WYONG HOSPITAL EXPANSION PLANNING

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 Engineer.
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 footprint.
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.

Consultant	Dwg Title	Dwg No	Rev	Date
BEE&LETHBRIDGE	DETAILS SURVEY	19152-02	02	04.08.17
TREHY INGOLD NEATE	DETAIL SURVEY PLAN	22604-SV01	A	15.05.18
BW	DETAIL SURVEY PLAN	1801916-DSA01A		20.12.18
HDR	REVIT MODEL	55372-HDR-AR-MDL-000103		10.01.19

SURVEY AND SERVICES INFORMATION

SURVEY

Origin of levels : P.M.71265 RL13.600
Datum of levels : A.H.D. AUSTRALIAN HEIGHT DATUM
Coordinate system : MGA
Survey prepared by : BEE&LETHBRIDGE
Setout Points : CONTACT THE SURVEYOR

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 : BEE&LETHBRIDGE

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.

KERBING NOTES

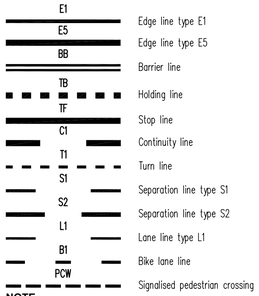
Includes all kerbs, gutters, dish drains, crossings and edges.

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.

SIGNS AND LINE MARKING NOTES

1. Pavement marking and sign posting on public roads shall be in accordance with the requirements of the relevant Road Authority. The contractor shall obtain these requirements from the Road Authority.
2. Contractor is to provide guide posts, spaced in accordance with AS1742.2. They are to be located near all head walls and pipe outlets.
3. Raised pavement markers to be in accordance with AS1742.2
4. Where existing pavement marking conflicts with proposed, it is to be removed.
5. Lane widths do not include width of gutter.
6. Line marking plan does not define boundaries.
7. Erect temporary sign 'changed traffic conditions ahead' 120m ahead of new work in both directions.
8. Establish the location of existing utility services and locate new signs clear of these installations.
9. The sloped face of the SF median kerbs which adjoin through lanes, are to be painted white in lieu of an E3 edge line. The reflective pavement markers normally associated with an E3 edge line are to be located on the pavement adjacent to the SF kerb.
10. Bicycle pavement markings and sign posting to be in accordance with Austroads Standards.

LINEMARKING LEGEND



Edge line type E1
Edge line type E5
Barrier line
Holding line
Stop line
Continuity line
Turn line
Separation line type S1
Separation line type S2
Lane line type L1
Bike lane line
Signalised pedestrian crossing

NOTE
Line marking to be in accordance with AS1742.2 and the relevant local or state authority guidelines

REINFORCEMENT NOTES

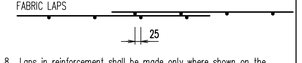
1. Fix reinforcement as shown on drawings. The type and grade is indicated by a symbol as shown below. On the drawings this is followed by a numeral which indicates the size in millimetres of the reinforcement.

   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.

   Footings – 40 top, 40 bottom, 40 sides.
   Slabs – 40 top, 40 bottom,
   – 40 when exposed to weather or ground.
   Walls – 40 generally
   – 40 when cast in forms but later exposed to weather or ground.
   – 40 when cast directly in contact with ground.

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. Maintain cover to all pipes, conduits, reglets, drip grooves etc
6. All cogs to be standard cogs unless noted otherwise.
7. 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.



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

CONCRETE NOTES

EXPOSURE CLASSIFICATION : External :

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
Footpath	S32	80	20
Pits	S25	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. For all falls in slab, drip grooves, reglets, chamfers etc. refer to Architects drawings and specifications.
5. Unless shown on the drawings, the location of all construction joints shall be submitted to Engineer for review.
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 reinforcement layer.
8. Slurry used to lubricate concrete pump lines is not to be used in any structural members.
9. All slabs cast on ground require sand blinding with a Concrete Underlay

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.

SITEWORKS NOTES

1. 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.
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 = 191 mm/hr
1:20 years = 206 mm/hr
(C) Runoff coefficients –
Roof areas: C_{100} = 1
Roads and paved areas: C_{20} = 0.9
Landscaped areas: C_{20} = 0.6

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 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).

PIT SCHEDULE

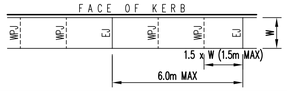
Note: Grate size does not necessarily reflect pit size, refer pit type details, shown on detail sheets – **C152**
Final internal pit dimensions are to comply with AS3500

Type	Description	Cover (Clear Opening)	Number
A	Kerb inlet pit 1800 lintel	450 x 900 Class D galvanised mild steel grate hinged to frame	2,4,5,6,7,8,9,10,11,12,13,14,15,16 17,18
B	Surface inlet pit	600 x 900 Class D galvanised mild steel grate hinged to frame	1,51,52
C	Headwall		3

JOINTING NOTES

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).



