

*PROPOSED DISTRIBUTION CENTRE
HORSLEY DRIVE BUSINESS PARK
WETHERILL PARK NSW*

DRAWING LIST:

DRAWING NO.	DRAWING TITLE
CO114.92.18-DA 10	DRAWING LIST & GENERAL NOTES
CO114.92.18-DA 20	EROSION & SEDIMENT CONTROL PLAN
CO114.92.18-DA 25	EROSION & SEDIMENT CONTROL DETAILS
CO114.92.18-DA 40	DRAWING KEY PLAN
CO114.92.18-DA 41	CONCEPT STORMWATER PLAN - SHEET 1
CO114.92.18-DA 42	CONCEPT STORMWATER PLAN - SHEET 2
CO114.92.18-DA 43	CONCEPT STORMWATER PLAN - SHEET 3
CO114.92.18-DA 44	CONCEPT STORMWATER PLAN - SHEET 3
CO114.92.18-DA 45	CONCEPT STORMWATER DETAILS
CO114.92.18-DA 51	FINISHED LEVELS PLAN - SHEET 1
CO114.92.18-DA 52	FINISHED LEVELS PLAN - SHEET 2
CO114.92.18-DA 53	FINISHED LEVELS PLAN - SHEET 3
CO114.92.18-DA 54	FINISHED LEVELS PLAN - SHEET 4

GENERAL NOTES:

- G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- G2 ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT STANDARDS AUSTRALIA CODES AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
- G3 ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE BUILDER ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS. ENGINEER'S DRAWINGS ISSUED IN ANY ELECTRONIC FORMAT MUST NOT BE USED FOR DIMENSIONAL SETOUT. REFER TO THE ARCHITECT'S DRAWINGS FOR ALL DIMENSIONAL SETOUT INFORMATION.
- G4 DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE PROVIDED BY THE BUILDER TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
- G5 UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
- G6 ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH ACCEPTABLE SAFETY STANDARDS & APPROPRIATE SAFETY SIGNS SHALL BE INSTALLED AT ALL TIMES DURING THE PROGRESS OF THE JOB.

ELECTRONIC INFORMATION NOTES:

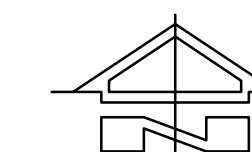
1. THE ISSUED DRAWINGS IN HARD COPY OR PDF FORMAT TAKE PRECEDENCE OVER ANY ELECTRONICALLY ISSUED INFORMATION, LAYOUTS OR DESIGN MODELS.
2. THE CONTRACTOR'S DIRECT AMENDMENT OR MANIPULATION OF THE DATA OR INFORMATION THAT MIGHT BE CONTAINED WITHIN AN ENGINEER-SUPPLIED DIGITAL TERRAIN MODEL AND ITS SUBSEQUENT USE TO UNDERTAKE THE WORKS WILL BE SOLELY AT THE DISCRETION OF AND THE RISK OF THE CONTRACTOR.
3. THE CONTRACTOR IS REQUIRED TO HIGHLIGHT ANY DISCREPANCIES BETWEEN THE DIGITAL TERRAIN MODEL AND INFORMATION PROVIDED IN THE CONTRACT AND/OR DRAWINGS AND IS REQUIRED TO SEEK CLARIFICATION FROM THE SUPERINTENDENT.
4. THE ENGINEER WILL NOT BE LIABLE OR RESPONSIBLE FOR THE POSSIBLE ON-GOING NEED TO UPDATE THE DIGITAL TERRAIN MODEL, SHOULD THERE BE ANY AMENDMENTS OR CHANGES TO THE DRAWINGS OR CONTRACT INITIATED BY THE CONTRACTOR.

SURVEY NOTE:

EXISTING SITE LEVELS AND DETAILS BASED ON A PLAN OF SURVEY
160136A_02 BY MONTEATH & POWYS SURVEYORS 12.10.16 COORDINATES
BASED ON MGA COORDINATES AS NOMINATED ON SURVEY DRAWING.

SAFETY NOTE:

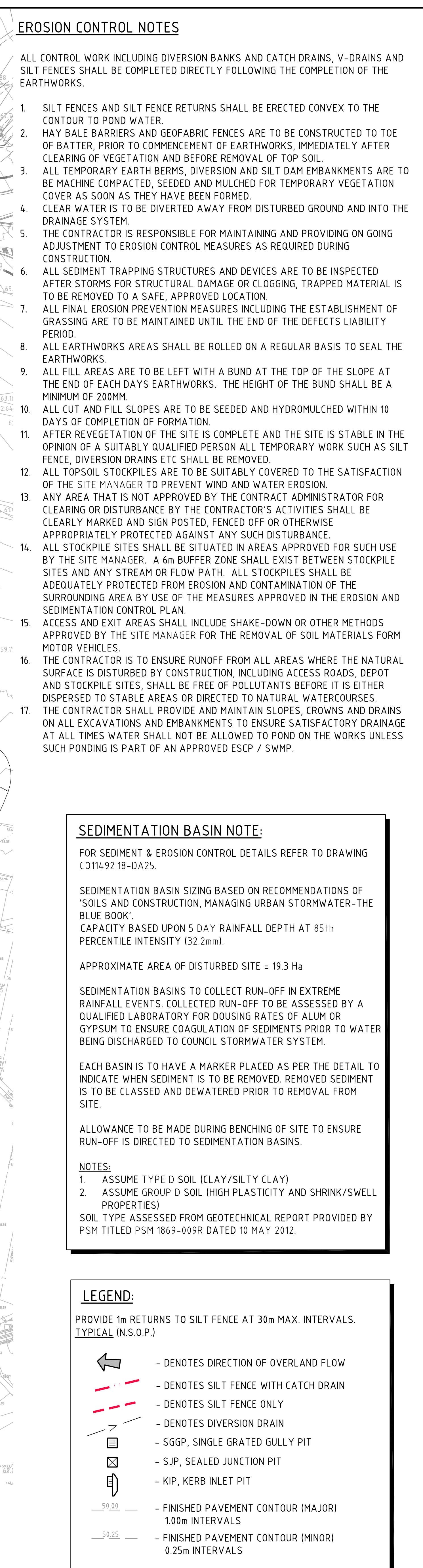
LINE WORKS TO SOUTHERN EXTENT OF SITE ARE LOCATED WITHIN AN ELECTRICAL EASEMENT & ASSOCIATED HIGH VOLTAGE TRANSMISSION LINES. ALL WORKS WITHIN THIS ZONE TO BE PERFORMED IN ACCORDANCE WITH THE RELEVANT SERVICE PROVIDERS GUIDELINES. THE CONTRACTOR IS TO ENSURE ALL NECESSARY OHS MEASURES ARE ALLOWED FOR AND IMPLEMENTED DURING WORKS IN THIS ZONE

