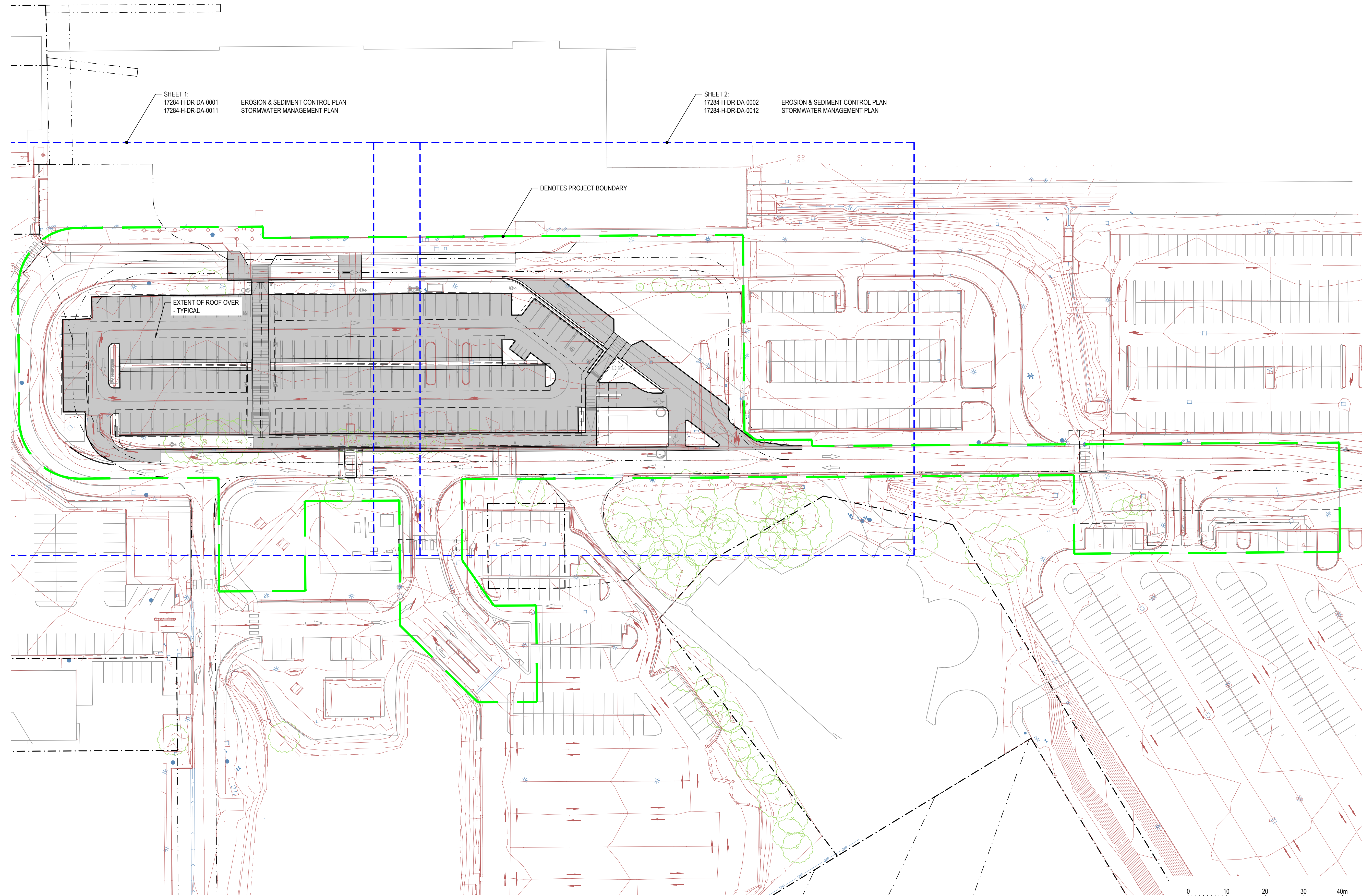


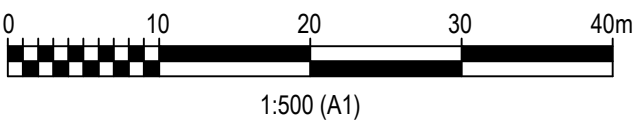
PROJECT
NEWCASTLE AIRPORT
1 WILLIAMTOWN DRIVE,
WILLIAMTOWN NSW 2318

CLIENT
NAPL C/- COX ARCHITECTURE

THIS DRAWING CONTAINS COLOURED INFORMATION 



GENERAL ARRANGEMENT PLAN
SCALE 1:500



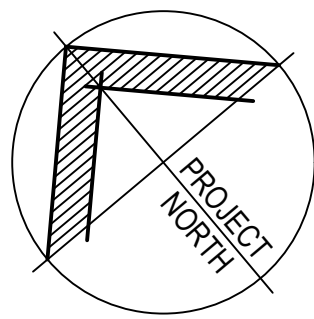
NOT FOR CONSTRUCTION

P05	23.05.22	RE-ISSUED FOR DA APPROVAL	A.V.	C.F.
P04	20.05.22	RE-ISSUED FOR DA APPROVAL	A.V.	C.F.
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P02	06.05.22	DRAFT COPY - ISSUED FOR COORDINATION	A.V.	N.L.

REV	DATE	DESCRIPTION	DRN	CHK
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TITLE
GENERAL ARRANGEMENT PLAN

DOCUMENT STATUS			SHEET SIZE	
FOR APPROVAL			A1	
DRAWN A.Vizl	DESIGNED P.Davison	CHECKED C.Feuillye	SCALE 1:500	
DOCUMENT No.			REVISION	
17284-H-DR-DA-0000			P05	



HATCH

PROJECT
NEWCASTLE AIRPORT
1 WILLIAMTOWN DRIVE,
WILLIAMTOWN NSW 2318

CLIENT
NAPL C/- COX ARCHITECTURE

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LEGEND

- EXISTING CONTOUR
- EXISTING SPOTLEVEL
- SEDIMENT CONTROL FENCE, REFER TO DRAWING 17284-H-DR-DA-0003 FOR DETAILS
- STABILISED SITE ACCESS, REFER TO DRAWING 17284-H-DR-DA-0003 FOR DETAILS
- SANDBAG INLET SEDIMENT TRAP, REFER TO DRAWING 17284-H-DR-DA-0003 FOR DETAILS
- TEMPORARY STOCKPILE, REFER TO DRAWING 17284-H-DR-DA-0003 FOR DETAILS
- GEOTEXTILE INLET FILTER, REFER TO DRAWING 17284-H-DR-DA-0003 FOR DETAILS
- KERB INLET PIT SEDIMENT TRAP, REFER TO DRAWING 17284-H-DR-DA-0003 FOR DETAILS
- EXISTING STORMWATER PIPE
- EXISTING STORMWATER PIPE TO BE REMOVED
- BOUNDARY LINE
- EASEMENT LINE
- EXISTING FENCE
- EXISTING TREE

NOTES

THE ARRANGEMENT OF EROSION & SEDIMENT CONTROL MEASURES SHOWN ARE INDICATIVE ONLY AND RELATE TO A PARTICULAR STAGE OF THE CONSTRUCTION WORKS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN, CONSTRUCT AND MAINTAIN ANY ADDITIONAL MEASURES THAT MAY BE REQUIRED FOR THE CONTRACTOR'S CONSTRUCTION METHODOLOGIES, IN ORDER TO MEET ALL CONDITIONS AND REQUIREMENTS IMPOSED BY ANY STATUTORY AUTHORITY.

