

LEGEND:

- NEW GRATED TRENCH DRAIN
- NEW STORMWATER PIPE
- NEW STORMWATER PIT
- PIPE FLOW DIRECTION
- NEW GRASSED DRAINAGE SWALE
- NEW SUBSOIL DRAINAGE
- NEW RAINWATER TANK
- NEW DOWNPIPE CONNECTION LINE Ø150 UPVC
- OVERLAND FLOW DIRECTION

NOTES:

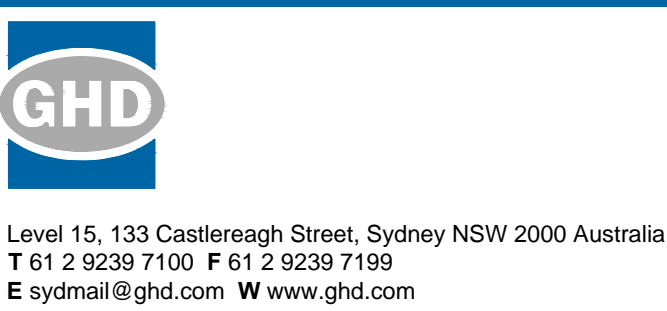
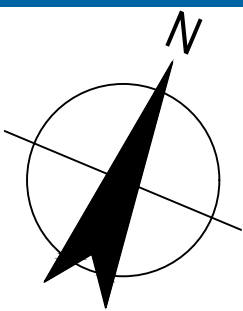
- ALL STORMWATER PIPES TO HAVE A MINIMUM OF 1% SLOPE IN DIRECTION SHOWN. ALL PIPES TO BE MINIMUM 450mm COVER IN LANDSCAPED/FOOTPATH AREA AND 600mm COVER IN TRAFFICABLE AREA.
- ALL STORMWATER PIPES TO BE REINFORCED CONCRETE (RCP) CLASS 2 WITH RUBBER RING JOINT UNO.
- STORMWATER PIPES ARE TO BE INSTALLED IN ACCORDANCE WITH AS 3725. ALL BEDDING IS TO BE TYPE H2 UNLESS NOTED OTHERWISE.
- CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
- STORMWATER PITS/GRATED PITS AND COVERS/GRATES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
- GRATES AND COVERS SHALL CONFORM WITH AS 3996-1992.
- ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH CURRENT STANDARDS AND CONSTRUCTION SPECIFICATIONS.
- THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING SERVICES WITH ALL RELEVANT AUTHORITIES BEFORE COMMENCING CONSTRUCTION.
- ALL STRUCTURES TO BE CONSTRUCTED TO NEW FINISHED SURFACE LEVELS.
- DATUM FOR LEVELS IS AHD.
- THE POSITION, SIZE, SURFACE LEVELS AND INVERT LEVELS OF EXISTING STORMWATER PITS ARE TAKEN FROM SURVEY DRAWING. THESE ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- ALL STORMWATER PITS SHALL BE CONSTRUCTED USING CAST IN-SITU CONCRETE OR HEAVY DUTY PRECAST PITS.
- CONNECTION TO EXISTING STORMWATER PITS TO BE CARRIED OUT BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATION AND IN CONSULTATION WITH THE ASSET OWNER (i.e. COUNCIL). MAKE REQUIRED OPENING INSIDE THE EXISTING STORMWATER PIT WALL AT THE CONNECTION POINT OF NEW LINE. REPAIR AND MAKE GOOD THE PIT WALL INCLUDING NECESSARY ADJUSTMENT OF THE PIT BENCHING TO MATCH NEW PIPE CONNECTIONS.
- GRATES, FRAMES AND COVERS IN ROADWAYS TO BE DURHAM OR RMS APPROVED HEAVY DUTY CLASS D.
- GRATES AND FRAMES NOT IN ROADWAYS TO BE DURHAM OR EQUIVALENT MEDIUM DUTY CLASS B.
- ALL GRATES TO BE HINGED AND LOCKABLE. PROVIDE HEEL SAFE GRATE AS PER AS 1428.1-7.5 IN ROADWAYS AND PARKING AREA (PEDESTRIAN TRAVERSING AREAS).

OVERALL STORMWATER DRAINAGE PLAN

SCALE 1:500

I	ISSUED FOR SSD SUBMISSION		MR	MD*	BM*	02.02.18
H	ISSUED FOR SSD SUBMISSION		MR	MD*	BM*	30.01.18
G	ISSUED FOR SSD SUBMISSION		MR	PM*	MD*	24.11.17
F	SCHEME DESIGN FOR APPROVAL		MR	PM*	MD*	15.09.17
E	ISSUED FOR SD SUBMISSION		MR	PM*	MD*	05.09.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE



DO NOT SCALE

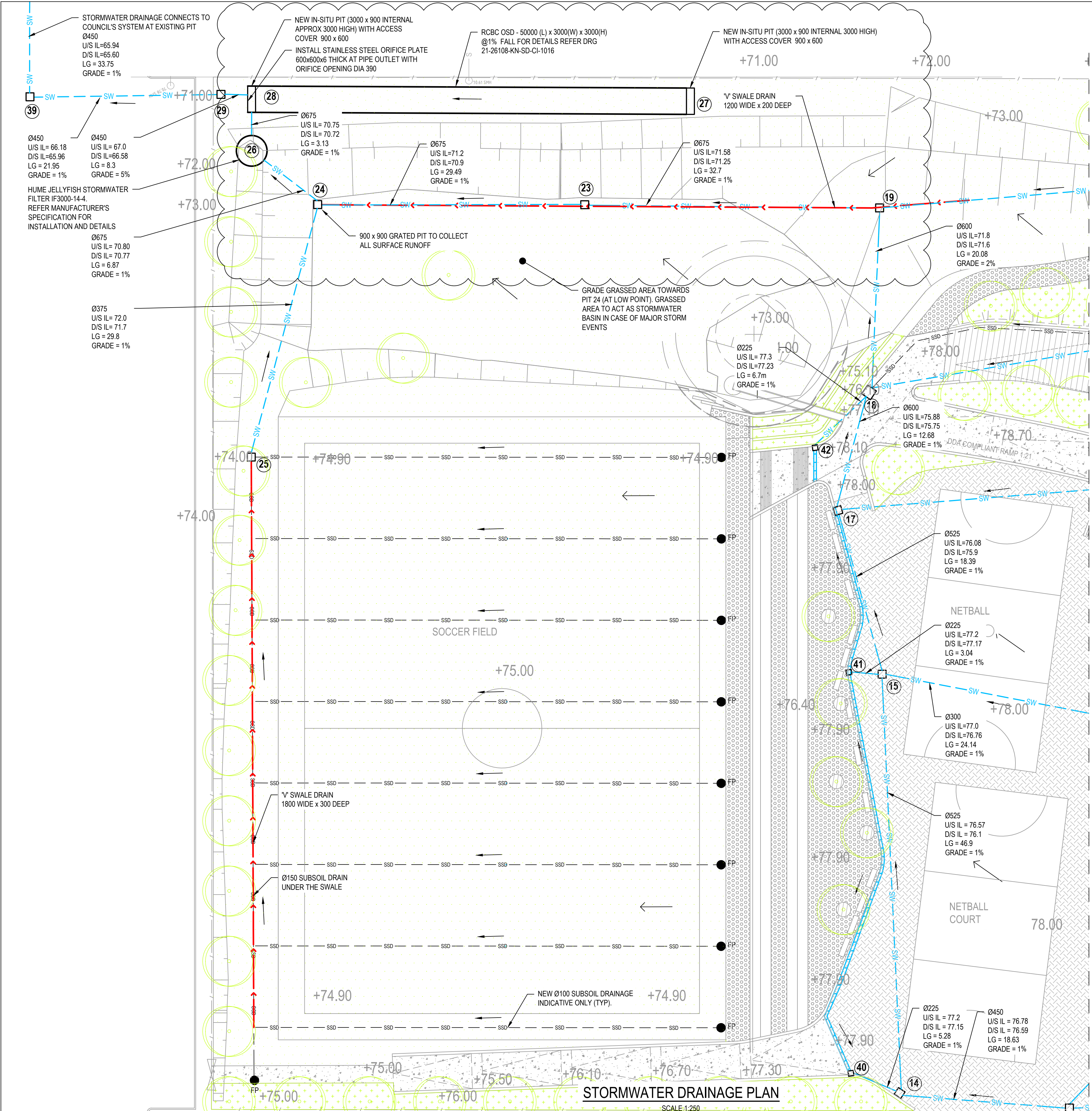
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Drawn	M.RANGWALA	Designer	G.DE SWARDT
Drafting Check	A.MACLEAN*	Design Check	A.RAHMAN*
Approved (Project Director)			
Date			
Scale	1:500		

This Drawing must not be used for Construction unless signed as Approved

PRELIMINARY

Client	NSW DEPARTMENT OF EDUCATION
Project	NORTH KELLYVILLE PUBLIC SCHOOL
Title	CIVIL OVERALL STORMWATER DRAINAGE PLAN
Original Size	A1
Drawing No:	21-26108-KN-SD-CI-1010
Rev:	H



FOR CONTINUATION REFER DRG 21-26108-KN-CI-1012

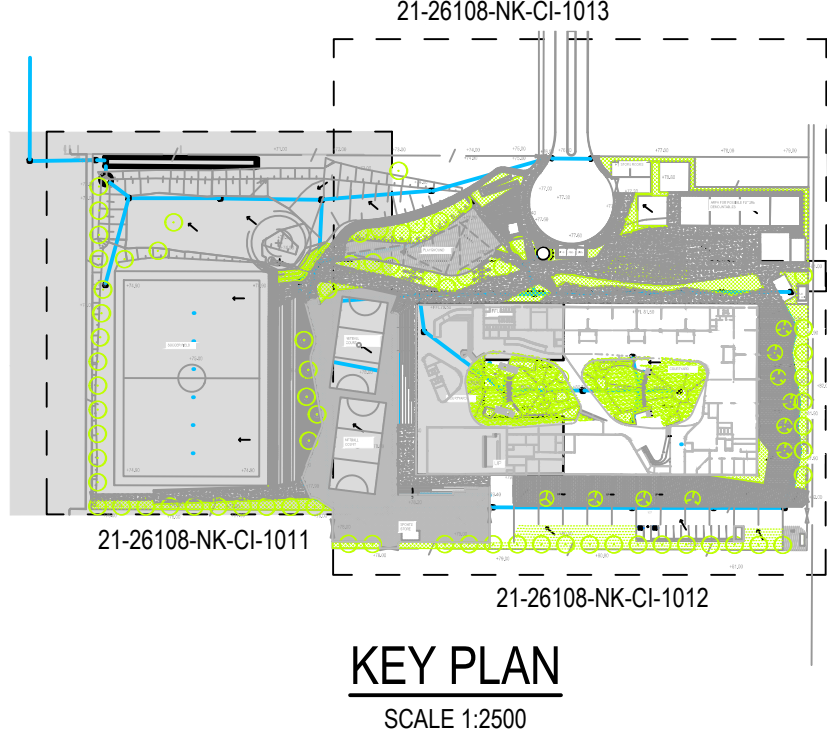
PIT SCHEDULE	
PIT NUMBER	PIT DETAILS
1	600 x 600 GRATED INLET PIT
2	900 x 900 GRATED INLET PIT
3	900 x 900 GRATED INLET PIT
4	900 x 900 GRATED INLET PIT
5	900 x 900 GRATED INLET PIT
6	1200 x 1200 DEEP DROP PIT
7	900 x 900 GRATED INLET PIT
8	900 x 900 GRATED INLET PIT
9	900 x 900 GRATED INLET PIT
10	900 x 900 GRATED INLET PIT
11	900 x 900 GRATED INLET PIT
12	900 x 900 GRATED INLET PIT
13	900 x 900 GRATED INLET PIT
14	900 x 900 GRATED INLET PIT
15	600 x 600 GRATED INLET PIT
16	900 x 900 GRATED INLET PIT
17	600 x 600 GRATED INLET PIT
18	1200 x 1200 DEEP DROP PIT
19	900 x 900 GRATED INLET PIT
20	900 x 900 GRATED INLET PIT
21	900 x 900 GRATED INLET DROP PIT
22	900 x 900 GRATED INLET PIT
23	900 x 900 GRATED INLET PIT
24	900 x 900 GRATED INLET PIT
25	900 x 900 GRATED INLET PIT
26	GPT-HUMEGARD
27	3000 x 900 IN-SITU ACCESS PIT
28	3000 x 900 IN-SITU ACCESS PIT
29	1200 x 1200 DEEP DROP PIT
30	900 x 900 GRATED INLET PIT
31	900 x 900 GRATED INLET PIT
32	900 x 900 GRATED INLET PIT
33	900 x 900 GRATED INLET PIT
34	900 x 900 GRATED INLET PIT
35	900 x 900 GRATED INLET PIT
36	900 x 900 GRATED INLET PIT
37	900 x 900 GRATED INLET PIT
38	900 x 900 GRATED INLET PIT
39	900 x 900 GRATED INLET PIT
40	600 x 600 GRATED INLET PIT
41	600 x 600 GRATED INLET PIT
42	600 x 600 GRATED INLET PIT

LEGEND:

- NEW GRATED TRENCH DRAIN
- NEW STORMWATER PIPE
- NEW STORMWATER PIT
- PIPE FLOW DIRECTION
- NEW GRASSED DRAINAGE SWALE
- NEW SUBSOIL DRAINAGE
- NEW RAINWATER TANK
- NEW DOWNPIPE CONNECTION LINE Ø150 UPVC
- NEW FLUSH POINT
- OVERLAND FLOW DIRECTION

NOTES:

- REFER TO DRG 21-26108-KN-SD-CI-1010 FOR DRAINAGE NOTES.



G

ISSUED FOR SSD SUBMISSION

F

ISSUED FOR SSD SUBMISSION

E

SCHEME DESIGN FOR APPROVAL

D

ISSUED FOR SD SUBMISSION

B

ISSUED FOR SSD SUBMISSION

No

Revision

Note: * indicates signatures on original issue of drawing or last revision of drawing

MR

PM*

MD*

02.02.18

MR

PM*

MD*

24.11.17

MR

PM*

MD*

15.09.17

MR

PM*

MD*

05.09.17

MR

CS*

SM*

09.08.17

Drawn

Job Manager

Project Director

Date

0 25 50 75 100 125m

SCALE 1:2500 AT ORIGINAL SIZE

0 2.5 5 7.5 10 12.5m

SCALE 1:250 AT ORIGINAL SIZE

NSW GOVERNMENT

Education

TSA MANAGEMENT

GHD

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Drawn

M.RANGWALA

Designer

G.DE SWARDT

Drafting Check

A.MACLEAN*

Design Check

A.RAHMAN*

Approved (Project Director)

Date

Scale

1:500

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Client

Project

Title

Original Size

A1

Drawing No:

21-26108-KN-SD-CI-1011

Rev:

F

NSW DEPARTMENT OF EDUCATION

NORTH KELLYVILLE PUBLIC SCHOOL

CIVIL

STORMWATER DRAINAGE PLAN-SHEET 1 OF 3

Plot Date:

2 February 2018 - 11:32 AM

Plotted by:

Guillaume de Swardt

Cad File No:

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PRELIMINARY

NOTES:
1. REFER TO DRG 21-26108-KN-SD-CI-1010 FOR DRAINAGE NOTES.

- LEGEND:
- NEW GRATED TRENCH DRAIN (300W x 200D)
 - NEW STORMWATER PIPE
 - NEW STORMWATER PIT
 - PIPE FLOW DIRECTION
 - NEW GRASSED DRAINAGE SWALE
 - NEW SUBSOIL DRAINAGE
 - NEW RAINWATER TANK
 - NEW DOWNPIPE CONNECTION LINE Ø150 UPVC
 - NEW FLUSH POINT
 - OVERLAND FLOW DIRECTION

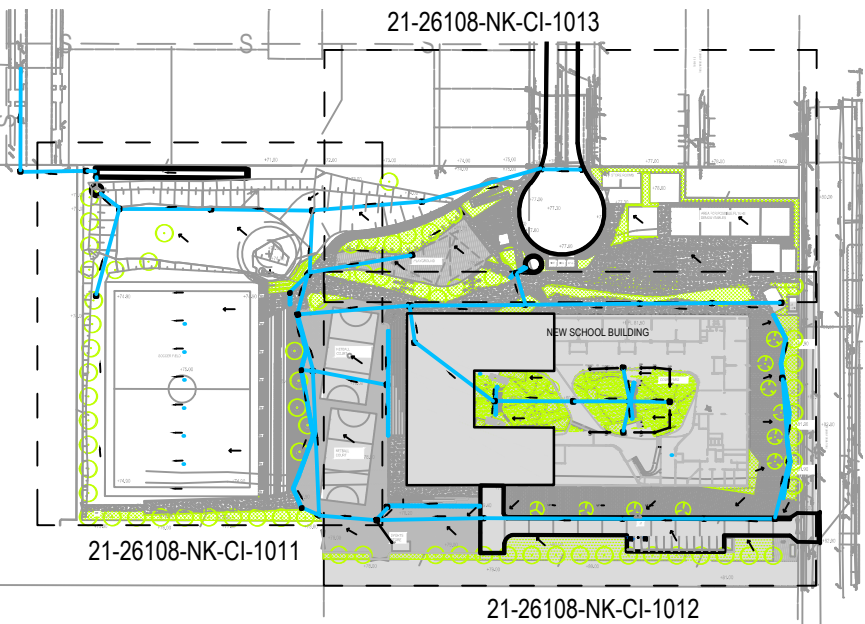
PIT SCHEDULE	
PIT NUMBER	PIT DETAILS
1	600 x 600 GRATED INLET PIT
2	900 x 900 GRATED INLET PIT
3	900 x 900 GRATED INLET PIT
4	900 x 900 GRATED INLET PIT
5	900 x 900 GRATED INLET PIT
6	1200 x 1200 DEEP DROP PIT
7	900 x 900 GRATED INLET PIT
8	900 x 900 GRATED INLET PIT
9	900 x 900 GRATED INLET PIT
10	900 x 900 GRATED INLET PIT
11	900 x 900 GRATED INLET PIT
12	900 x 900 GRATED INLET PIT
13	900 x 900 GRATED INLET PIT
14	900 x 900 GRATED INLET PIT
15	600 x 600 GRATED INLET PIT
16	900 x 900 GRATED INLET PIT
17	600 x 600 GRATED INLET PIT
18	1200 x 1200 DEEP DROP PIT
19	900 x 900 GRATED INLET PIT
20	900 x 900 GRATED INLET PIT
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38	900 x 900 GRATED INLET PIT
39	900 x 900 GRATED INLET PIT
40	600 x 600 GRATED INLET PIT
41	600 x 600 GRATED INLET PIT
42	600 x 600 GRATED INLET PIT

FOR CONTINUATION REFER DRG 21-26108-KN-CI-1013

NEW SCHOOL BUILDING

STORMWATER DRAINAGE PLAN

SCALE 1:250

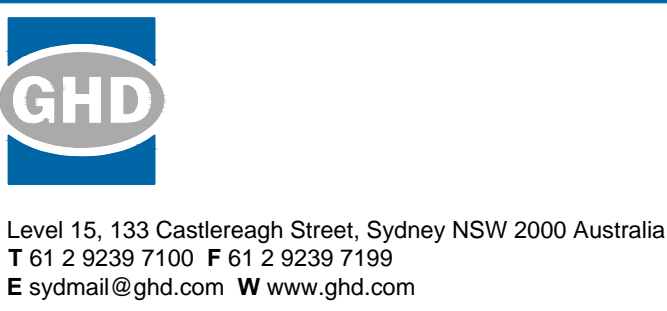
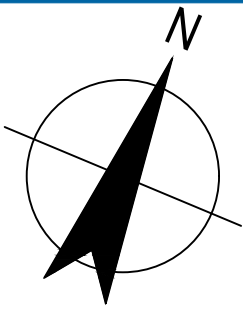
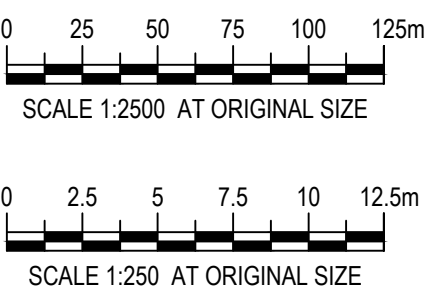


KEY PLAN

SCALE 1:2500

PRELIMINARY

H	ISSUED FOR SSD SUBMISSION		MR	MD*	BM*	02.02.18
G	ISSUED FOR SSD SUBMISSION		MR	MD*	BM*	30.01.18
F	ISSUED FOR SSD SUBMISSION		MR	PM*	MD*	24.11.17
E	SCHEME DESIGN FOR APPROVAL		MR	PM*	MD*	15.09.17
D	ISSUED FOR SD SUBMISSION		MR	PM*	MD*	05.09.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date