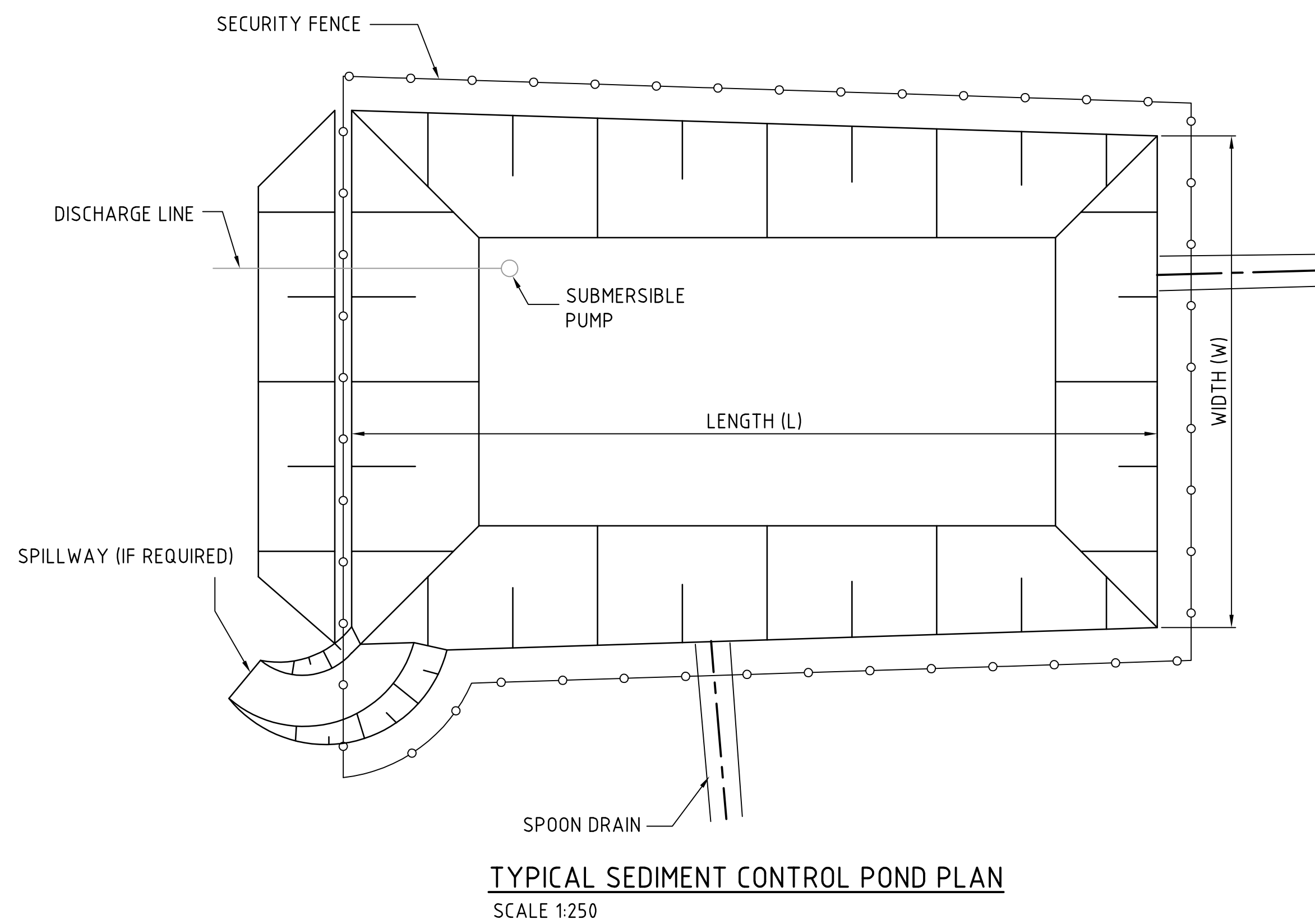


LOCALITY PLAN
NOT TO SCALE

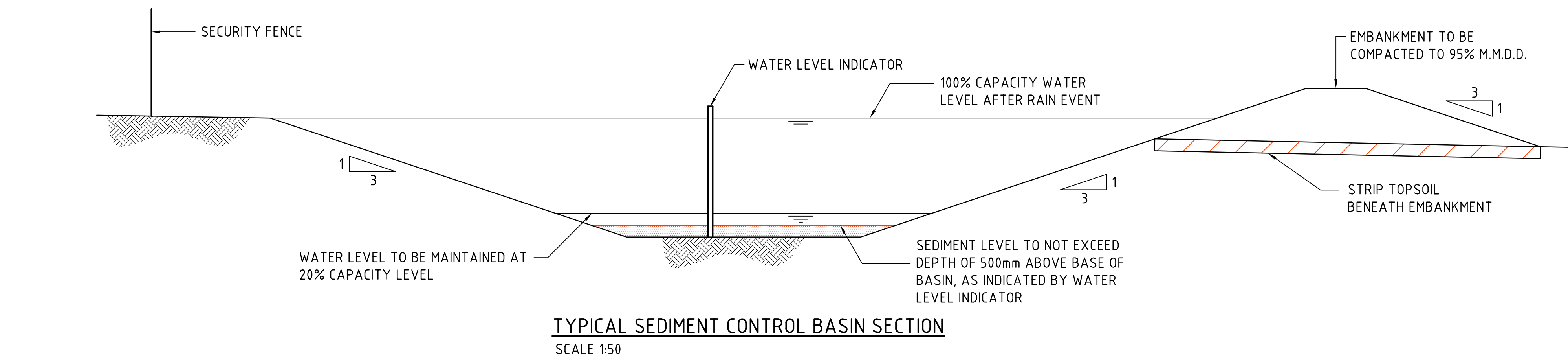
FOR DEVELOPMENT APPLICATION

										 FDC BUILDING SERVICES PTY LIMITED 25-26 Junction Street, Forest Lodge NSW 2037 Ph: (02) 9556 2922 Fax: (02) 9556 2900 A/N: 050 257 786										ARCHITECT  LEFFLER SIMAS ARCHITECTS										DEVELOPER  Charter Hall										PROJECT PROPOSED DISTRIBUTION CENTRE HORSLEY DRIVE BUSINESS PARK WETHERILL PARK, NSW										 Costin Roe Consulting Pty Ltd. Consulting Engineers Level 1, 8 Windmill Street Kahla Bay, Sydney NSW 2000 Tel: (02) 9541 7869 Fax: (02) 9541 3721 Email: mail@costinroe.com.au										 Costin Roe Consulting										DRAWING TITLE DRAWING LIST & GENERAL NOTES																																																																																																																																											
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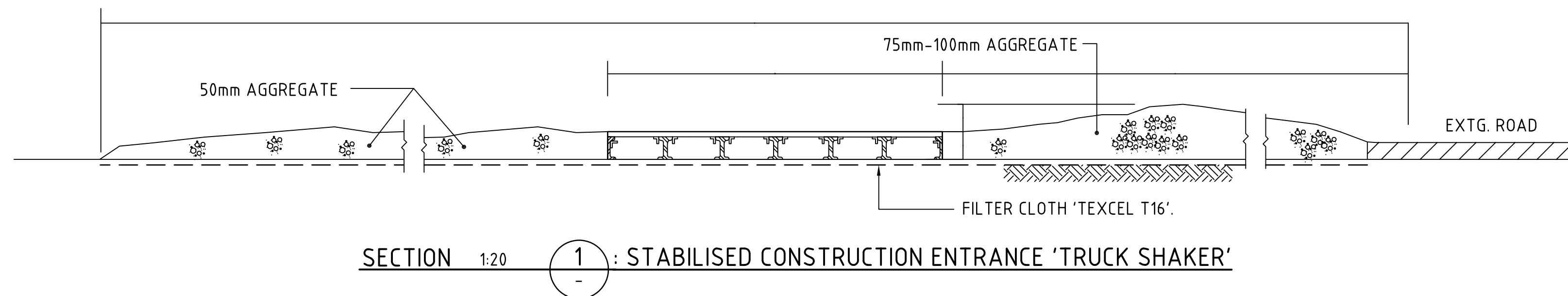




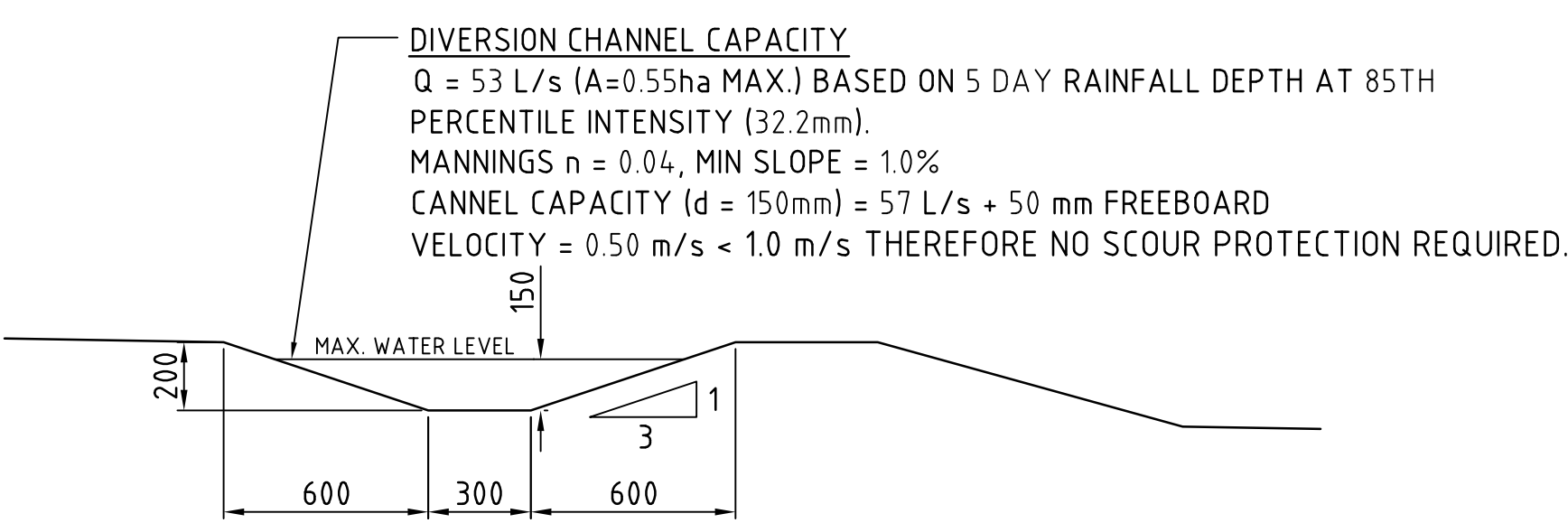
TYPICAL SEDIMENT CONTROL POND PLAN
SCALE 1:250



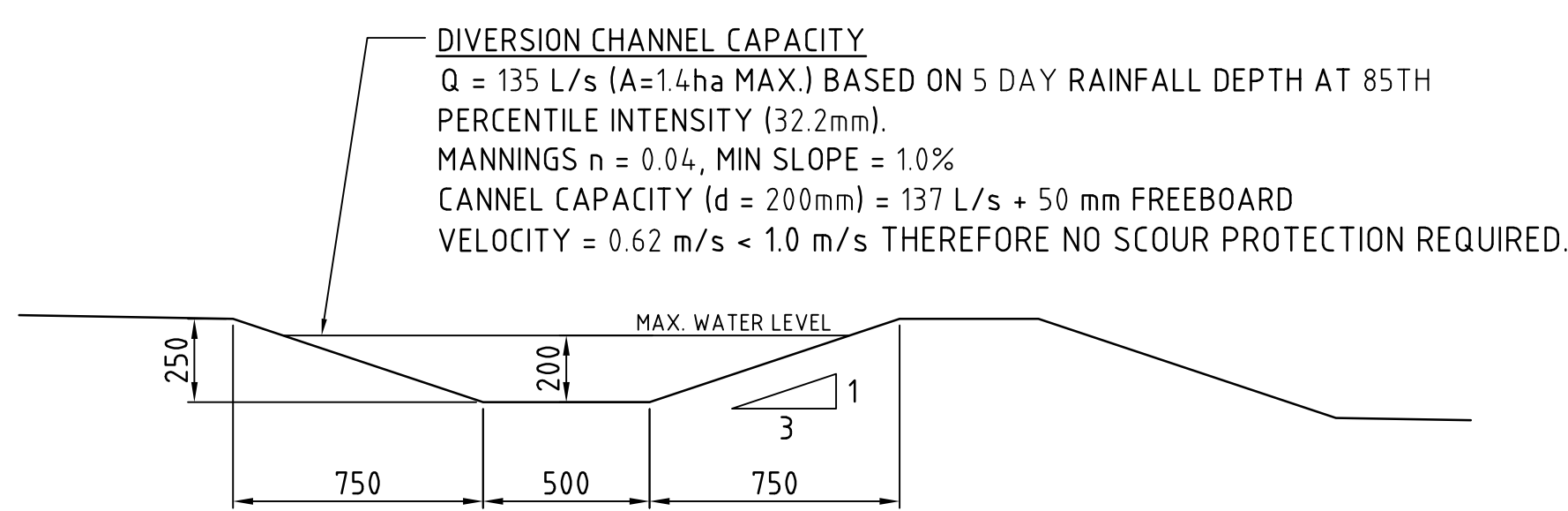
TYPICAL SEDIMENT CONTROL BASIN SECTION
SCALE 1:50