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.

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 (Douglas Partners) 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 practises as per relevant authority to be adopted and appropriate PPE to be used when handling all hazardous materials. Refer to geotechnical/environmental report by (Douglas Partners) 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.

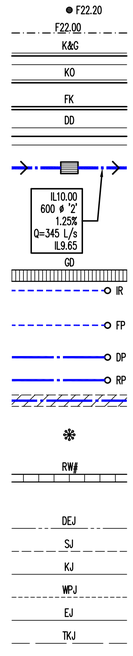
VEHICLE MOVEMENT

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

SURVEY LEGEND

Surface level
Contour
Kerb line
Batter
Retaining wall
Easement
Fence
Existing boundary

SITEWORKS LEGEND



Finished surface level
Finished contour
Kerb and gutter
Kerb only
Flush kerb
Dish drain
Stormwater pit, flow direction and line with
Invert level upstream
Pipe size and class
Pipe grade
Flow (Litres per second)
Invert level downstream
Grated drain
Intermediate riser with subsoil drainage line (100 dia)
Flushing point with subsoil drainage line (100 dia)
Down pipe
Rodding point
Concrete encased stormwater line
Taper kerb to zero height over 500 mm
Blockwork retaining wall
Dowelled expansion joint
Sawn joint
Keyed construction joint
Weakened plane joint
Expansion joint
Tied keyed joint

PAVEMENT LEGEND

40mm Thickness asphaltic concrete (AC10) on
150mm Compacted thickness fine crushed rock (DGB20) on
200mm Compacted thickness fine crushed rock (DGS40)

50mm Thickness asphaltic concrete (AC10) on
150mm Compacted thickness fine crushed rock (DGB20) on
250mm Compacted thickness fine crushed rock (DGS40)

100mm Thickness concrete (f'c=32MPa) with SL82 fabric (40 top cover) on
25mm Sand bedding on compacted subgrade

2 coat seal on
200mm Compacted fine crushed rock (DGB20)

DRAWING SCHEDULE (TTW)

FileName: C101.dwg – USER: wwshaw – Plot File Created: Jan 24, 2019 - 11:37am

FOR APPROVAL

Rev	Description	Eng	Draft	Date
P3	FOR APPROVAL	SB	WW	24.01.19
P2	FOR APPROVAL	SB	WW	09.11.18
P1	FOR APPROVAL	SB	WW	11.10.18

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Project
WYONG HOSPITAL EXPANSION PLANNING

Sheet Subject
NOTES AND LEGENDS SHEET

Scale : A1 NTS | Drawn WW | Authorised SB
Job No 181458 | Drawing No C101 | Revision P3
Plot File Created: Jan 24, 2019 - 11:37am

PROVIDE SEDIMENTATION TRAP REFER TO DETAIL ON THIS DRAWING APPROXIMATE SIZE = 340m³

PROVIDE TEMPORARY CONSTRUCTION ENTRY/EXIT REFER TO DETAIL ON THIS DRAWING (TYP)

PROVIDE SILT FENCE REFER TO DETAIL ON THIS DRAWING (TYP)

PROVIDE CATCH DRAIN REFER TO DETAIL ON THIS DRAWING (TYP)

PROVIDE CATCH DRAIN REFER TO DETAIL ON THIS DRAWING (TYP)

PROVIDE GEOTEXTILE FILTER PIT SURROUND REFER TO DETAIL ON THIS DRAWING (TYP)

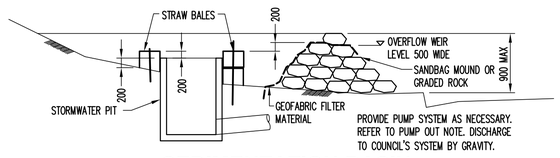
PROVIDE TEMPORARY CONSTRUCTION ENTRY/EXIT REFER TO DETAIL ON THIS DRAWING (TYP)

PROVIDE CATCH DRAIN REFER TO DETAIL ON THIS DRAWING (TYP)

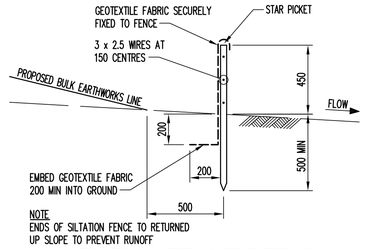
PROVIDE SILT FENCE REFER TO DETAIL ON THIS DRAWING (TYP)