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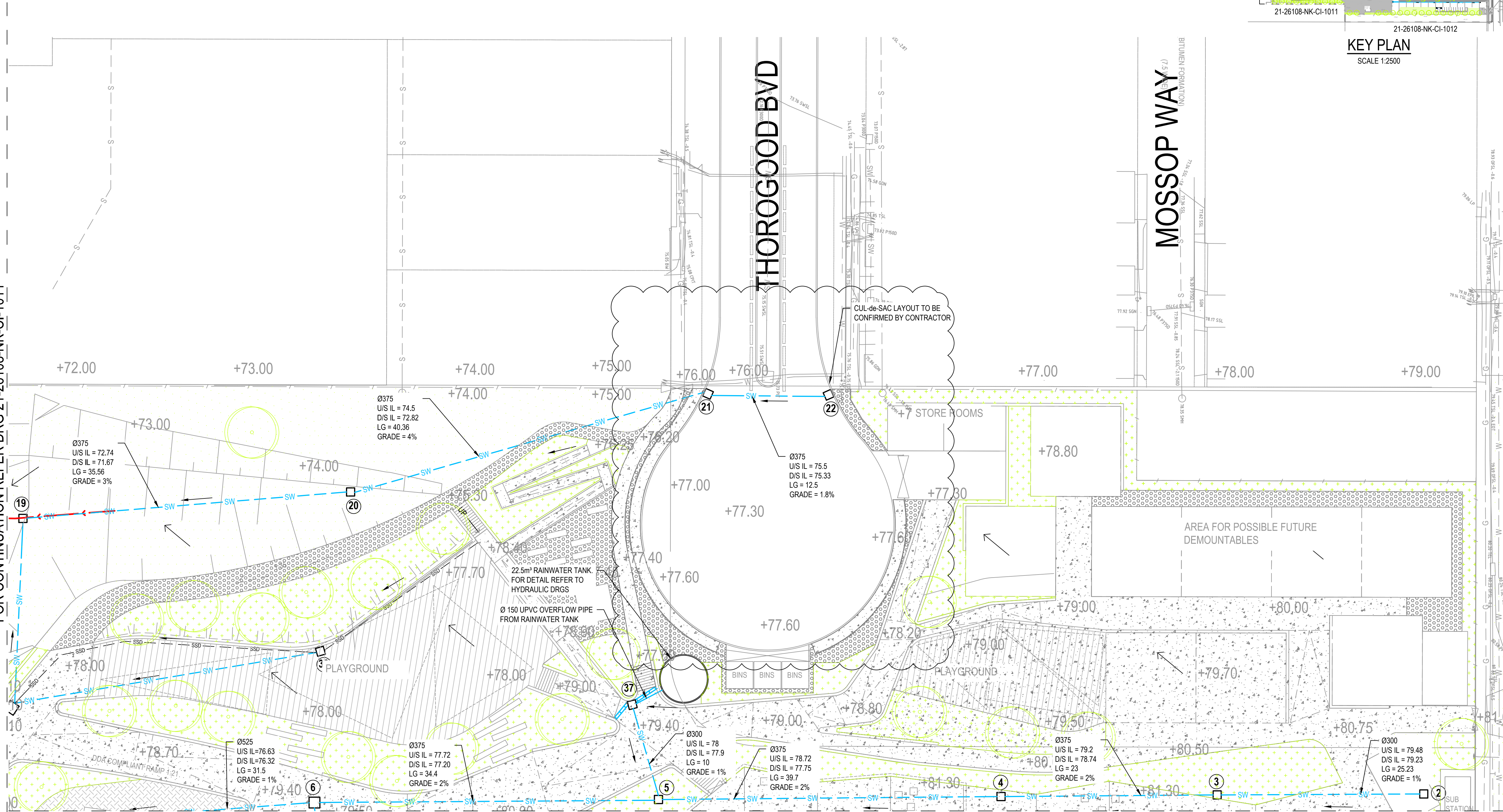
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Designer G.DE SWARDT
Drafting Check A.MACLEAN*
Design Check A.RAHMAN*
Approved (Project Director)
Date
Scale 1:500

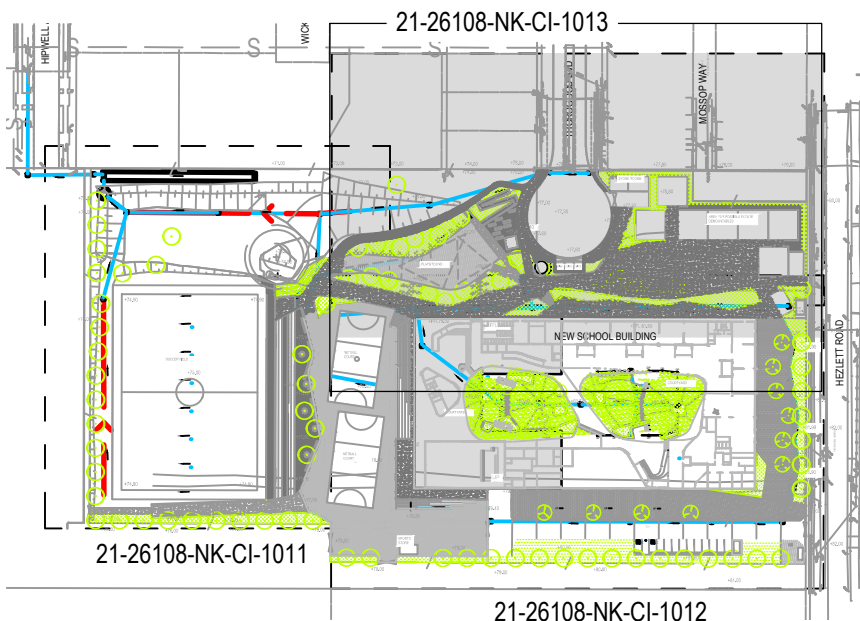
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Client NSW DEPARTMENT OF EDUCATION
Project NORTH KELLYVILLE PUBLIC SCHOOL
Title CIVIL STORMWATER DRAINAGE PLAN-SHEET 2 OF 3
Drawing No: 21-26108-KN-SD-CI-1012 Rev: G

FOR CONTINUATION REFER DRG 21-26108-NK-CI-1011



FOR CONTINUATION REFER DRG 21-26108-KN-CI-1012



KEY PLAN
SCALE 1:2500

LEGEND:

- NEW GRATED TRENCH DRAIN
- NEW STORMWATER PIPE
- NEW STORMWATER PIT
- PIPE FLOW DIRECTION
- NEW GRASSED DRAINAGE SWALE
- NEW SUBSOIL DRAINAGE
- NEW RAINWATER TANK
- NEW DOWNPIPE CONNECTION LINE Ø150 UPVC
- NEW FLUSH POINT
- OVERLAND FLOW DIRECTION

NOTES:

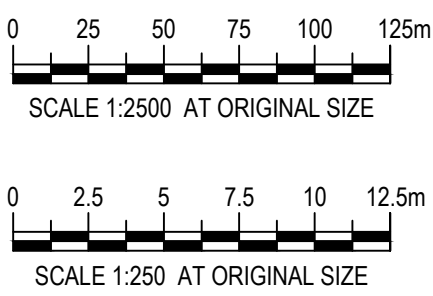
1. REFER TO DRG 21-26108-KN-SD-CI-1010 FOR DRAINAGE NOTES.

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PIT NUMBER	PIT DETAILS
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2	900 x 900 GRATED INLET PIT
3	900 x 900 GRATED INLET PIT
4	900 x 900 GRATED INLET PIT
5	900 x 900 GRATED INLET PIT
6	1200 x 1200 DEEP DROP PIT
7	900 x 900 GRATED INLET PIT
8	900 x 900 GRATED INLET PIT
9	900 x 900 GRATED INLET PIT
10	900 x 900 GRATED INLET PIT
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12	900 x 900 GRATED INLET PIT
13	900 x 900 GRATED INLET PIT
14	900 x 900 GRATED INLET PIT
15	600 x 600 GRATED INLET PIT
16	900 x 900 GRATED INLET PIT
17	600 x 600 GRATED INLET PIT
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20	900 x 900 GRATED INLET PIT
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33	900 x 900 GRATED INLET PIT
34	900 x 900 GRATED INLET PIT
35	900 x 900 GRATED INLET PIT
36	900 x 900 GRATED INLET PIT
37	900 x 900 GRATED INLET PIT
38	900 x 900 GRATED INLET PIT
39	900 x 900 GRATED INLET PIT
40	600 x 600 GRATED INLET PIT
41	600 x 600 GRATED INLET PIT
42	600 x 600 GRATED INLET PIT

STORMWATER DRAINAGE PLAN

SCALE 1:250

E	ISSUED FOR SSD SUBMISSION		MR	MD*	BM*	02.02.18
D	ISSUED FOR SSD SUBMISSION		MR	MD*	BM*	30.01.18
C	ISSUED FOR SSD SUBMISSION		MR	PM*	MD*	24.11.17
B	SCHEME DESIGN FOR APPROVAL		MR	PM*	MD*	15.09.17
A	ISSUED FOR SD SUBMISSION		MR	PM*	MD*	05.09.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

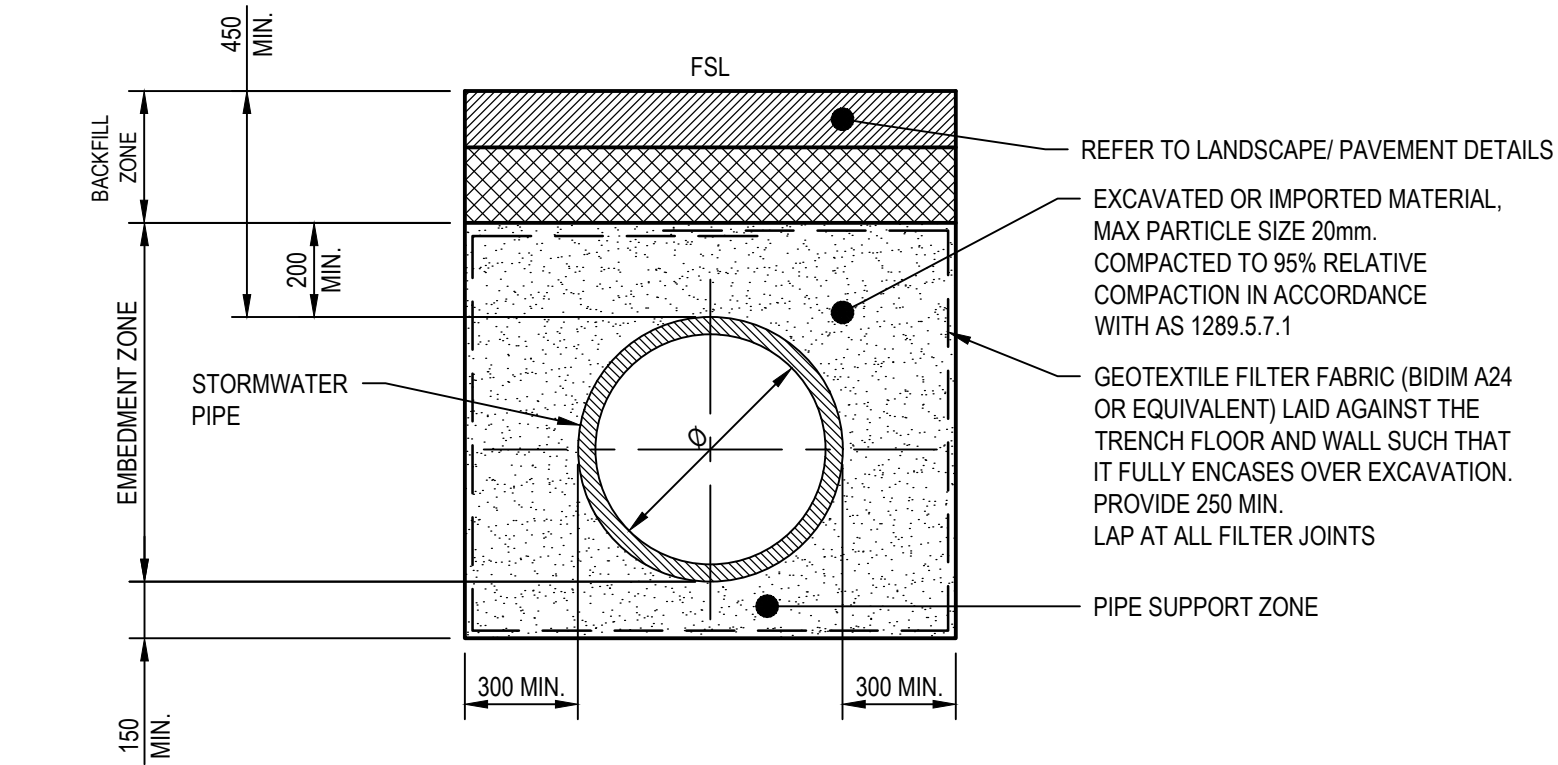


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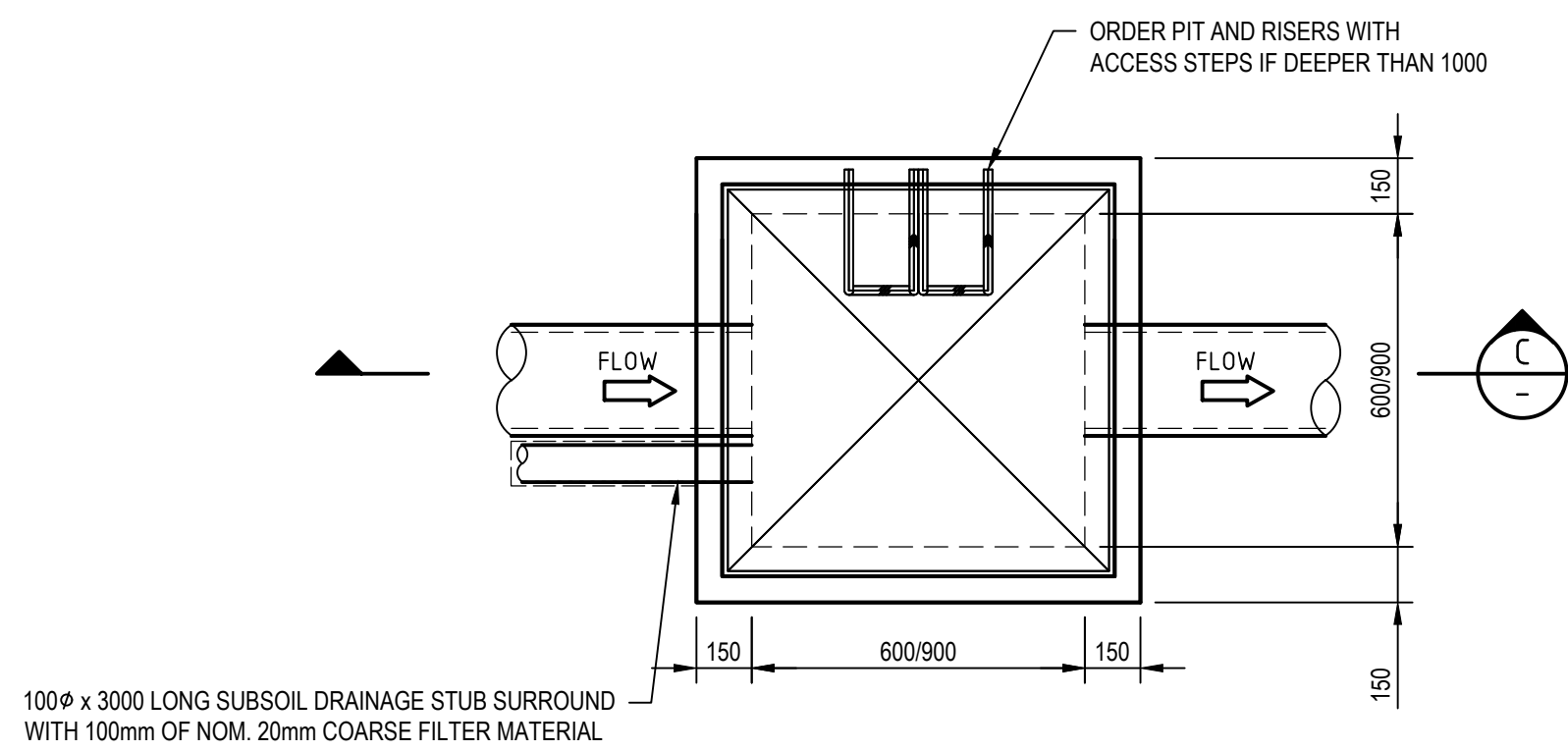
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Drawn	M.RANGWALA	Designer	G.DE SWARDT
Drafting Check	A.MACLEAN*	Design Check	A.RAHMAN*
Approved (Project Director)			
Date			
Scale	1:500		

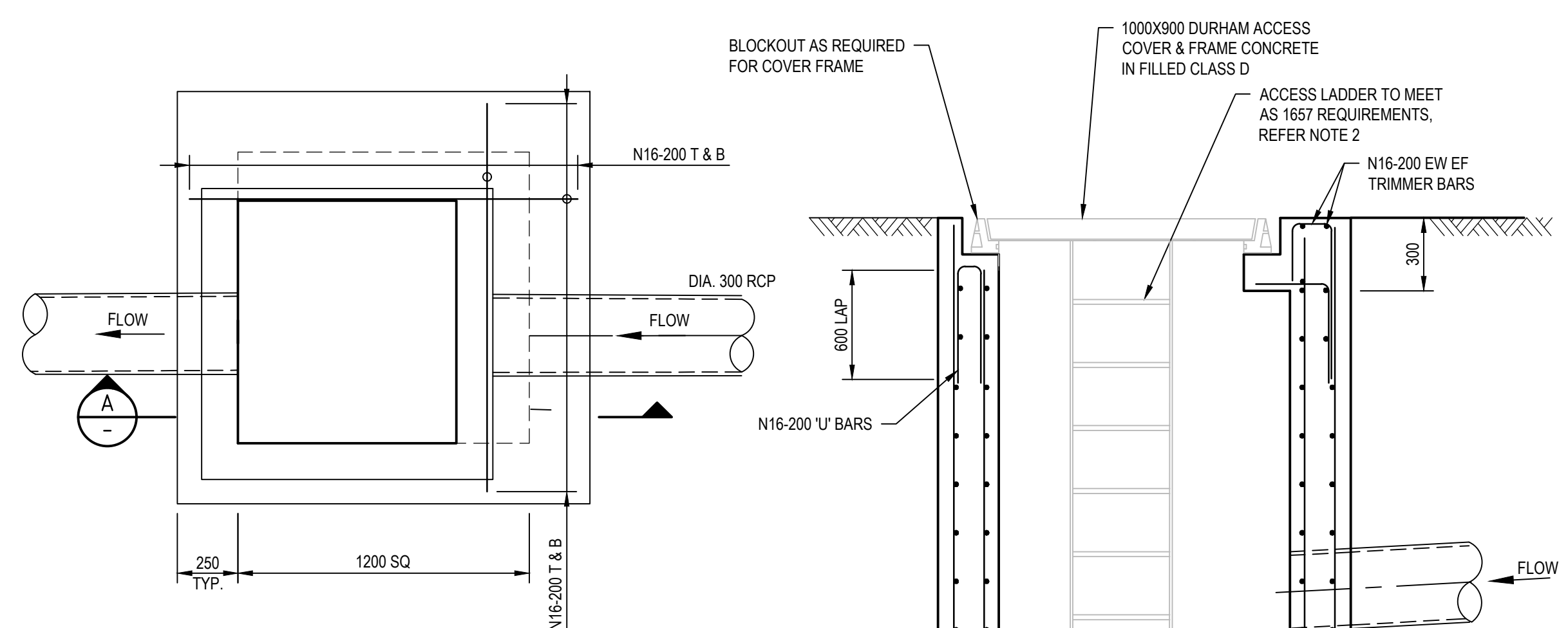
Client	NSW DEPARTMENT OF EDUCATION
Project	NORTH KELLYVILLE PUBLIC SCHOOL
Title	CIVIL STORMWATER DRAINAGE PLAN-SHEET 3 OF 3
Original Size	A1
Drawing No:	21-26108-KN-SD-CI-1013
Rev:	D