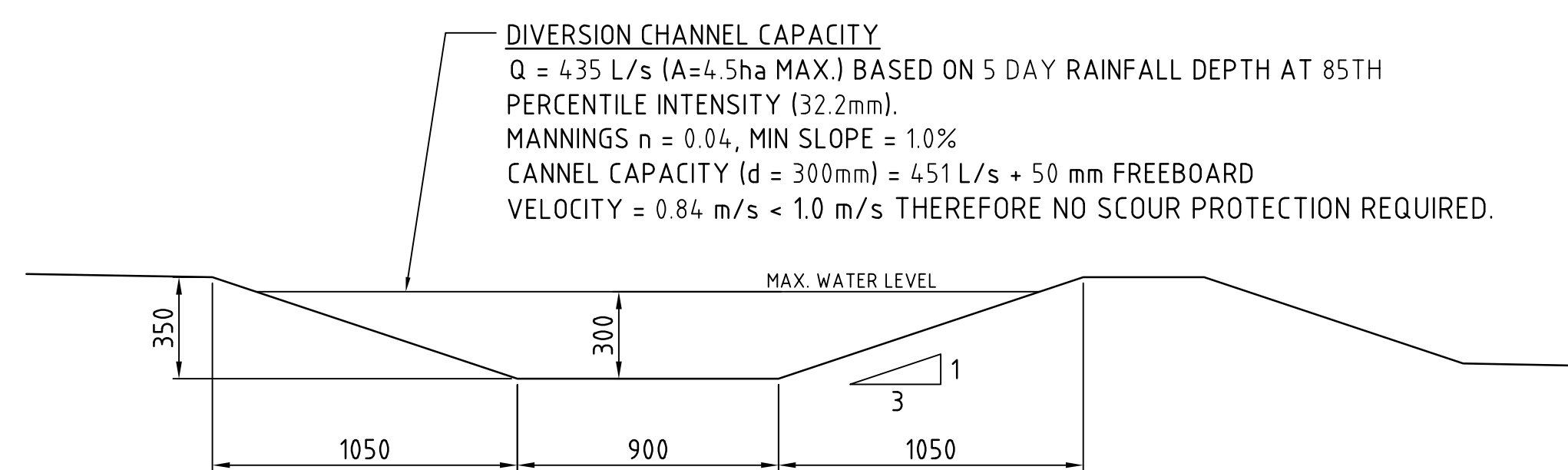
SECTION 1:20 : STABILISED CONSTRUCTION ENTRANCE 'TRUCK SHAKER'



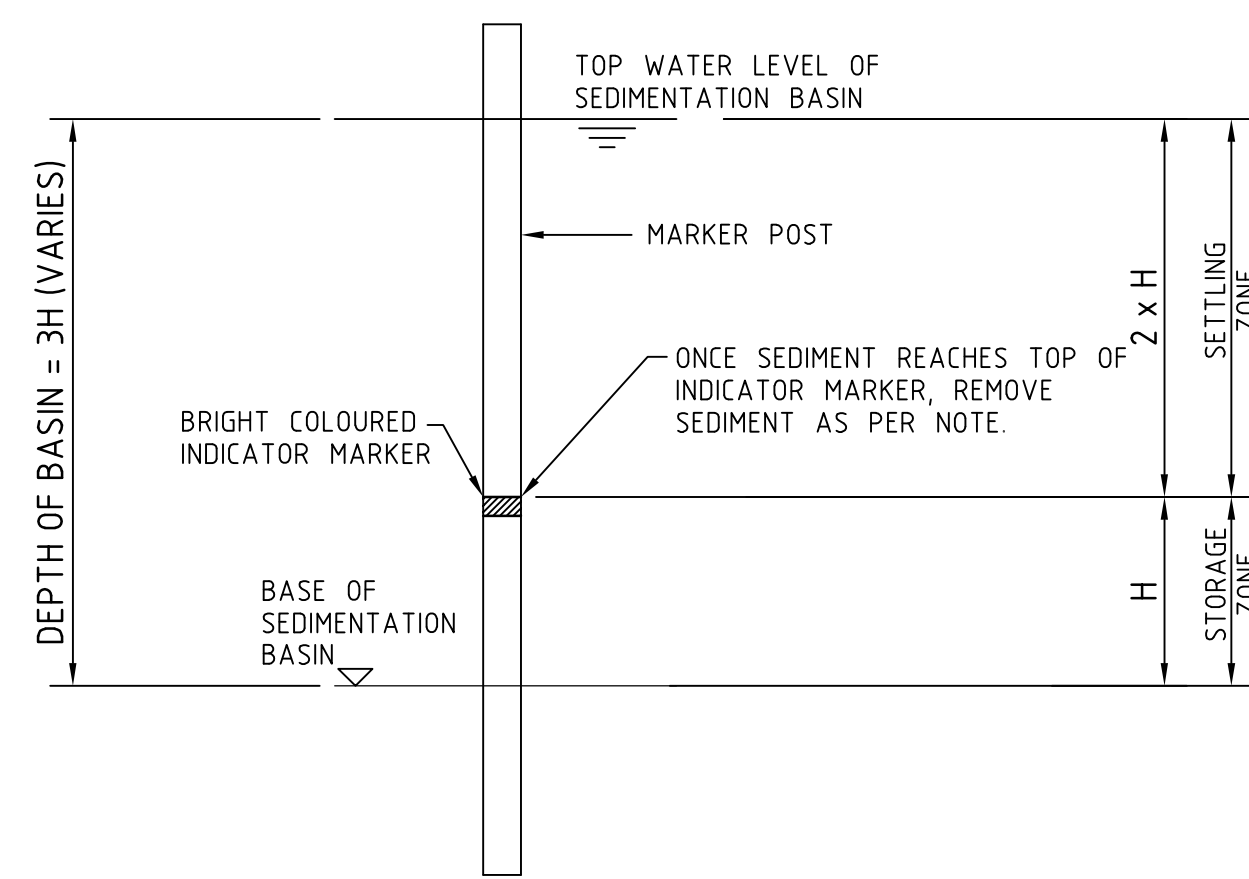
1500 WIDE DIVERSION DRAIN SECTION
SCALE 1:20



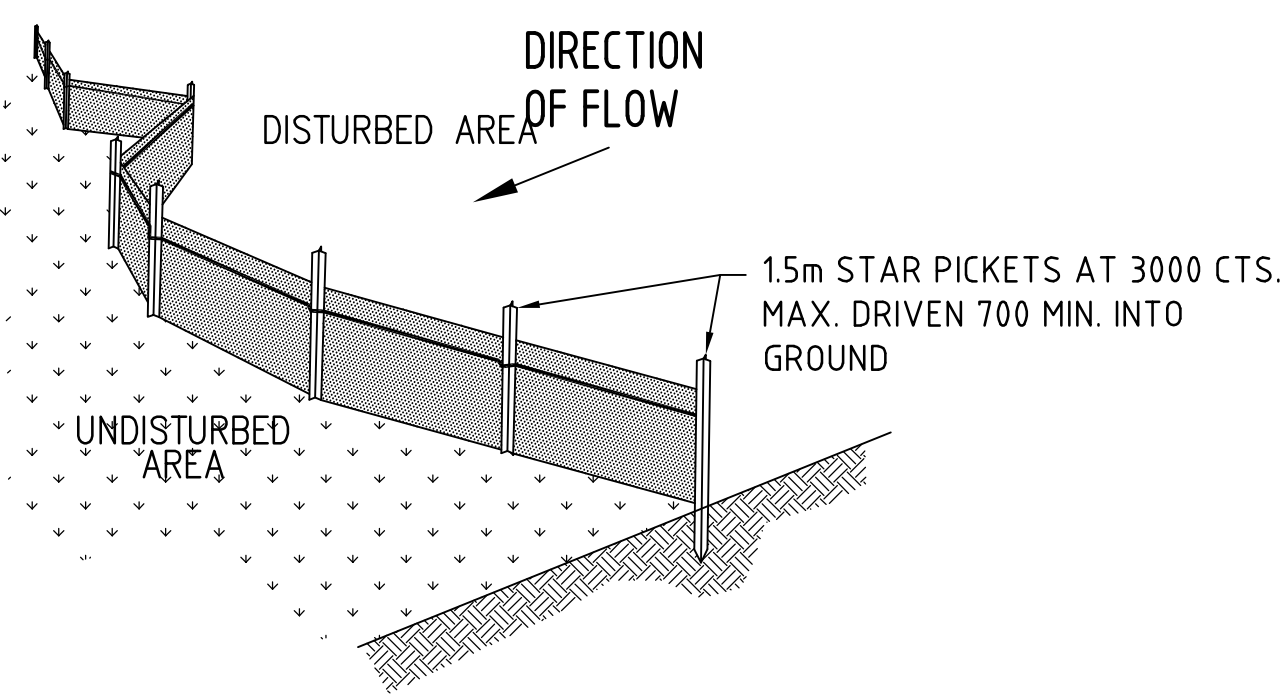
2000 WIDE DIVERSION DRAIN SECTION
SCALE 1:20