PROVIDE SEDIMENTATION TRAP REFER TO DETAIL ON THIS DRAWING APPROXIMATE SIZE = 960m³

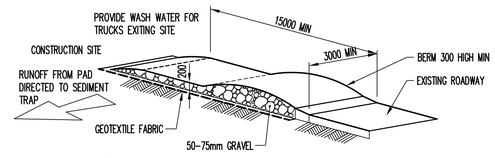
SEDIMENTATION BASIN
NTS



SILTATION FENCE DETAIL
SCALE 1: 40



TEMPORARY CONSTRUCTION EXIT
NTS



GEOTEXTILE PIT FILTER
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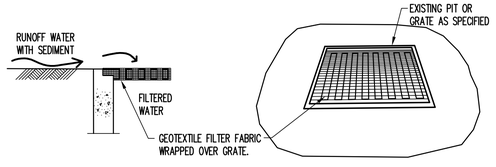
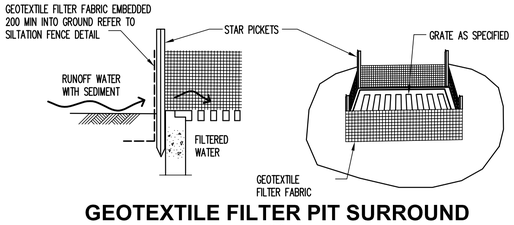
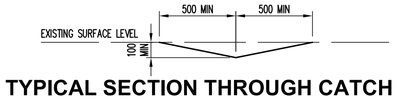


GEOTEXTILE FILTER PIT SURROUND
NTS



TYPICAL SECTION THROUGH CATCH DRAIN
SCALE 1: 40



FOR APPROVAL

Rev	Description	Eng	Draft	Date
P5	FOR APPROVAL	SB	WW	24.01.19
P4	FOR APPROVAL	SB	WW	19.11.18
P3	FOR APPROVAL	SB	WW	09.11.18
P2	FOR COORDINATION	SB	RH	22.10.18
P1	FOR COORDINATION	SB	RH	11.10.18

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Project
WYONG HOSPITAL EXPANSION PLANNING

Sheet Subject
SEDIMENT & EROSION CONTROL PLAN

Scale : A1 1:600 | Drawn WW | Authorised SB
Job No 181458 | Drawing No C102 | Revision P5
Plot File Created: Jan 24, 2019 - 11:52am

FileName: C102.dwg - USER: wendyw - Plot File Created: Jan 24, 2019 - 11:52am

ALLOW TO MILL AND SHEET TEMPORARY CARPARK WITH ASPHALT MIN.50mm AC14 PROVIDE DRAINAGE AND LIGHTING

ENTRY LANE WITH BOOM GATE

SINGLE EXIT LANE WITH BOOM GATE - PAY AT GATE OR KIOSK

OPTION TBC

SUBSTATION LOCATION TBC

LEVEL 1 FFL 19.18

D.P. 1147734

D.P. 109189

PAVEMENT LEGEND

P1	40mm Thickness asphaltic concrete (AC10) on 150mm Compacted thickness fine crushed rock (DGB20) on 200mm Compacted thickness fine crushed rock (DGS40)
P2	50mm Thickness asphaltic concrete (AC10) on 150mm Compacted thickness fine crushed rock (DGB20) on 250mm Compacted thickness fine crushed rock (DGS40)
P3	100mm Thickness concrete (f'c=32MPa) with SL82 fabric (40 top cover) on 25mm Sand bedding on compacted subgrade
P4	2 coat seal on 200mm Compacted fine crushed rock (DGB20)

EXISTING SERVICES LEGEND

- S — Existing sewer
- W — Existing water
- EU — Existing underground electrical
- EA — Existing aerial electrical
- T — Existing communications
- G — Existing gas
- SW — Existing stormwater

FOR APPROVAL

FileName: C105.dwg - USER: wwhyle - Plot File Created: Jan 24, 2019 - 12:05pm

Rev	Description	Eng	Draft	Date
P6	FOR APPROVAL	SB	WW	16.11.18
P5	FOR APPROVAL	SB	WW	09.11.18
P4	FOR COORDINATION	SB	WW	22.10.18
P3	FOR COORDINATION	SB	WW	11.10.18
P2	FOR COORDINATION	SB	WW	19.09.18
P1	FOR COORDINATION	SB	WW	18.09.18
P7	FOR APPROVAL	SB	WW	24.01.19

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Project
WYONG HOSPITAL EXPANSION PLANNING

Sheet Subject
OVERALL SITEWORKS PLAN

Scale : A1	Drawn	Authorised
1:600	WW	SB

Job No	Drawing No	Revision
181458	C105	P7

Plot File Created: Jan 24, 2019 - 12:05pm