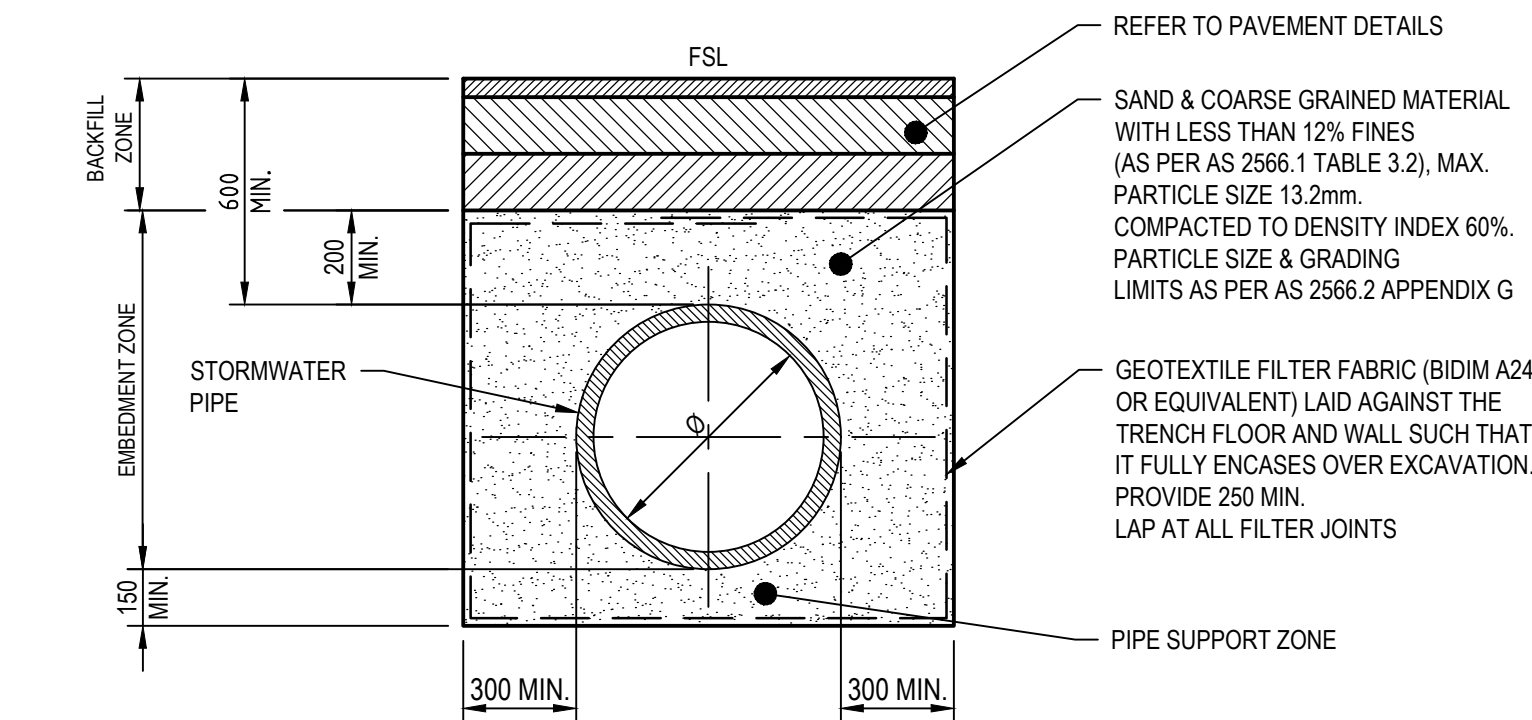
TRENCH DETAIL-BURIED PIPE UNDER NON-TRAFFICABLE AREA
NTS



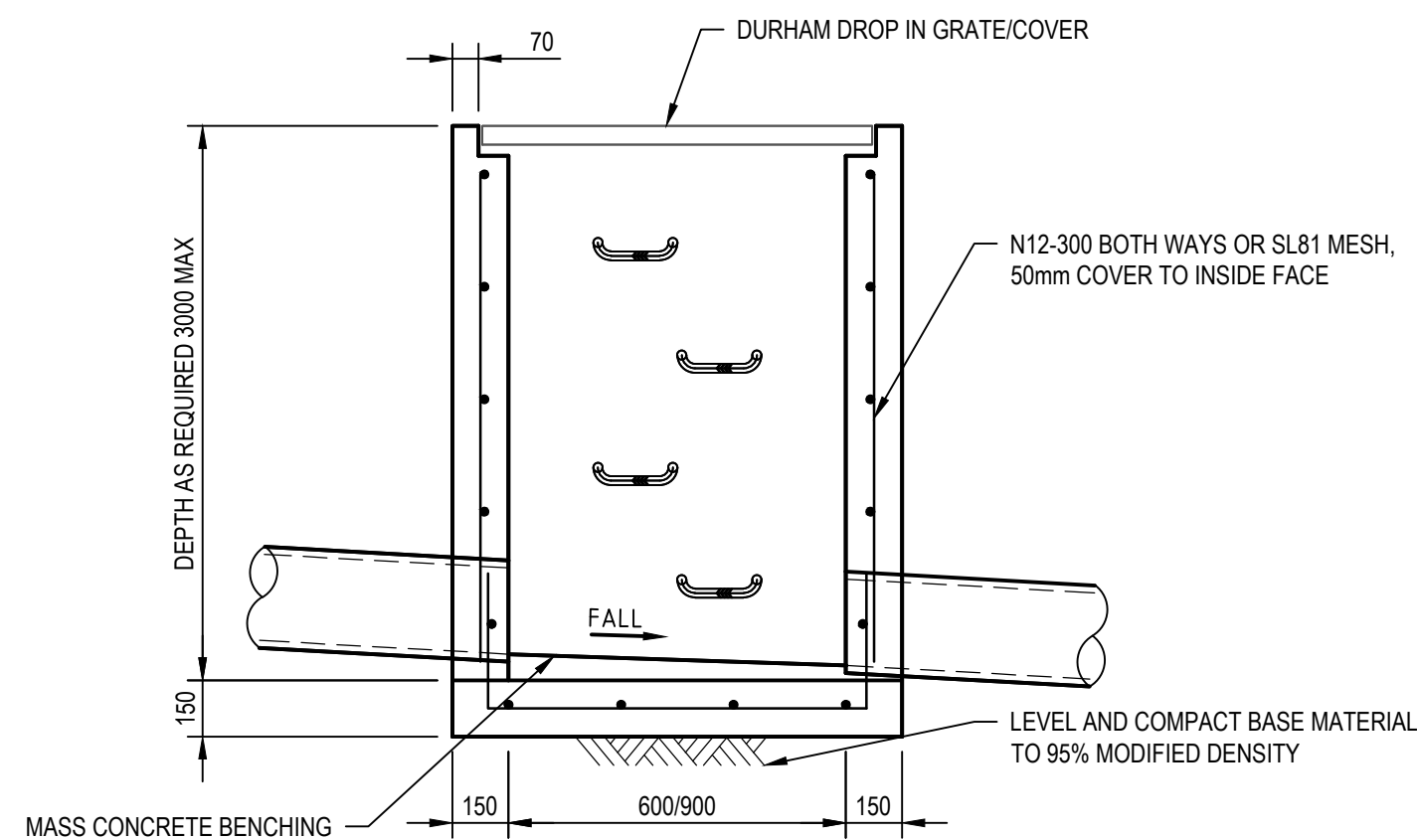
CAST IN-SITU
GRATED SURFACE INLET PIT/JUNCTION PIT PLAN
NTS



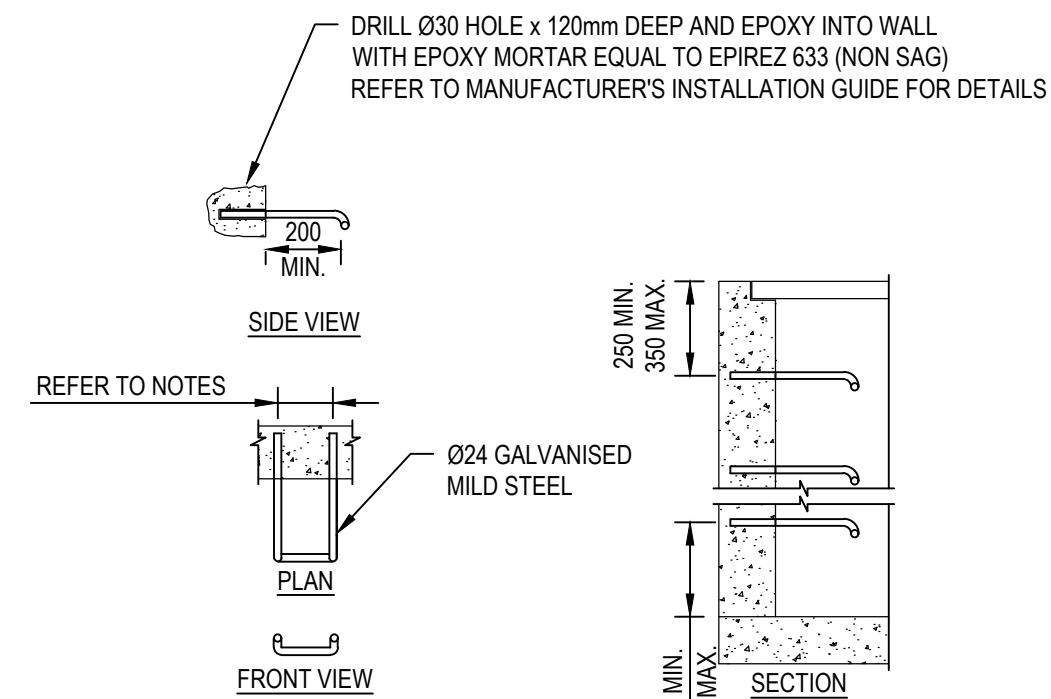
PLAN - DEEP DROP PIT (DP)
NTS



TRENCH DETAIL-BURIED PIPE UNDER TRAFFICABLE AREA
NTS

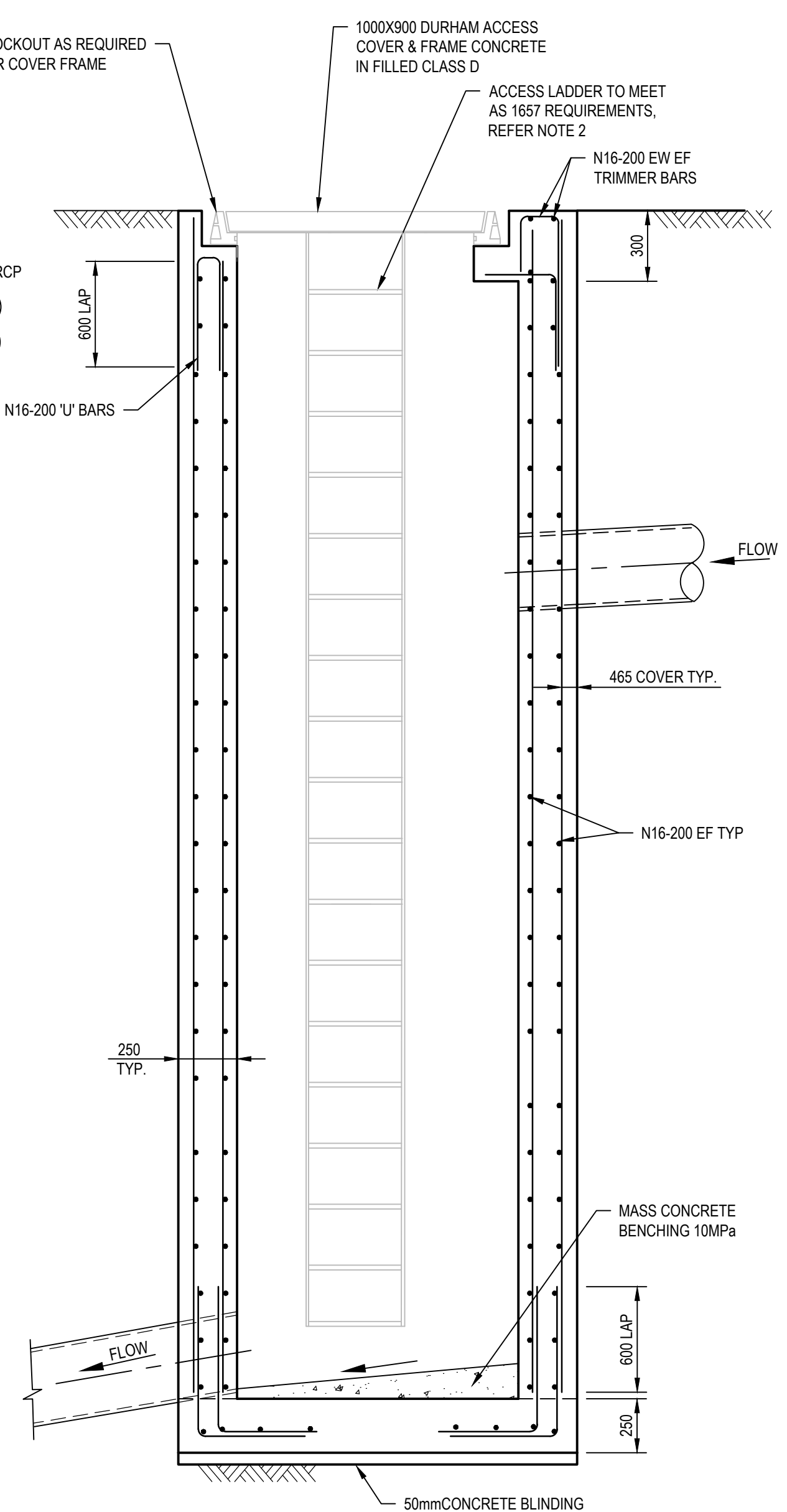


SECTION
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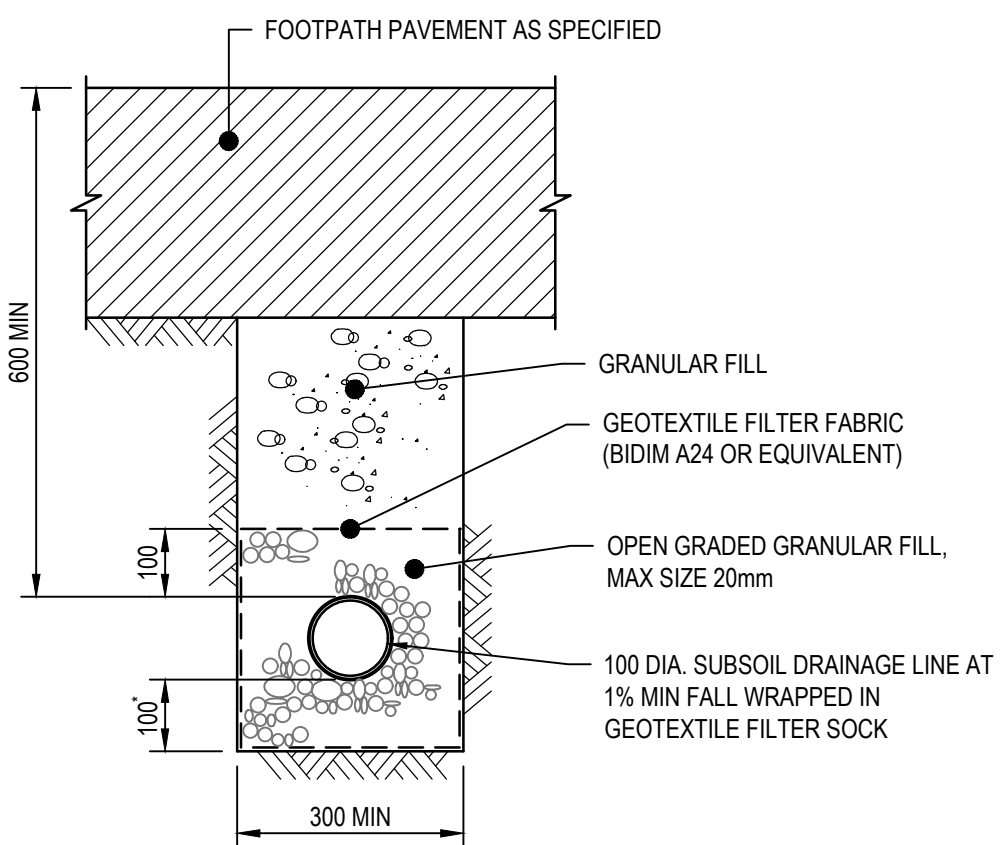


PIT STEP IRON TYPICAL DETAILS

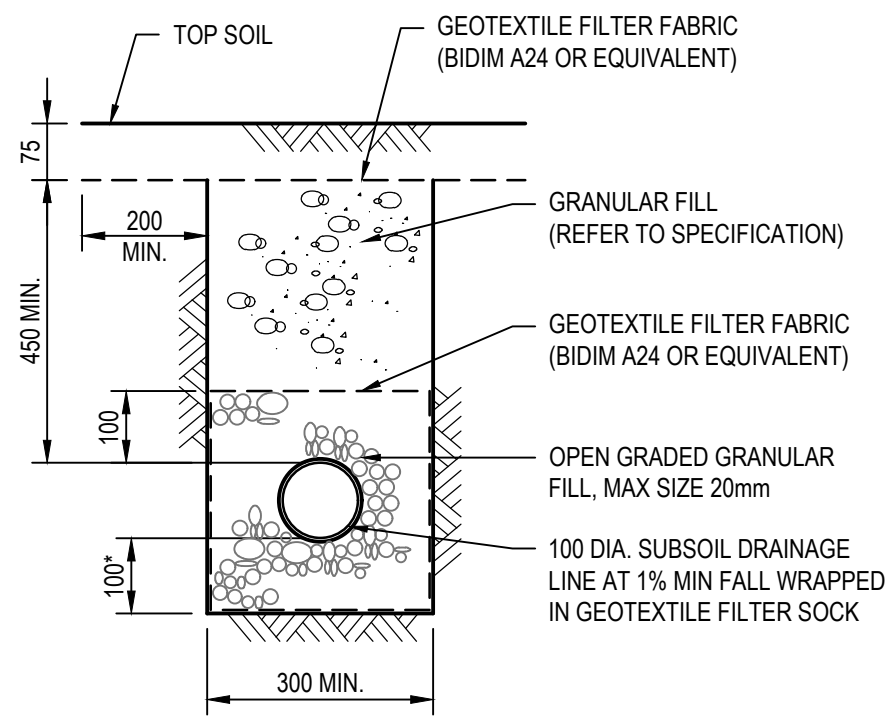
- NOTES:
1. WHEN POSITIONED IN STRAIGHT ALIGNMENT, STEP IS 400mm WIDE.
 2. STAGGERED STEPS ARE 200mm WIDE, STEPS ARE STAGGERED 200 CENTRE TO CENTRE FOR ALL ALTERNATE STEPS.
 3. SPACING OF STEPS ARE UNIFORM TO WITHIN ±2mm IN EACH PIT.



