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CIVIL ENGINEERING WORKS

BUNGENDORE HIGH SCHOOL

BIRCHFIELD DRIVE 2621, NSW

LOCALITY PLAN
SCALE 1:2000

TO BE PRINTED IN FULL COLOUR

CIVIL ENGINEERING WORKS DRAWING LIST:

NOT FOR CONSTRUCTION

Date generated 23/01/2025 1:42:19 PM \\CORP.PBWAN.NET\ANZPROJECTS\AU218XX\218485_SNSW_BUNGENDORE_HH_WIP\BIMPROPERTY\CV_CIVIL\02\DRAWINGS\218485-CV-0001

rev	date	description	drn	ch'k
2	24/01/25	REISSUE FOR CONCEPT DESIGN	MZV	MD
1	28/11/2024	ISSUED FOR CONCEPT DESGIN	SM	MD

rev	date	description	drn	ch'k

NSW GOVERNMENT Education School Infrastructure

enstruct group pty ltd

Level 27, 680 George Street
Sydney NSW 2000
Australia

Telephone (02) 9272 5100

www.enstruct.com.au

enstruct

project
BUNGENDORE HIGH SCHOOL

BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

drawing title
COVER SHEET AND LOCALITY PLAN

status
CONCEPT DESIGN

scale at A1	drawn	checked	approved
1:2000	SM	MD	NOV-24

project no.	sheet	rev.
218485	CV-0001	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 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; the Contractor is to ensure that the drawings used for construction have been approved by all relevant authorities prior to commencement site.
6. 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.
7. 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
NBRS ARCHITECTURE	SITE PLAN	BHS-NBRS-ZZ-ZZ-DR-A-000200	T2	20.01.25

2

SURVEY

1. The survey as shown on Enstruct drawings was prepared by COLLIERS
   Date 18.09.2024
   Revision 00
   Datum of levels A.H.D
   Coordinate system SSM132522 MGA GDA2020
2. Enstruct 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.
3. Existing contours shown reflect site conditions at time of survey.
4. enstruct plans do not indicate the presence of any survey mark. The contractor is to undertake their own search.
5. 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.

UNDERGROUND SERVICES - WARNING

The locations of underground services shown on enstruct 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.

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

BOUNDARY AND EASEMENTS NOTE

The property boundary and easements locations shown on enstruct drawing's have been based from information received from the surveyour.
Enstruct makes no guarantees that the boundary or easement information shown is correct. enstruct 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.

CIVIL SAFETY IN DESIGN

enstruct (NSW) Pty Ltd operates under Safe Work Australia's code of Conduct for the Safe Design of Structures.
These drawings shall be read in conjunction with the enstruct Civil risk and Solutions Register.
Under the Code of Conduct it is the Client's responsibility to provide a copy of the Civil Risk and Solutions Register to the Principal Contractor.
It is the Principal Contractor's responsibility to review the hazards and risks identified during the design process to ensure a safe workplace is maintained for the construction, maintenance and eventual demolition of the civil infrastructure.

TENDER NOTES

1. 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.
2. 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.
3. Should any ambiguity, error, omissions, discrepancy, inconsistency or other fault exist or seem to exist in the documents, immediately notify in writing to the Superintendendent.
4. 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.

SITEWORKS NOTES

1. All basecourse material to comply with RMS specification No 3051 and compacted to minimum 98% modified 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

BULK EARTHWORKS GENERAL NOTES

1. All bulk earthworks setout from grid lines U.N.O.
2.Batters are not to exceed the Geotechnical engineer specifications
(i) All permanent batter max slope of 3(H) :1(V) U.N.O.
(ii) All temporary batter max slope of 1(H) :1(V) U.N.O.
3. Excavated material may be used as structural fill provided,
(i) it complies with the specification requirements for fill material,
(ii) the placement moisture content complies with the Geotechnical Engineers' 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.
4. Compact fill areas and subgrade to not less than:

Location	Standard Dry Density (AS1289 5.1.1)	Moisture (OMC)
Under building slabs on ground:	98%	±2%
Under roads and carparks:	98%	±2%
Landscaped areas:	95%	±2%

5. 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 granular fill U.N.O.
6. Contractor to provide proof roll compaction evidence for signoff.
7. Contractor shall place safety barriers around excavations in accordance with relevant safety regulations.
8. For interpretation of bulk earthworks foot print line shown on the bulk earthworks drawings refer to the bulk earthworks construction legend.
9. Bulk earthwork drawings are not to be used for detailed excavation.
10. Refer to the Geotechnical Report prepared by JK Geotechnics for detailed information.

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
Kerbs	S20	80	20
Pavements	S32	80	20
Retaining wall footing	S40	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. 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. Slurry used to lubricate concrete pump lines is not to be used in any concrete members.
8. All building slabs cast on ground require sand blinding with a Concrete Underlay. Refer to structural drawings.

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 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 - 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.
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.

FABRIC LAPS

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

CONCRETE FINISHING NOTES

1. All exposed concrete pavements are to be broomed 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.

KERBING NOTES

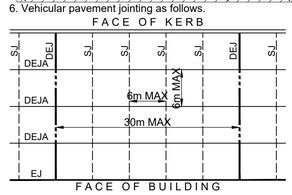
Includes all kerbs, gutters, dish drains, crossings and edges.

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, invert of kerb, or edge of dish drain. Upon completion of new kerbs, new basecourse and surface is to be laid 900mm wide to match existing materials and thicknesses.
6. Existing allotment drainage pipes are to be built into the new kerb with a 100mm dia hole.
7. Existing kerbs are to be completely removed where new kerbs are shown.

JOINTING NOTES

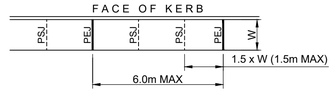
Vehicular Pavement Jointing

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/Sawcut 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: 6 minutes
   1% AEP = 177 mm/hr
   5% AEP = 135 mm/hr
   (C) Rainfall losses -
   Impervious areas: IL= 1.0 mm , CL = 0 mm/hr
   Pervious areas: IL= 19mm , CL =3.3 mm/hr
2. Pipes 300 dia and larger to be reinforced concrete Class "2" approved spigot and socket with rubber ring joints U.N.O. Pipes in public roadways (including public domain) to be class "4" reinforced concrete.
3. Pipes up to 225 dia may be sewer grade uPVC with solvent welded joints, subject to approval by the engineer
5. Enlargers, connections and junctions to be manufactured fittings where pipes are less than 300 dia.
6. Pipes are to be installed in accordance with AS 3725. All bedding to be type H2 U.N.O.
7. Care is to be taken with invert levels of stormwater lines. Grades shown are not to be reduced without approval.
8. Adopt invert levels for pipe installation (grades shown are only nominal).
8. All downpipe connections are to be 150mm DIA or the same size as the downpipe (whichever is larger) laid at 1% minimum fall connection to the nearest pit. Minimum cover 450mm in non-trafficable landscaped areas.
9. Pits in roadways (including public domain) are to be insitu to council details.
10. Pit grates and covers shall conform with AS3996-2006, and AS1428.1 for access requirements.

SUBSOIL NOTES

1. Subsoil drains to be slotted flexible uPVC U.N.O.
2. All subsoil drainage shall outlet to drainage pits or land drains.
3. Pavement subsoil drains are to be placed in accordance with standard drawings behind all kerb and gutter, on the low side of all pavements, and road crossings at sag vertical curves.
4. Where subsoil drains pass under floor slabs and/or vehicular pavements, unslotted uPVC sewer grade pipe is to be used.

TO BE PRINTED IN FULL COLOUR

NOT FOR CONSTRUCTION

rev	date	description	drn	ch'k
2	24/01/25	REISSUE FOR CONCEPT DESIGN	MZV	MD
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Sydney NSW 2000
Australia
Telephone (02) 9272 5100
www.enstruct.com.au
enstruct

project: BUNGENDORE HIGH SCHOOL
BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

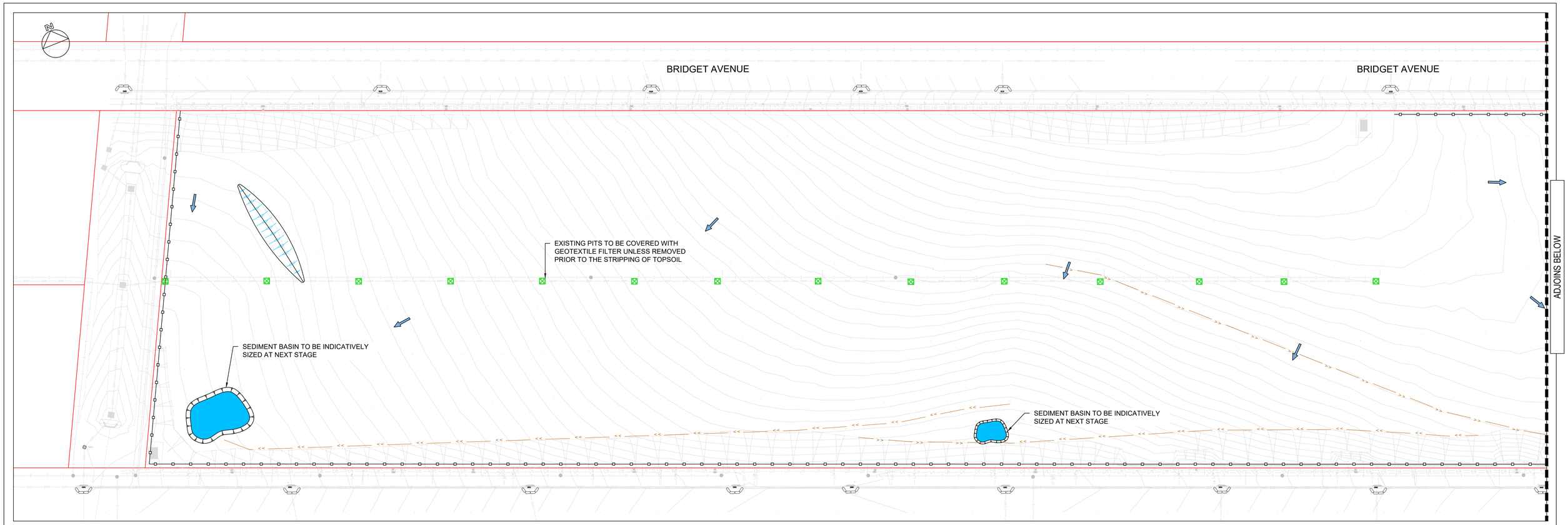
drawing title: NOTES SHEET

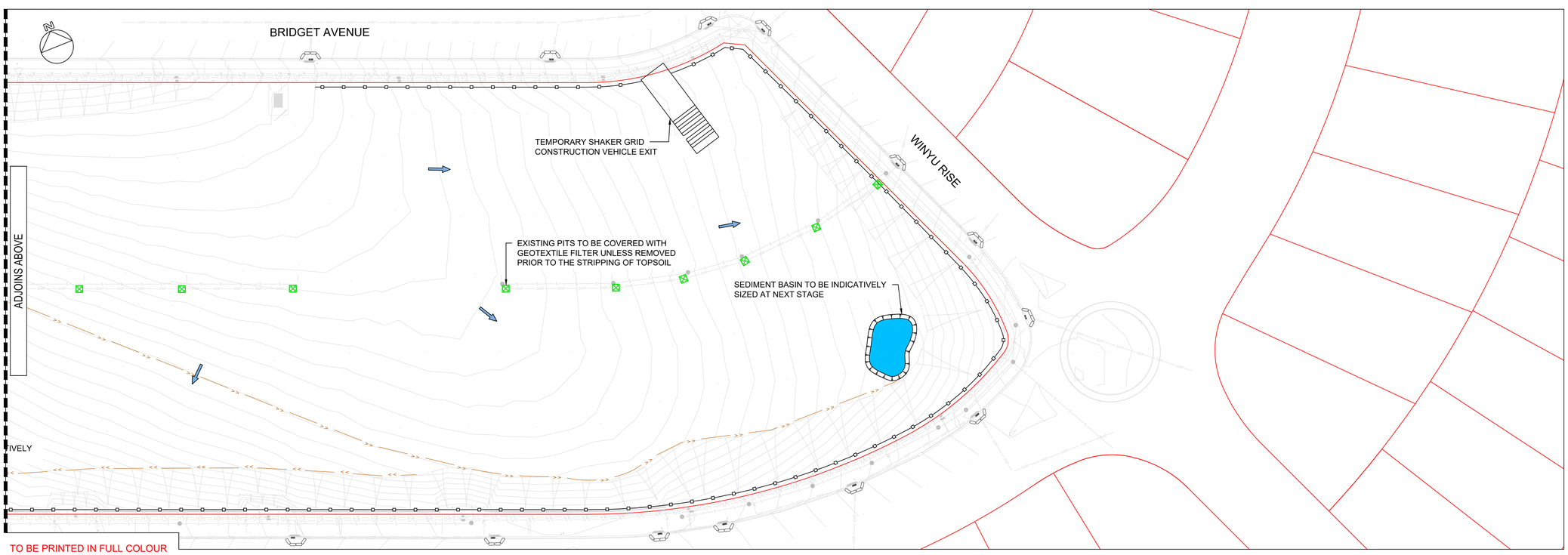
status: CONCEPT DESIGN

scale at A1	drawn	checked	approved
NTS	SM	MD	NOV-24

project no.	sheet	rev.
218485	CV-0002	2

A1





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EROSION AND SEDIMENT CONTROL LEGEND