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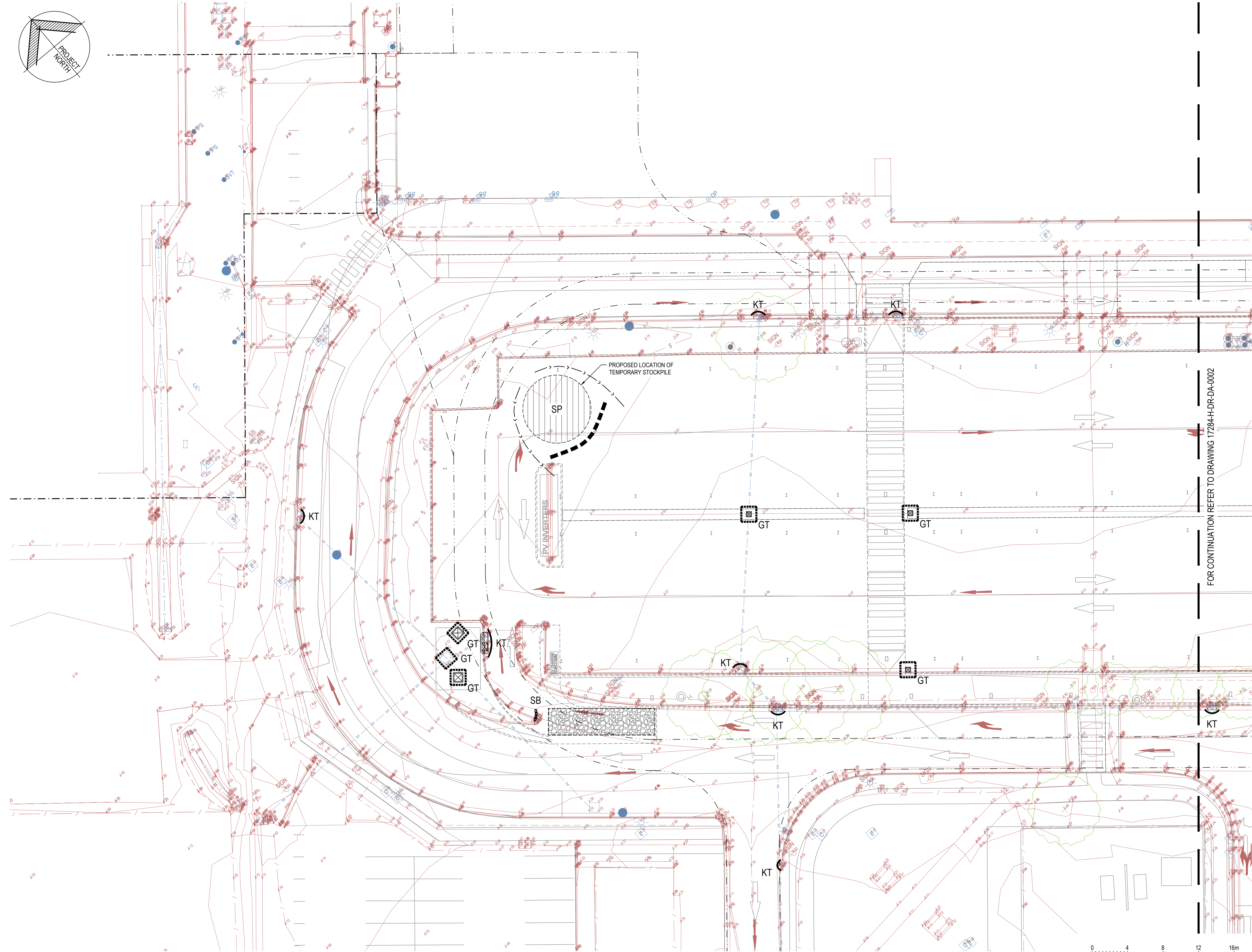
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REV	DATE	DESCRIPTION	DRN	CHK

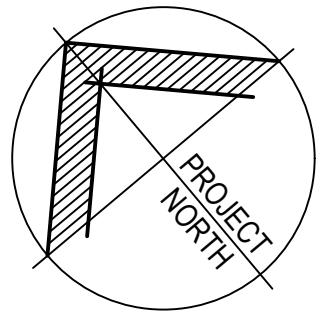
EROSION & SEDIMENT CONTROL
PLAN
SHEET 1

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A1
DRAWN A.Vizl	DESIGNED P.Davison	CHECKED C.Feuillye	SCALE 1:200
DOCUMENT No.			REVISION
17284-H-DR-DA-0001			P05



EROSION & SEDIMENT CONTROL PLAN - SHEET 1
SCALE 1:200

NOT FOR CONSTRUCTION



PROJECT
NEWCASTLE AIRPORT
1 WILLIAMTOWN DRIVE,
WILLIAMTOWN NSW 2318

CLIENT
NAPL C/- COX ARCHITECTURE

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- 1/3 EXISTING SPOTLEVEL
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- STABILISED SITE ACCESS, REFER TO DRAWING 17284-H-DR-DA-0003 FOR DETAILS
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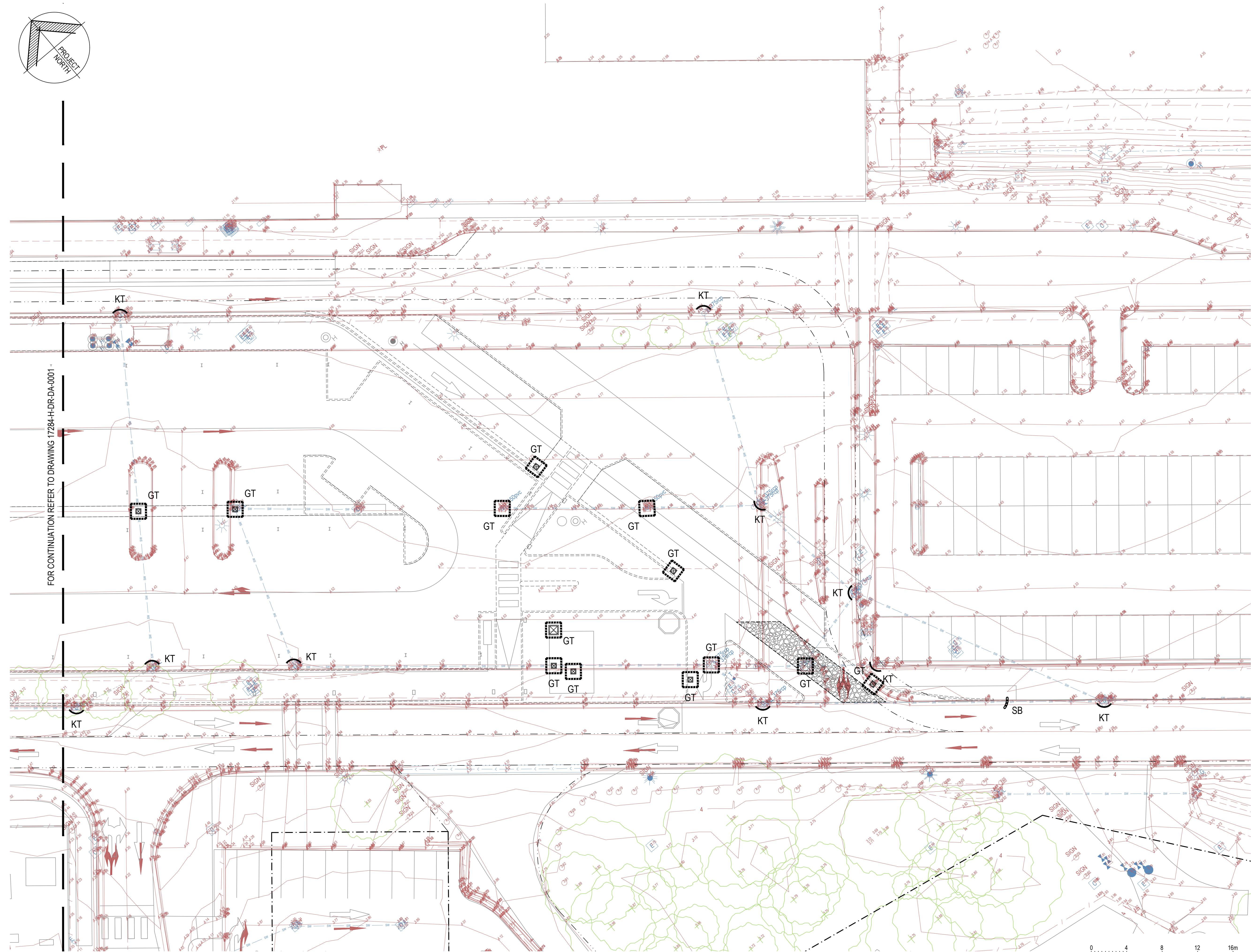
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EROSION & SEDIMENT CONTROL
PLAN
SHEET 2