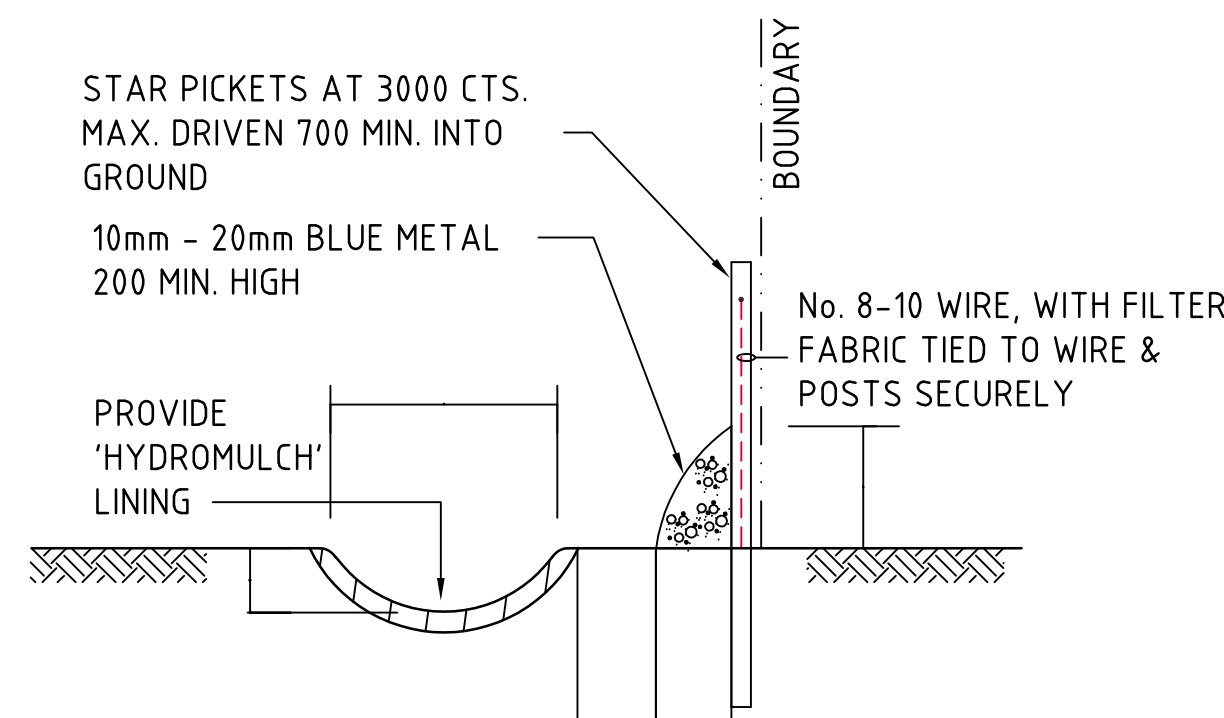
3000 WIDE DIVERSION DRAIN SECTION
SCALE 1:20