- Siltation fence, with star pickets at max 2.5m centres (typ)
- Catch drain
- Direction of runoff from existing surface
- Stockpile
- Stormwater pit, with Geotextile filter
- Sandbag sediment trap

SCALE 1:500

0 10 20 30 m

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project
BUNGENDORE HIGH SCHOOL

BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

drawing title
EROSION AND SEDIMENT CONTROL PLAN

status
CONCEPT DESIGN

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1:500	SM	MD	NOV-24

project no.	sheet	rev.
218485	CV-1000	2

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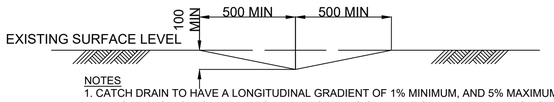
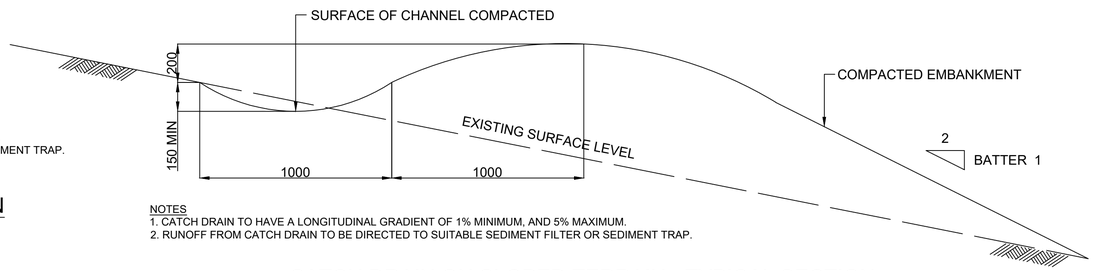


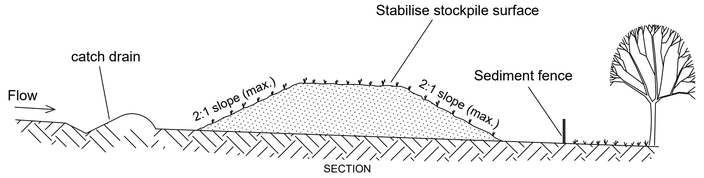
NOTES
1. CATCH DRAIN TO HAVE A LONGITUDINAL GRADIENT OF 1% MINIMUM, AND 5% MAXIMUM.
2. RUNOFF FROM CATCH DRAIN TO BE DIRECTED TO SUITABLE SEDIMENT FILTER OR SEDIMENT TRAP.

CATCH DRAIN ON FLAT TERRAIN - TYPICAL SECTION
SCALE 1:20



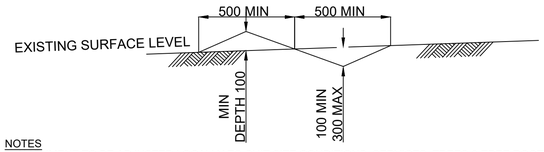
NOTES
1. CATCH DRAIN TO HAVE A LONGITUDINAL GRADIENT OF 1% MINIMUM, AND 5% MAXIMUM.
2. RUNOFF FROM CATCH DRAIN TO BE DIRECTED TO SUITABLE SEDIMENT FILTER OR SEDIMENT TRAP.

CATCH DRAIN ON SLOPED TERRAIN - TYPICAL SECTION
SCALE 1:20



Construction Notes
1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS. COORDINATE WITH ARBORIST IF REQUIRED.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP
5. CONSTRUCT EARTH BANKS (TYP) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES (TYP) 1 TO 2 METRES DOWNSLOPE. REFER TO TYPICAL DETAILS

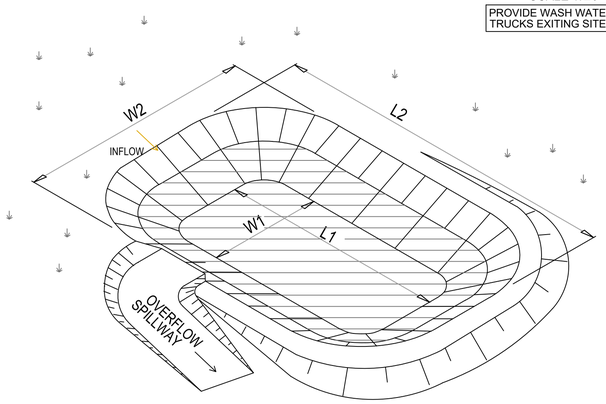
STOCKPILES
NTS



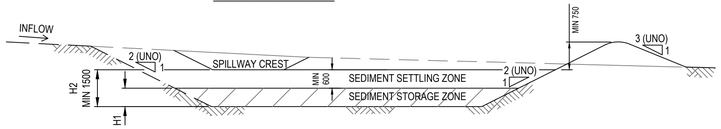
NOTES
1. ALIGNMENT TO BE ADJUSTED LOCALLY TO SUIT SITE CONDITIONS: SERVICES, TREES & TREE ROOTS, & PROPOSED WORKS.
2. EXCAVATED MATERIAL TO BE PLACED ON LOW SIDE AND COMPACTED TO 98% STD

TYPICAL SECTION THROUGH CUT OFF SWALE
SCALE 1:20

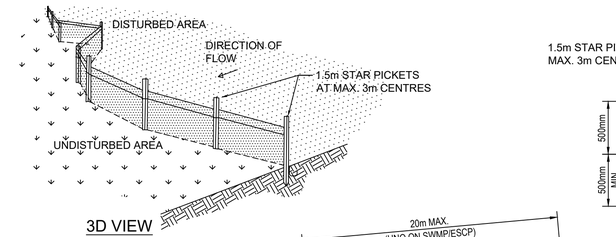
PROVIDE WASH WATER FOR TRUCKS EXITING SITE



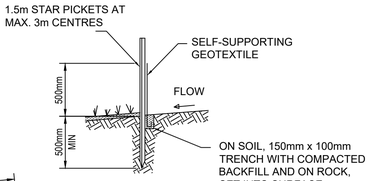
PERSPECTIVE VIEW



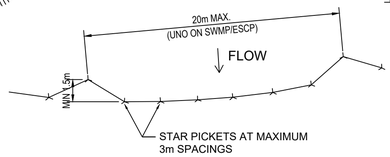
TYPICAL LONGSECTION



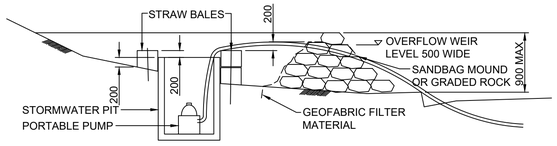
3D VIEW
NTS



SECTION
SCALE 1:20



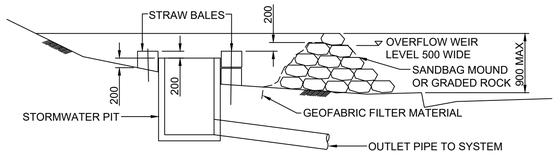
PLAN
NTS



SEDIMENTATION TRAP WITH PUMP OUTLET
NTS

SILTATION FENCE DETAIL

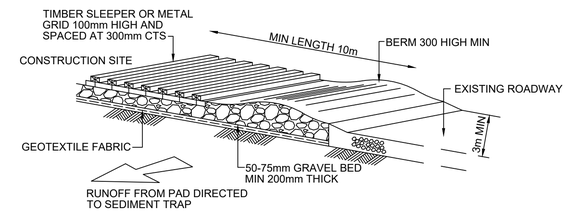
NOTES
1. CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE.
2. DRIVE 1.5m LONG STAR PICKETS INTO GROUND, 3 METRES APART.
3. DIG A 200mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
4. BACKFILL TRENCH OVER BASE OF FABRIC.
5. FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY GEOTEXTILE MANUFACTURER.
6. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.



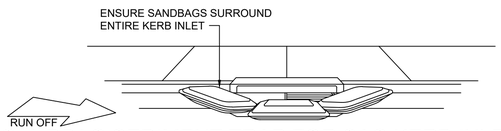
SEDIMENTATION TRAP CONNECTED TO NETWORK
NTS

Notes
1. Configuration to be used only for types D (Dispersible) and F (Fines). Refer to 'Bluebook' for further information on soil classification.
2. Prepare the site under the embankment by ripping at least 150mm and compact the existing substrate.
3. Select fill free of roots, wood, rock, large stone or foreign material. Spread fill in 100 to 150mm laters and compact it at optimum moisture content.
4. Temporary basin will remain for the duration of excavation and bulk earthworks.
5. Maintenance must be performed at a regular basis for the duration of works, basin must be emptied when full or after a considerable storm event, once the particles settled.
6. Refer to the civil plans for its desired location and further notes.

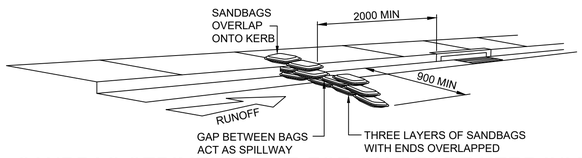
SEDIMENT BASIN TYPE 'D' AND 'F' (WET)
NTS



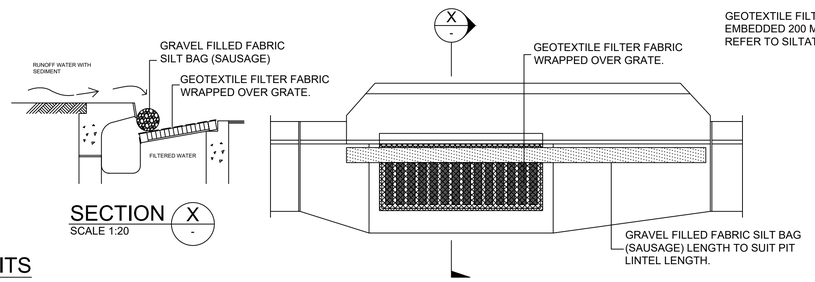
TEMPORARY SHAKER GRID CONSTRUCTION VEHICLE EXIT
NTS



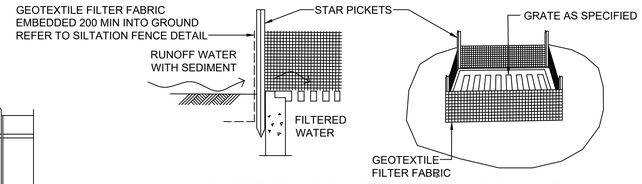
SANDBAG SEDIMENT TRAP FOR SAG KERB INLET PITS
NTS



SANDBAG SEDIMENT TRAP FOR ON-GRADE KERB INLET PITS
NTS



KERB INLET SEDIMENT TRAP
SCALE 1:20



GEOTEXTILE FILTER PIT SURROUND
NTS

SCALE 1:20
0 200 400 600 800 1000mm

TO BE PRINTED IN FULL COLOUR

NOT FOR CONSTRUCTION

rev	date	description	drn	ch'k
2	24/01/25	REISSUE FOR CONCEPT DESIGN	MZV	MD
1	28/11/2024	ISSUED FOR CONCEPT DESGIN	SM	MD