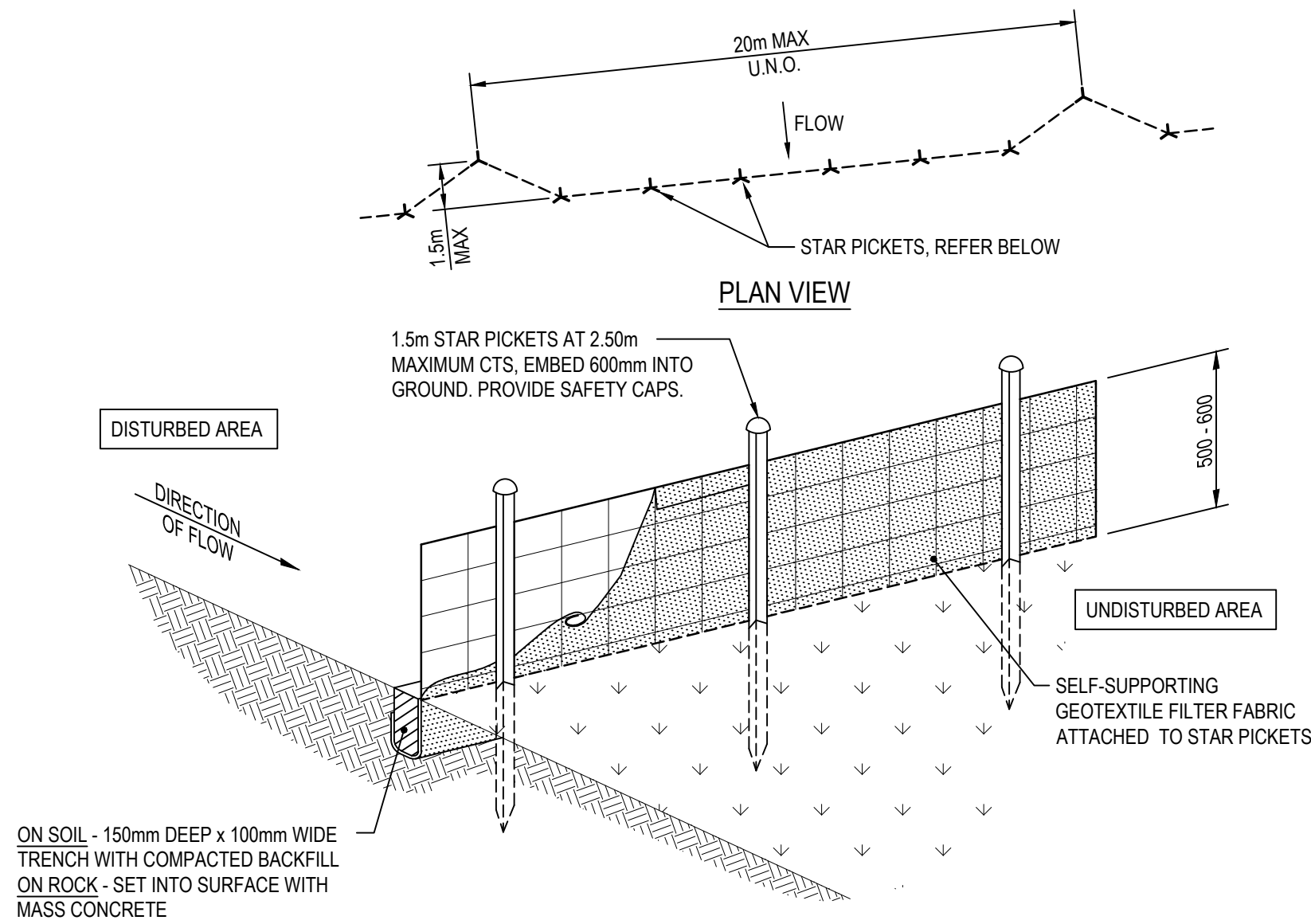
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DOCUMENT No.			REVISION
17284-H-DR-DA-0002			P05