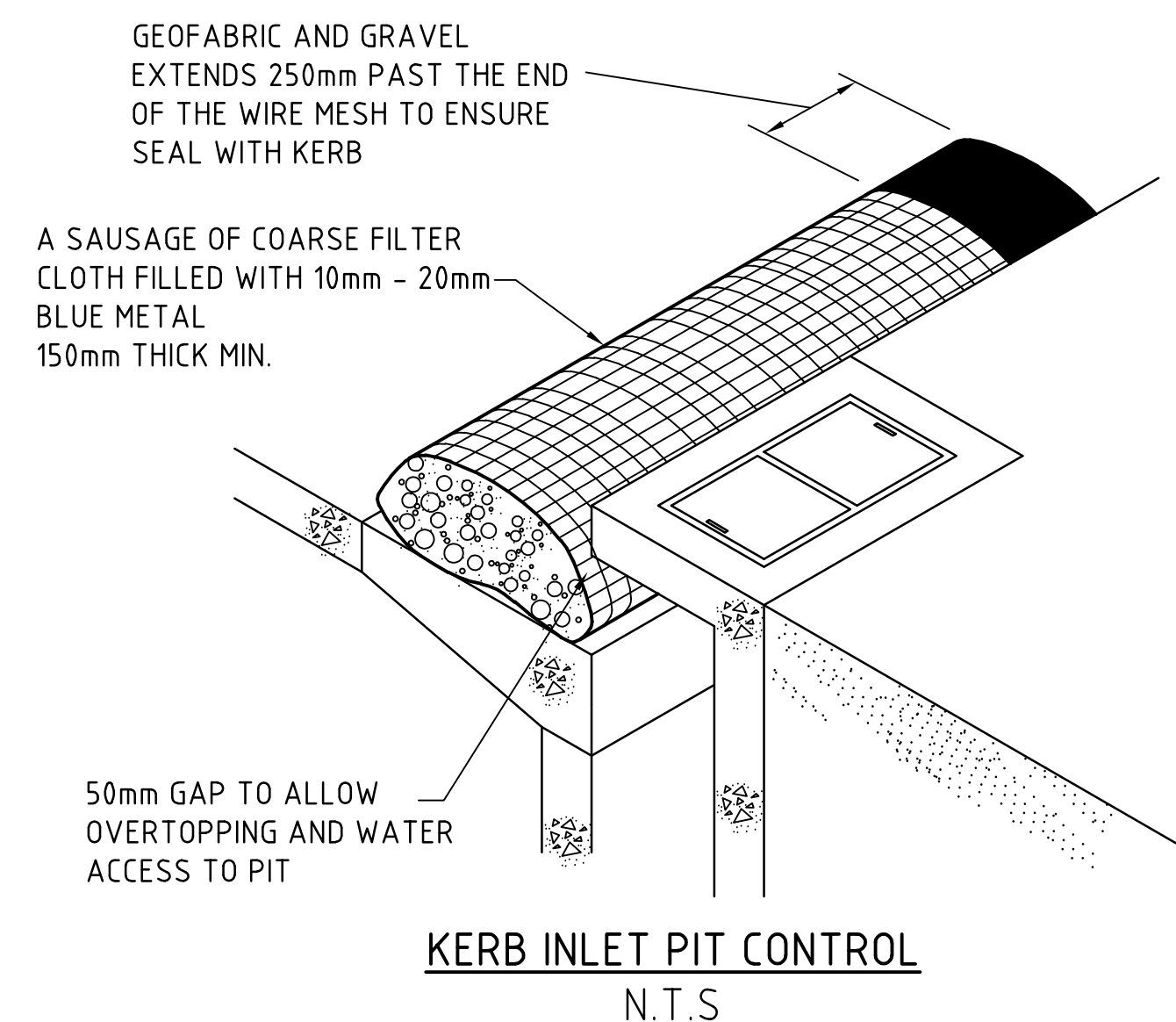
SEDIMENT STORAGE MARKER
SCALE 1:20



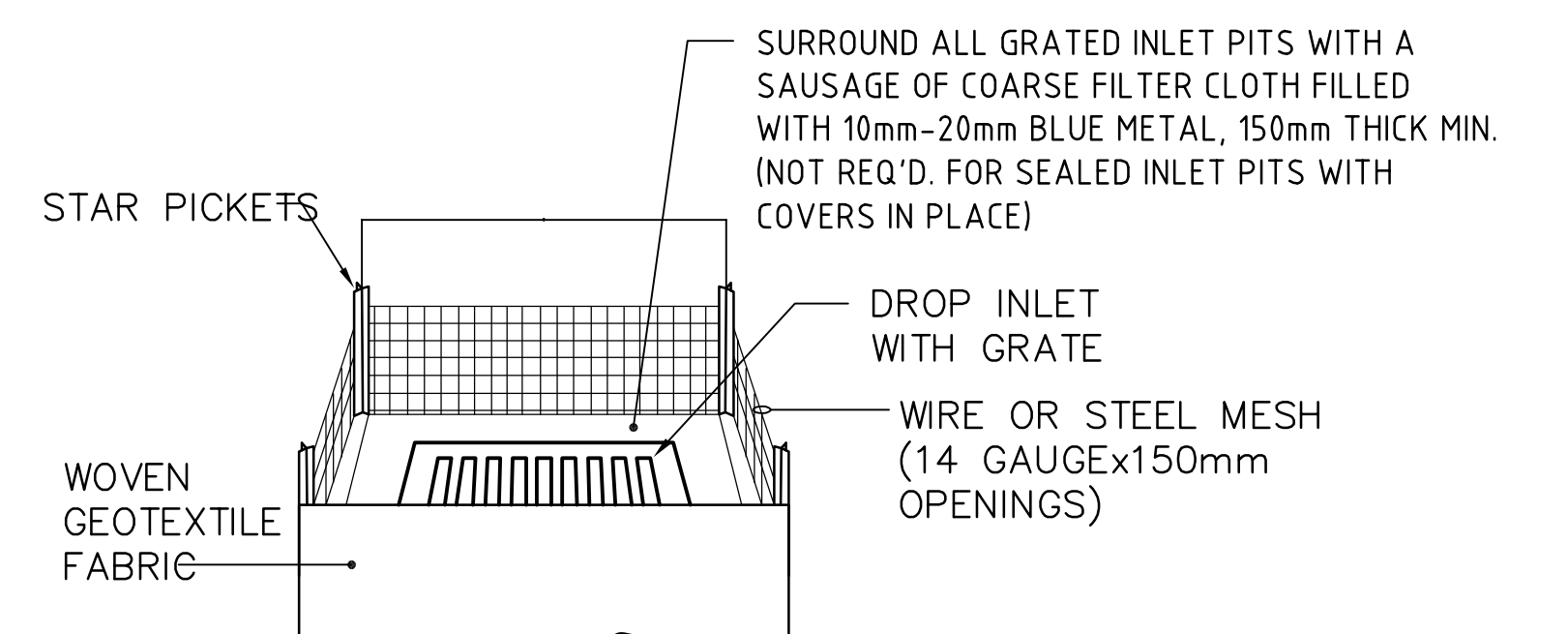
TYPICAL SILT FENCE DETAIL
N.T.S.
PROVIDE 1m RETURNS AT 30m INTERVALS.
TYPICAL



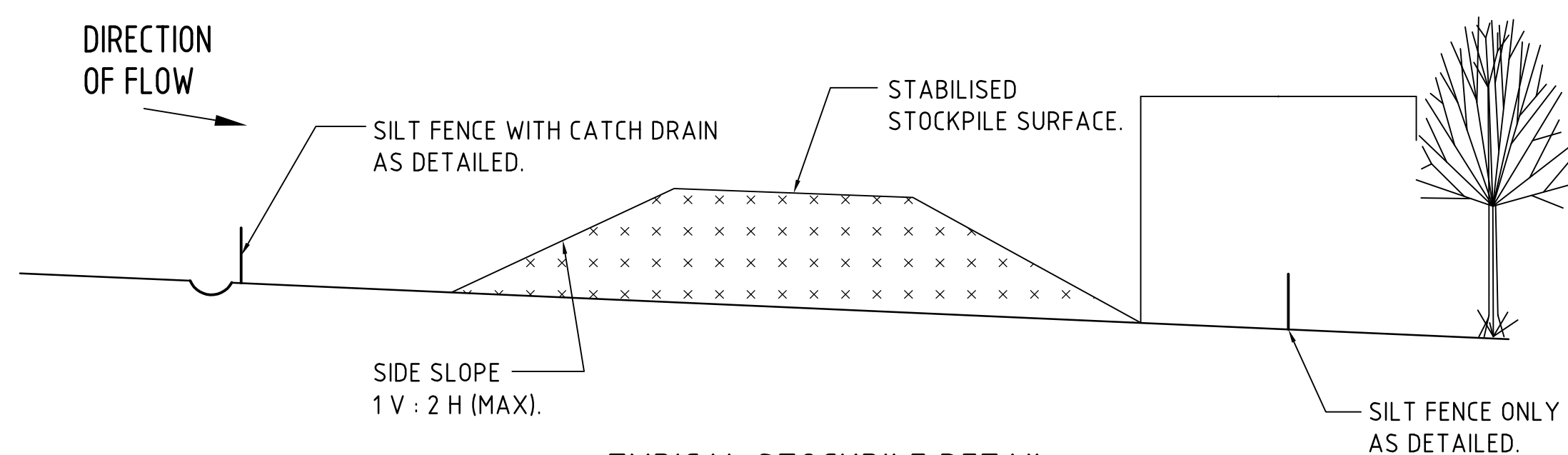
TYPICAL OPEN DRAIN & SILT FENCE
SCALE 1:20



KERB INLET PIT CONTROL
N.T.S.



GRATED INLET PIT FILTER DETAIL
N.T.S.

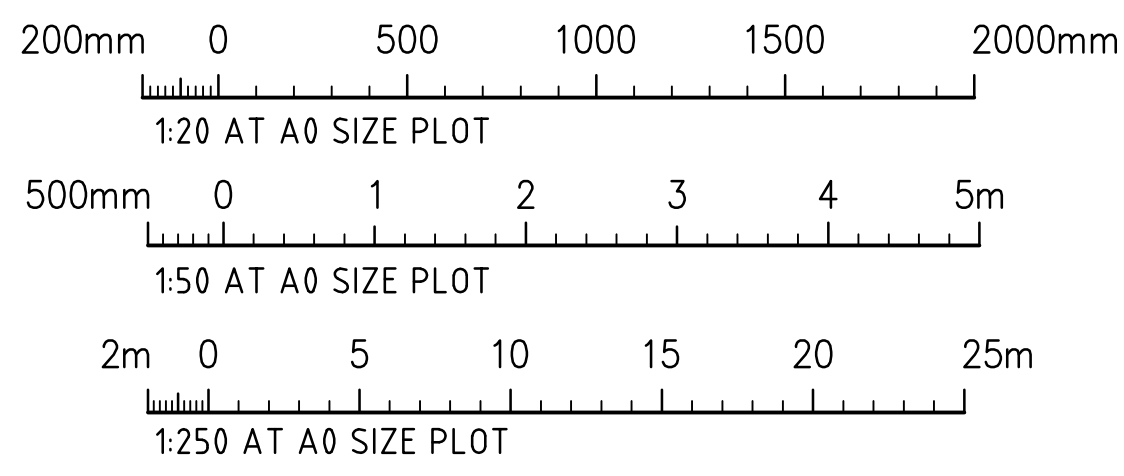


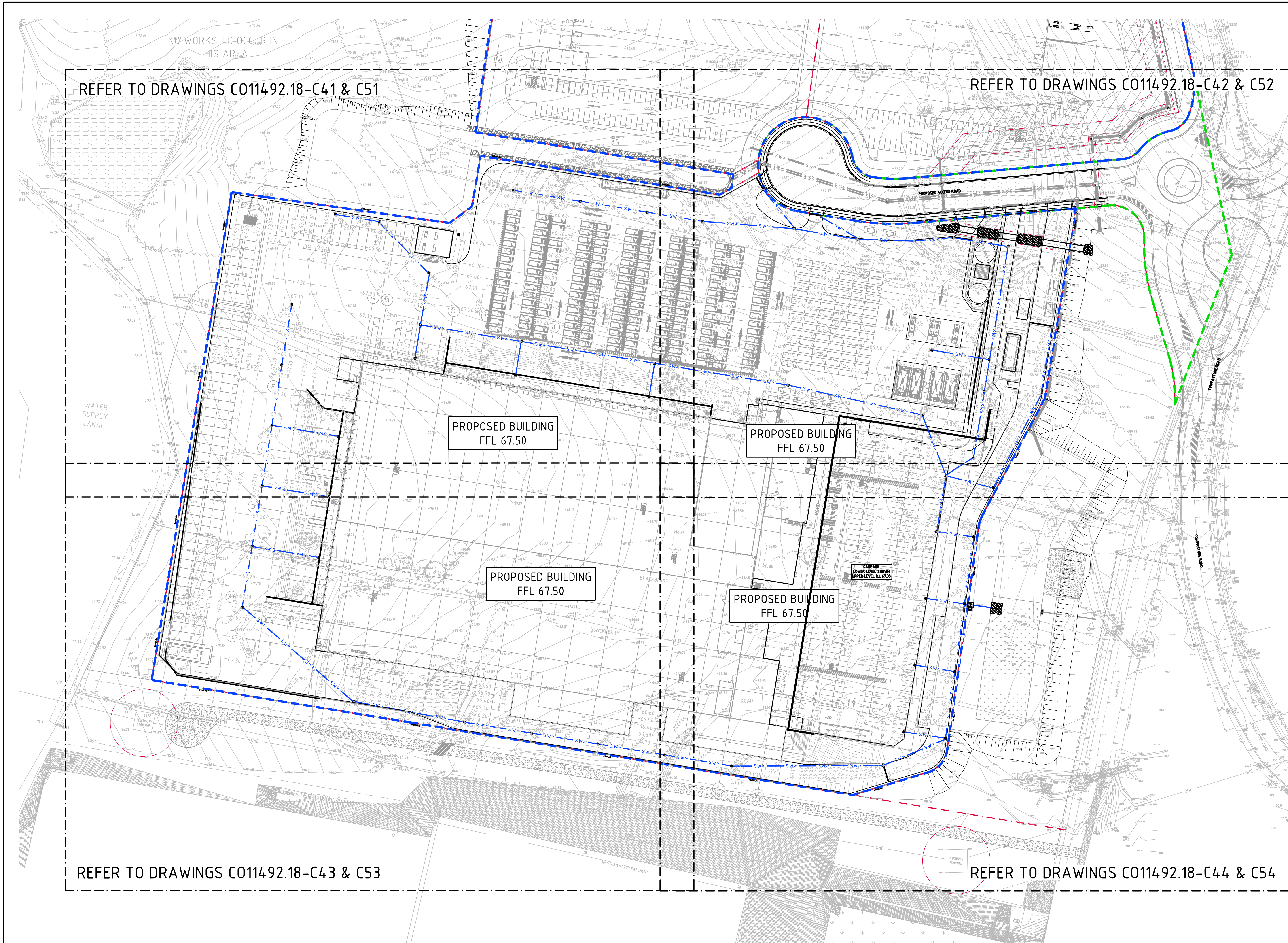
TYPICAL STOCKPILE DETAIL
N.T.S.

- STOCKPILE NOTES**
1. PLACE ALL STOCKPILES IN LOCATIONS MORE THAN 5m FROM EXISTING VEGETATION, ROADS & HAZARD AREAS.
 2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT ELONGATED MOUNDS. SIDE SLOPE TO BE 1 V: 2 H MAX.
 3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
 4. WHERE STOCKPILES ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, SUITABLY STABILISE OR COVER THE STOCKPILES.
 5. CONSTRUCT SILT FENCE WITH CATCH DRAIN ON UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES & SILT FENCE ONLY 1 TO 2m DOWNSLOPE AS SHOWN.