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enstruct group pty ltd
Level 27, 680 George Street
Sydney NSW 2000
Australia
Telephone (02) 9272 5100
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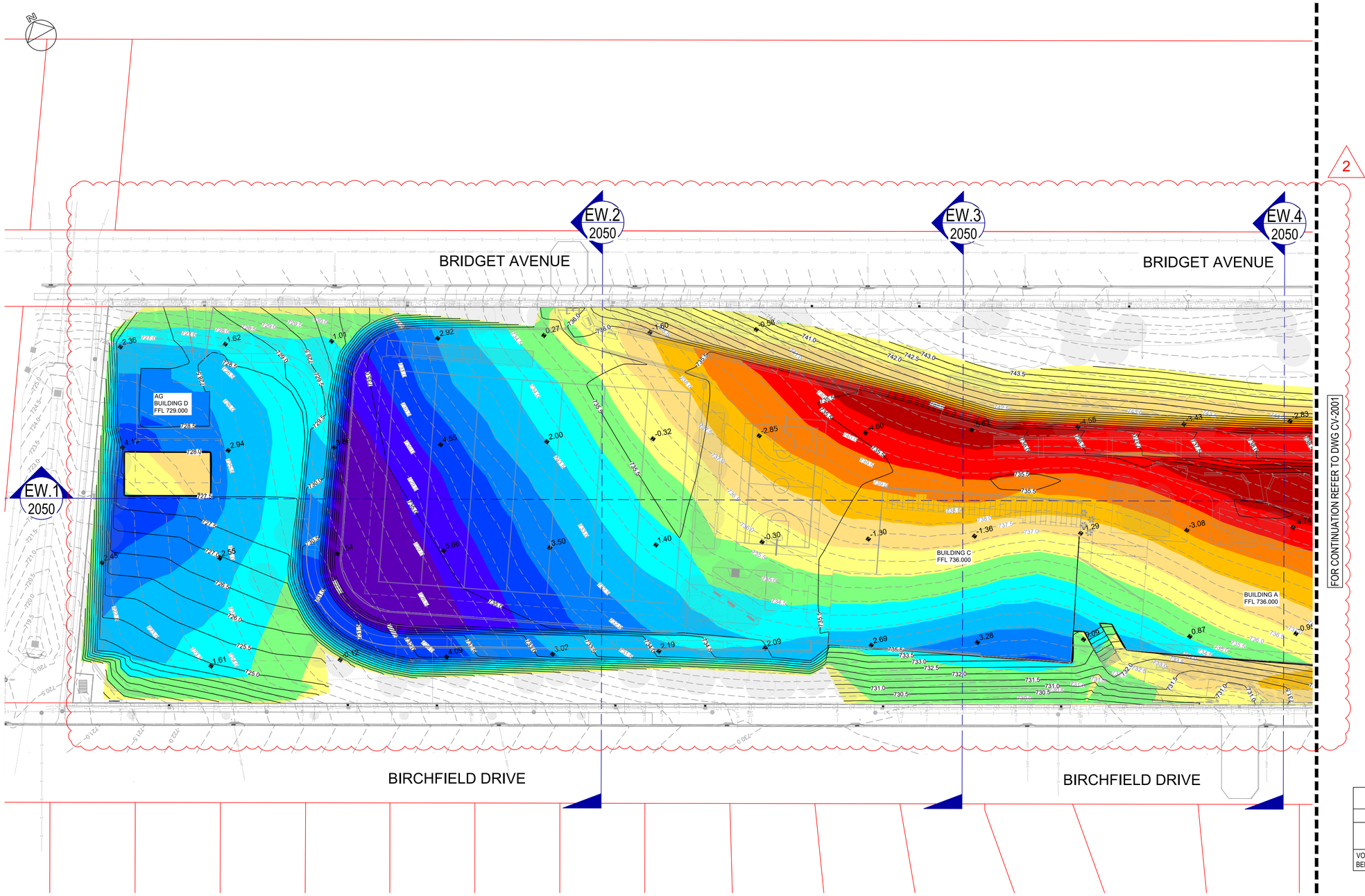
project
BUNGENDORE HIGH SCHOOL
BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

drawing title
EROSION AND SEDIMENT CONTROL DETAILS

status: CONCEPT DESIGN

scale at A1	drawn	checked	approved
NTS	SM	MD	NOV-24

project no.	sheet	rev.
218485	CV-1001	2



BULK EARTHWORKS MODEL NOTES

1. THIS DRAWING IS AN ESTIMATE FOR INFORMATION ONLY WHICH SHOULD NOT BE TAKEN AS AN ACCURATE MEASUREMENT AND SHOULD NOT BE USED FOR CONSTRUCTION.
2. THIS MODEL REPRESENTS A LEVEL COMPARISON BETWEEN:
   A) THE EXISTING SURFACE LEVELS MINUS AN AVERAGED TOPSOIL 200mm STRIP, AND
   B) THE FORMATION LEVELS OF THE PROPOSED DEVELOPMENT. THE FORMATION LEVELS ARE SET AT 300mm BELOW THE FINISHED GROUND LEVELS.
3. THE EXISTING SURFACE LEVELS ARE BASED ON THE TIN MODEL FROM THE SURVEY FILE. REFER TO SURVEY NOTES.
4. THIS ESTIMATE DOES NOT INCLUDE EXCAVATION FOR ANY BELOW GROUND SERVICES INCLUDING STORMWATER INFRASTRUCTURE.
5. NO ALLOWANCE HAS BEEN CONSIDERED FOR SERVICE TRENCHES, IN GROUND TANKS, STRUCTURAL FOOTINGS, PILING, FLOOR SLABS OR LIFT PITS.
6. NO BULKING FACTOR HAVE BEEN APPLIED TO THE BULK EXCAVATION VOLUMES.
7. IT HAS BEEN ASSUMED THAT ALL EXCAVATED MATERIAL IS NOT CONTAMINATED AND CAN BE USED AS FILL MATERIAL ON SITE (NOT INCLUDING TOPSOIL). IF CONTAMINATION IS PRESENT, A SEPARATE ASSESSMENT SHOULD TAKE PLACE.
8. ANY DAMAGE TO EXISTING ROADS OR EXISTING BUILDINGS WILL BE RECTIFIED BY THE CONTRACTOR AT HIS EXPENSE.
9. ALL ENVIRONMENTAL MEASURES INCLUDING VEGETATION PROTECTION AND EROSION AND SEDIMENT CONTROLS SHALL BE PLACE PRIOR TO THE COMMENCEMENT OF ANY WORK.
10. EROSION PLANS AND BUILDING REPRESENTATIVE FAMILIAR WITH THE PLAN MUST BE ON SITE AT ALL TIMES DURING CONSTRUCTION.
11. ALL ARCHITECTURAL FINISHED SURFACE LEVELS SUPERSEDE THOSE INDICATED ON THE BULK EARTHWORKS PLAN. THE CONTRACTOR SHALL CONFIRM THE FINAL BUILDING PAD LEVEL REQUIRED TO SUIT THE STRUCTURAL DESIGN WITH THE STRUCTURAL DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
12. REFER GEOTECHNICAL REPORT / ENGINEER FOR SUITABILITY OF MATERIAL WON FROM EXCAVATION BACKFILL.
13. NOT TO BE USED FOR DETAILED EXCAVATION, WHICH INCLUDES: LIFT PITS, TRENCHING, FOOTINGS AND OTHER EXCAVATION OF SIMILAR NATURE

2

BULK EARTHWORKS CUT/FILL DEPTHS

Number	Colour	Minimum Cut/Fill Depth (m)	Maximum Cut/Fill Depth (m)
1		-8.000	-5.000
2		-5.000	-4.000
3		-4.000	-3.000
4		-3.000	-2.000
5		-2.000	-1.000
6		-1.000	0.000
7		0.000	1.000
8		1.000	2.000
9		2.000	3.000
10		3.000	4.000
11		4.000	5.000
12		5.000	6.000
13		6.000	8.500

OVERALL CUT AND FILL TABLE

NAME	CUT VOLUME (m^3)	FILL VOLUME (m^3)	BALANCE (m^3)
VOLUME	40,378 (20,913 IN ROCK)	40,550	172 (FILL)

VOLUME CALCULATION ASSUMPTIONS: 200mm EXISTING TOPSOIL STRIPPING; FORMATION LEVELS 300mm BELOW PROPOSED FINISHED GROUND SURFACE.

LEGEND

735.5 EXISTING CONTOURS

735.5 PROPOSED FORMATION SURFACE CONTOURS

SCALE 1:250

0 5 10 15 m

TO BE PRINTED IN FULL COLOUR

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rev	date	description	drn	ch'k
2	09/01/2025	EARTHWORKS UPDATED	SM	MD
1	28/11/2024	ISSUED FOR CONCEPT DESGIN	SM	MD

rev	date	description	drn	ch'k

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enstruct group pty ltd
Level 27, 680 George Street
Sydney NSW 2000
Australia
Telephone (02) 9272 5100
www.enstruct.com.au
enstruct

project
BUNGENDORE HIGH SCHOOL
BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

drawing title
BULK EARTHWORKS PLAN SHEET 01

status
CONCEPT DESIGN

scale at A1	drawn	checked	approved
1:250	SM	MD	NOV-24

project no.	sheet	rev.
218485	CV-2000	2

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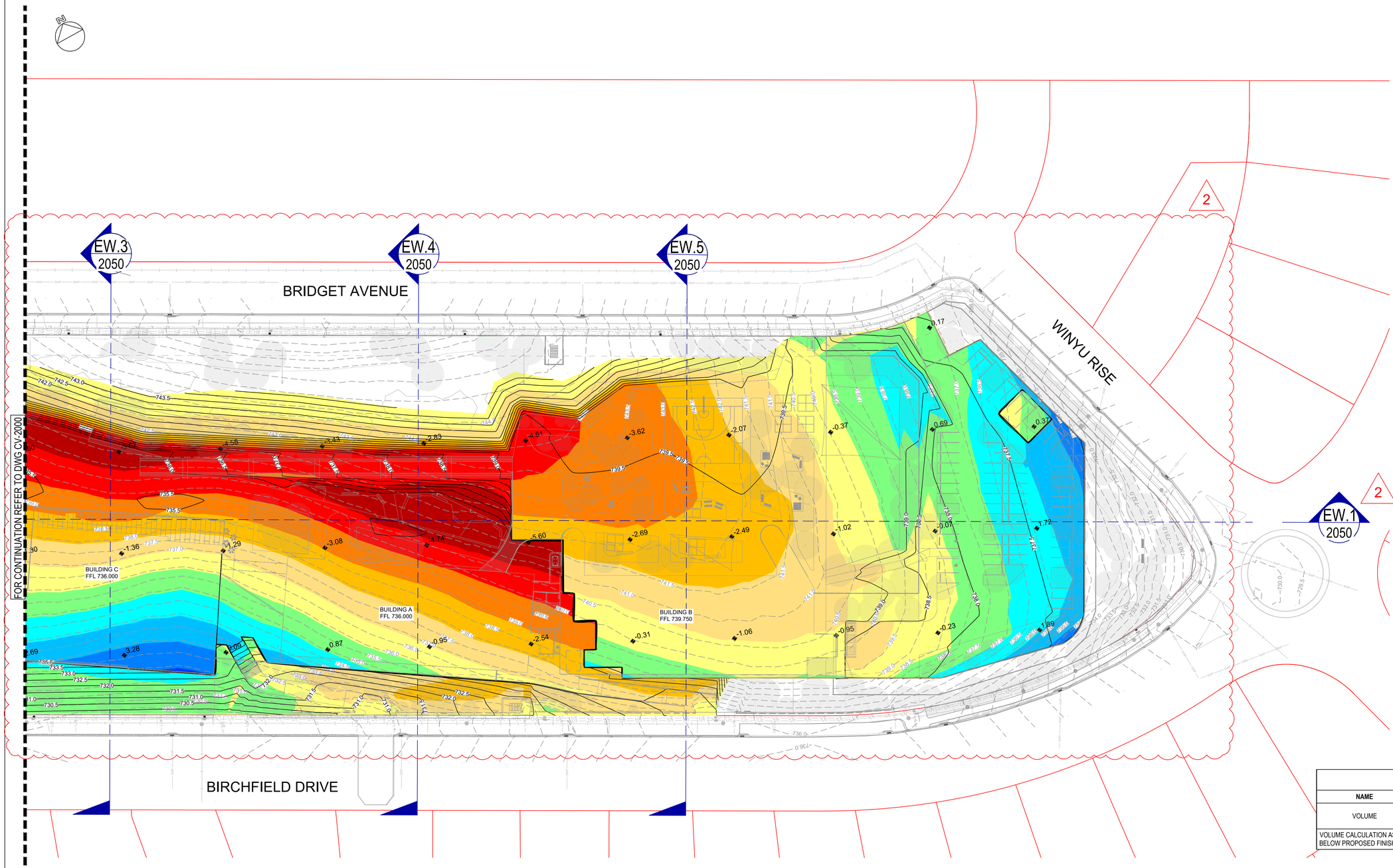

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5		-2.000	-1.000
6		-1.000	0.000
7		0.000	1.000
8		1.000	2.000
9		2.000	3.000
10		3.000	4.000
11		4.000	5.000
12		5.000	6.000
13		6.000	8.500