EROSION & SEDIMENT CONTROL PLAN - SHEET 2
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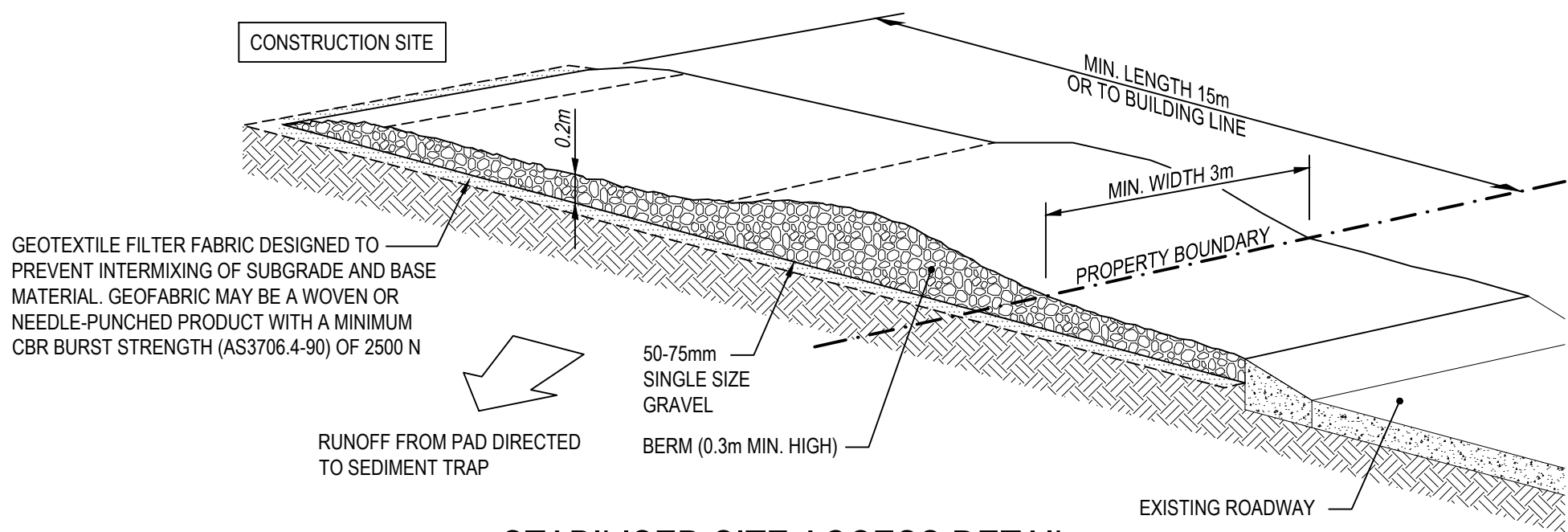
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1 WILLIAMTOWN DRIVE,
WILLIAMTOWN NSW 2318
CLIENT
NAPL C/- COX ARCHITECTURE
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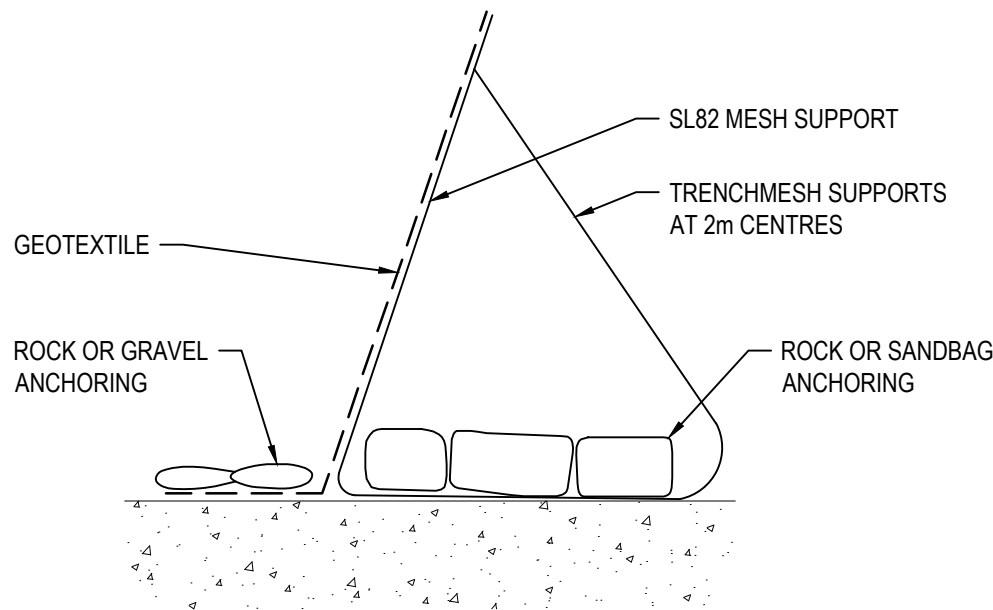
SEDIMENT CONTROL FENCE DETAIL

N.T.S.
IN ACCORDANCE WITH LANDCOM 'BLUE BOOK'
SD6-8 SEDIMENT FENCE



STABILISED SITE ACCESS DETAIL

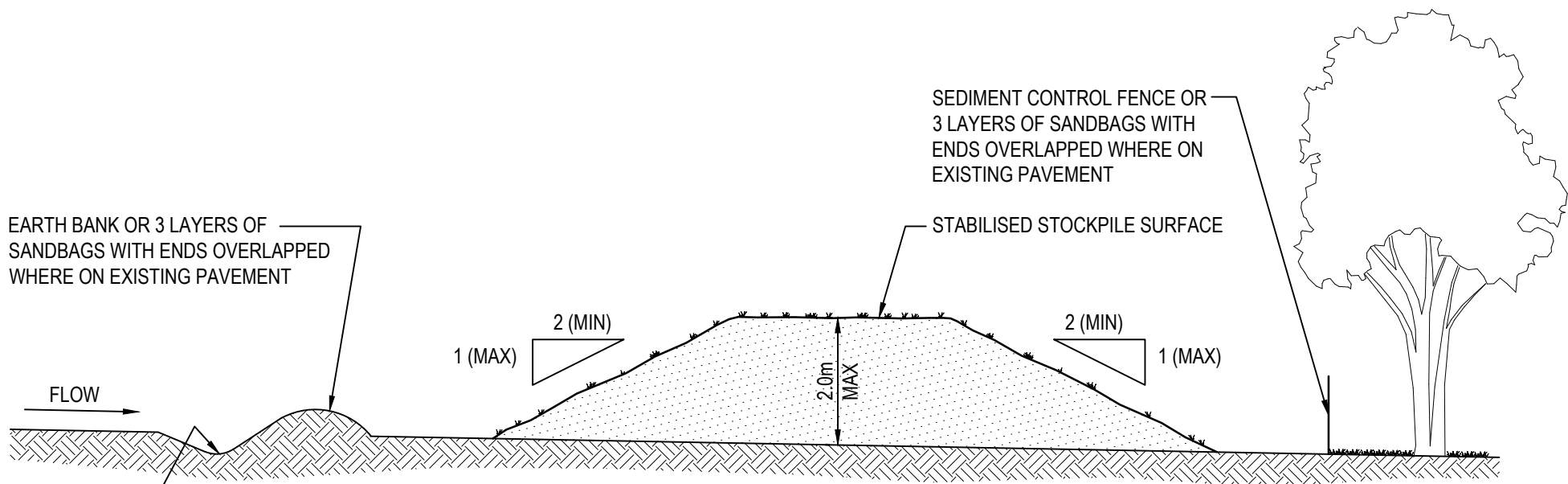
N.T.S.
IN ACCORDANCE WITH LANDCOM 'BLUE BOOK'
SD6-14 STABILISED SITE ACCESS



- CONSTRUCTION NOTES:
1. INSTALL THIS TYPE OF SEDIMENT FENCE WHEN USE OF SUPPORT POSTS IS NOT DESIRABLE OR NOT POSSIBLE. SUCH CONDITIONS MIGHT APPLY, FOR EXAMPLE, WHERE APPROVAL IS GRANTED FROM THE APPROPRIATE AUTHORITIES TO PLACE THESE FENCES IN HIGHLY SENSITIVE ESTUARINE AREAS
 2. USE BENT TRENCH MESH TO SUPPORT THE SL82 WELDED MESH FACING AS SHOWN. ATTACH THE GEOTEXTILE TO THE WELDED MESH FACING USING UV RESISTANT CABLE TIES
 3. STABILISE THE WHOLE STRUCTURE WITH SANDBAG OR ROCK ANCHORING OVER THE TRENCH MESH AND THE LEADING EDGE OF THE GEOTEXTILE. THE ANCHORING SHOULD BE SUFFICIENTLY LARGE TO ENSURE STABILITY OF THE STRUCTURE IN THE DESIGN STORM EVENT, USUALLY THE 10 YEAR EVENT.