- NOTES:**
- ALL EROSION & SEDIMENT CONTROL MEASURES TO BE INSPECTED & MAINTAINED DAILY BY SITE MANAGER.
 - MINIMISE DISTURBED AREAS.
 - ROADS & FOOTPATHS TO BE SWEEPED DAILY.
 - 12m TURF TO BE PLACED BEHIND KERBS.
 - DUST MINIMISATION CONTROL BY WATERING TO BE IMPLEMENTED BY SITE MANAGER AS REQUIRED OR AS DIRECTED BY THE EPA.

NOTE: ADOPT ABOVE DETAILS AROUND ALL PITS WITHIN AREA ENCOMPASSED BY SILT FENCE & TO PITS ON THE ROAD ADJACENT TO SITE BOUNDARY.





PIT SCHEDULE

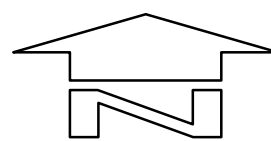
PIT No.	GRATE RL	TYPE	SIZE	COMMENT
PIT 1/1	67.05	SGGP	900x900	
PIT 1/2	67.05	SGGP	900x900	
PIT 1/3	67.05	SGGP	900x900	
PIT 1/4	67.05	SGGP	900x900	
PIT 1/5	67.05	SGGP	900x900	
PIT 1/6	67.05	SGGP	900x900	
PIT 1/7	67.13	SGGP	1200x1200	
PIT 1/8	66.05	SGGP	1200x1200	
PIT 1/9	66.05	SGGP	1200x1200	
PIT 1/10	66.05	SGGP	1200x1200	
PIT 1/11	66.05	SGGP	1200x1200	
PIT 1/12	66.05	SGGP	1200x1200	
PIT 1/13	64.07	SGGP	1200x1200	
PIT 1/14	63.50	SGGP	1200x1200	
PIT 1/15	63.55	SGGP	1200x1200	
PIT 1/16	63.55	SGGP	1200x1200	
PIT 1/17	66.15	SGGP	900x900	
PIT 1/18	66.15	SGGP	900x900	
PIT 1/19	66.15	SGGP	900x900	
PIT 1/20	63.80	SGGP	900x900	
PIT 1/21	63.80	SGGP	900x900	
PIT 1/22	63.80	SGGP	900x900	
PIT 1/24	63.80	SGGP	1200x1200	
PIT 1/25	66.75	SGGP	900x900	
PIT 1/26	66.75	SGGP	900x900	
PIT 1/27	NOT USED			
PIT 1/28	66.45	SGGP	900x900	
PIT 1/30	66.45	SGGP	900x900	
PIT 1/31	66.45	SGGP	900x900	
PIT 1/32	66.19	SGGP	900x900	
PIT 1/33	65.89	SGGP	900x900	
PIT 1/34	65.95	SGGP	1200x1200	
PIT 1/35	65.70	SGGP	1200x1200	
PIT 1/36	65.57	SGGP	1200x1200	
PIT 1/37	65.80	SGGP	1200x1200	
PIT 1/38	65.30	SGGP	1200x1200	
PIT 1/39	65.30	SGGP	1200x1200	
PIT 1/40	63.70	SGGP	1200x1200	
PIT 1/41	66.80	SGGP	900x900	
PIT 1/42	63.80	SGGP	1500x1500	
PIT 1/43	63.55	SGGP	1200x1200	
PIT 1/44	66.17	SGGP	900x900	
PIT 1/45	66.95	SGGP	1200x1200	
PIT 1/46	65.48	SGGP	900x900	
PIT 1/47	65.07	SGGP	900x900	
PIT 1/48	63.55	SGGP	900x900	
PIT 1/49	67.45	SJP	900x900	
PIT 1/50	66.90	SGGP	900x900	
PIT 1/51	67.30	SJP	900x900	
PIT 1/52	67.30	SJP	900x900	
PIT 1/53	67.19	SJP	900x900	
PIT 1/54	66.40	SGGP	900x900	
PIT 1/55	66.40	SGGP	900x900	

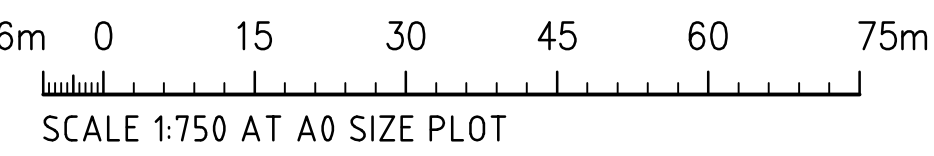
STORMWATER DRAINAGE NOTES:

- ALL STORMWATER WORKS TO BE COMPLETED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3500.3:2003 PLUMBING AND DRAINAGE, PART 3: STORMWATER DRAINAGE.
- THE MINOR (PIPED) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 20 YEAR ARI STORM EVENT AND THE MAJOR (OVERLAND) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 100 YEAR ARI STORM EVENT.
- ALL FINISHED PAVEMENT LEVELS SHALL BE AS INDICATED ON FINISHED LEVELS PLANS.
- PIT SIZES SHALL BE AS INDICATED IN THE SCHEDULE WHILE PIPE SIZES AND DETAILS ARE PROVIDED ON PLAN.
- EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCING WORKS ON SITE.
- ALL STORMWATER PIPES Ø375 OR GREATER SHALL BE CLASS 2 REINFORCED CONCRETE WITH RUBBER RING JOINTS UNLESS NOTED OTHERWISE.
- ALL PIPES UP TO AND INCLUDING Ø300 TO BE uPVC GRADE SN8 UNO.
- PIPE CLASS NOMINATED ARE FOR IN-SERVICE LOADING CONDITIONS ONLY. CONTRACTOR IS TO MAKE ANY NECESSARY ADJUSTMENTS REQUIRED FOR CONSTRUCTION CONDITIONS.
- ALL CONCRETE PITS GREATER THAN 1000mm DEEP SHALL BE REINFORCED USING N12-200 EACH WAY CENTERED IN WALL AND BASE. LAP MINIMUM 300mm WHERE REQUIRED. ALL CONCRETE FOR PITS SHALL BE Fc 32 MPA. PRECAST PITS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
- IN ADDITION TO ITEM 6 ABOVE, ALL CONCRETE PITS GREATER THAN 3000mm DEEP SHALL HAVE WALLS AND BASE THICKNESS INCREASED TO 200mm.
- PIPES SHALL BE LAID AS PER PIPE LAYING DETAILS. PARTICULAR CARE SHALL BE TAKEN TO ENSURE THAT THE PIPE IS FULLY AND EVENLY SUPPORTED. RAM AND PACK FILLING AROUND AND UNDER BACK OF PIPES AND PIPE FAUCETS, WITH NARROW EGEDD RAMMERS OR OTHER SUITABLE TAMPING DETAILS.
- WHERE PIPE LINES ENTER PITS, PROVIDE 2m LENGTH OF STOCKING WRAPPED SLOTTED Ø100 uPVC TO EACH SIDE OF PIPE.
- ALL SUBSOIL DRAINAGE LINES SHALL BE Ø100 SLOTTED uPVC WITH APPROVED FILTER WRAP LAID IN 300mm WIDE GRANULAR FILTER UNLESS NOTED OTHERWISE. LAY SUBSOIL LINES TO MATCH FALLS OF LAND AND/OR 1 IN 200 MINIMUM. PROVIDE CAPPED CLEANING EYE (RODDING POINT) AT UPSTREAM END OF LINE AND AT 30m MAX. CTS. PROVIDE SUBSOIL LINES TO ALL PAVEMENT/ LANDSCAPED INTERFACES, TO REAR OF RETAINING WALLS (AS NOMINATED BY STRUCTURAL ENGINEER) AND AS SHOWN ON PLAN.
- ALL PIPE GRADES 1 IN 100 MINIMUM UNO.
- PROVIDE STEP IRONS IN PITS DEEPER THAN 1000mm.
- MIN. 600 COVER TO PIPE OBVERT BENEATH ROADS & MIN. 400 COVER BENEATH LANDSCAPED AND PEDESTRIAN AREAS.
- PIT COVERS IN TRAFFICABLE PAVEMENT SHALL BE CLASS D 'HEAVY DUTY', THOSE LOCATED IN NON-TRAFFICABLE AREAS SHALL BE CLASS B 'MEDIUM DUTY' U.N.O.
- PROVIDE CLEANING EYES (RODDING POINTS) TO PIPES AT ALL CORNERS AND T-JUNCTIONS WHERE NO PITS ARE PRESENT.
- PIPE LENGTHS NOMINATED ON PLAN OR LONGSECTIONS ARE MEASURED FROM CENTER OF PITS TO THE NEAREST 0.5m AND DO NOT REPRESENT ACTUAL LENGTH. THE CONTRACTOR IS TO ALLOW FOR THIS.