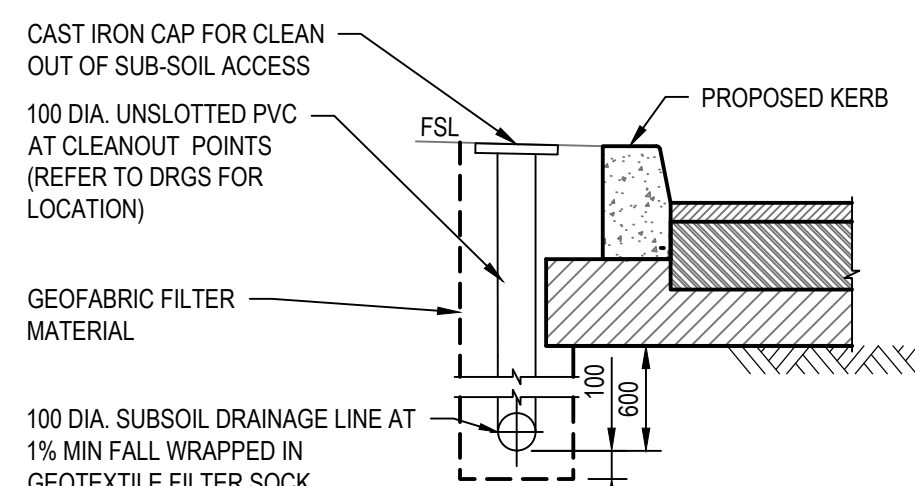
SECTION
NTS



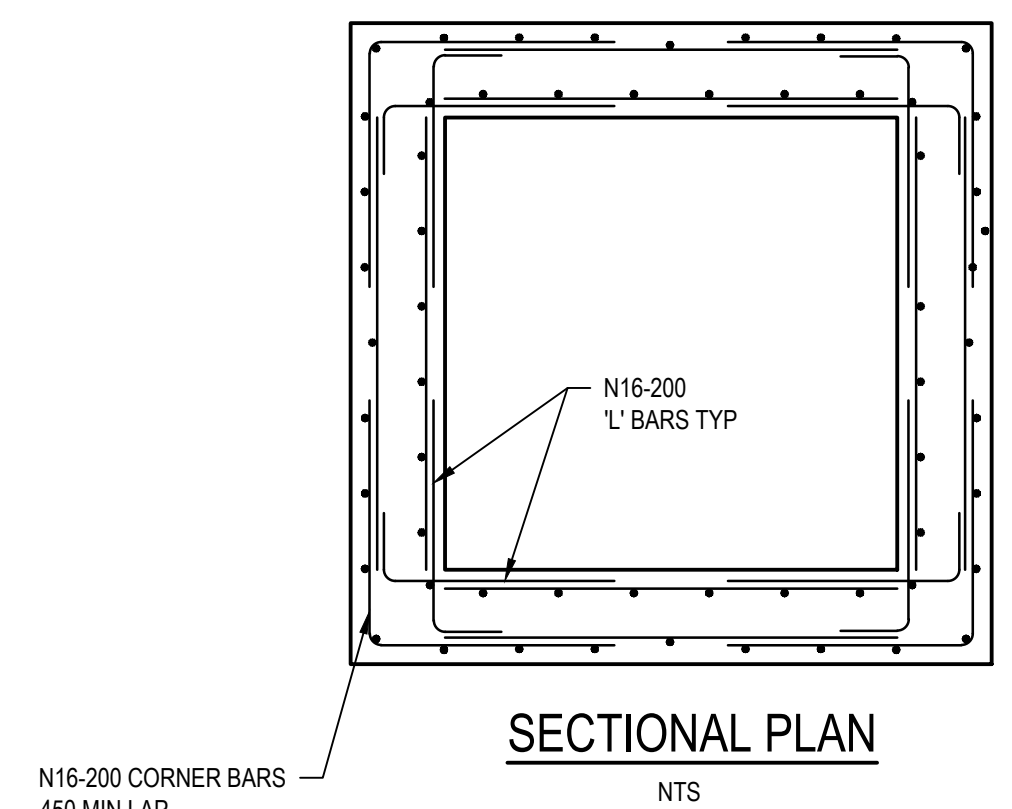
SUBSOIL IN PAVED AREAS
NTS



SUBSOIL IN LANDSCAPE AREAS
NTS



SUB-SURFACE DRAIN AND FLUSHING POINT DETAIL
NTS



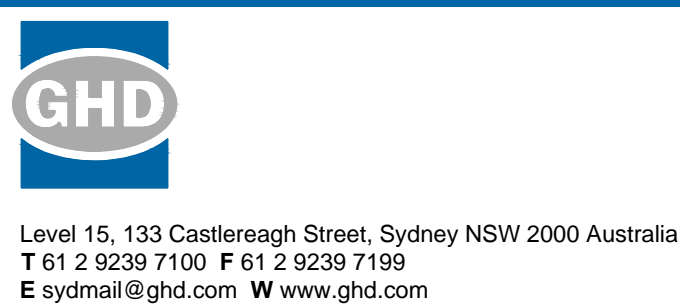
SECTIONAL PLAN
NTS

PRELIMINARY

E	ISSUED FOR SSD SUBMISSION		MR	PM*	MD*	24.11.17
D	ISSUED FOR SD SUBMISSION		MR	PM*	MD*	05.09.17
C	ISSUED FOR SSD SUBMISSION		MR	CS*	SM*	09.08.17
B	ISSUED FOR TENDER		MR	CS*	SM*	28.06.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

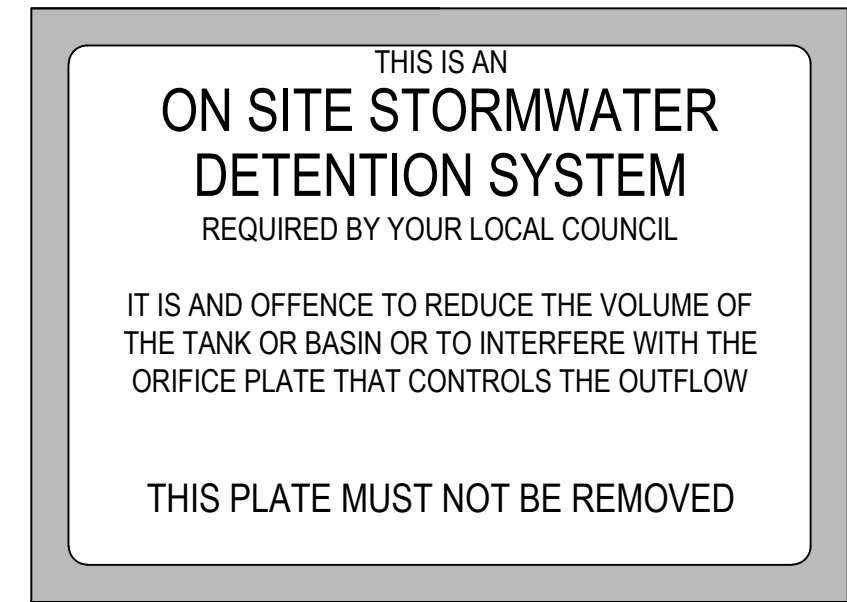
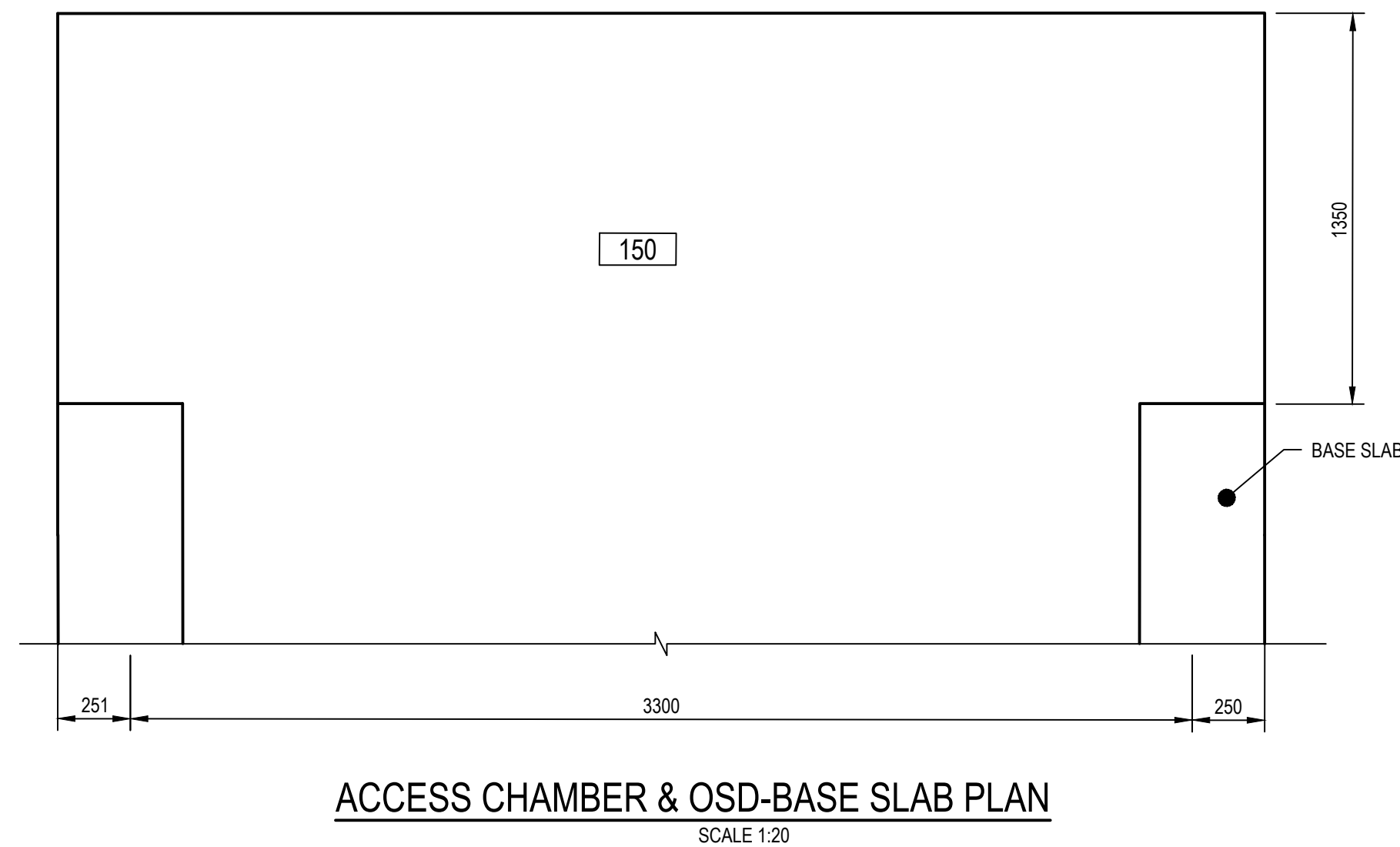
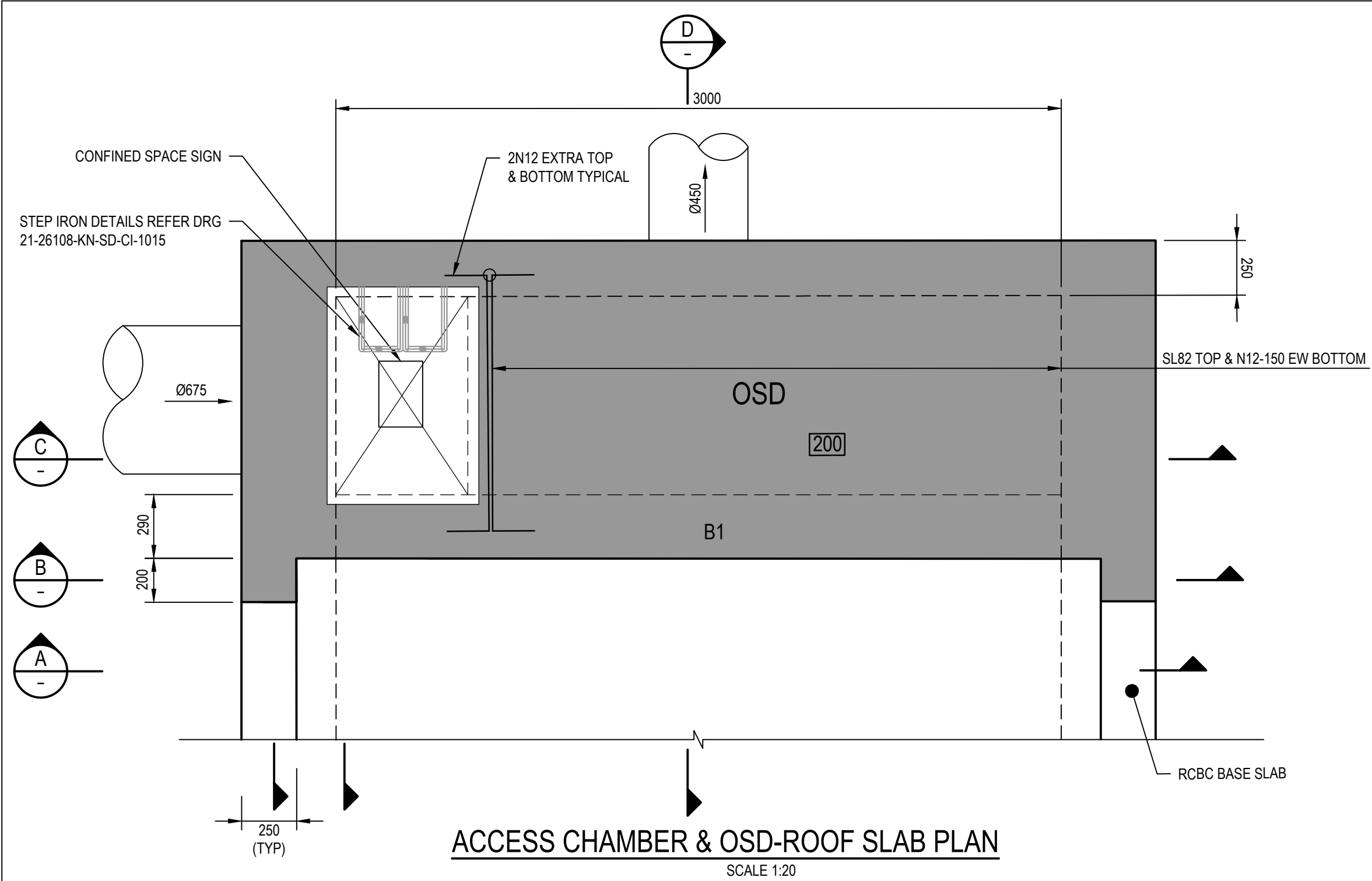
Plot Date: 28 November 2017 - 11:43 AM Plotted by: Mona Rangwala

Cad File No: G:\21\26108\6. Kellyville North PS\00 Common\CADD\Drawings\21-26108-KN-SD-CI-1015.dwg



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Approved (Project Director)	Date	Scale NTS
This Drawing must not be used for Construction unless signed as Approved		

Client	NSW DEPARTMENT OF EDUCATION
Project	NORTH KELLYVILLE PUBLIC SCHOOL
Title	CIVIL STORMWATER DRAINAGE DETAILS-SHEET 1 OF 2
Original Size	A1
Drawing No:	21-26108-KN-SD-CI-1015
Rev:	E



CORNERS: SQUARE
COLOUR: ETCHED AND FILLED BLACK LEGEND ON NATURAL SILVER BACKGROUND
MATERIAL: ALUMINIUM 0.9mm MILL

OSD PLAQUE

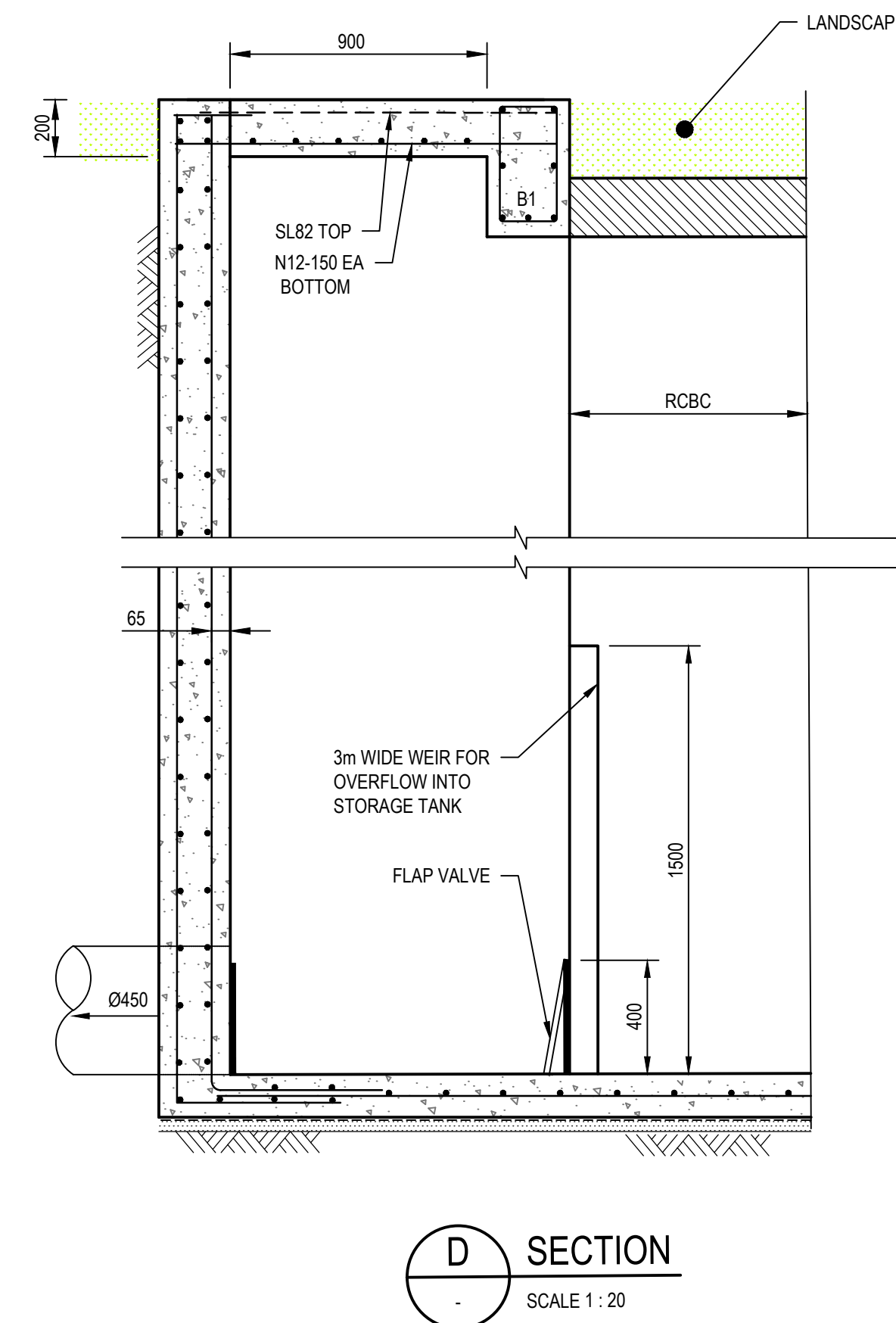
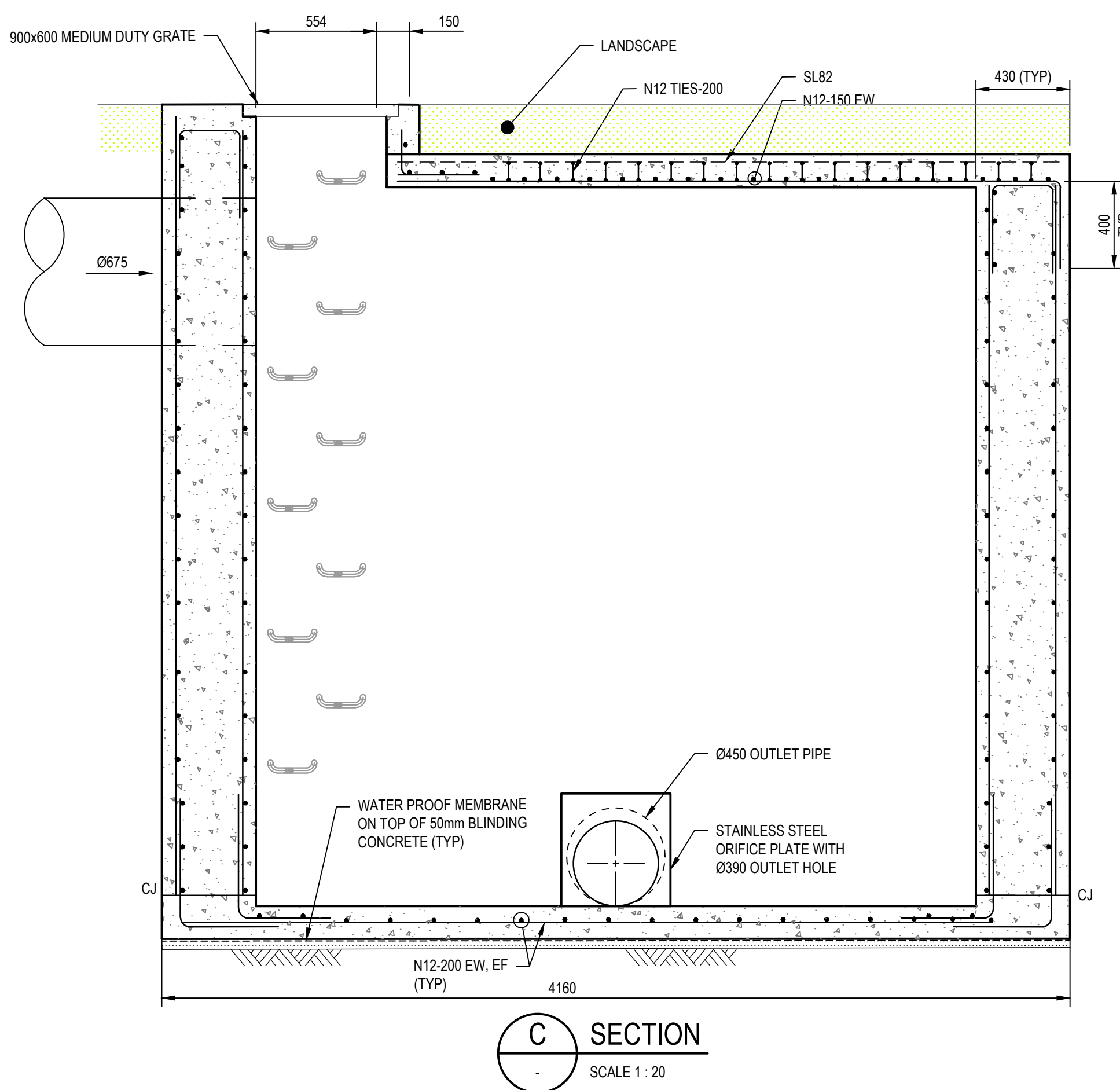
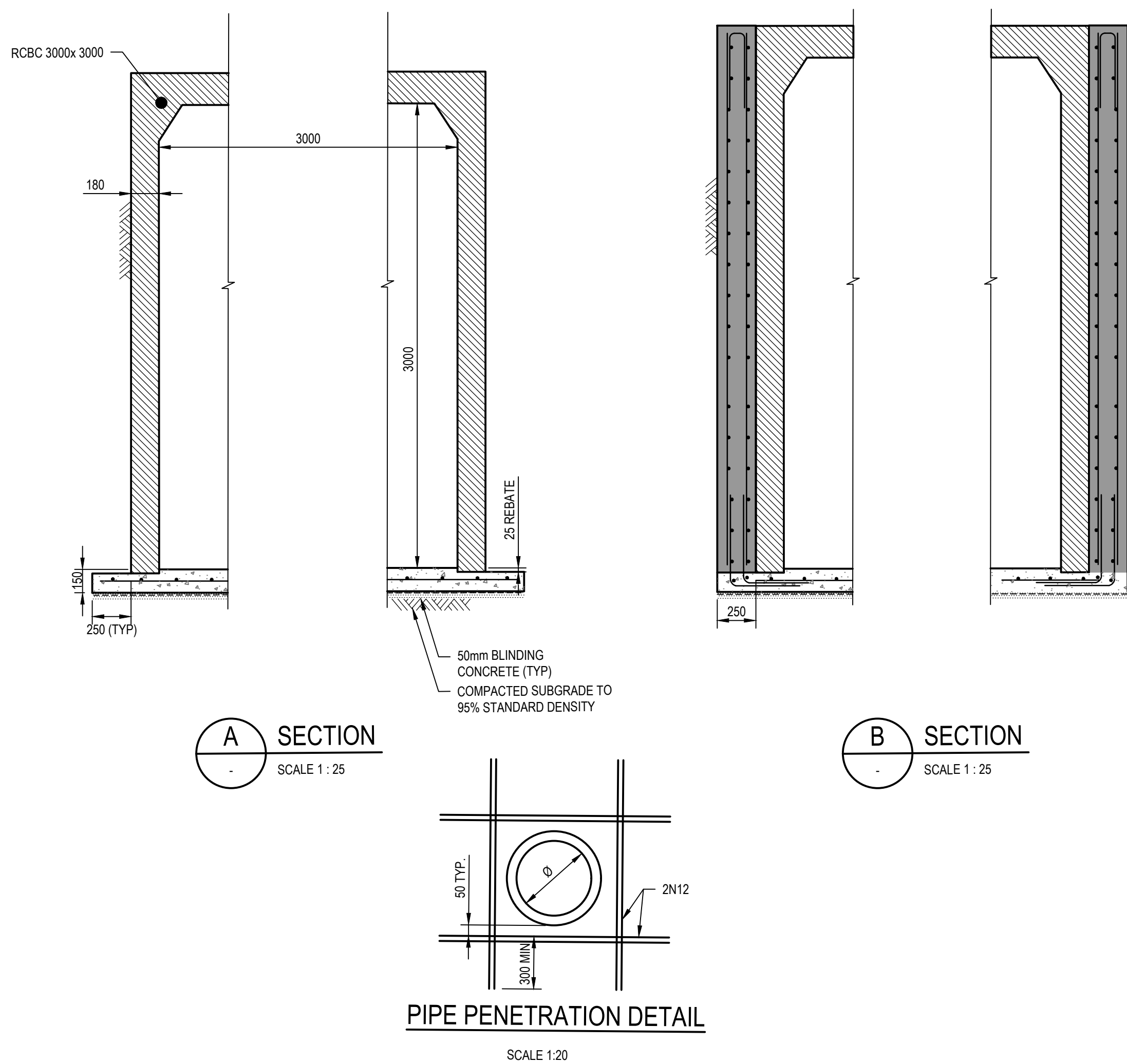
NTS