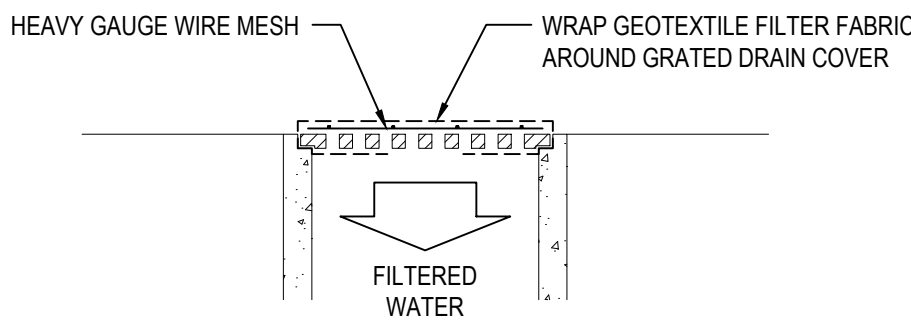
ALTERNATIVE SEDIMENT CONTROL FENCE DETAIL

N.T.S.
IN ACCORDANCE WITH LANDCOM 'BLUE BOOK'
SD6-9 ALTERNATIVE SEDIMENT FENCE



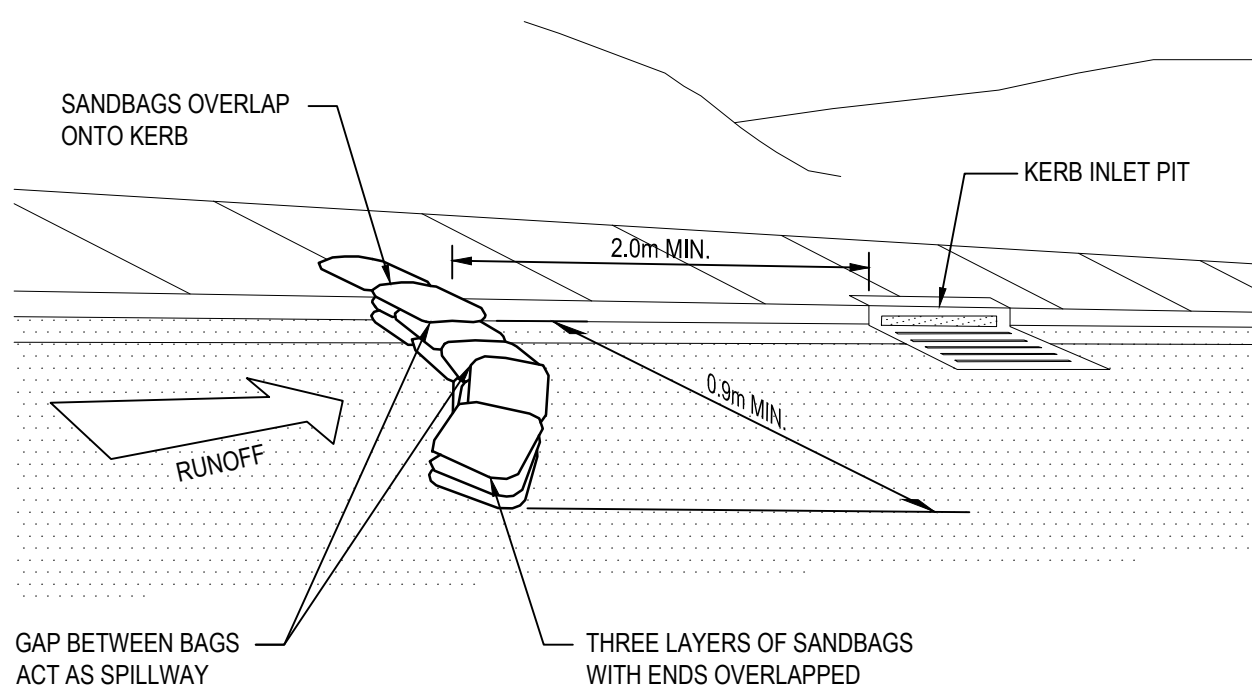
TEMPORARY STOCKPILE DETAIL

N.T.S.
IN ACCORDANCE WITH LANDCOM 'BLUE BOOK'
SD4-1 STOCKPILES



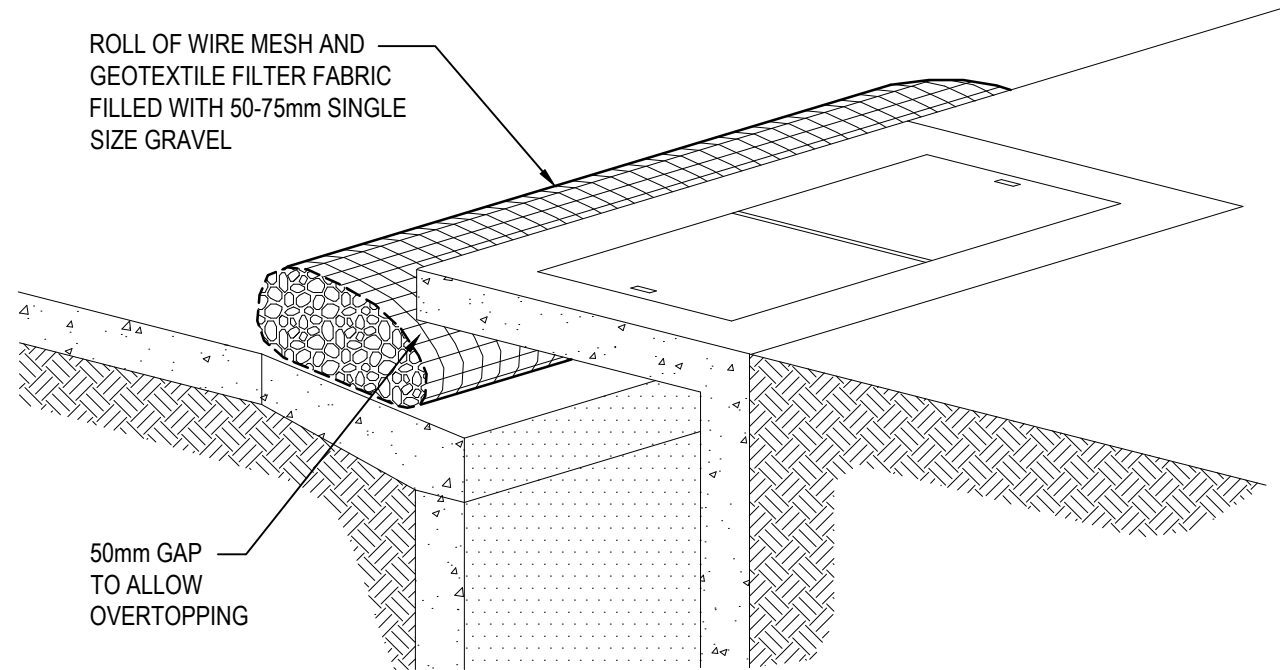
GEOTEXTILE INLET FILTER DETAIL

N.T.S.



SANDBAG INLET SEDIMENT TRAP DETAIL

N.T.S.



KERB INLET PIT SEDIMENT TRAP DETAIL

N.T.S.