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LEGEND

735.5 EXISTING CONTOURS

735.5 PROPOSED FORMATION SURFACE CONTOURS

SCALE 1:250

0 5 10 15 m

TO BE PRINTED IN FULL COLOUR

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rev	date	description	drn	ch'k
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1	28/11/2024	ISSUED FOR CONCEPT DESGIN	SM	MD

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enstruct group pty ltd
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Sydney NSW 2000
Australia
Telephone (02) 9272 5100
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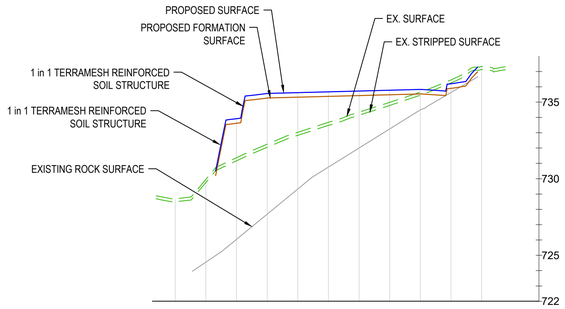
drawing title: BULK EARTHWORKS PLAN SHEET 02

status: CONCEPT DESIGN

scale at A1	drawn	checked	approved
1:250	SM	MD	NOV-24

project no.	sheet	rev.
218485	CV-2001	2

2



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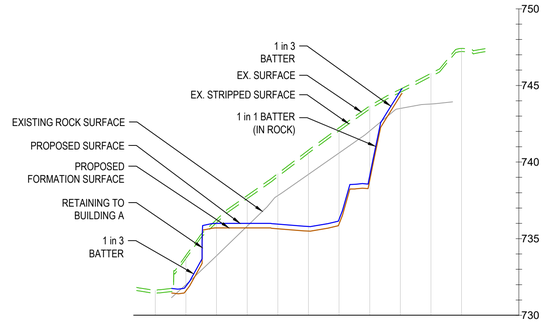

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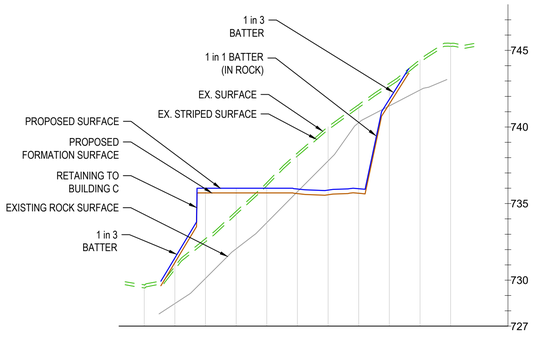

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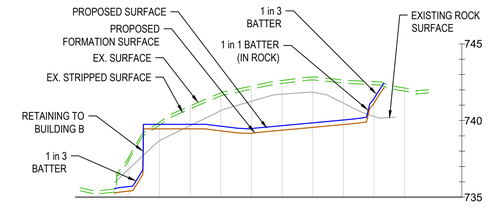

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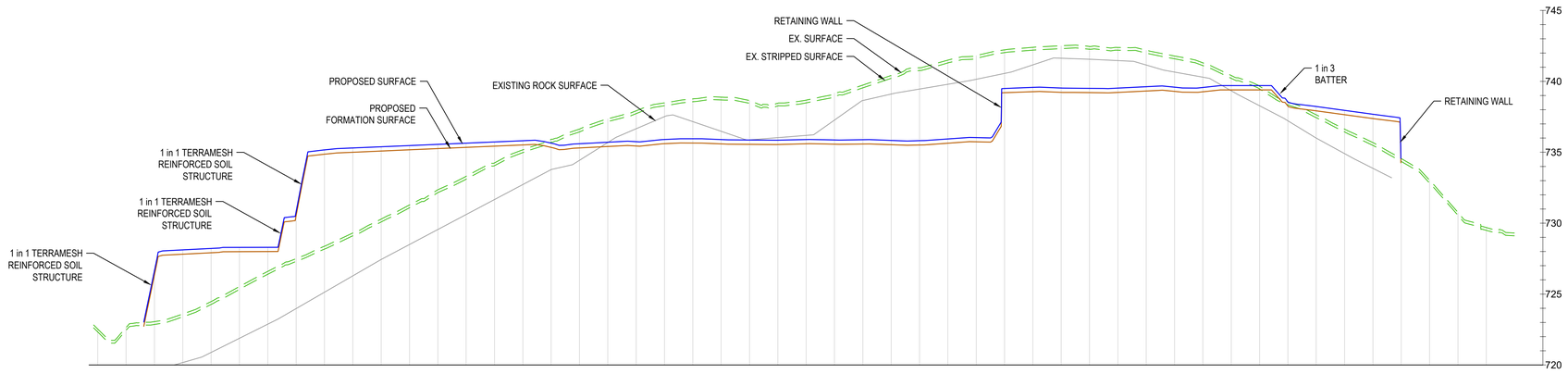

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SCALE (H) 1:250
SCALE (V) 1:50

SCALE 1:50
0 1 2 3 m

SCALE 1:250
0 5 10 15 m

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rev	date	description	drn	ch'k
2	09/01/2025	EARTHWORKS UPDATED	SM	MD
1	28/11/2024	ISSUED FOR CONCEPT DESGIN	SM	MD

rev	date	description	drn	ch'k

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Level 27, 680 George Street
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Australia
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drawing title
BULK EARTHWORKS SECTIONS

status
CONCEPT DESIGN

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1:250	SM	MD	NOV-24

project no.	sheet	rev.
218485	CV-2050	2

A1

BRIDGET AVENUE

BIRCHFIELD DRIVE

AG BUILDING D

EXISTING SEWER TO BE ABANDONED. REFER TO HYDRAULIC ENGINEER.

EXISTING STORMWATER TO BE ABANDONED. REFER TO STORMWATER PLANS.

BLEACHER SEATING

RW3

WA07

WA03

DD

FOR CONTINUATION REFER TO DWG CV-3002

2

SITEWORKS LEGEND

- Property boundary
- 22.20 Finished surface level
- 10.00 Finished contour
- -1.0% Design slope
- K&G Kerb and gutter
- KO Kerb only
- FK Flush kerb
- DD Dish drain
- GD Grated drain
- Vehicular guard rail and pedestrian fall protection
- WA06 Blockwork wall
- WA01 Free-standing blockwork wall wrapped in gabions
- WA05 Brickwork wall
- WA03 Bleacher wall
- WA07 Terramesh earth retaining structure (design subject to specialist advice in consultation with geotechnical engineer)

SCALE 1:250

0 5 10 15 m

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rev	date	description	drn	ch'k
2	24/01/25	REISSUE FOR CONCEPT DESIGN	MZV	MD
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rev	date	description	drn	ch'k

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Australia

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project: BUNGENDORE HIGH SCHOOL

BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

drawing title: SITEWORKS PLAN SHEET 01

status: CONCEPT DESIGN

scale at A1	drawn	checked	approved
1:250	SM	MD	NOV-24

project no.	sheet	rev.
218485	CV-3001	2

A1

2

SITEWORKS LEGEND

- Property boundary
- 22.20 — Finished surface level
- 10.00 — Finished contour
- -1.0% — Design slope
- K&G — Kerb and gutter
- KO — Kerb only
- FK — Flush kerb
- DD — Dish drain
- GD — Grated drain
- Vehicular guard rail and pedestrian fall protection
- WA06 — Blockwork wall
- WA01 — Free-standing blockwork wall wrapped in gabions
- WA05 — Brickwork wall
- WA03 — Bleacher wall
- WA07 — Terramesh earth retaining structure (design subject to specialist advice in consultation with geotechnical engineer)

BRIDGET AVENUE

BUILDING C

BUILDING A

BIRCHFIELD DRIVE

1 in 3 CUT BATTER IN RESIDUAL SOILS

1 in 1 CUT BATTER IN STANDSTONE

BLEACHER SEATING

EXISTING SEWER TO BE ABANDONED. REFER TO HYDRAULIC ENGINEER.

EXISTING STORMWATER TO BE ABANDONED. REFER TO STORMWATER PLANS.

EXISTING SANDSTONE RETAINING WALLS TO BE DEMOLISHED AND REMOVED

FOR CONTINUATION REFER TO DWG CV-3001

FOR CONTINUATION REFER TO DWG CV-3003

SCALE 1:250

0 5 10 15 m

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1	28/11/2024	ISSUED FOR CONCEPT DESGIN	SM	MD

rev	date	description	drn	ch'k

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Sydney NSW 2000
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drawing title
SITEWORKS PLAN SHEET 02

status
CONCEPT DESIGN

scale at A1	drawn	checked	approved
1:250	SM	MD	NOV-24

project no.	sheet	rev.
218485	CV-3002	2

A1

2

SITEWORKS LEGEND

- Property boundary
- 22.20 — Finished surface level
- 10.00 — Finished contour
- -1.0% — Design slope
- K&G — Kerb and gutter
- KO — Kerb only
- FK — Flush kerb
- DD — Dish drain
- GD — Grated drain
- Vehicular guard rail and pedestrian fall protection
- WA06 — Blockwork wall
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- WA05 — Brickwork wall
- WA03 — Bleacher wall
- WA07 — Terramesh earth retaining structure (design subject to specialist advice in consultation with geotechnical engineer)

BRIDGET AVENUE

WINYU RISE

BIRCHFIELD DRIVE

BUILDING A

BUILDING B

1 in 3 CUT BATTER IN RESIDUAL SOILS

1 in 1 CUT BATTER IN STANDSTONE

EXISTING STORMWATER TO BE ABANDONED. REFER TO STORMWATER PLANS. EXISTING SEWER TO BE ABANDONED. REFER TO HYDRAULIC ENGINEER.

EXISTING SANDSTONE RETAINING WALLS TO BE DEMOLISHED AND REMOVED

FOR CONTINUATION REFER TO DWG CV-3002

SCALE 1:250

0 5 10 15 m

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rev	date	description	drn	ch'k

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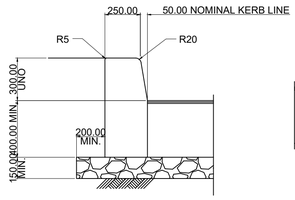
BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

drawing title: SITEWORKS PLAN SHEET 03

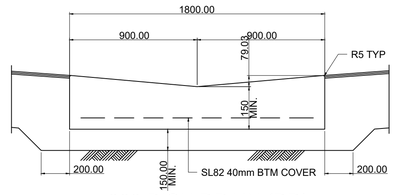
status: CONCEPT DESIGN

scale at A1	drawn	checked	approved
1:250	SM	MD	NOV-24

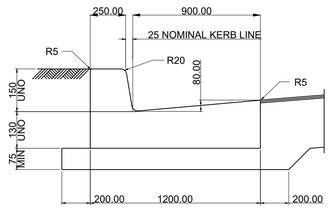
project no.	sheet	rev.
218485	CV-3003	2



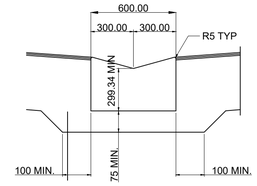
KERB ONLY (KO)
SCALE 1:10



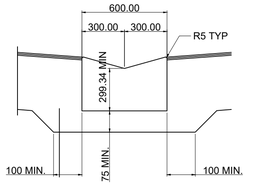
900 DISH DRAIN (DD)
SCALE 1:10



KERB AND GUTTER (K&G)
SCALE 1:10



DISH DRAIN TYPE A (DDA)
SCALE 1:10



DISH DRAIN TYPE A (DDA)
SCALE 1:10

PRELIMINARY PAVEMENT DESIGN

PAV01, PAV02, PAV03, PAV04 & PAV06 (COLOURED CONCRETE)

- REFER TO LANDSCAPE ARCHITECT DRAWINGS.
- 125mm THICKNESS CONCRETE (F'c = 32MPa) WITH SL72 (40mm COVER MIN.)
- 150mm LEAN MIX CONCRETE SUBBASE (F'c = 5MPa)
- 300mm CAPPING USING SELECT GRANULAR MATERIAL TO ACHIEVE MIN 10% CBR. E.G. CRUSHED ROCK; OR
- LIME STABILISATION OF SUBGRADE WITH 2%-4% LIME BY DRY WEIGHT. QUANTITY OF LIME TBC BY LABORATORY TESTING.