NOTES:

- STRUCTURAL DETAIL DRGS WILL BE PROVIDED IN CONSTRUCTION SET
- ALL ACCESS LIDS/GRATES TO BE 'CLASS B' (NON-TRAFFICABLE AREA) OR CLASS D (TRAFFICABLE AREA) BOLT DOWN.
- REFER MANUFACTURERS SPECIFICATION FOR INSTALLATION AND MAINTENANCE INSTRUCTIONS.

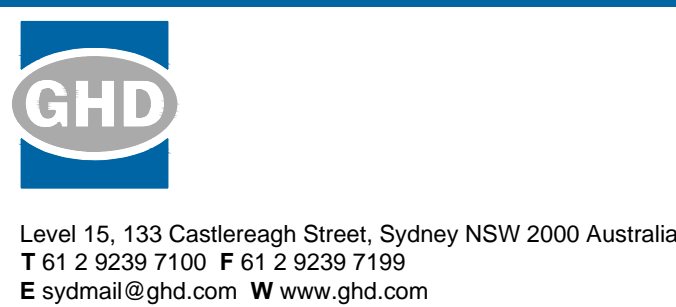
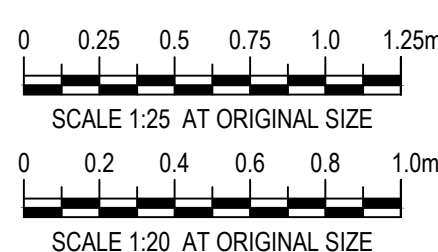
ABBREVIATIONS

EW DENOTES EACH WAY
CP DENOTES CENTRALLY PLACED
CJ DENOTES CONSTRUCTION JOINT



PRELIMINARY

D	ISSUED FOR SSD SUBMISSION	MR	PM*	MD*	24.11.17
C	SCHEME DESIGN FOR APPROVAL	MR	PM*	MD*	15.09.17
B	ISSUED FOR SD SUBMISSION	MR	PM*	MD*	05.09.17
A	ISSUED FOR SSD SUBMISSION	MR	CS*	SM*	09.08.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director
					Date

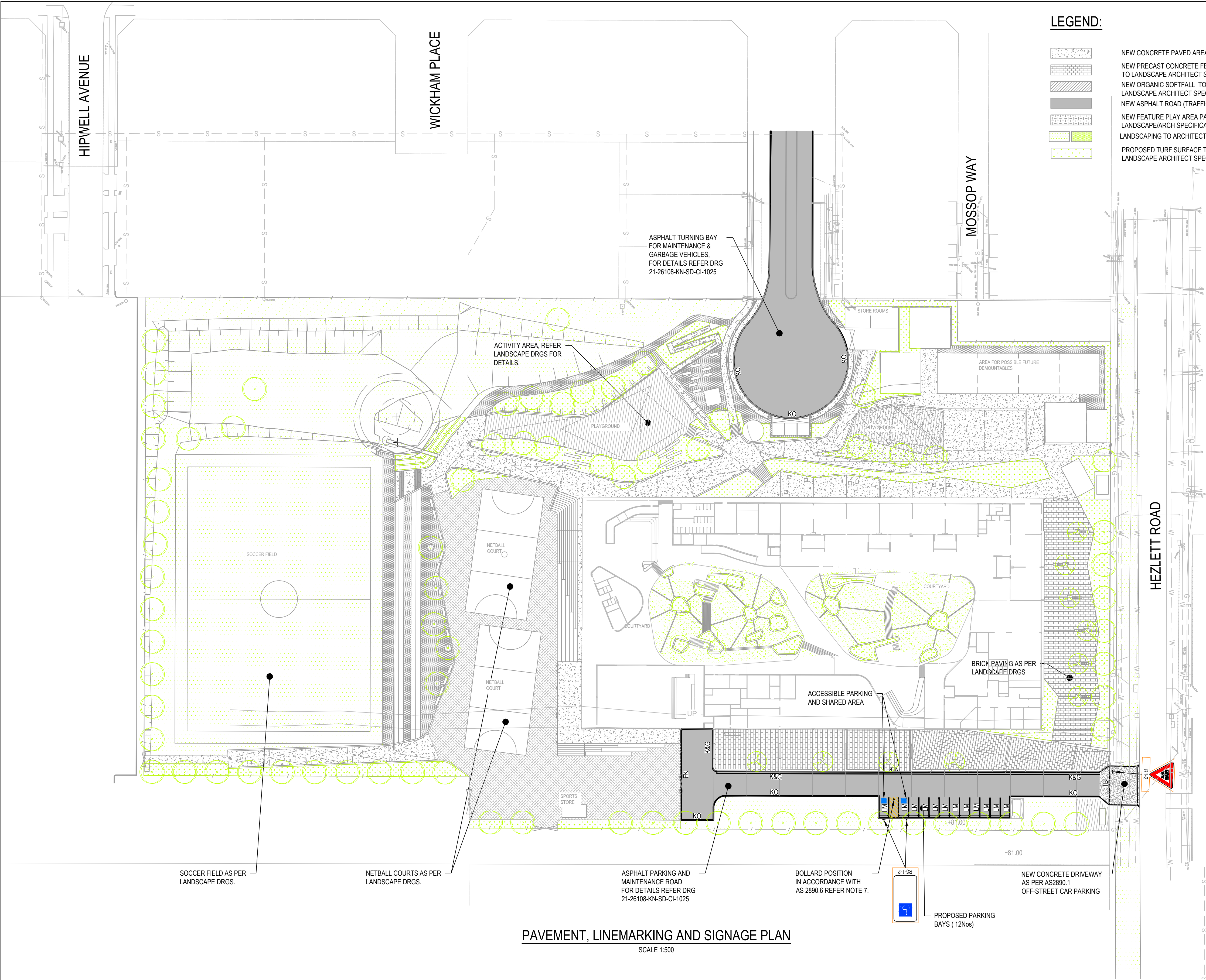


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Drawn	M.RANGWALA	Designer	G.DE SWARDT
Drafting Check	A.MACLEAN*	Design Check	A.RAHMAN*
Approved (Project Director)			
Date			
Scale	1:20	This Drawing must not be used for Construction unless signed as Approved	

Client	NSW DEPARTMENT OF EDUCATION		
Project	NORTH KELLYVILLE PUBLIC SCHOOL		
Title	CIVIL STORMWATER DRAINAGE DETAILS-SHEET 2 OF 2		
Original Size	A1	Drawing No:	21-26108-KN-SD-CI-1016
Rev:	D		



LEGEND:

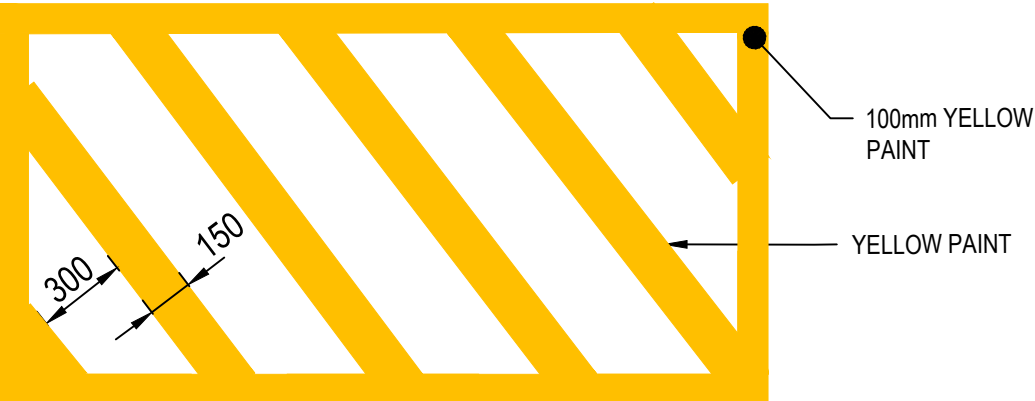
- NEW CONCRETE PAVED AREA
- NEW PRECAST CONCRETE FEATURE PAVED AREA TO LANDSCAPE ARCHITECT SPECIFICATION
- NEW ORGANIC SOFTFALL TO LANDSCAPE ARCHITECT SPECIFICATION
- NEW ASPHALT ROAD (TRAFFICABLE)
- NEW FEATURE PLAY AREA PAVED TO LANDSCAPE/ARCH SPECIFICATION
- LANDSCAPING TO ARCHITECT SPECIFICATION
- PROPOSED TURF SURFACE TO LANDSCAPE ARCHITECT SPECIFICATION

NOTES:

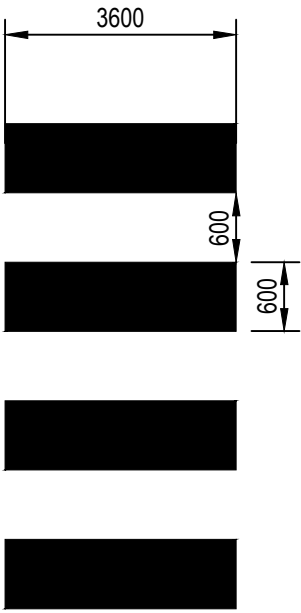
- PAVEMENT AREAS ARE INDICATIVE ONLY
- ALL LINE MARKINGS AND SIGNAGE TO BE APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF AS 2890 AND RMS STANDARDS, SPECIFICATIONS AND GUIDES.
- LINE MARKING IN PARKING BAYS: PAINT WATER BASED - COLOUR 'WHITE'. LINE SHALL BE 100mm WIDE UNBROKEN LINE FOR PARKING. LINE MARKING OTHER THAN PARKING BAYS: PAINT WATER BASED WITH REFLECTIVE GLASS BEADS - COLOUR 'WHITE'.
- LINE MARKING FOR DISABLED PARKING AREAS:
 - PAINT WATER BASED WITH REFLECTIVE BEADS.
 - COLOUR 'BLUE', 'YELLOW' AND 'WHITE' AS PER AS/NZS 2890.6 (2009).
 - LINE MARKING AROUND THE DEDICATED DDA SPACES UNBROKEN 'YELLOW' LINES 100mm WIDE.
 - THE SYMBOL OF ACCESS (WHEELCHAIR) WHITE (800mm HIGH) ON A BLUE SQUARE (1200mm x 1200mm), SITTING 500mm BACK IN THE SPACE AND CENTRED.
 - THE SHARED SPACE IS TO BE OUTLINED WITH 'YELLOW' LINES 100mm WIDE ON ALL SIDES (EXCEPT ALONG KERB FACE) WITH 45° DIAGONAL STRIPES 150mm WIDE SPACED 300mm APART.
 - ALL SPACES TO BE DELINEATED IN ACCORDANCE WITH AS/NZS 2890.6 (2009).
- ALL EXISTING SIGNS AFFECTED BY PROPOSED WORKS SHALL BE REINSTATED IF IN GOOD CONDITION, OTHERWISE THEY SHALL BE REPLACED.
- ALL SIGNS ARE TO BE ANTI-GRAFFITI COATED.
- ALL SIGNS ARE TO BE TYPE 'A' UNLESS NOTED OTHERWISE ON PLAN.
- BOLLARDS TO BE HEAVY DUTY GALVANISED STEEL 'SECURAPOST' FIXED BOLLARDS 125NB (IBR125B) BY LEDA SECURITY PRODUCTS OR APPROVED EQUIVALENT TO BE CONCRETED INTO THE GROUND. FINISH SHALL BE FACTORY POWDER COAT TO AS 3715 IN 'INDUSTRIAL YELLOW'. WALL THICKNESS TO BE NOM. 5.4mm. BOLLARD TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS AND DETAILS.

LINEMARKING AND SIGNAGE ABBREVIATIONS

- LM PARKING LINE MARKING
- PX PEDESTRIAN CROSSING
- KO KERB ONLY
- K&G KERB & GUTTER
- MK MOUNTABLE KERB
- FK FLUSH KERB
- TB GIVEWAY LINEMARKING



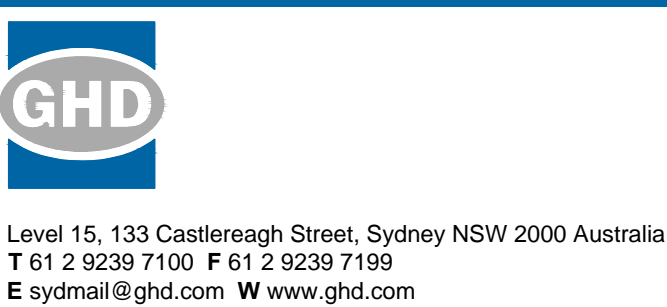
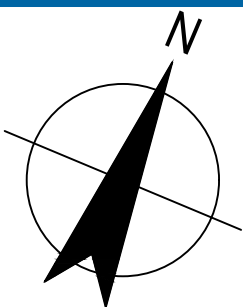
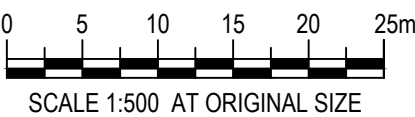
CHEVRON LINEMARKING (ACCESSIBLE PARKING/ SHARED SPACE)



LINEMARKING FOR PEDESTRIAN CROSSING (PX)

PAVEMENT, LINEMARKING AND SIGNAGE PLAN
SCALE 1:500

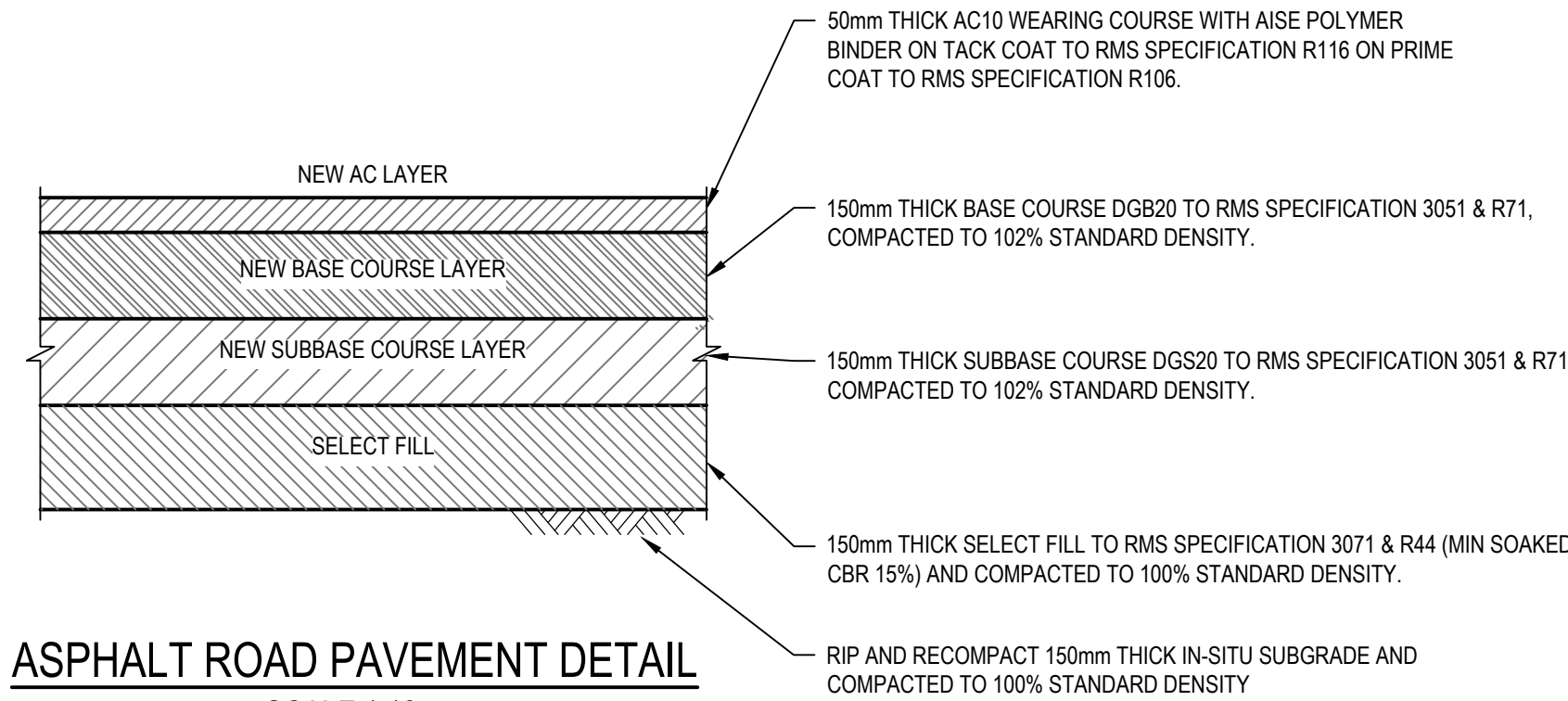
F	ISSUED FOR SSD SUBMISSION		MR	PM*	MD*	24.11.17
E	SCHEME DESIGN FOR APPROVAL		MR	PM*	MD*	15.09.17
D	ISSUED FOR SD SUBMISSION		MR	PM*	MD*	05.09.17
C	ISSUED FOR SSD SUBMISSION		MR	CS*	SM*	09.08.17
B	ISSUED FOR TENDER		MR	CS*	SM*	28.06.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date