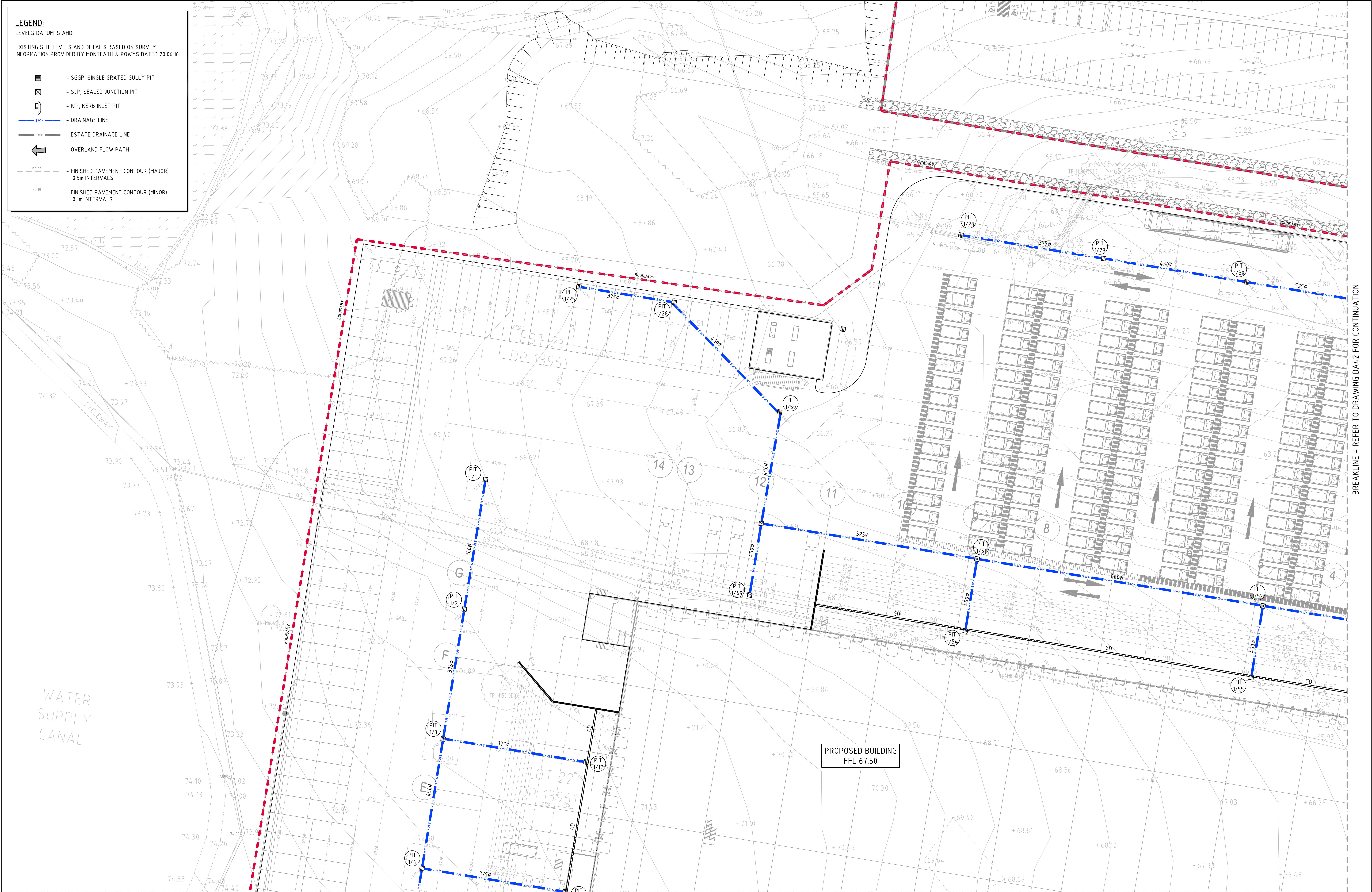
FINISHED LEVELS PLAN NOTES :

- LEVELS DATUM IS A.H.D.
- ALL CONTOUR LINES & SPOT LEVELS INDICATE FINISHED PAVEMENT LEVELS U.N.O. ON PLAN.
- THE MAJOR CONTOUR INTERVAL IS 0.5m
- THE MINOR CONTOUR INTERVAL IS 0.1m.
- MINIMUM PAVEMENT GRADE IS TO BE 1:100 (1%).
- MAXIMUM PAVEMENT GRADE IS TO BE 1:20 (5%) IN CARPARKING AREAS AND 1:25 (4%) ELSEWHERE.
- MAXIMUM RAMP GRADES ARE TO BE 1:12 (8.3%) U.N.O. ON PLAN
- PROVIDE MINIMUM 3.0m LONG TRANSITION WHERE CHANGES GRADE EXCEED 1:20 (5%).
- PERMANENT BATTER SLOPES ARE TO HAVE A MAXIMUM GRADE OF 1V:3H.
- ALL BATTER SLOPES WITH GRADES AT OR EXCEEDING 1V:6H ARE TO BE TURFED IMMEDIATELY, OR APPROPRIATE EROSION CONTROL IS TO BE PROVIDED TO THE SATISFACTION OF THE ENGINEER.
- ALL FOOTPATHS ARE TO FALL AWAY FROM THE BUILDING AT 2.5% NOMINAL GRADE.
- ALL PAVEMENTS ARE TO BE SET AT 50mm BELOW THE FINISHED FLOOR LEVEL OF THE WAREHOUSE AND OFFICE AREAS.

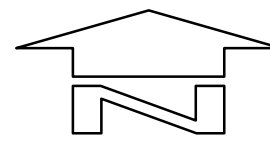
 **DRAWING KEY PLAN**
SCALE 1:750



FOR DEVELOPMENT APPLICATION



BREAKLINE - REFER TO DRAWING DA43 FOR CONTINUATION



CONCEPT STORMWATER PLAN - SHEET 1
SCALE 1:250

FOR DEVELOPMENT APPLICATION

2m 0 5 10 15 20 25m
SCALE 1:250 AT A0 SIZE PLOT

FOR DEVELOPMENT APPLICATION	29.01.20	B
FOR INFORMATION ONLY	20.12.19	A
AMENDMENTS	DATE	ISSUE
AMENDMENTS	DATE	ISSUE

FDC
BUILDING SERVICES PTY LIMITED
22-24 Junction Street, Forest Lodge NSW 2037
Ph: (02) 9556 2552 Fax: (02) 9556 2000
ACN 055 267 768

ARCHITECT
LEFFLER SIMESARCHITECTS

DEVELOPER
Charter Hall

PROJECT
PROPOSED DISTRIBUTION CENTRE
HORSLEY DRIVE BUSINESS PARK
WETHERILL PARK, NSW

DESIGNED: M.C. DATE: DEC 19 CHECKED: M.W. SIZE: A0 SCALE: AS SHOWN CAD REF: C0114.92.18-DA41

COSTIN ROE CONSULTING PTY LTD.
Consulting Engineers
Level 1, 8 Windmill Street
Wahia Bay, Sydney NSW 2000
Tel: (02) 9551-7699 Fax: (02) 9541-3721
email: mail@costinroe.com.au

Costin Roe Consulting

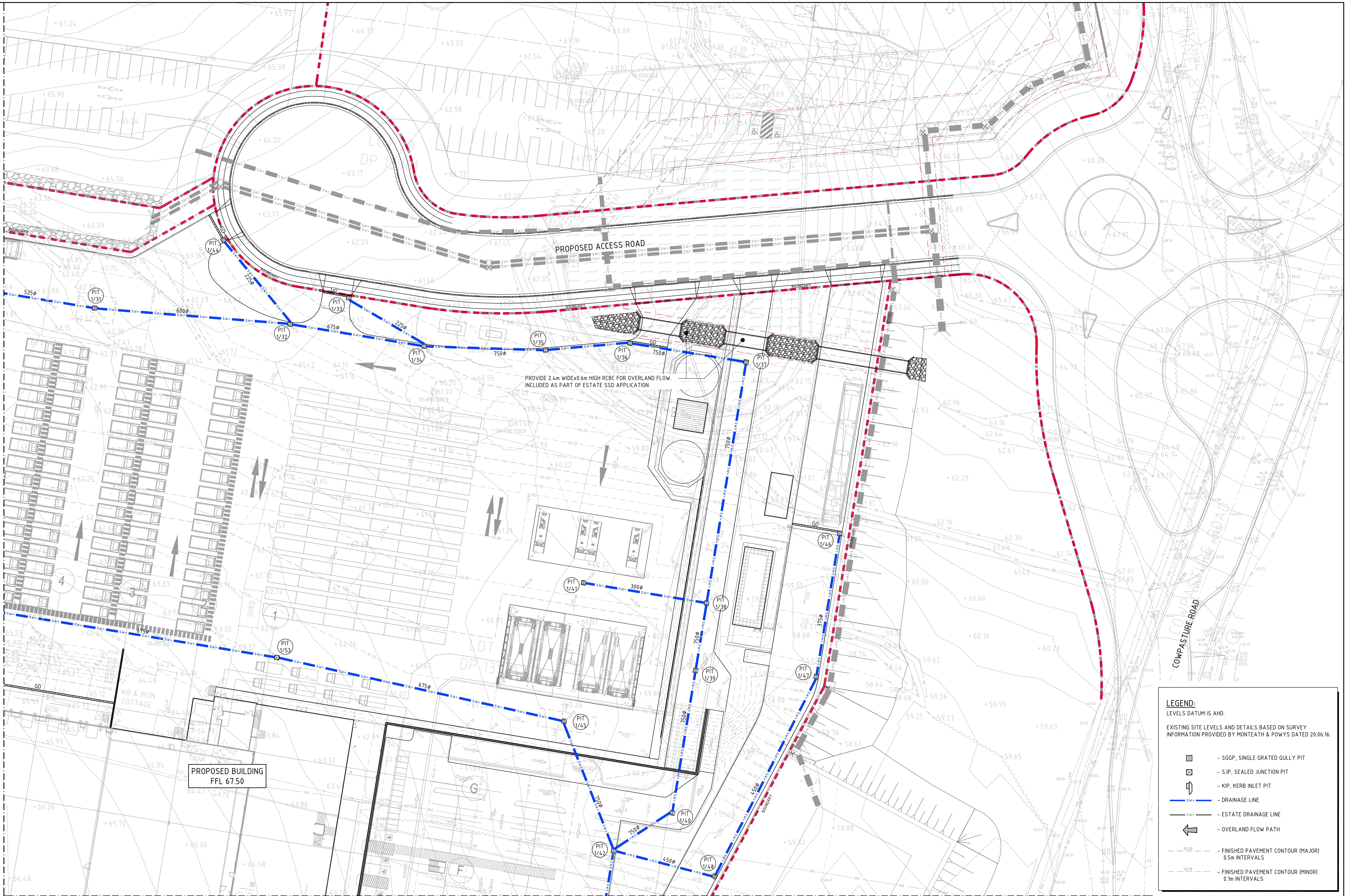
PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE
CONCEPT STORMWATER PLAN
SHEET 1