PAV05 (COMPACTED GRAVEL)

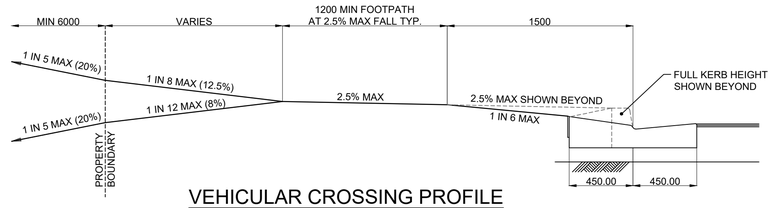
- 220mm COMPACTED THICKNESS FINE CRUSHED ROCK (DGB20)
- 300mm CAPPING USING SELECT GRANULAR MATERIAL TO ACHIEVE MIN 10% CBR. E.G. CRUSHED ROCKCAPPING (RIPPED AND CRUSHED SANDSTONE) LAYER; OR
- LIME STABILISATION OF SUBGRADE WITH 2%-4% LIME BY DRY WEIGHT. QUANTITY OF LIME TBC BY LABORATORY TESTING.

ASPHALT

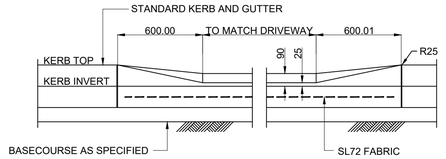
- 50mm THICKNESS ASPHALTIC CONCRETE (AC10)
- 160mm COMPACTED THICKNESS FINE CRUSHED ROCK (DGB20)
- 310mm COMPACTED THICKNESS FINE CRUSHED ROCK (DGS40)
- 300mm CAPPING USING SELECT GRANULAR MATERIAL TO ACHIEVE MIN 10% CBR. E.G. CRUSHED ROCK; OR
- LIME STABILISATION OF SUBGRADE WITH 2%-4% LIME BY DRY WEIGHT. QUANTITY OF LIME TBC BY LABORATORY TESTING. THE THICKNESS OF THE DGB20 AND DGS40 MAY BE REDUCED TO 100mm AND 170mm RESPECTIVELY SUBJECT TO THE SUBGRADE ACHIEVING A MIN CBR OF 6% FOLLOWING LIME STABILISATION

NOTE:

- FOR PAVEMENT TYPE REFERENCES (E.G. PAV01) REFER TO THE LANDSCAPE ARCHITECTS DRAWINGS
- REFER TO JK GEOTECHNICS REPORT FOR CAPPING AND SUBGRADE STABILISATION RECOMENDATIONS
- LIME STABILISATION MAY BE USED TO REDUCE REQUIRED PAVEMENT THICKNESSES



VEHICULAR CROSSING PROFILE
SCALE 1:20



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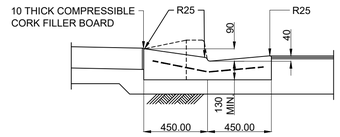

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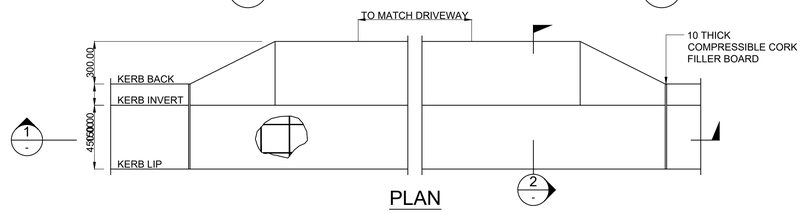
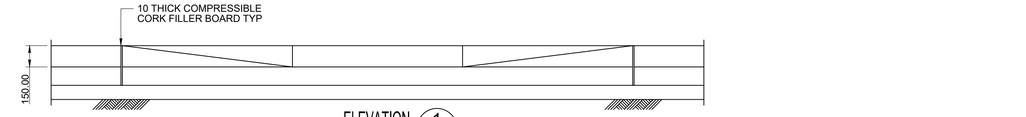
SCALE 1: 20

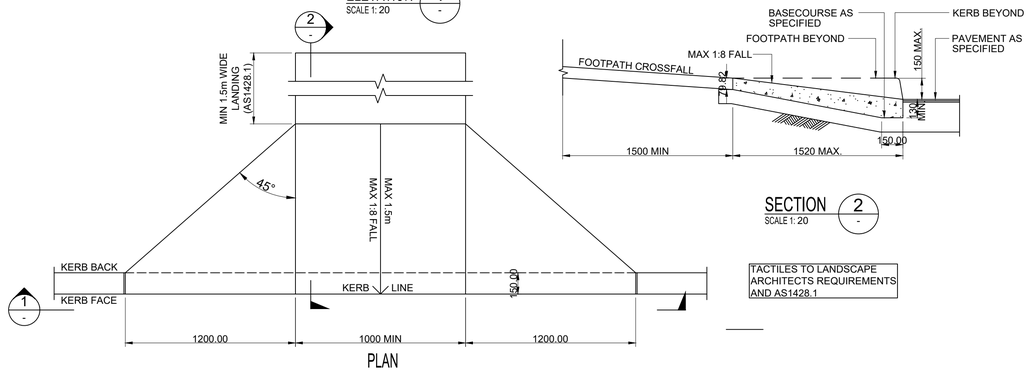


PLAN

VEHICULAR CROSSING
SCALE 1:20



ELEVATION 1
SCALE 1: 20



SECTION 2
SCALE 1: 20

TACTILES TO LANDSCAPE ARCHITECTS REQUIREMENTS AND AS1428.1

PLAN

KERB RAMP
SCALE 1:20

SCALE 1:10
0 100 200 300 400 500mm

SCALE 1:20
0 200 400 600 800 1000mm

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rev	date	description	drn	ch'k
2	24/01/25	REISSUE FOR CONCEPT DESIGN	MZV	MD
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rev	date	description	drn	ch'k

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enstruct group pty ltd
Level 27, 680 George Street
Sydney NSW 2000
Australia
Telephone (02) 9272 5100
www.enstruct.com.au
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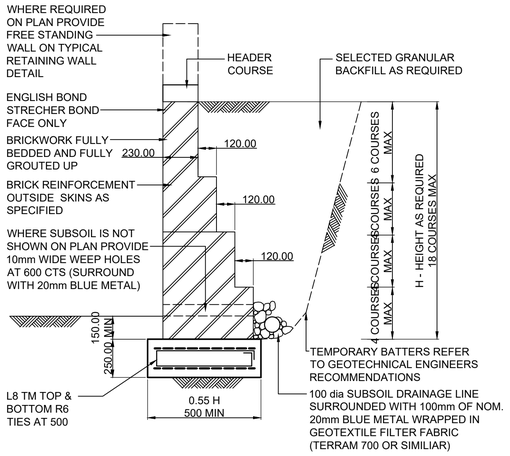
project
BUNGENDORE HIGH SCHOOL
BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

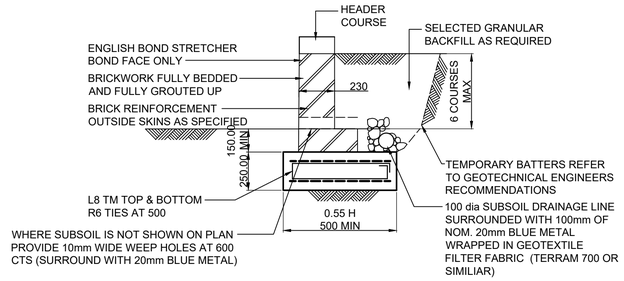
drawing title
SITEWORKS DETAILS

status
CONCEPT DESIGN

scale at A1	drawn	checked	approved
NTS	SM	MD	NOV-24

project no.	sheet	rev.
218485	CV-3050	2

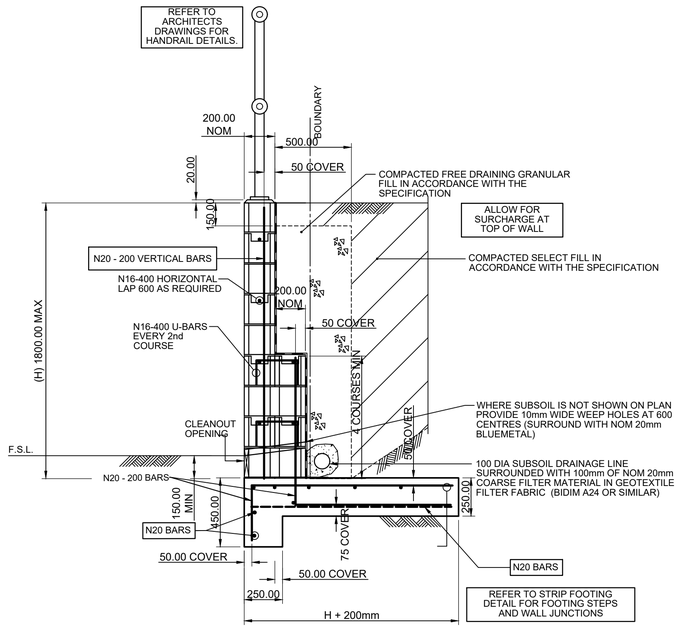




BRICK RETAINING WALL (WA05)

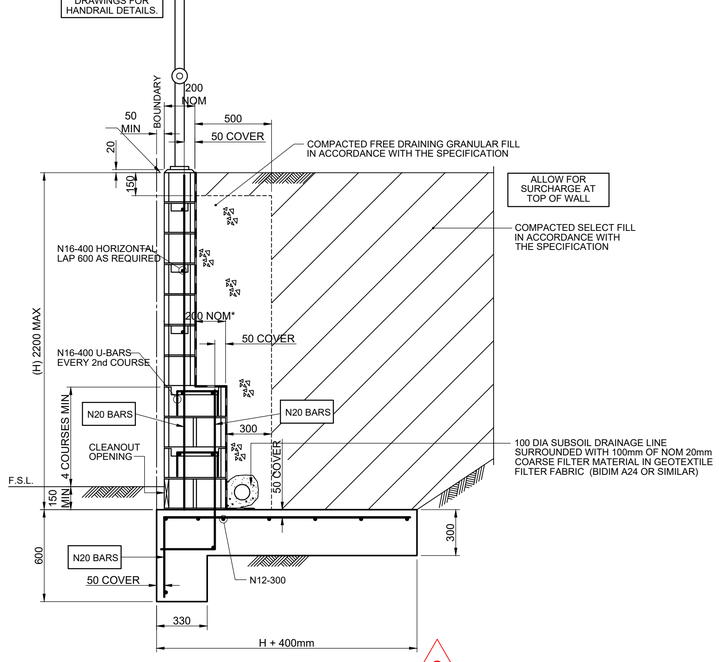
SCALE 1:20

ALL WALLS SUBJECT TO DETAILED DESIGN



RETAINING WALL (WA06)

SCALE 1:20



RETAINING WALL (WA06) 2

SCALE 1:20

SCALE 1:20

0 200 400 600 800 1000mm

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Level 27, 680 George Street
Sydney NSW 2000
Australia
Telephone (02) 9272 5100
www.enstruct.com.au
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BUNGENDORE HIGH SCHOOL
BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

drawing title
RETAINING WALL DETAILS

status
CONCEPT DESIGN

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project no.	sheet	rev.
218485	CV-3201	1

A1

OCEANPROTECT FILTERRA BIORETENTION BASIN. 65m² x 0.15m DEPTH.

BRIDGET AVENUE

2

DRAINAGE LEGEND

- SW — Stormwater pipe with
- IL10.00 / 600 Ø / 1.25% / IL9.65 — Invert level upstream, Pipe size, Pipe grade, Invert level downstream
- Grated and solid lid pits
- On-grade kerb inlet and sag pit
- GD — Grated drain
- Grass catch drain
- DD — Dish drain
- X — Existing Stormwater to be demolished and removed

IL727.924
Ø225
1.00%
IL727.711

IL727.487
Ø600
1.0%
IL727.335

IL727.315
Ø675
1.0%
IL727.256

IL727.348
Ø225
20.0%
IL726.500

IL726.695
Ø675
6.5%
IL726.500

IL728.163
Ø600
3.73%
IL727.507

IL728.430
Ø600
3.30%
IL728.183

IL728.963
Ø600
2.66%
IL728.450

IL729.726
Ø600
3.85%
IL728.983

IL730.776
Ø600
7.5%
IL730.175

IL730.155
Ø600
4.34%
IL729.726

IL734.704
Ø225
1.0%
IL734.404

IL734.384
Ø300
1.0%
IL74.092

IL734.072
Ø300
1.0%
IL733.772

IL732.892
Ø600
1.0%
IL732.592

IL733.212
Ø600
1.0%
IL732.912

IL733.452
Ø600
1.0%
IL733.232

PROPOSED STORMWATER DRAINAGE NETWORK TO DISCHARGE TO EXISTING STORMWATER DRAINAGE PIT ON SITE.