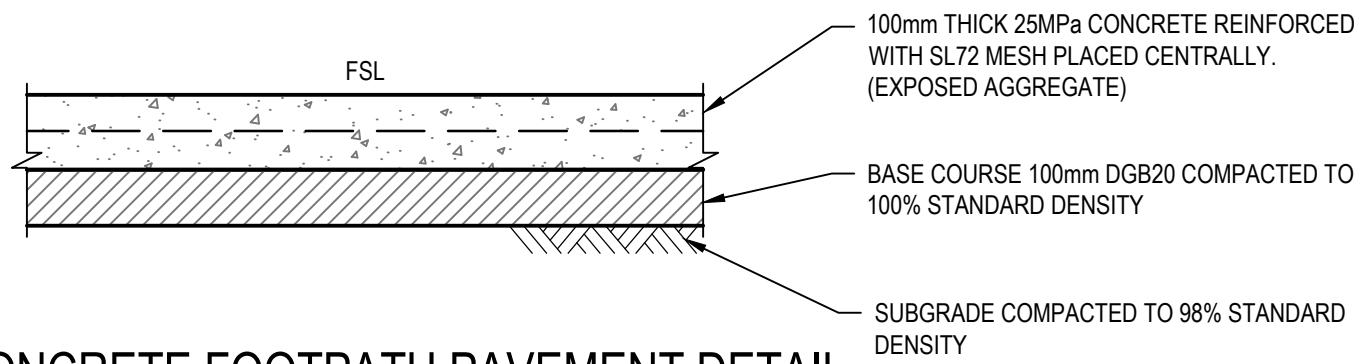
DO NOT SCALE	Drawn M.RANGWALA	Designer G.DE SWARDT
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	Date	
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Client	NSW DEPARTMENT OF EDUCATION
Project	NORTH KELLYVILLE PUBLIC SCHOOL
Title	CIVIL PAVEMENT, LINE MARKING & SIGNAGE PLAN
Original Size	A1
Drawing No:	21-26108-KN-SD-CI-1020
Rev:	F

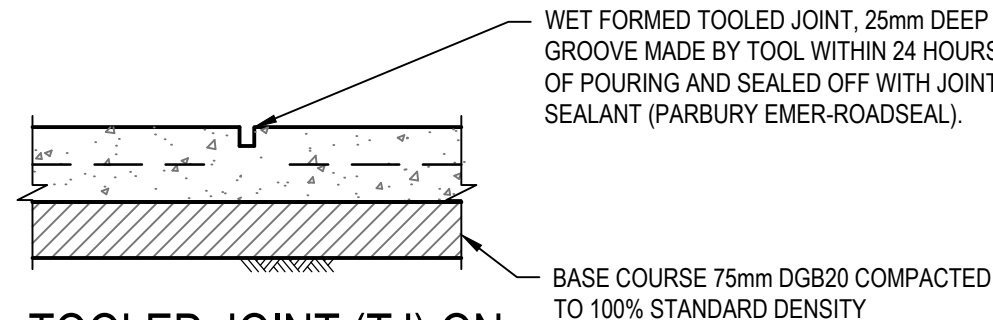
PRELIMINARY



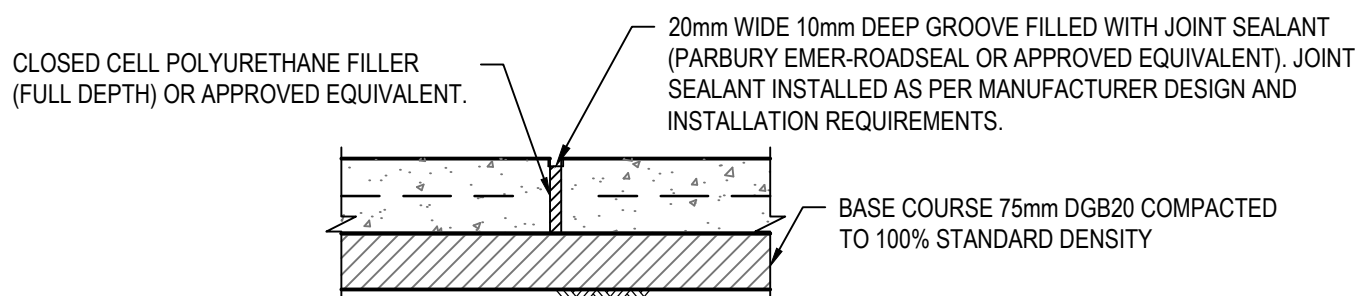
ASPHALT ROAD PAVEMENT DETAIL
SCALE 1:10



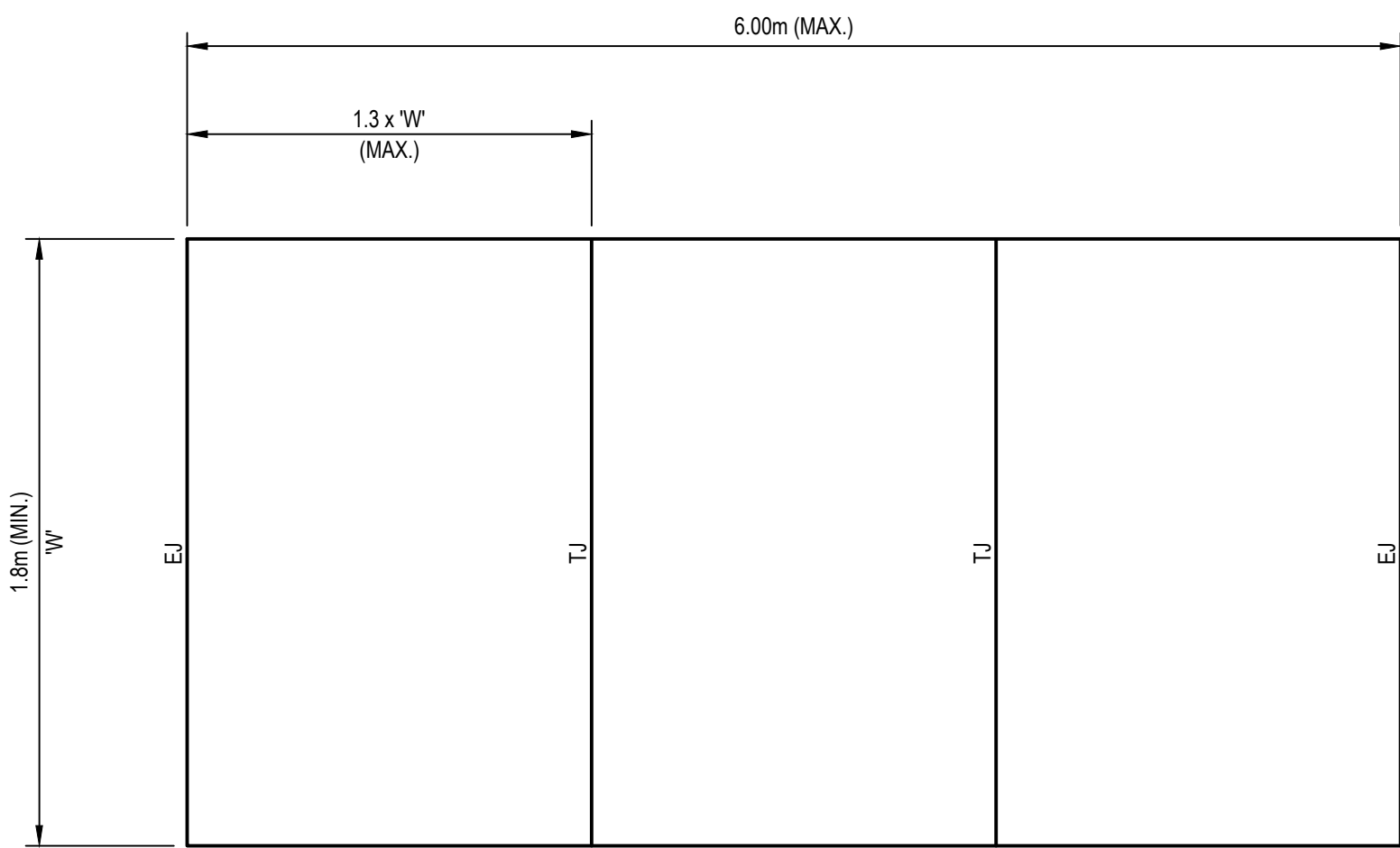
CONCRETE FOOTPATH PAVEMENT DETAIL
SCALE:1:10