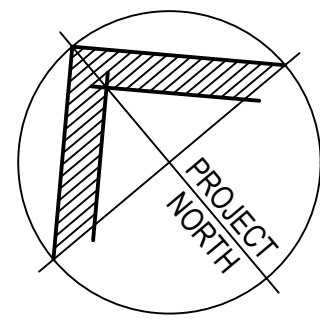
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TITLE

EROSION & SEDIMENT CONTROL DETAILS

DOCUMENT STATUS	SHEET SIZE
FOR APPROVAL	A1
DRAWN A.Vizl	DESIGNED P.Davison
CHECKED C.Feuillye	SCALE N.T.S.
DOCUMENT No.	REVISION
17284-H-DR-DA-0003	P05

NOT FOR CONSTRUCTION



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DETAIL OF LANDSCAPING IS TO TAKE INTO CONSIDERATION OVERLAND FLOW PATHS.

SPEL STORMSACKS TO BE INSTALLED ON ALL NEW SURFACE PITS - TYPICAL.

HATCH

PROJECT
NEWCASTLE AIRPORT
1 WILLIAMTOWN DRIVE,
WILLIAMTOWN NSW 2318

CLIENT
NAPL C/- COX ARCHITECTURE

THIS DRAWING CONTAINS COLOURED INFORMATION

LEGEND

- 5 EXISTING CONTOUR
- EXISTING SPOTLEVEL
- NEW STORMWATER DRAINAGE PIT, INSTALLED TO MANUFACTURER'S SPECIFICATIONS
- NEW STORMWATER DRAINAGE PIPE LAID AT 1.0% MIN FALL (U.N.O.) IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
- ASSUMED LOCATION OF NEW PVC STORMWATER DRAINAGE PIPE LAID AT 1.0% MIN FALL (U.N.O.) IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
- NEW BIORETENTION BED, REFER TO DRAWING 17284-H-DR-DA-0013 FOR DETAILS. FINAL SIZE AND LAYOUT TO BE CONFIRMED AT DETAILED DESIGN STAGE
- DP NOMINAL LOCATION OF ROOF DOWNSPIPE
- DIRECTION OF SURFACE FALL
- NEW DISH DRAIN
- PAVEMENT RESURFACE. DETAILS TO BE CONFIRMED AT DETAILED DESIGN STAGE
- NEW FOOTPATH PAVEMENT. DETAILS TO BE CONFIRMED AT DETAILED DESIGN STAGE
- NEW ROAD PAVEMENT. DETAILS TO BE CONFIRMED AT DETAILED DESIGN STAGE
- DENOTES AREA OF SAWCUT AND REINSTATEMENT OF EXISTING FLEXIBLE PAVEMENT. DETAILS TO BE CONFIRMED AT DETAILED DESIGN STAGE
- 150K NEW 150 KERB
- 150K&G NEW 150 KERB AND GUTTER
- ER NEW EDGE RESTRAINT
- MK NEW MOUNTABLE KERB
- SW EXISTING STORMWATER PIPE
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- EASEMENT LINE
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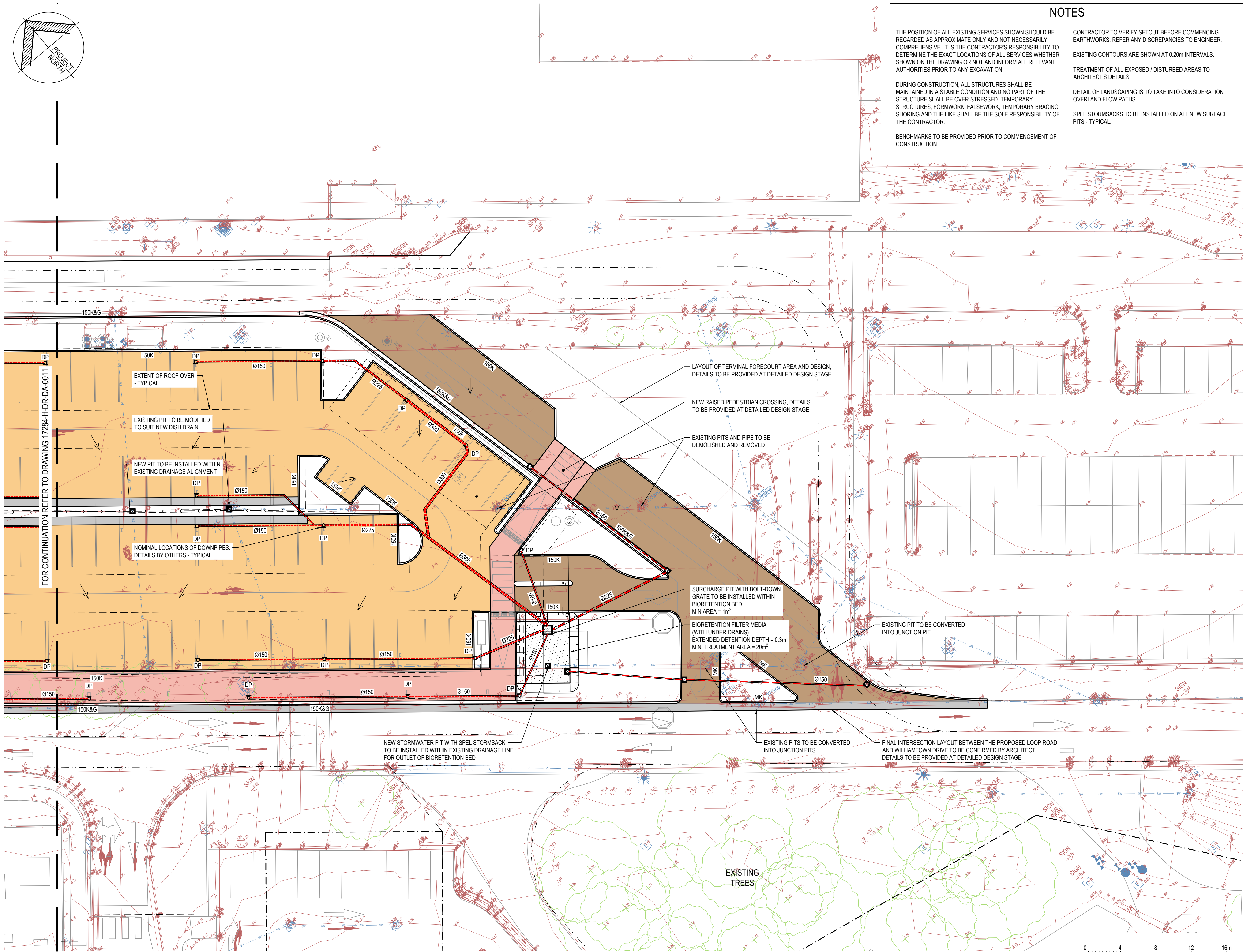
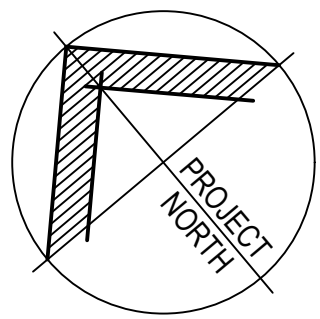
STORMWATER MANAGEMENT PLAN SHEET 1

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A1
DRAWN A.Vizl	DESIGNED P.Davison	CHECKED C.Feuillye	SCALE 1:200
DOCUMENT No.			REVISION
17284-H-DR-DA-0011			P05

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STORMWATER MANAGEMENT PLAN - SHEET 1

