall be made in the slab without the approval of the Engineer.
  7. Conduits and pipes are to be fixed to the underside of the top
- any structural members.
- 10. **170** Indicates Slab or Band thickness variation.

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

# REINFORCEMENT NOTES

millimetres of the reinforcement.

N. Hot rolled ribbed bar grade D500N grade R250N RL. Rectangular mesh grade 500L

cover to all reinforcement unless otherwise noted on drawings.

40 top, 40 bottom, 40 sides. - 40 top, 40 bottom, 40 - 40 when exposed to weather or ground. 40 generally. - 40 when cast in forms but later exposed to

4. Provide N12-450 support bars to top reinforcement as required , Lap 450. U.N.O.

bar dia. unless noted otherwise. . All cogs to be standard cogs unless noted otherwise.

HEALTH INFRASTRUCTURE **NSW@HEALTH** 

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Eng Draft Date

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# Health Infrastructure

PROJECT

PRINCE OF WALES HOSPITAL MENTAL HEALTH INTENSIVE CARE UNIT TTW PROJECT NUMBER

# 101418 BUILDING

DESIGN STAGE SCHEMATIC DESIGN

POW MHICU

# **PRELIMINARY**

Scale at A1

DRAWING TITLE **NOTES AND LEGENDS SHEET** 

CI-MHICU-001 P1

Plot File Created: Dec 15, 2010 - 10:08am