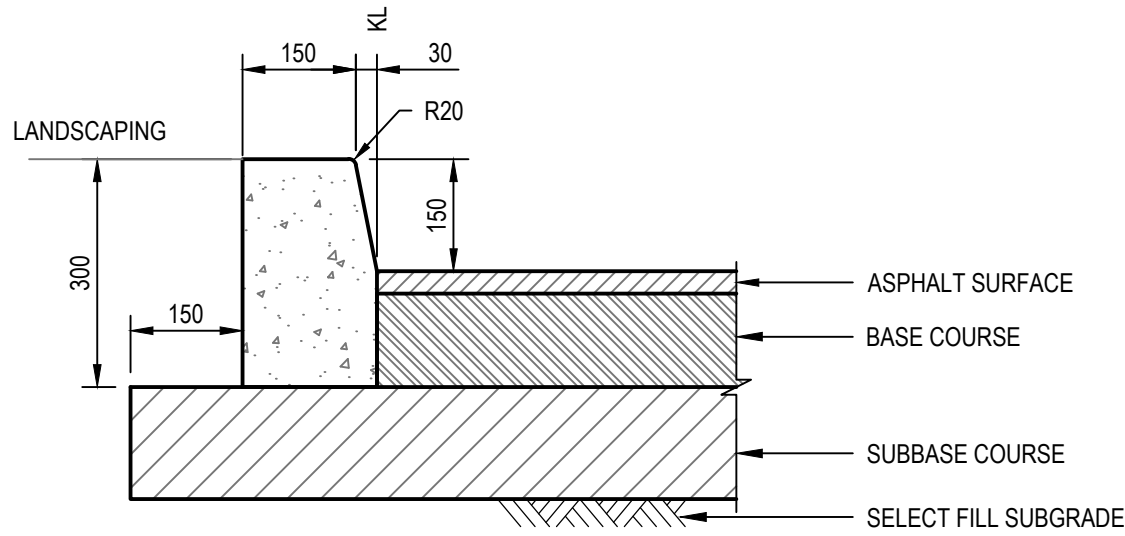
TOOLED JOINT (TJ) ON
CONCRETE FOOTPATH DETAIL
NTS



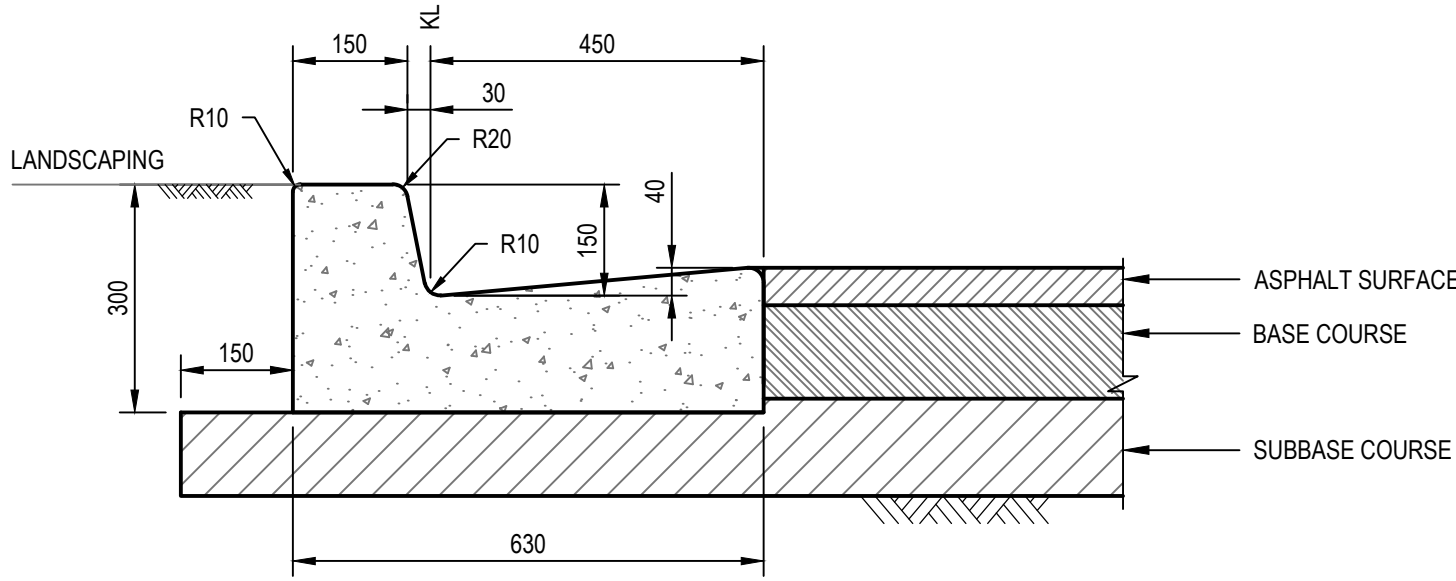
EXPANSION JOINT (EJ) ON CONCRETE
FOOTPATH DETAIL
NTS



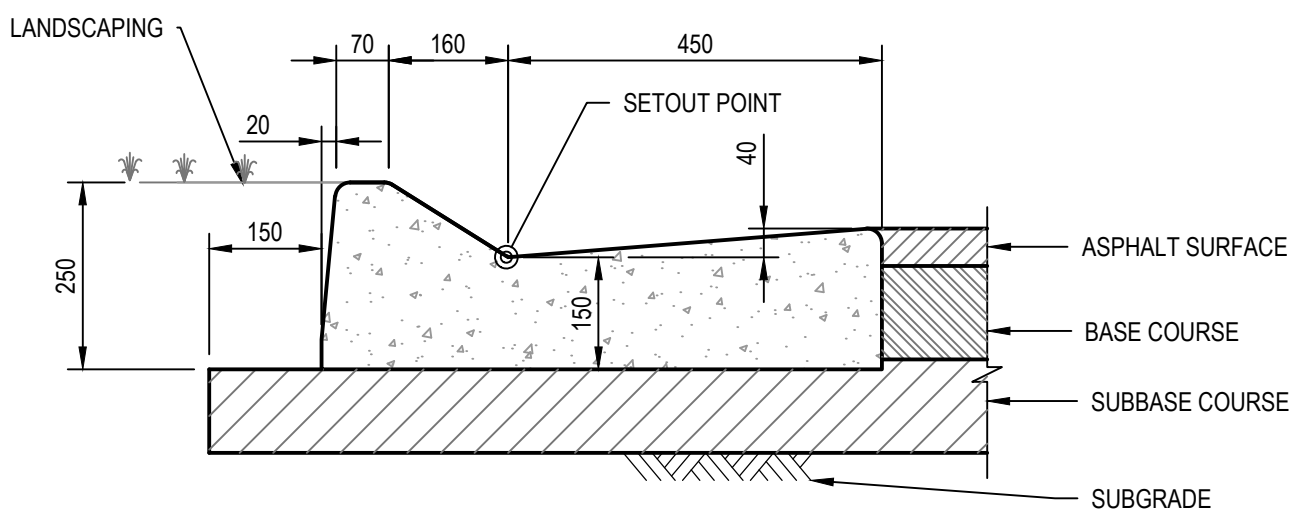
TJ: TOOL JOINT
EJ: EXPANSION JOINT
TYPICAL FOOTPATH JOINT DETAIL
NTS



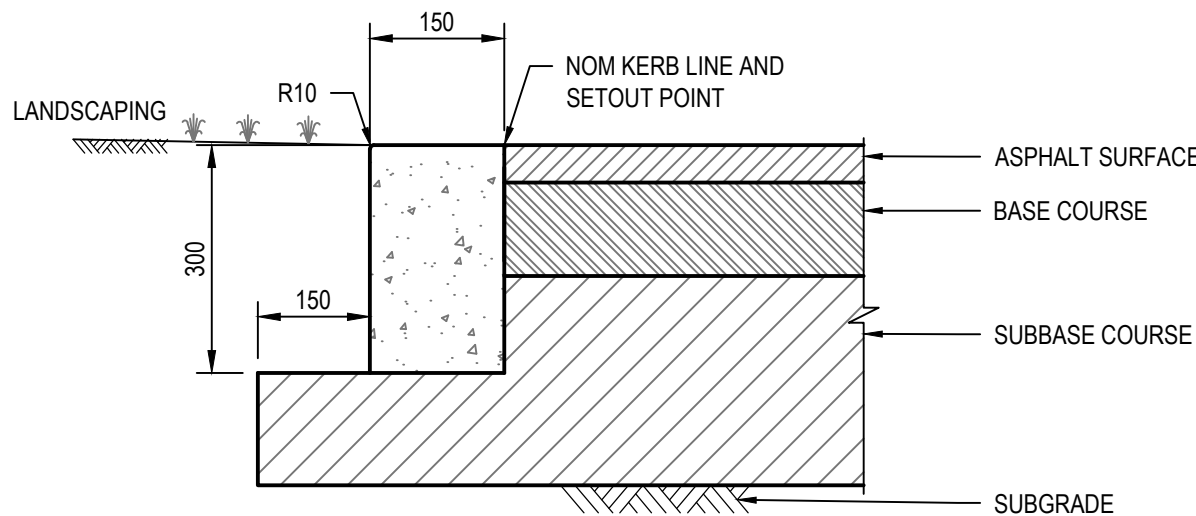
KERB ONLY (KO)
SCALE 1:10
KL DENOTES NOM. KERB
SETOUT LINE



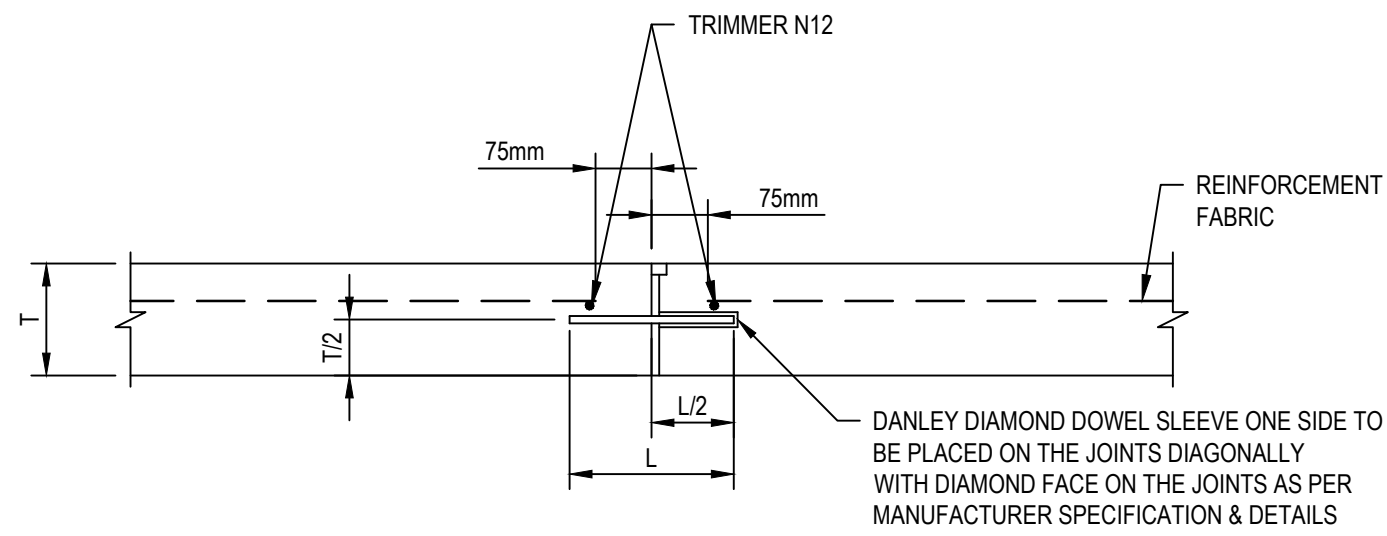
KERB & GUTTER (KG)
SCALE 1:10
KL DENOTES NOM. KERB
SETOUT LINE



MOUNTABLE KERB & GUTTER (MK&G)
SCALE 1:10

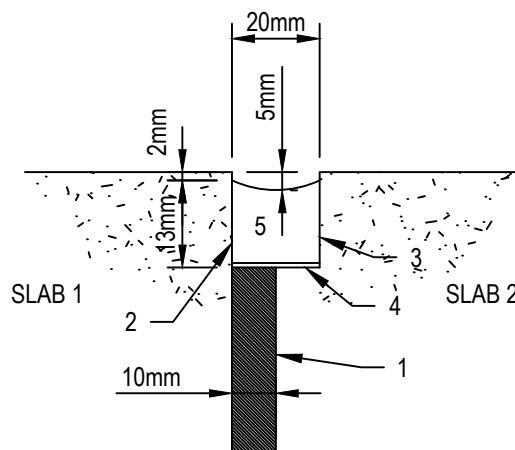


FLUSH KERB (FK)
SCALE 1:10



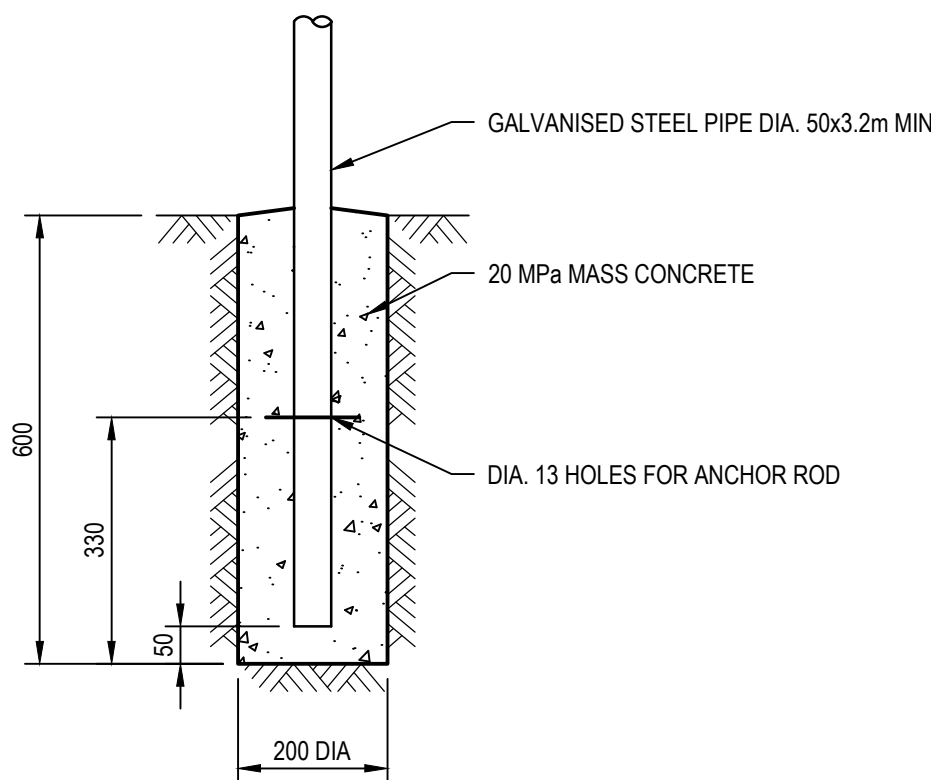
DOWEL EXPANSION JOINT (DEJ)
NTS

FABRIC	T	L	DOWELS (GALV)
CONCRETE PAVEMENT	180	156	DANLEY 10x110x110 DIAMOND AT 450 CENTRES



DOWEL EXPANSION JOINT
SEALANT DETAIL

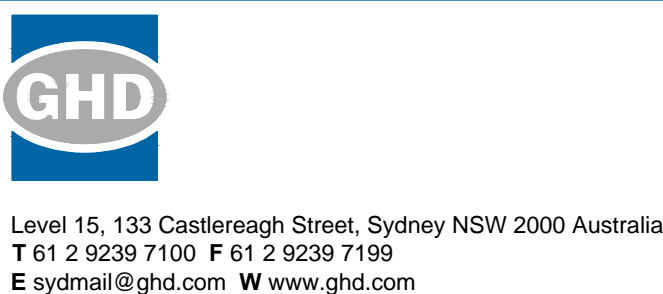
- CLOSED CELL POLYURETHANE FILLER (FULL DEPTH) CUT HOLES IN FILLER TO FIT CLOSELY AROUND DOWELS
- FORM GROOVE IN SLAB 2 & AGAINST FACE OF SLAB 1
- JET WASH & DRY GROOVE AFTER SLAB CURING PERIOD, PRIME FACES WITH FOSROC PRIMER 10
- BOND BREAKER TAPE
- INSTALL JOINT SEALANT PARBURY EMER-ROADSEAL OR APPROVED EQUIVALENT WITH MOVEMENT ACCOMMODATION FACTOR +/- 50% IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS



SIGNPOST FOOTING DETAIL
SCALE 1:10

PRELIMINARY

F	ISSUED FOR SSD SUBMISSION	MR	PM*	MD*	24.11.17	
E	SCHEME DESIGN FOR APPROVAL	MR	PM*	MD*	15.09.17	
D	ISSUED FOR SD SUBMISSION	MR	PM*	MD*	05.09.17	
C	ISSUED FOR SSD SUBMISSION	MR	CS*	SM*	09.08.17	
B	ISSUED FOR TENDER	MR	CS*	SM*	28.06.17	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

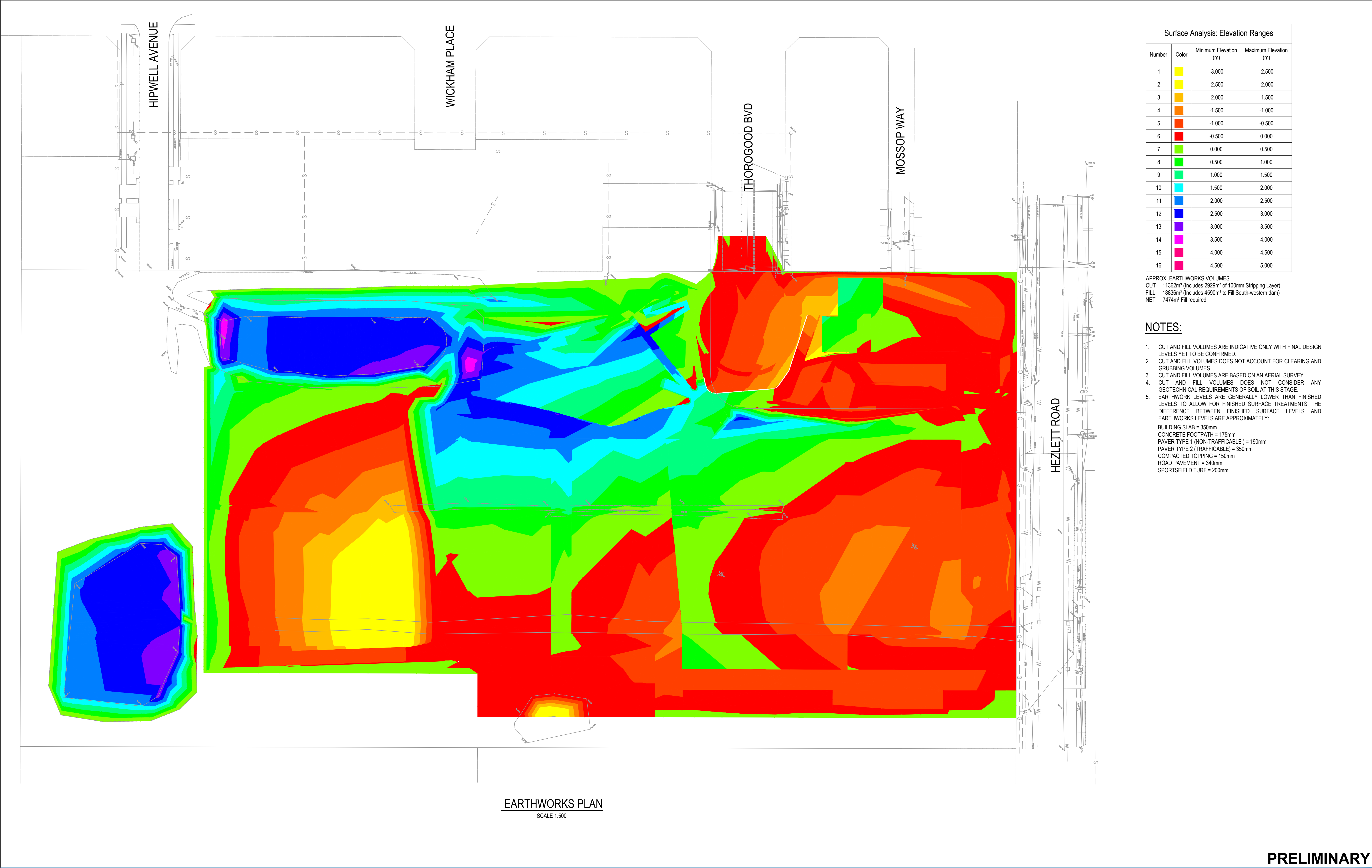


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Drafting Check	A.MACLEAN*	Design Check	A.RAHMAN*
Approved (Project Director)	Date		
Scale	AS SHOWN	This Drawing must not be used for Construction unless signed as Approved	

Client	NSW DEPARTMENT OF EDUCATION
Project	NORTH KELLYVILLE PUBLIC SCHOOL
Title	CIVIL ROAD WORKS DETAILS
Original Size	A1
Drawing No:	21-26108-KN-SD-CI-1025
Rev:	F



Surface Analysis: Elevation Ranges			
Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1		-3.000	-2.500
2		-2.500	-2.000
3		-2.000	-1.500
4		-1.500	-1.000
5		-1.000	-0.500
6		-0.500	0.000
7		0.000	0.500
8		0.500	1.000
9		1.000	1.500
10		1.500	2.000
11		2.000	2.500
12		2.500	3.000
13		3.000	3.500
14		3.500	4.000
15		4.000	4.500
16		4.500	5.000

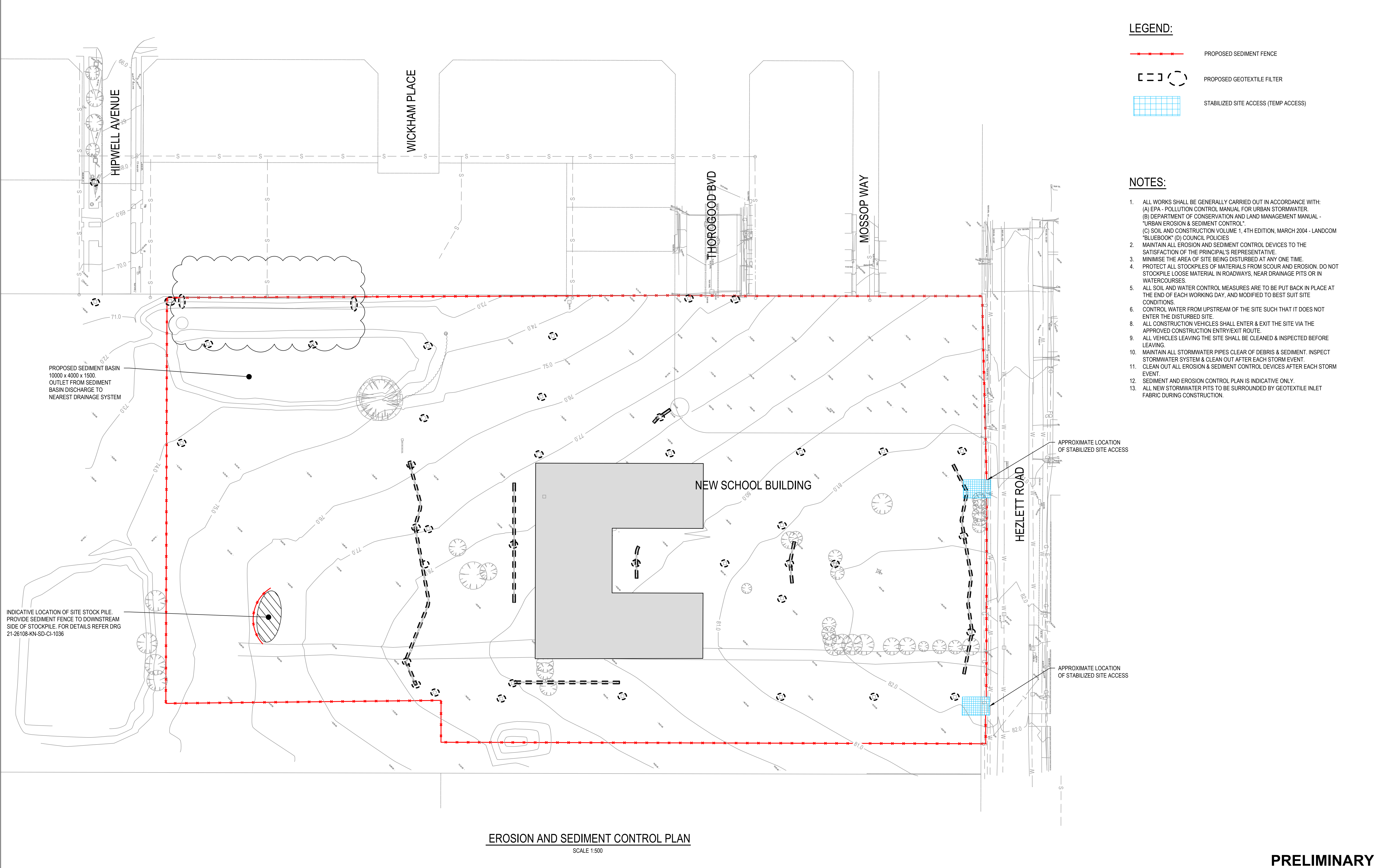
APPROX. EARTHWORKS VOLUMES
CUT 11362m³ (Includes 2929m³ of 100mm Stripping Layer)
FILL 18836m³ (Includes 4590m³ to Fill South-western dam)
NET 7474m³ Fill required

NOTES:

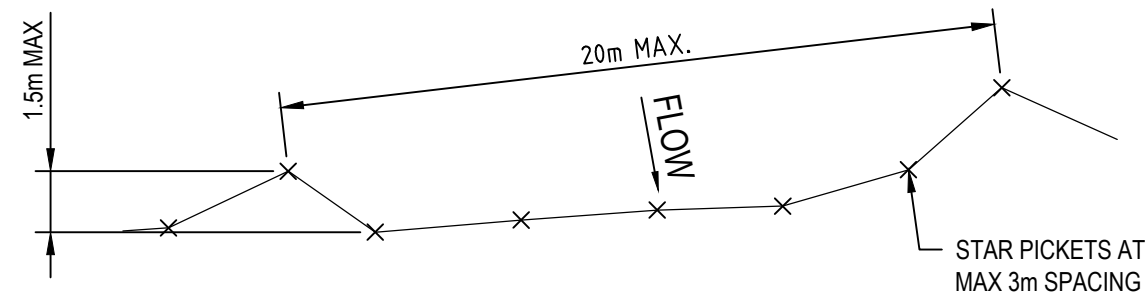
- CUT AND FILL VOLUMES ARE INDICATIVE ONLY WITH FINAL DESIGN LEVELS YET TO BE CONFIRMED.
- CUT AND FILL VOLUMES DOES NOT ACCOUNT FOR CLEARING AND GRUBBING VOLUMES.
- CUT AND FILL VOLUMES ARE BASED ON AN AERIAL SURVEY.
- CUT AND FILL VOLUMES DOES NOT CONSIDER ANY GEOTECHNICAL REQUIREMENTS OF SOIL AT THIS STAGE.
- EARTHWORK LEVELS ARE GENERALLY LOWER THAN FINISHED LEVELS TO ALLOW FOR FINISHED SURFACE TREATMENTS. THE DIFFERENCE BETWEEN FINISHED SURFACE LEVELS AND EARTHWORKS LEVELS ARE APPROXIMATELY:
BUILDING SLAB = 350mm
CONCRETE FOOTPATH = 175mm
PAVER TYPE 1 (NON-TRAFFICABLE) = 190mm
PAVER TYPE 2 (TRAFFICABLE) = 350mm
COMPACTED TOPPING = 150mm
ROAD PAVEMENT = 340mm
SPORTSFIELD TURF = 200mm

EARTHWORKS PLAN
SCALE 1:500

F	ISSUED FOR SSD SUBMISSION			MR	PM*	MD*	24.11.17	     <p>Level 15, 133 Castlereagh Street, Sydney NSW 2000 Australia T 61 2 9239 7100 F 61 2 9239 7199 E sydmall@ghd.com W www.ghd.com</p>	DO NOT SCALE		Drawn	M.RANGWALA	Designer	G.DE SWARDT	Client	NSW DEPARTMENT OF EDUCATION					
E	SCHEME DESIGN FOR APPROVAL			MR	PM*	MD*	15.09.17		Drafting Check	A.MACLEAN*	Design Check	A.RAHMAN*	Project	NORTH KELLYVILLE PUBLIC SCHOOL							
D	ISSUED FOR SD SUBMISSION			MR	PM*	MD*	05.09.17		Approved (Project Director)				Title	CIVIL							
C	ISSUED FOR SSD SUBMISSION			MR	CS*	SM*	09.08.17		Date					EARTHWORKS PLAN							
B	ISSUED FOR TENDER			MR	CS*	SM*	28.06.17		Scale	1:500											
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing			Drawn	Job Manager	Project Director	Date				Original Size	A1								
												Drawing No:			21-26108-KN-SD-CI-1030			Rev:	F		
															This Drawing must not be used for Construction unless signed as Approved						

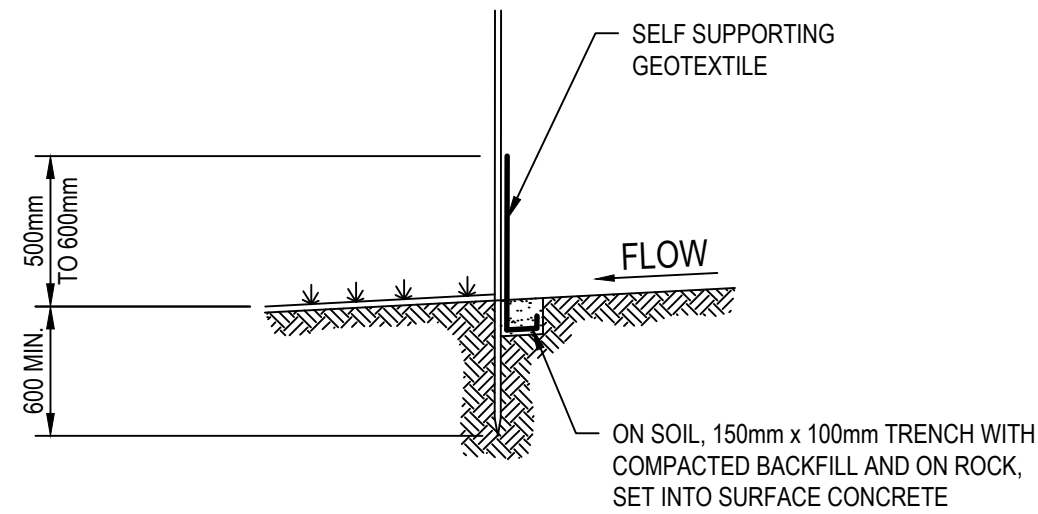


G	ISSUED FOR SSD SUBMISSION	MR	PM*	MD*	02.02.18	    <p>Level 15, 133 Castlereagh Street, Sydney NSW 2000 Australia T 61 2 9239 7100 F 61 2 9239 7199 E sydmail@ghd.com W www.ghd.com</p>	DO NOT SCALE	Drawn	M.RANGWALA	Designer	G.DE SWARDT	Client	NSW DEPARTMENT OF EDUCATION NORTH KELLYVILLE PUBLIC SCHOOL	
F	ISSUED FOR SSD SUBMISSION	MR	PM*	MD*	24.11.17		Drafting	A.MACLEAN*	Design	A.RAHMAN*	Project			
E	SCHEME DESIGN FOR APPROVAL	MR	PM*	MD*	15.09.17		Approved (Project Director)					Title	CIVIL EROSION AND SEDIMENT CONTROL PLAN	
D	ISSUED FOR SD SUBMISSION	MR	PM*	MD*	05.09.17		Date							
B	ISSUED FOR SSD SUBMISSION	MR	CS*	SM*	09.08.17		Scale	1:500			This Drawing must not be used for Construction unless signed as Approved		Original Size	A1
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing			Drawn	Job Manager	Project Director	Date	Drawing No: 21-26108-KN-SD-CI-1035 Rev: F					