EXISTING STORMWATER DRAINAGE PIPE SIZE TO BE CONFIRMED. PIPE TO BE UPGRADED TO 300Ø IF EXISTING IS SMALLER.

IL723.394
Ø300
20.01%
IL721.880

IL725.100
Ø300
1.0%
IL725.076

OSD TANK 1.
VOLUME: 430m³
AVERAGE DEPTH 2.15m
REFER TO DETAIL ON
218485-CV-4052

5m² WATER QUALITY CHAMBER. REFER TO OSD TANK 1 DETAIL ON 218485-CV-4052

EXISTING STORMWATER TO BE ABANDONED.
EXISTING SEWER TO BE ABANDONED.
REFER TO HYDRAULIC ENGINEER.

FOR CONTINUATION REFER TO DWG CV-4002

BIRCHFIELD DRIVE

SCALE 1:250

0 5 10 15 m

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rev	date	description	drn	ch'k

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enstruct group pty ltd

Level 27, 680 George Street
Sydney NSW 2000
Australia

Telephone (02) 9272 5100

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BUNGENDORE HIGH SCHOOL

BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

drawing title
STORMWATER DRAINAGE PLAN SHEET 01

status
CONCEPT DESIGN

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1:250	SM	MD	NOV-24

project no.	sheet	rev.
218485	CV-4001	2

A1

2

BRIDGET AVENUE

BIRCHFIELD DRIVE

FOR CONTINUATION REFER TO DWG CV-4001

FOR CONTINUATION REFER TO DWG CV-4003

IL734.690
Ø300
0.99%
IL734.643

IL734.623
Ø300
1.0%
IL734.417

IL733.887
Ø450
0.5%
IL733.739

IL734.879
Ø300
1.0%
IL734.723

IL734.001
Ø450
0.5%
IL733.907

IL734.989
Ø300
1.0%
IL734.874

IL734.115
Ø450
0.5%
IL734.021

IL734.230
Ø450
0.5%
IL734.135

IL734.610
Ø375
1.01%
IL734.543

IL734.839
Ø300
0.5%
IL734.689

IL733.719
Ø525
1.0%
IL733.572

IL733.452
Ø600
1.0%
IL733.232

IL733.552
Ø525
1.0%
IL733.472

IL734.579
Ø300
1.07%
IL734.439

IL734.828
Ø300
1.48%
IL734.599

IL734.313
Ø375
0.5%
IL734.250

IL734.385
Ø375
0.5%
IL734.333

IL735.024
Ø225
1.0%
IL734.862

IL734.521
Ø375
0.5%
IL734.405

IL734.691
Ø300
0.5%
IL734.541

EXISTING STORMWATER TO BE ABANDONED.
EXISTING SEWER TO BE ABANDONED.
REFER TO HYDRAULIC ENGINEER.

100kL RAINWATER TANK BY HYDRAULIC ENGINEER. OVERFLOW PIPE TO CONNECT TO PIT D2. OVERFLOW PIPE SIZING BY HYRDRAULIC ENGINEER.

GD

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DRAINAGE LEGEND

- SW — Stormwater pipe with
- IL10.00 / 600 Ø / 1.25% / IL9.65 — Invert level upstream, Pipe size, Pipe grade, Invert level downstream
- Grated and solid lid pits
- On-grade kerb inlet and sag pit
- GD — Grated drain
- Grass catch drain
- DD — Dish drain
- X — Existing Stormwater to be demolished and removed

SCALE 1:250

0 5 10 15 m

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Sydney NSW 2000
Australia

Telephone (02) 9272 5100

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BUNGENDORE HIGH SCHOOL

BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

drawing title
STORMWATER DRAINAGE PLAN SHEET 02

status
CONCEPT DESIGN

scale at A1	drawn	checked	approved
1:250	SM	MD	NOV-24

project no.	sheet	rev.
218485	CV-4002	2

A1

2

DRAINAGE LEGEND

- SW — Stormwater pipe with
- IL10.00 / 600 Ø / 1.25% / IL9.65 — Invert level upstream, Pipe size, Pipe grade, Invert level downstream
- Grated and solid lid pits
- On-grade kerb inlet and sag pit
- GD — Grated drain
- Grass catch drain
- DD — Dish drain
- X — Existing Stormwater to be demolished and removed

BRIDGET AVENUE

BIRCHFIELD DRIVE

FOR CONTINUATION REFER TO DWG CV-4002

IL737.367
Ø375
3.92%
IL736.250

IL736.230
Ø375
0.5%
IL736.174

IL737.422
Ø375
0.51%
IL737.387

IL737.477
Ø375
0.5%
IL737.442

IL738.594
Ø225
1.0%
IL738.306

IL737.783
Ø375
1.0%
IL737.497

IL735.034
Ø225
0.5%
IL734.914

IL738.286
Ø225
1.00%
IL738.123

IL738.103
Ø300
1.0%
IL737.803

IL738.578
Ø300
0.5%
IL734.499

IL738.714
Ø225
0.5%
IL738.598

IL735.011
Ø300
0.5%
IL734.711

IL735.107
Ø225
1.0%
IL735.031

IL736.154
Ø375
0.5%
IL736.064

IL737.364
Ø225
3.36%
IL737.007

IL737.854
Ø225
1.2%
IL736.764

IL736.987
Ø225
3.61%
IL736.874

IL736.337
Ø225
1.0%
IL736.204

IL737.490
Ø225
1.36%
IL737.314

IL735.550
Ø300
19.99%
IL734.345

IL731.025
Ø300
1.01%
IL730.980

IL736.494
Ø225
0.99%
IL736.475

IL736.402
Ø225
1.0%
IL736.357

IL736.559
Ø225
1.0%
IL736.442

IL736.699
Ø225
1.0%
IL736.579

IL737.294
Ø225
1.98%
IL736.719

PROPOSED STORMWATER DRAINAGE NETWORK TO DISCHARGE TO EXISTING COUNCIL STORMWATER DRAINAGE PIT.

20m² WATER QUALITY CHAMBER. REFER TO OSD TANK 2 DETAIL ON 218485-CV-4052

OSD TANK 2.
VOLUME: 112m³
AVERAGE DEPTH 1.4m
REFER TO DETAIL ON 218485-CV-4052

CONNECTION STUB FOR FUTURE BUILDING STORMWATER DRAINAGE.

EXISTING STORMWATER TO BE ABANDONED. EXISTING SEWER TO BE ABANDONED. REFER TO HYDRAULIC ENGINEER.

CONNECTION TO BE INSTALLED FOR FUTURE BUILDING STORMWATER DRAINAGE.

SCALE 1:250

0 5 10 15 m

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enstruct group pty ltd

Level 27, 680 George Street
Sydney NSW 2000
Australia

Telephone (02) 9272 5100

www.enstruct.com.au

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BUNGENDORE HIGH SCHOOL

BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

drawing title
STORMWATER DRAINAGE PLAN SHEET 03

status
CONCEPT DESIGN

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1:250	SM	MD	NOV-24

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218485	CV-4003	2

STORMWATER DRAINAGE PIT SCHEDULE

NOTES:
1. LID SIZE DOES NOT NECESSARILY REFLECT PIT SIZE. REFER TO PIT TYPE DETAILS, SHOWN ON DETAIL SHEETS.
2. FINAL INTERNAL PIT DIMENSIONS TO COMPLY WITH AS3500.
3. ALL JUNCTION PITS TO HAVE CLASS D CAST IRON COVER WITH CONCRETE INFILL U.N.O.
4. ALL SURFACE INLET PITS TO HAVE CLASS D GALVANIZED MILD STEEL GRATE HINGED TO FRAME U.N.O.

PIT NUMBER	PIT TYPE	LID SIZE	NOTES
A1	EXISTING PIT TO REMAIN	-	
A2	JUNCTION PIT	900 x 900	
A3	JUNCTION PIT	900 x 900	OSD ACCESS LID
A4	SURFACE INLET PIT	900 x 900	OSD ACCESS LID. HEEL SAFE GRATE HINGED TO FRAME.
A5	JUNCTION PIT	900 x 900	OSD ACCESS LID
A6	JUNCTION PIT	900 x 900	OSD ACCESS LID
A7	SURFACE INLET PIT	1200 x 1200	
A8	LETTERBOX INLET PIT	1500 x 1500	CLASS D GALVANIZED MILD STEEL GRATE HINGED TO FRAME.
A9	SURFACE INLET PIT	900 x 900	
A10	SURFACE INLET PIT	900 x 900	
A11	SURFACE INLET PIT	900 x 900	
A12	SURFACE INLET PIT	900 x 900	
A13	SURFACE INLET PIT	900 x 900	
A14	SURFACE INLET PIT	900 x 900	
A15	SURFACE INLET PIT	900 x 900	
A16	SURFACE INLET PIT	1200 x 1200	OCEANPROTECT OCEANGUARD PIT INSERT
A17	SURFACE INLET PIT	900 x 900	
A18	SURFACE INLET PIT	900 x 900	
A19	SURFACE INLET PIT	900 x 900	
A20	SURFACE INLET PIT	900 x 900	
A21	SURFACE INLET PIT	900 x 900	OCEANPROTECT OCEANGUARD PIT INSERT
A22	SURFACE INLET PIT	900 x 900	OCEANPROTECT OCEANGUARD PIT INSERT
A23	SURFACE INLET PIT	900 x 900	OCEANPROTECT OCEANGUARD PIT INSERT
A24	SURFACE INLET PIT	900 x 900	OCEANPROTECT OCEANGUARD PIT INSERT
A25	JUNCTION PIT	900 x 900	
A26	SURFACE INLET PIT	900 x 900	
A27	SURFACE INLET PIT	900 x 900	
A28	SURFACE INLET PIT	900 x 900	
A29	SURFACE INLET PIT	900 x 600	
A30	SURFACE INLET PIT	600 x 600	
A31	SURFACE INLET PIT	600 x 600	
B1	SURFACE INLET PIT	900 x 600	
B2	SURFACE INLET PIT	600 x 600	
C1	SURFACE INLET PIT	900 x 600	OCEANPROTECT OCEANGUARD PIT INSERT
C2	SURFACE INLET PIT	900 x 600	OCEANPROTECT OCEANGUARD PIT INSERT
C3	SURFACE INLET PIT	600 x 600	
D1	SURFACE INLET PIT	900 x 600	OCEANPROTECT OCEANGUARD PIT INSERT
D2	SURFACE INLET PIT	600 x 600	
E1	SURFACE INLET PIT	600 x 600	
E2	SURFACE INLET PIT	600 x 600	OCEANPROTECT OCEANGUARD PIT INSERT
F1	SURFACE INLET PIT	600 x 600	OCEANPROTECT OCEANGUARD PIT INSERT
G1	SURFACE INLET PIT	600 x 600	
H1	SURFACE INLET PIT	900 x 600	OCEANPROTECT OCEANGUARD PIT INSERT
H2	SURFACE INLET PIT	900 x 600	OCEANPROTECT OCEANGUARD PIT INSERT
H3	SURFACE INLET PIT	900 x 600	OCEANPROTECT OCEANGUARD PIT INSERT
I1	JUNCTION PIT	600 x 600	
J1	EXISTING PIT TO REMAIN	-	
J2	JUNCTION PIT	1500 x 1500	
J3	SURFACE INLET PIT	900 x 900	OSD ACCESS LID
J4	SURFACE INLET PIT	900 x 900	OSD ACCESS LID
J5	SURFACE INLET PIT	900 x 900	OSD ACCESS LID
J6	SURFACE INLET PIT	900 x 900	OSD ACCESS LID
J7	SURFACE INLET PIT	900 x 900	
J8	SURFACE INLET PIT	900 x 600	
J9	SURFACE INLET PIT	900 x 900	
J10	SURFACE INLET PIT	900 x 900	OCEANPROTECT OCEANGUARD PIT INSERT
J11	SURFACE INLET PIT	900 x 900	OCEANPROTECT OCEANGUARD PIT INSERT
J12	SURFACE INLET PIT	900 x 900	OCEANPROTECT OCEANGUARD PIT INSERT
J13	SURFACE INLET PIT	900 x 600	
J14	SURFACE INLET PIT	600 x 600	
K1	KERB INLET PIT	3m LINTEL	OCEANPROTECT OCEANGUARD PIT INSERT
K2	KERB INLET PIT	2m LINTEL	OCEANPROTECT OCEANGUARD PIT INSERT
K3	KERB INLET PIT	2m LINTEL	OCEANPROTECT OCEANGUARD PIT INSERT
K4	KERB INLET PIT	2m LINTEL	
K5	KERB INLET PIT	2m LINTEL	
K6	KERB INLET PIT	1m LINTEL	
L1	SURFACE INLET PIT	900 x 900	OCEANPROTECT OCEANGUARD PIT INSERT
M1	SURFACE INLET PIT	900 x 600	
M2	SURFACE INLET PIT	900 x 600	
M3	SURFACE INLET PIT	600 x 600	
N1	SURFACE INLET PIT	900 x 900	OCEANPROTECT OCEANGUARD PIT INSERT
N2	SURFACE INLET PIT	900 x 900	OCEANPROTECT OCEANGUARD PIT INSERT
N3	SURFACE INLET PIT	600 x 600	OCEANPROTECT OCEANGUARD PIT INSERT