SCALE 1:200



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NEWCASTLE AIRPORT
1 WILLIAMTOWN DRIVE,
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CLIENT
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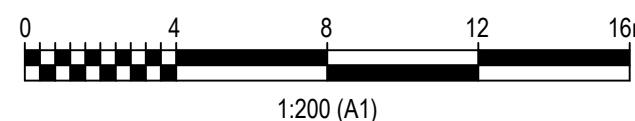
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REV	DATE	DESCRIPTION	DRN	CHK

STORMWATER MANAGEMENT PLAN SHEET 2

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A1
DRAWN A.Vizl	DESIGNED P.Davison	CHECKED C.Feuillye	SCALE 1:200
DOCUMENT No.			REVISION
17284-H-DR-DA-0012			P05

STORMWATER MANAGEMENT PLAN - SHEET 2

SCALE 1:200

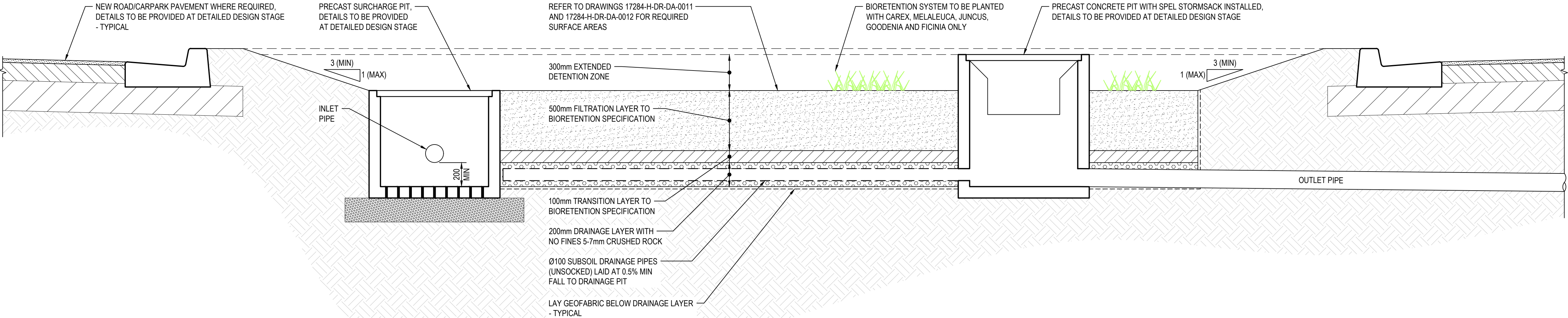


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PROJECT
NEWCASTLE AIRPORT
1 WILLIAMTOWN DRIVE,
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CLIENT
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TYPICAL BIORETENTION BED DETAIL

SCALE 1:20

BIORETENTION SPECIFICATION

FILTRATION LAYER IS TO COMPRISE OF A SANDY-LOAM MIXTURE DESIGNED TO PROVIDE ADEQUATE ORGANIC MATERIAL FOR VEGETATION/ ROOT GROWTH. MEDIA MUST MEET THE FOLLOWING SPECIFICATION:

- SATURATED HYDRAULIC CONDUCTIVITY = 100mm/hr
- TN CONTENT = 950mg/kg
- ORTHOPHOSPHATE CONTENT = 40mg/kg
- ORGANIC MATERIAL < 5%

TRANSITION LAYER IS TO COMPRISE OF CLEAN WELL GRADED MEDIUM TO COARSE SAND WITH MINIMAL FINES

DRAINAGE LAYER IS TO COMPRISE OF 5mm GRAVEL

CONCEPT SUMMARY

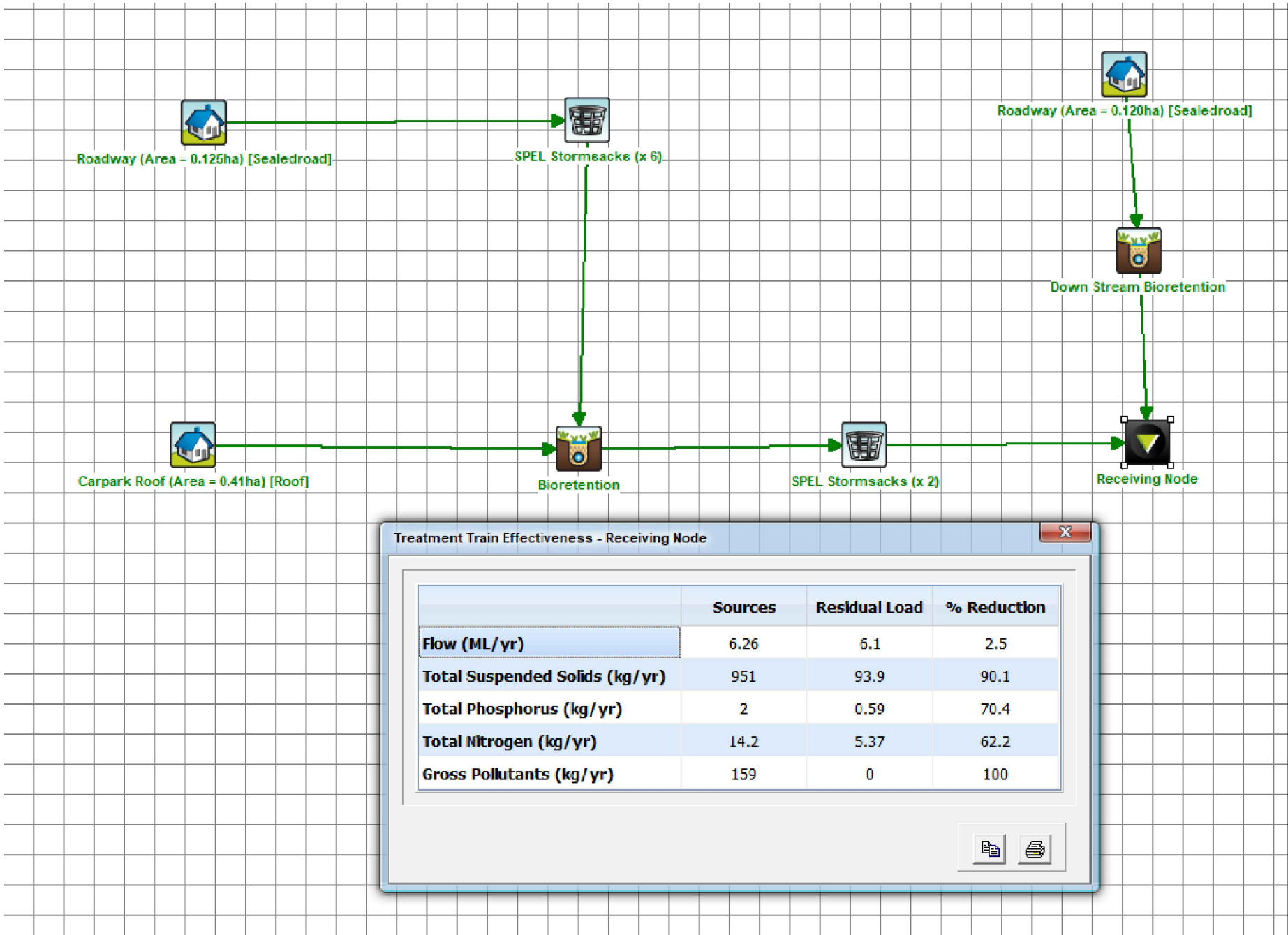
THE PROPOSED DEVELOPMENT IS LOCATED AT NEWCASTLE AIRPORT (1 WILLIAMTOWN DRIVE, WILLIAMTOWN) WHICH IS LOCATED WITHIN THE PORT STEPHENS COUNCIL LGA. THE PROPOSED DEVELOPMENT CONSISTS OF THE REMEDIATION/REARRANGEMENT OF THE EXISTING SHORT STAY CARPARK, CONSTRUCTION OF A NEW ROOF COVERING PORTIONS OF THE CARPARK AND MODIFICATION OF THE LOOP ROAD TO SUIT FUTURE UPGRADES TO THE AIRPORT.