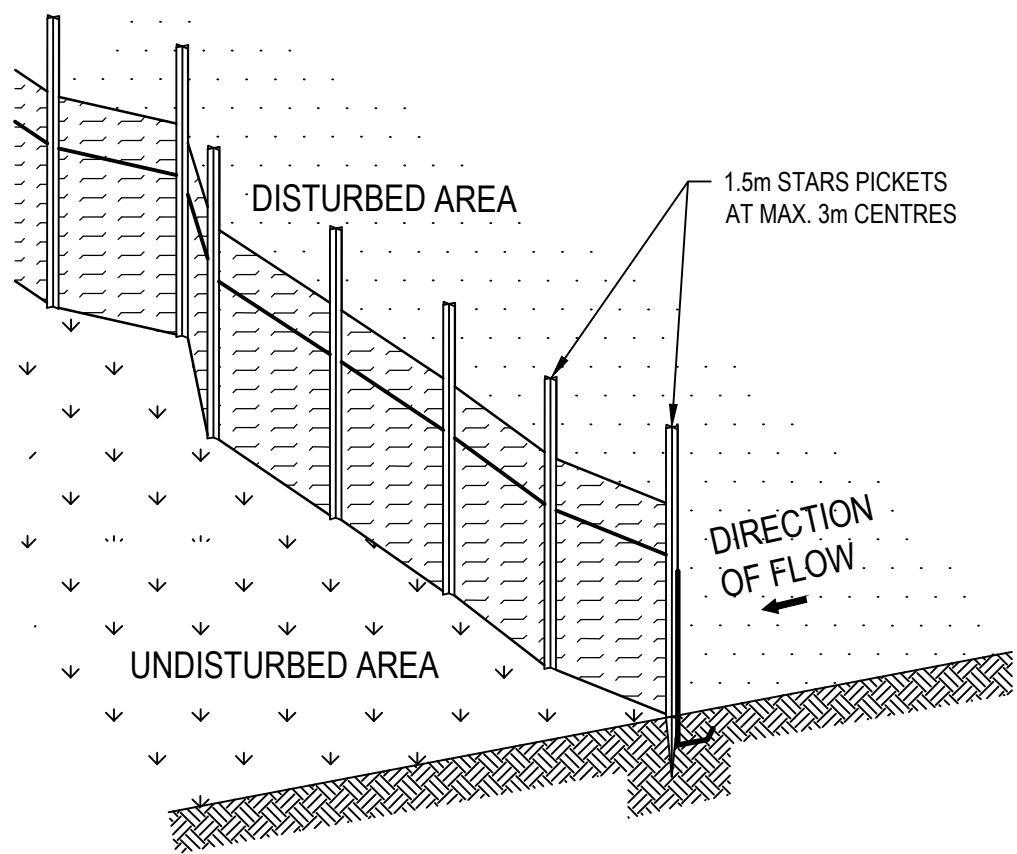
SEDIMENT FENCE PLAN

NTS



SEDIMENT FENCE SECTION

NTS

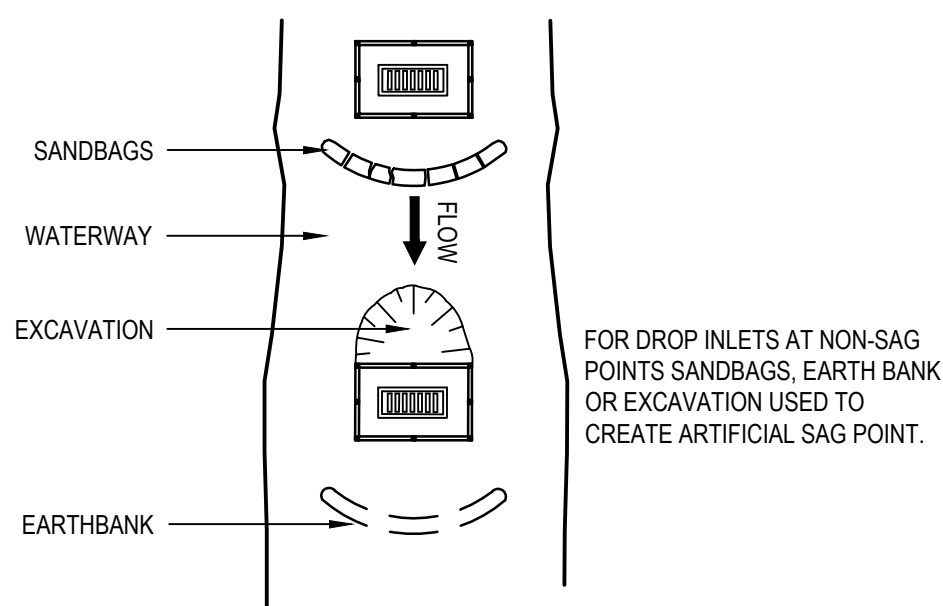


SEDIMENT FENCE DETAIL

NTS

SEDIMENT FENCE CONSTRUCTION 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, 3m APART.
3. DIG A 150mm 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 POST WITH WIRE TIES OR AS RECOMMENDED BY GEOTEXTILE MANUFACTURER. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.

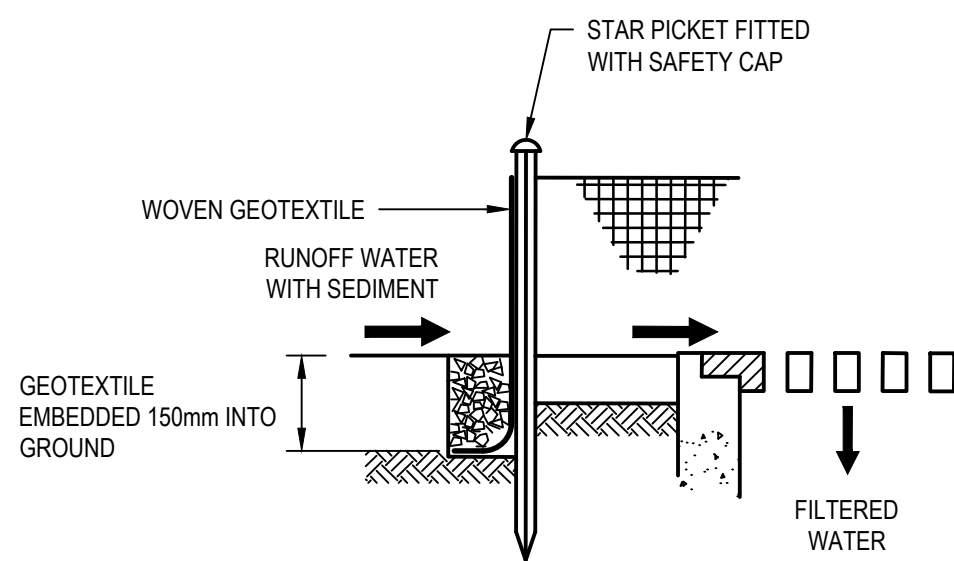


GEOTEXTILE INLET FILTER (GIF) PLAN

NTS

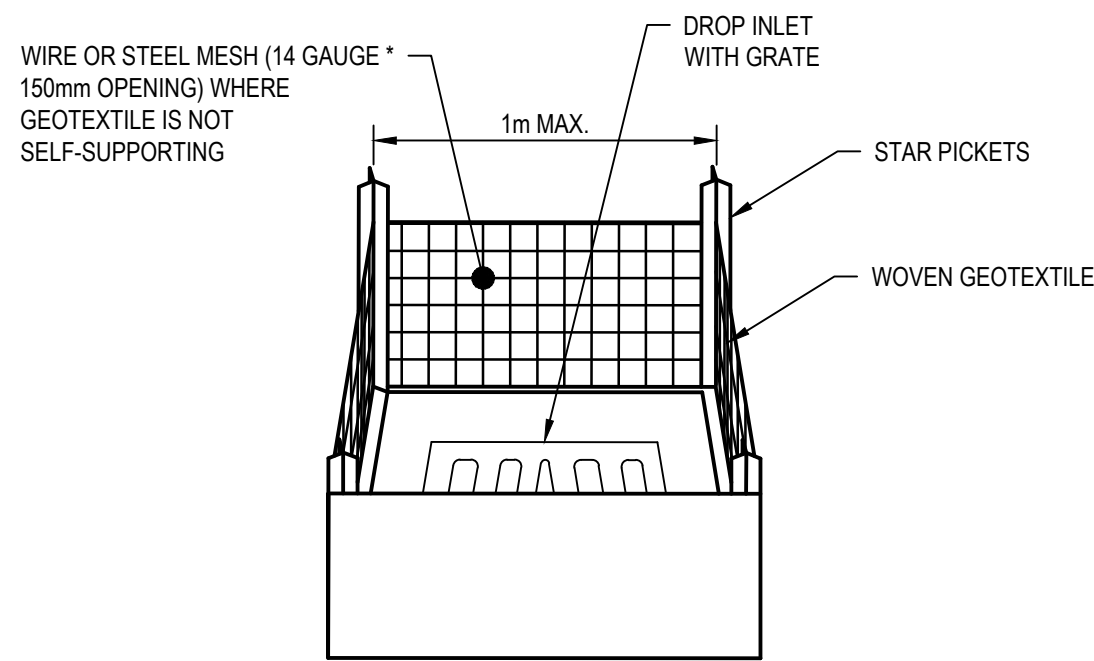
GIF CONSTRUCTION NOTES

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. SUPPORT GEOTEXTILE WITH MESH TIED TO POST AT 1m CENTRES
3. DO NOT COVER INLET WITH GEOTEXTILE.
4. CONSTRUCTION DETAILS ARE SIMILAR TO STANDARD DRAWING 6-6 AND STANDARD DRAWING 6-7 IN BLUEBOOK (REFER DRG CI-1035 NOTE 1).



GIF SECTION

NTS

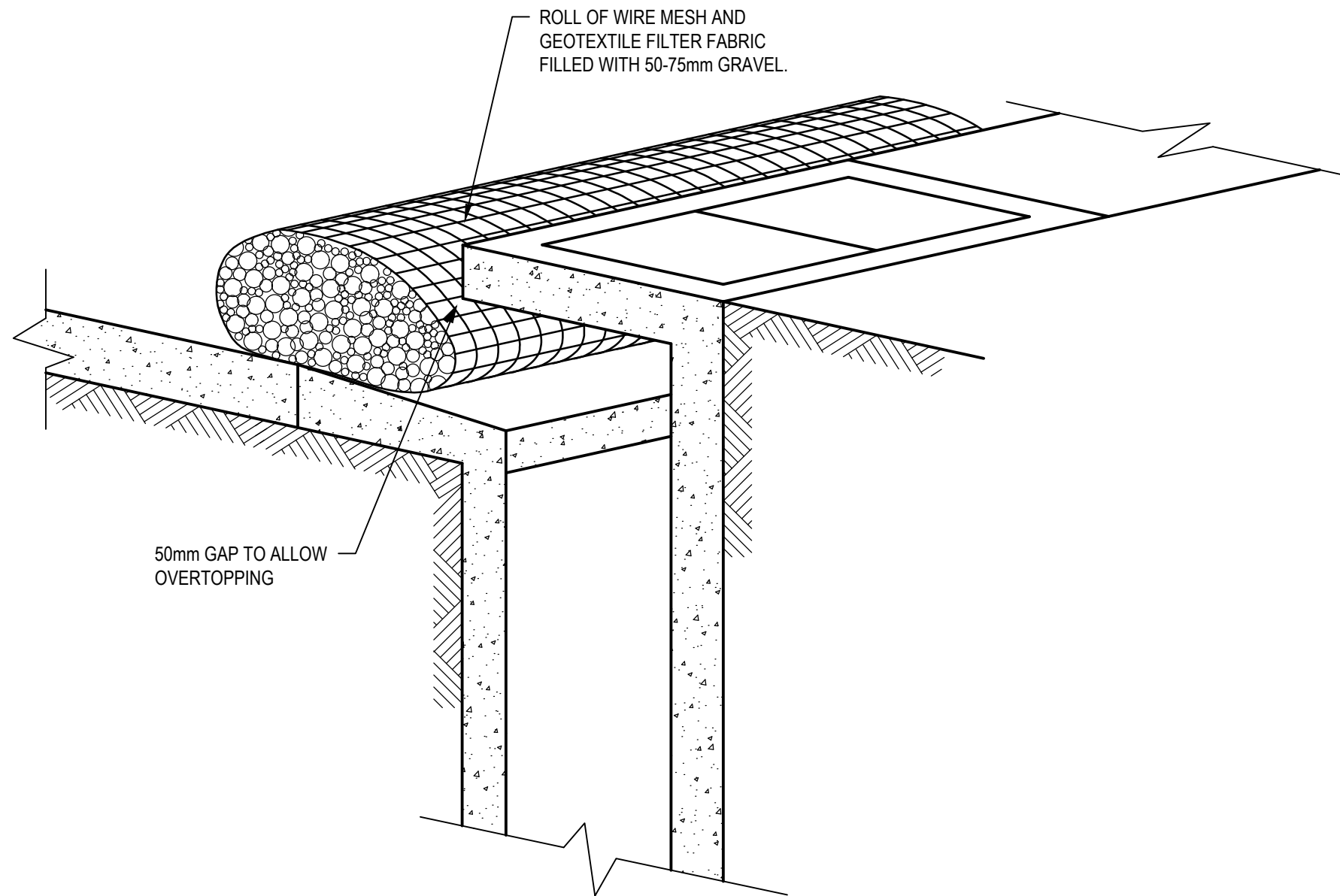


GIF DETAIL

NTS

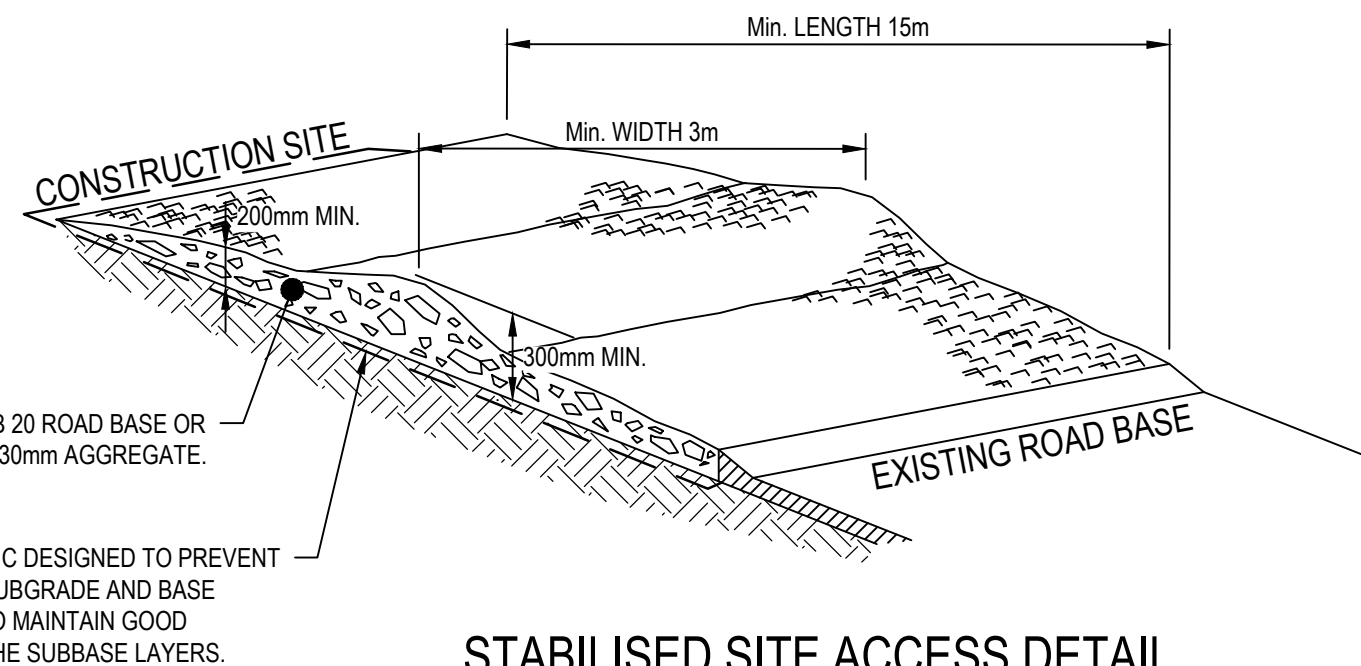
STOCKPILE CONSTRUCTION NOTES

1. LOCATE STOCKPILE AT LEAST 5m FROM EXISTING VEGETATION, CONCENTRATED WATER FLOWS, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS A LOW, FAT, ELONGATED MOUND.
3. WHERE THERE IS SUFFICIENT AREA TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
4. REHABILITATE IN ACCORDANCE WITH THE CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN. CONSTRUCT EARTH BANK (STANDARD DRAWING 5-5) IN BLUEBOOK (REFER DRG CI-1035 NOTE 1) ON THE UPSLOPE SIDE TO DIVERT RUN OFF AROUND
5. HE STOCKPILE AND A SEDIMENT FENCE (STANDARD DRAWING 6-8) IN BLUEBOOK (REFER DRG CI-1035 NOTE 1)
6. 1 - 2m DOWNSLOPE OF STOCKPILE.



KERB INLET FILTERS DETAIL

NTS

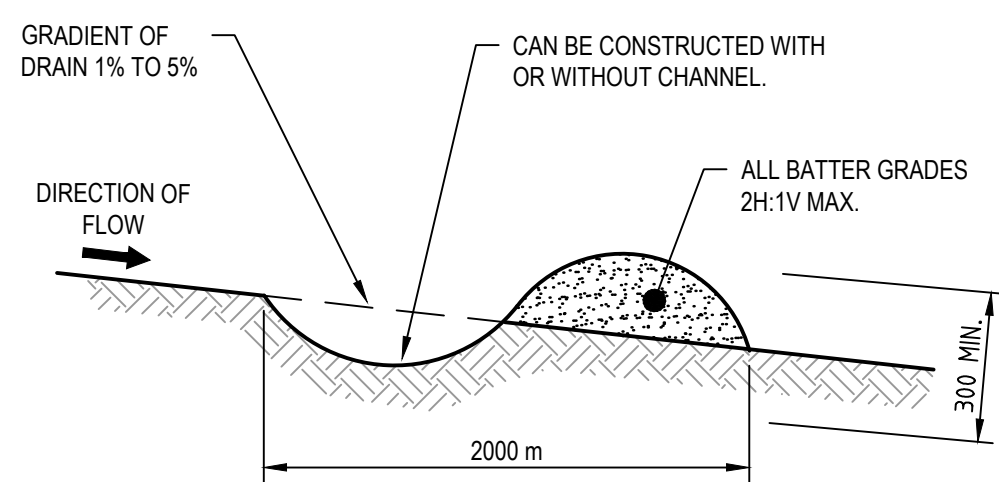


STABILISED SITE ACCESS DETAIL

NTS

STABILISED SITE ACCESS CONSTRUCTION NOTES

1. STRIP TOPSOIL AND LEVEL SITE.
2. COMPACT SUBGRADE.
3. COVER AREA WITH NEEDLE - PUNCHED GEOTEXTILE.
4. CONSTRUCT 200mm THICK PAD OVER GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE. MINIMUM LENGTH 15m OR TO BUILDING ALIGNMENT. MINIMUM WIDTH 3m.
5. CONSTRUCT HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT FENCE OR OTHER SEDIMENT TRAP.



NOTE:
ONLY TO BE USED AS TEMPORARY BANK WHERE MAXIMUM
UPSLOPE LENGTH IS 80 METRES.

EARTH BANK (LOW FLOW) DETAIL

NTS

EARTH BANK (LOW FLOW) CONSTRUCTION SEQUENCE

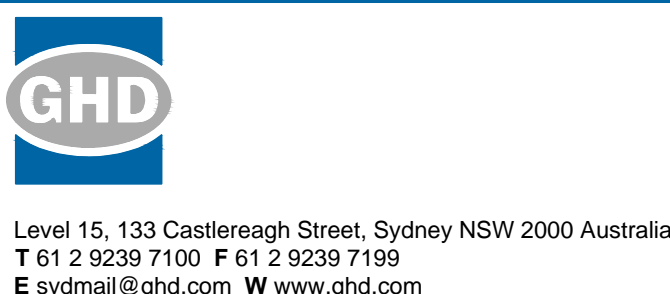
1. CONSTRUCT WITH GRADIENT OF 1% TO 5%.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE.
3. DRAINS TO BE OF CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTION NOT V-SHAPED.
4. EARTH BANKS TO BE ADEQUATELY COMPACTED IN ORDER TO PREVENT FAILURE.
5. PERMANENT OR TEMPORARY STABILISATION OF THE EARTH BANK TO BE COMPLETED WITHIN 10 DAYS OF CONSTRUCTION.
6. ALL OUTLETS FROM DISTURBED LANDS ARE TO BE FEED INTO A SEDIMENT BASIN OR SIMILAR.
7. DISCHARGE RUNOFF COLLECTED FROM UNDISTURBED LANDS ONTO EITHER A STABILISED OR AN UNDISTURBED DISPOSAL SITE WITHIN THE SAME SUBCATCHMENT AREA FROM WHICH THE WATER ORIGINATED.
8. COMPACTED BANK WITH A SUITABLE IMPLEMENT IN SITUATIONS WHERE THEY ARE REQUIRED TO FUNCTION FOR MORE THAN FIVE DAYS.
9. EARTH BANKS TO BE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT WILL IMPEDE NORMAL FLOW.

PRELIMINARY

E	ISSUED FOR SSD SUBMISSION		MR	PM*	MD*	24.11.17
D	SCHEME DESIGN FOR APPROVAL		MR	PM*	MD*	15.09.17
C	ISSUED FOR SD SUBMISSION		MR	PM*	MD*	05.09.17
B	ISSUED FOR SSD SUBMISSION		MR	CS*	SM*	09.08.17
A	40% SCHEME/TENDER ISSUE		MR	CS*	SM*	16/06/17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

Plot Date: 28 November 2017 - 11:44 AM Plotted by: Mona Rangwala

Cad File No: G:\21\26108\6. Kellyville North PS\00 Common\CADD\Drawings\21-26108-KN-SD-CI-1036.dwg



DO NOT SCALE	Drawn M.RANGWALA	Designer G.DE SWARDT
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	Approved (Project Director) Date	
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Client	THE DEPARTMENT OF EDUCATION
Project	NORTH KELLYVILLE PUBLIC SCHOOL
Title	CIVIL SEDIMENT CONTROL DEVICES
Original Size	A1
Drawing No:	21-26108-KN-SD-CI-1036
Rev:	E