2

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rev	date	description	drn	ch'k
2	24/01/25	REISSUE FOR CONCEPT DESIGN	MZV	MD
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rev	date	description	drn	ch'k

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enstruct group pty ltd
Level 27, 680 George Street
Sydney NSW 2000
Australia
Telephone (02) 9272 5100
www.enstruct.com.au
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BUNGENDORE HIGH SCHOOL
BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

drawing title
STORMWATER DRAINAGE PIT SCHEDULE

status
CONCEPT DESIGN

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NTS	SM	MD	NOV-24

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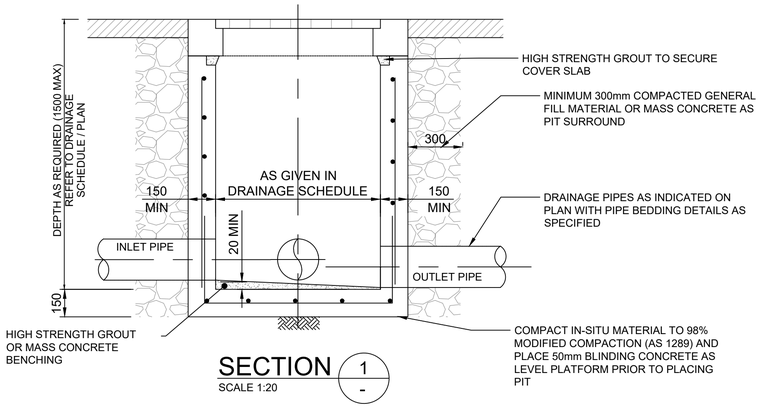
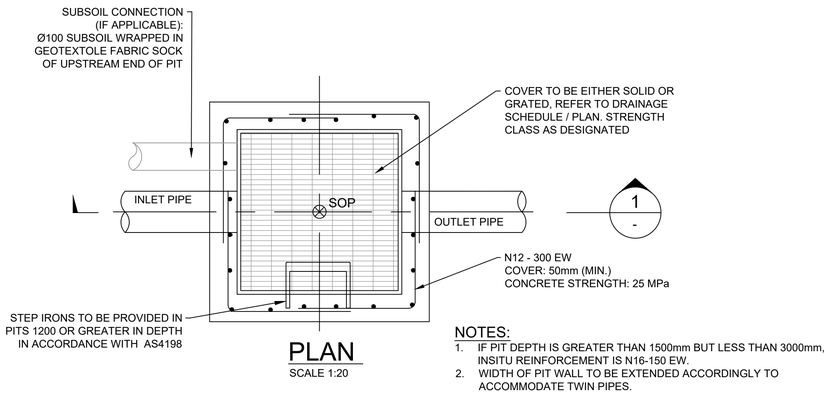
218485	CV-4010	2



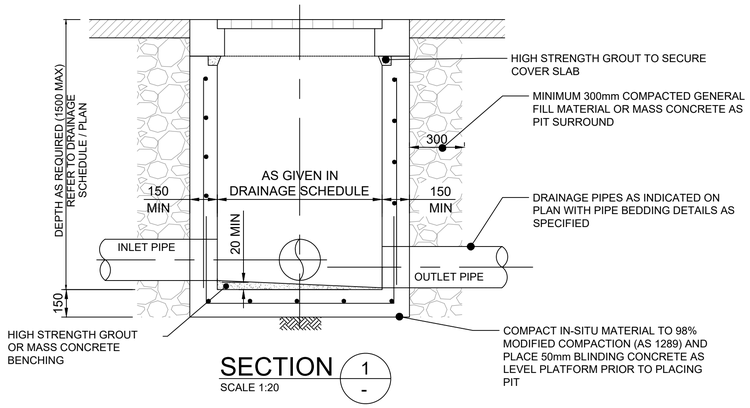
SECTION 1 -
SCALE 1:20



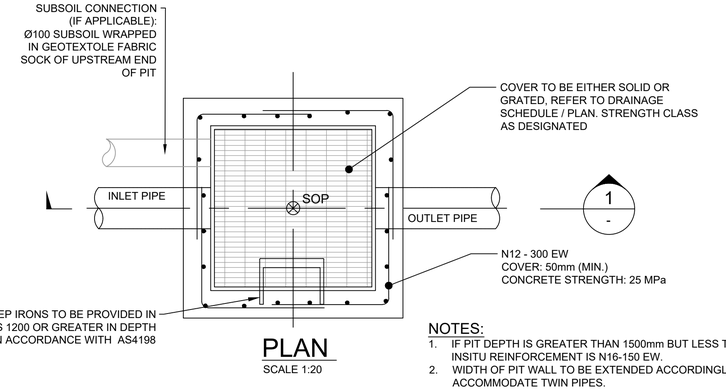
PLAN
SCALE 1:20

NOTES:
1. IF PIT DEPTH IS GREATER THAN 1500mm BUT LESS THAN 3000mm, INSITU REINFORCEMENT IS N16-150 EW.
2. WIDTH OF PIT WALL TO BE EXTENDED ACCORDINGLY TO ACCOMMODATE TWIN PIPES.

IN-SITU GRATED PIT TYPICAL DETAIL
SCALE 1:20



SECTION 1 -
SCALE 1:20



PLAN
SCALE 1:20

NOTES:
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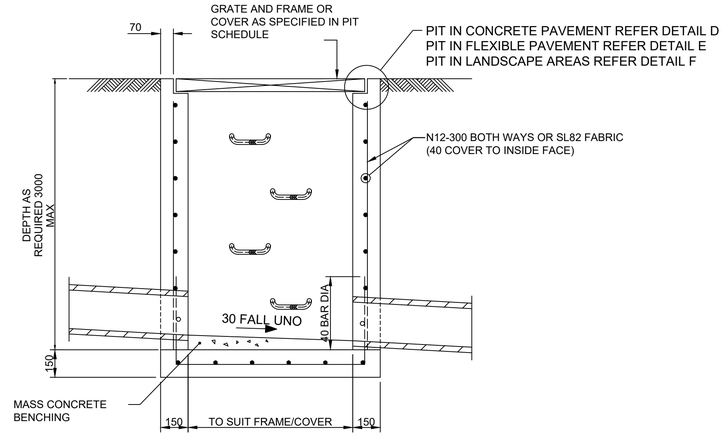
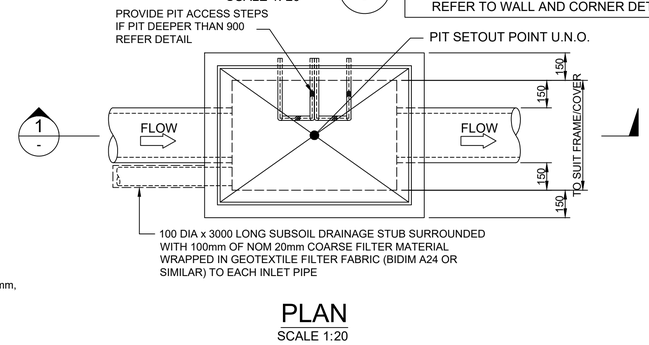
2. WIDTH OF PIT WALL TO BE EXTENDED ACCORDINGLY TO ACCOMMODATE TWIN PIPES.

IN-SITU GRATED PIT TYPICAL DETAIL
SCALE 1:20



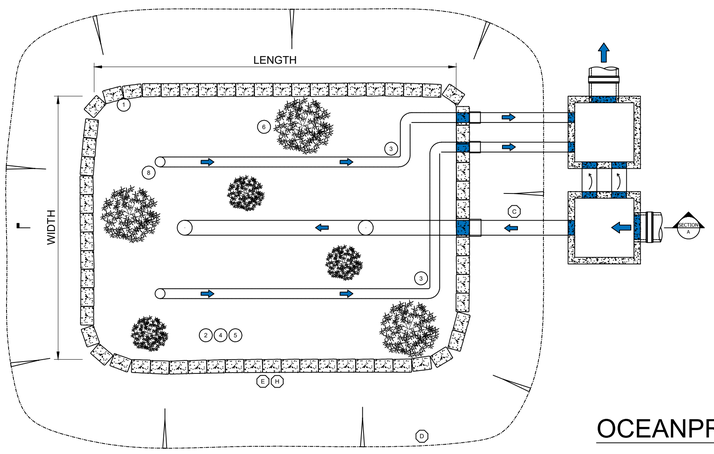
SECTION 1 -
SCALE 1: 20

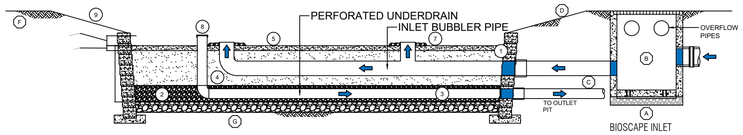
NOTE:IF REINFORCING FABRIC IS TO BE USED REFER TO WALL AND CORNER DETAILS



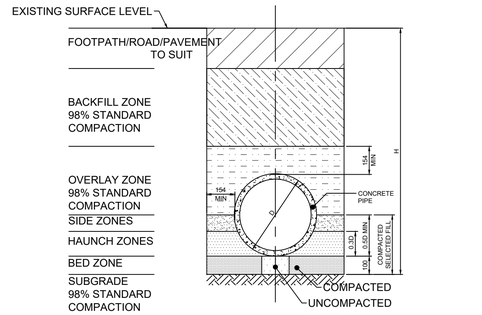
PLAN
SCALE 1:20

IN-SITU REGULAR JUNCTION PIT





OCEANPROTECT FILTERRA BIORETENTION BASIN TYPICAL DETAIL
SCALE: NTS



TYPICAL TRENCH 'HS' SUPPORT FOR CONCRETE PIPES
SCALE 1:10

NOTE:
1. TRENCHING AS PER AS3725
2. DRAINAGE PIPE TO BE MIN. 375Ø, MAX. SIZE 900Ø U.N.O. REINFORCED CONCRETE PIPE

SCALE 1:10
0 100 200 300 400 500mm

SCALE 1:20
0 200 400 600 800 1000mm

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NSW GOVERNMENT Education School Infrastructure

enstruct group pty ltd
Level 27, 680 George Street
Sydney NSW 2000
Australia
Telephone (02) 9272 5100
www.enstruct.com.au
enstruct

project
BUNGENDORE HIGH SCHOOL
BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

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STORMWATER DRAINAGE DETAILS SHEET 01

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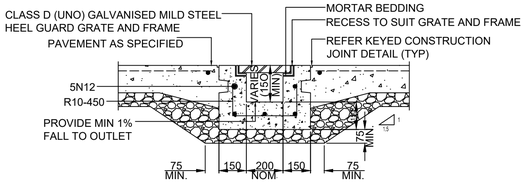
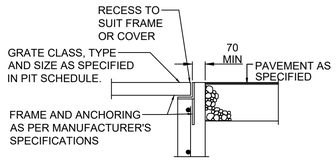


GRATED DRAIN IN CONCRETE PAVEMENT

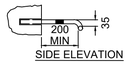
SCALE 1:10

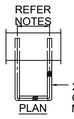


DETAIL E
INTERFACE WITH FLEXIBLE PAVEMENT

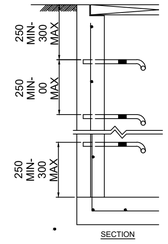
SCALE 1:10

IN EXISTING PITS:
DRILL 30mm DIA HOLE x 120mm DEEP AND EPOXY INTO WALL WITH EPOXY MORTAR EQUAL TO EPIREZ 633 (NON SAG)
IN PRECAST PITS:
DEPTH OF EMBEDMENT IS TO BE IN ACCORDANCE WITH PIT MANUFACTURER'S DETAILS





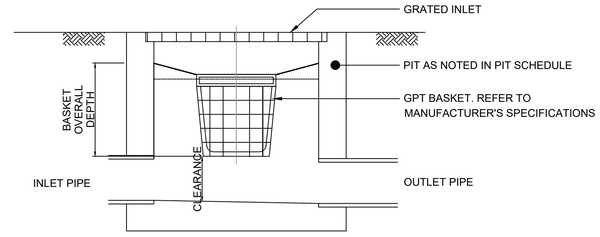
NOTES
1 WHEN POSITIONED IN STRAIGHT ALIGNMENT, STEP TO BE 400 WIDE.
2 STAGGERED STEPS TO BE 200 WIDE, STEPS TO BE STAGGERED 200 CENTRE TO CENTRE FOR ALTERNATE STEPS.
3 SPACING OF STEPS TO BE UNIFORM TO WITHIN ±5mm IN EACH PIT.