THE PROPOSED ROOF IS TO BE CONSTRUCTED OVER EXISTING CARPARK AND AS SUCH, POST-DEVELOPED RUNOFF IS NOT INCREASED. THEREFORE, NO ONSITE DETENTION IS PROPOSED.

A WATER QUALITY TREATMENT SYSTEM HAS BEEN DEVELOPED FOR THE PROPOSED DEVELOPMENT TO SATISFY PORT STEPHENS COUNCIL'S POLLUTION REDUCTION TARGETS (TOTAL SUSPENDED SOLIDS (TSS) = 90%, TOTAL PHOSPHOROUS (TP) = 60%, TOTAL NITROGEN (TN) = 45%). THE PROPOSED TREATMENT METHODOLOGY IS TO DIRECT THE RUNOFF FROM THE PROPOSED ROOF AND UNCOVERED HANDSTAND AREAS FOR THE NEW LOOP ROAD AND NORTH EASTERN PORTION OF THE EXISTING CARPARK AND DISCHARGE THEM INTO TWO BIORETENTION BEDS WITH A COMBINED SURFACE AREA OF 50m². ALONGSIDE THIS, ALL SURFACE INLET PITS DISCHARGING INTO THE BIORETENTION BEDS ARE TO BE FITTED WITH SPEL STORMSACKS PIT INSERTS, INCLUDING THE TWO OVERFLOW PITS WITHIN THE BIORETENTION BEDS. ALL OTHER CARPARK HANDSTAND AREAS (APPROXIMATELY 0.12ha) ARE TO BE CAPTURED IN THE EXISTING STORMWATER NETWORK AND TREATED DOWNSTREAM IN THE EXISTING WATER QUALITY SYSTEM.

THE TOTAL CATCHMENT AREAS OF THE DEVELOPMENT ARE:
CARPARK ROOF AREA = 0.41ha
UNCOVERED CARPARK ROAD AREA (PAVED HANDSTAND AREA) = 0.125ha
UNCOVERED CARPARK ROAD AREA (CONNECTED TO DOWNSTREAM NETWORK) = 0.12ha
TOTAL CATCHMENT AREA = 0.655ha

THIS PROPOSED WATER QUALITY TREATMENT SYSTEM WAS MODELLING USING THE STORMWATER RUNOFF ANALYSIS SOFTWARE MUSIC AND SHOWN BELOW IS A SCREENSHOT OF THE MUSIC MODEL TREATMENT TRAIN AND WATER TREATMENT RESULTS:

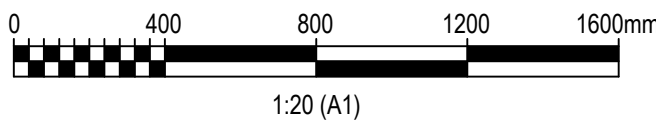


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P03	10.05.22	ISSUED FOR DA APPROVAL	A.V.	C.F.
P02	06.05.22	DRAFT COPY - ISSUED FOR COORDINATION	A.V.	N.L.
P01	08.04.22	ISSUED FOR DA APPROVAL	A.V.	N.L.
REV	DATE	DESCRIPTION	DRN	CHK

STORMWATER MANAGEMENT DETAILS SHEET 1

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A1
DRAWN A.Vizl	DESIGNED P.Davison	CHECKED C.Feuillye	SCALE 1:20
DOCUMENT No.			REVISION

17284-H-DR-DA-0013 P05

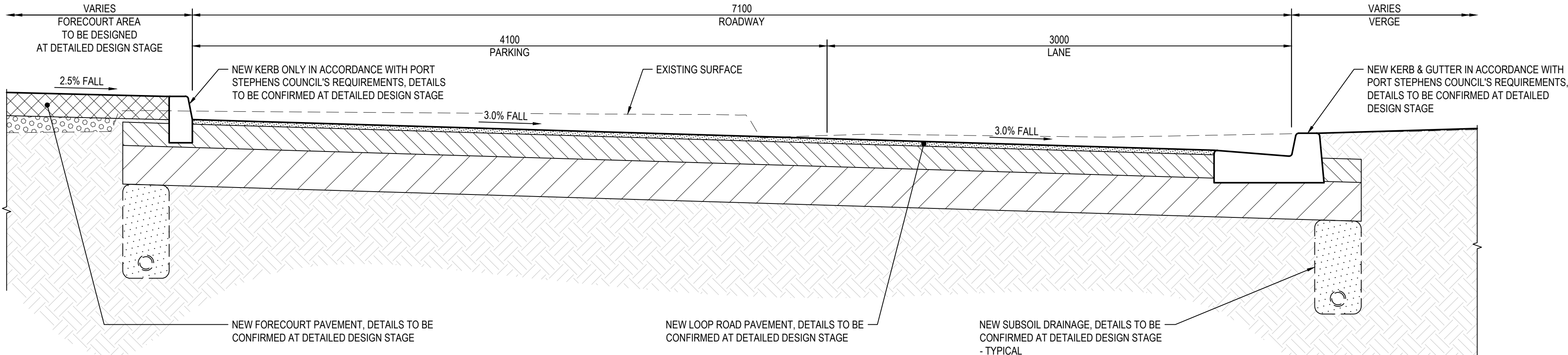


NOT FOR CONSTRUCTION

PROJECT
NEWCASTLE AIRPORT
1 WILLIAMTOWN DRIVE,
WILLIAMTOWN NSW 2318

CLIENT
NAPL C/- COX ARCHITECTURE

THIS DRAWING CONTAINS COLOURED INFORMATION C M Y



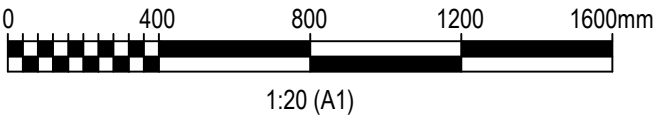
TYPICAL LOOP ROAD SECTION
SCALE 1:20

P05	23.05.22	RE-ISSUED FOR DA APPROVAL	A.V.	C.F.
P04	20.05.22	RE-ISSUED FOR DA APPROVAL	A.V.	C.F.
P03	10.05.22	ISSUED FOR DA APPROVAL	A.V.	C.F.
P02	06.05.22	DRAFT COPY - ISSUED FOR COORDINATION	A.V.	N.L.

REV	DATE	DESCRIPTION	DRN	CHK
TITLE				

STORMWATER MANAGEMENT
DETAILS
SHEET 2

DOCUMENT STATUS FOR APPROVAL			SHEET SIZE A1
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DOCUMENT No. 17284-H-DR-DA-0014			REVISION P05



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