ACCESS STEP DETAIL (STEP 1)

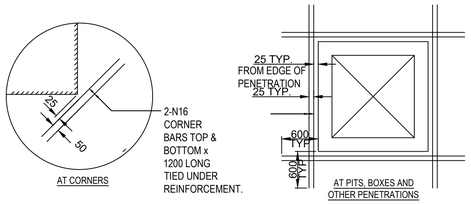
SCALE 1:10

TO BE PROVIDED FOR PITS DEEPER THAN 900mm



GROSS POLLUTANT TRAP (GPT) PIT BASKET INSERT FOR SURFACE INLET PITS

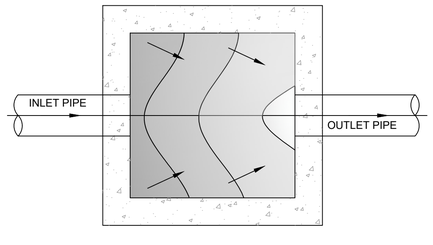
SCALE: NTS

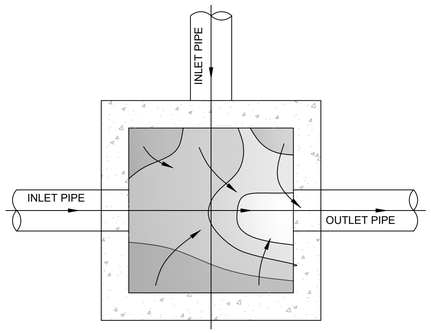


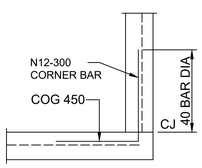
TYPICAL TRIMMER BAR DETAIL

SCALE 1:20

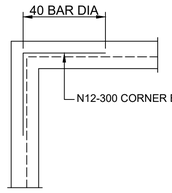
NOTE:
TRIMMER BARS:
1. TO BE CONSTRUCTED AT ALL PENETRATIONS IN VEHICLE CONCRETE PAVEMENTS INCLUDING BUT NOT LIMITED TO:
   - ALL SERVICE PITS
   - ALL DRAINAGE STRUCTURES
   - ALL VALVE BOXES
   - ALL IN-GROUND FIRE HYDRANTS
   - ALL PROTRUDING CORNERS OF STRUCTURES OR SLABS
   - ALL COLUMNS PENETRATING CONCRETE PAVEMENT
2. CONSTRUCT 2-N16 TRIMMER BARS (1200LONG, TOP AND BOTTOM) AT ALL MISMATCHED OR DISCONTINUOUS JOINTS. TYPICAL



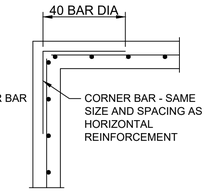




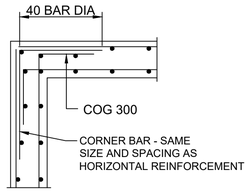
ELEVATION AT BASE



PLAN CORNER BARS



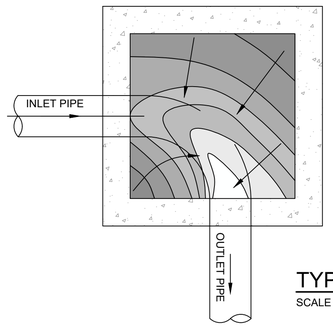
PLAN SINGLE LAYER



PLAN DOUBLE LAYER

PIT CORNER DETAILS MESH REINFORCEMENT

SCALE 1:20



NOTES:
1. MASS CONCRETE BENCHING WITHIN PITS MUST BE FORMED SO AS TO CONVEY WATER FROM INLET(S) TO OUTLET.
2. BENCHING SHOULD BE ACHIEVE MINIMUM CROSS FALLS WITHIN PITS AS REQUIRED BY ENSTRUCT'S PIT DETAILS AND AUSTRALIAN STANDARDS.
3. NO WATER IS TO STAND IN PITS WHEN BENCHING IS COMPLETE.

TYPICAL PIT BENCHING DETAILS

SCALE 1:20

SCALE 1:10
0 100 200 300 400 500mm

SCALE 1:20
0 200 400 600 800 1000mm

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enstruct group pty ltd
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Sydney NSW 2000
Australia
Telephone (02) 9272 5100
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project
BUNGENDORE HIGH SCHOOL
BIRCHFIELD DRIVE, BUNGENDORE, NSW 2621

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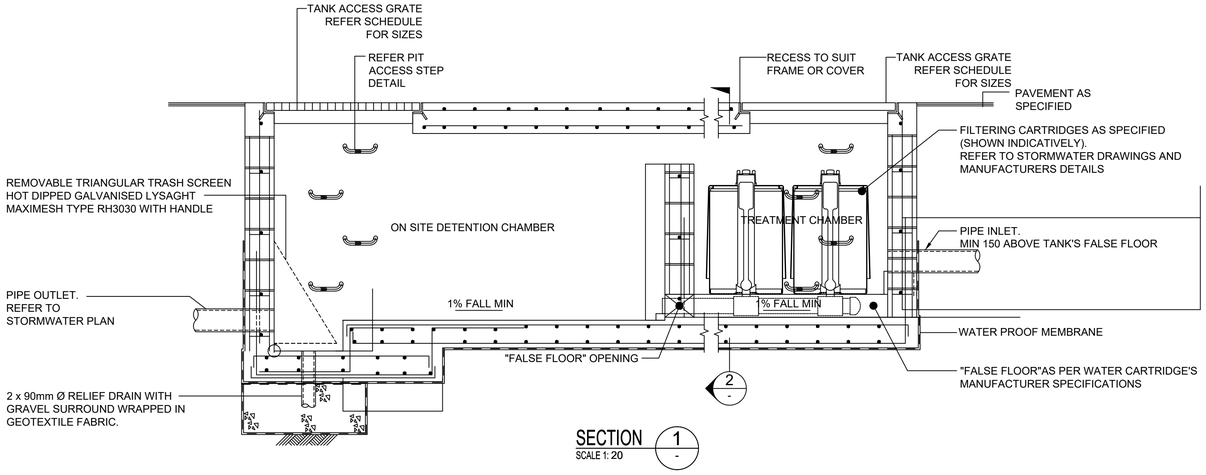
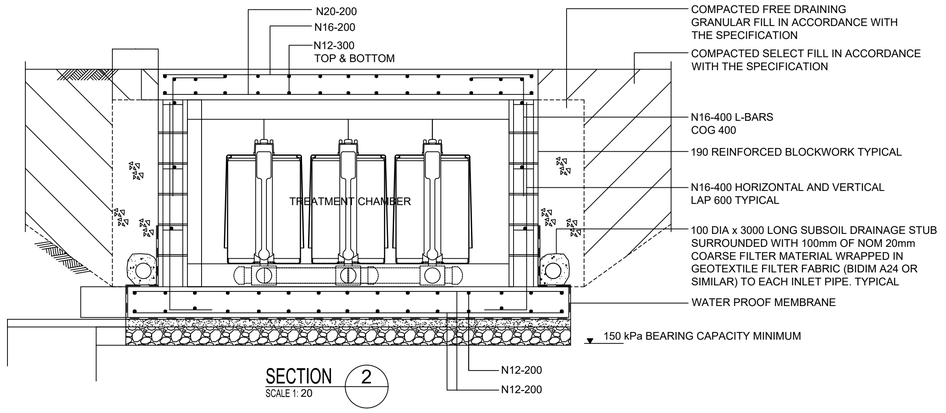
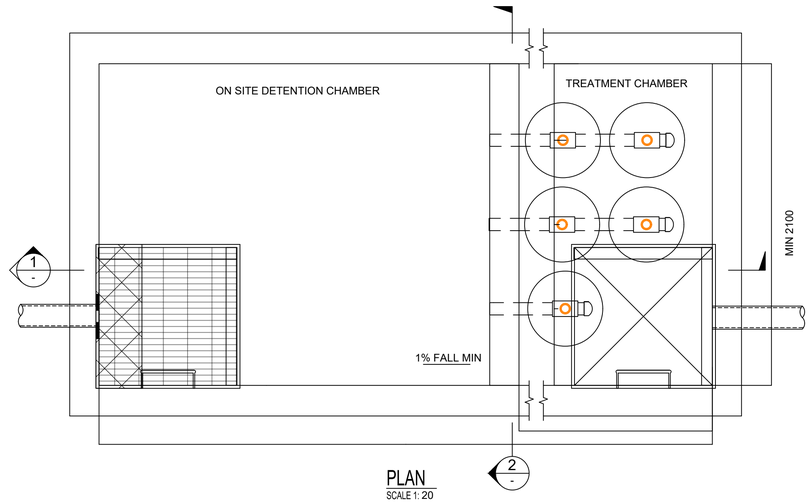


SECTION 1
SCALE 1: 20



SECTION 2
SCALE 1: 20



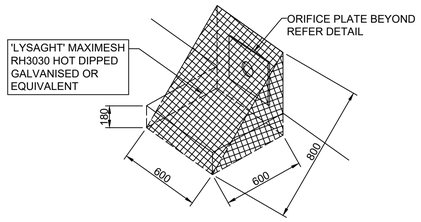
PLAN
SCALE 1: 20

2

OSD TANK 1	OSD TANK 2
AVERAGE HEIGHT "H" = 2.15m	AVERAGE HEIGHT "H" = 1.40m
WIDTH "W" = 12.5m	WIDTH "W" = 10m
TOTAL LENGTH "L1" = 16m	TOTAL LENGTH "L1" = 8m
TREATMENT LENGTH x WIDTH = 2.4m x 2.4m	TREATMENT LENGTH "L2" = 2m
WEIR HEIGHT Wh = 920mm	WEIR HEIGHT Wh = 920mm
TREATMENT VOLUME = 4.5m^3	TREATMENT VOLUME = 15.6m^3
TOTAL VOLUME = 430m^3	TOTAL VOLUME = 112m^3
WATER QUALITY CARTRIDGES	WATER QUALITY CARTRIDGES
CARTRIDGES SIPHON HEIGHT = 0.690m	CARTRIDGES SIPHON HEIGHT = 0.690m
CARTRIDGES PHYSICAL HEIGHT = 0.840m	CARTRIDGES PHYSICAL HEIGHT = 0.840m
CARTRIDGES AMOUNT = 10 UNITS	CARTRIDGES AMOUNT = 15 UNITS

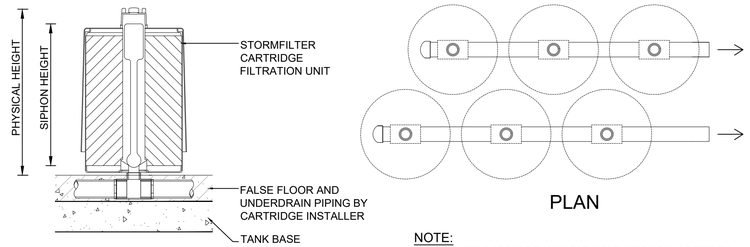
TYPICAL UNDERGROUND ON SITE DETENTION TANK WITH WATER QUALITY CHAMBER

SCALE 1:20



TRASH SCREEN DETAIL

NTS



SECTION

PLAN

TYPICAL CARTRIDGE DETAIL

SCALE 1:50

NOTE:
- CARTRIDGES ARE SHOWN FOR INFORMATION ONLY. REFER TO MANUFACTURER'S SPECIFICATIONS FOR TECHNICAL DETAILS AND SPECIFICATIONS.
- ALL WATER QUALITY DEVICES REQUIRE MAINTENANCE. REFER TO MANUFACTURER'S MAINTENANCE SPECIFICATIONS AND SCHEDULES.

SCALE 1:20
0 200 400 600 800 1000mm

SCALE 1:50
0 1 2 3 m

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Education
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enstruct group pty ltd
Level 27, 680 George Street
Sydney NSW 2000
Australia
Telephone (02) 9272 5100
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project
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