DRAWING No: C0114.92.18- DA41

ISSUE: B

BREAKLINE - REFER TO DRAWING DA41 FOR CONTINUATION

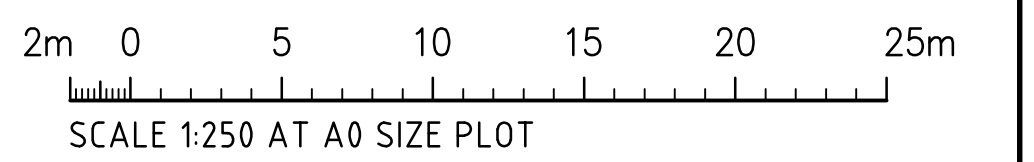


BREAKLINE - REFER TO DRAWING DA44 FOR CONTINUATION

LEGEND:
LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY
INFORMATION PROVIDED BY MONTEATH & POW'S DATED 20.06.16.

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- DRAINAGE LINE
- ESTATE DRAINAGE LINE
- OVERLAND FLOW PATH
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS



FOR DEVELOPMENT APPLICATION	29.01.20	B
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FDC
BUILDING SERVICES PTY LIMITED
22-24 Junction Street, Forest Lodge NSW 2037
Ph: (02) 9558 2852 Fax: (02) 9558 2900
ACN 055 267 788

ARCHITECT
LEFFLER SIMESARCHITECTS

DEVELOPER
Charter Hall

PROJECT
PROPOSED DISTRIBUTION CENTRE
HORSLEY DRIVE BUSINESS PARK
WETHERILL PARK, NSW

Costin Roe Consulting Pty Ltd.
Consulting Engineers
Level 1, 8 Windmill Street
Wahia Bay, Sydney NSW 2000
Tel: (02) 9551-7699 Fax: (02) 9541-3731
email: mail@costinroe.com.au ©

Costin Roe Consulting
PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE
CONCEPT STORMWATER PLAN
SHEET 2
DRAWING No. Co114.92.18- DA42
ISSUE B

BREAKLINE - REFER TO DRAWING DA41 FOR CONTINUATION

BREAKLINE - REFER TO DRAWING DA44 FOR CONTINUATION

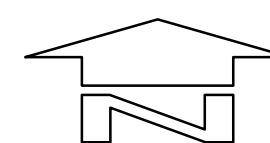


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- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- DRAINAGE LINE
- ESTATE DRAINAGE LINE
- OVERLAND FLOW PATH
- FINISHED PAVEMENT CONTOUR (MAJOR)
0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR)
0.1m INTERVALS



CONCEPT STORMWATER PLAN - SHEET 3
SCALE 1:250

FOR DEVELOPMENT APPLICATION

2m 0 5 10 15 20 25m
SCALE 1:250 AT A0 SIZE PLOT

FOR DEVELOPMENT APPLICATION	29.01.20	B
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AMENDMENTS	DATE	ISSUE
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22-24 Junction Street, Forest Lodge NSW 2037
Ph: (02) 9556 2852 Fax: (02) 9556 2900
ACN 055 267 788

ARCHITECT
LEFFLER SIMESARCHITECTS

DEVELOPER
Charter Hall

PROJECT
PROPOSED DISTRIBUTION CENTRE
HORSLEY DRIVE BUSINESS PARK
WETHERILL PARK, NSW
DESIGNED: M.C. DATE: DEC 19 CHECKED: M.W. SIZE: A0 SCALE: AS SHOWN CADD REF: C011492.18-DA43

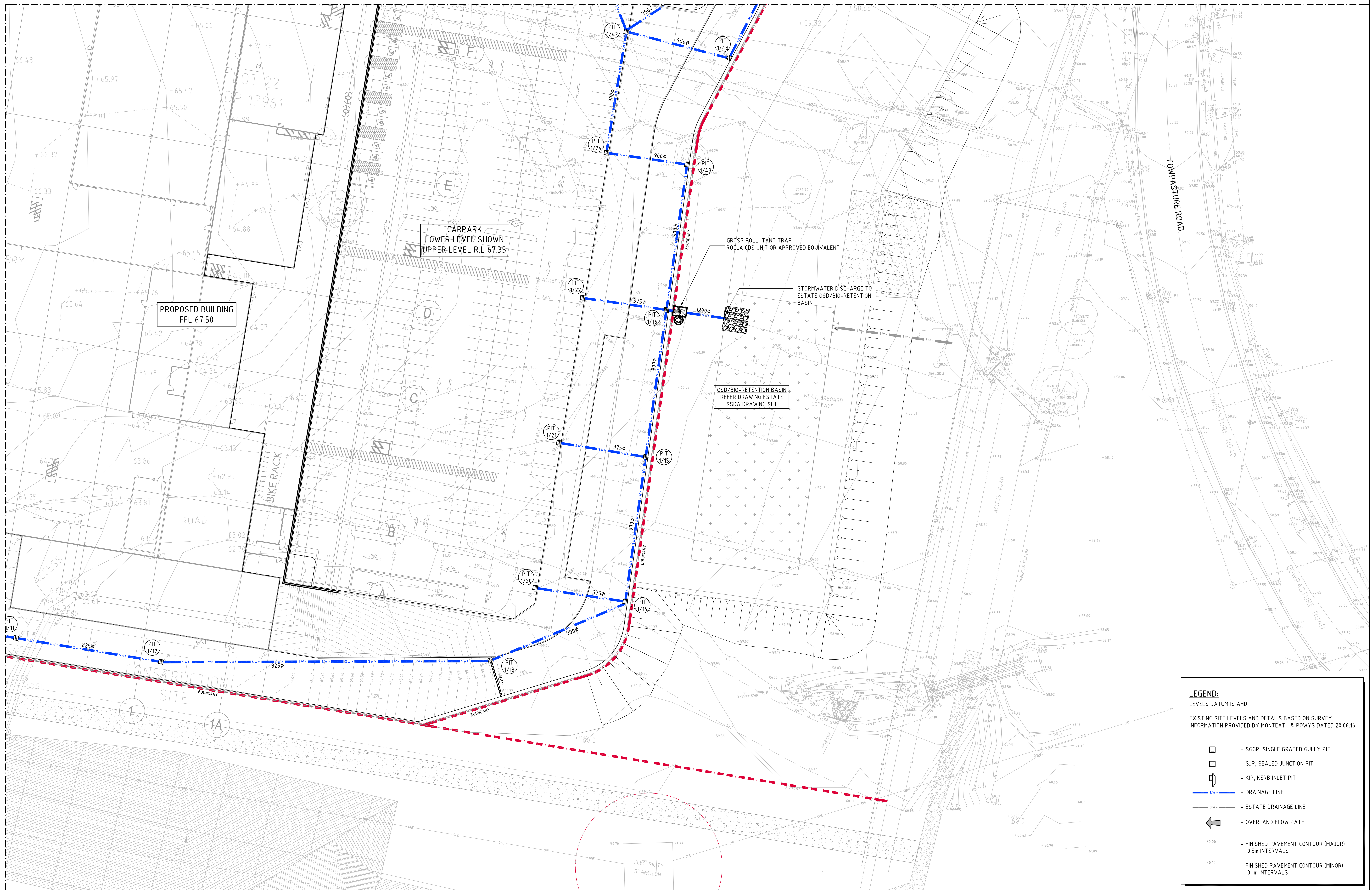
COSTIN ROE CONSULTING PTY LTD.
Consulting Engineers
Level 1, 8 Windmill Street
Wahia Bay, Sydney NSW 2000
Tel: (02) 9551-7899 Fax: (02) 9541-3721
email: mail@costinroe.com.au

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DRAWING TITLE
CONCEPT STORMWATER PLAN
SHEET 3
DRAWING No: C011492.18- DA43 ISSUE: B

BREAKLINE - REFER TO DRAWING DA42 FOR CONTINUATION

BREAKLINE - REFER TO DRAWING DA43 FOR CONTINUATION



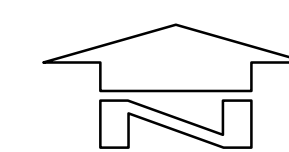
LEGEND:

LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY INFORMATION PROVIDED BY MONTEATH & POWYS DATED 20.06.16.

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- DRAINAGE LINE
- ESTATE DRAINAGE LINE
- OVERLAND FLOW PATH
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS

2m 0 5 10 15 20 25m
SCALE 1:250 AT A0 SIZE PLOT



CONCEPT STORMWATER PLAN - SHEET 4
SCALE 1:250

FOR DEVELOPMENT APPLICATION

FOR DEVELOPMENT APPLICATION	29.01.20	B
FOR INFORMATION ONLY	20.12.19	A
AMENDMENTS	DATE	ISSUE
AMENDMENTS	DATE	ISSUE

FDC BUILDING SERVICES PTY LIMITED 22-24 Junction Street, Forest Lodge NSW 2037 Ph: (02) 9556 2552 Fax: (02) 9556 2000 ACN 055 267 788
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ARCHITECT LEFFLER SIMESARCHITECTS

DEVELOPER Charter Hall

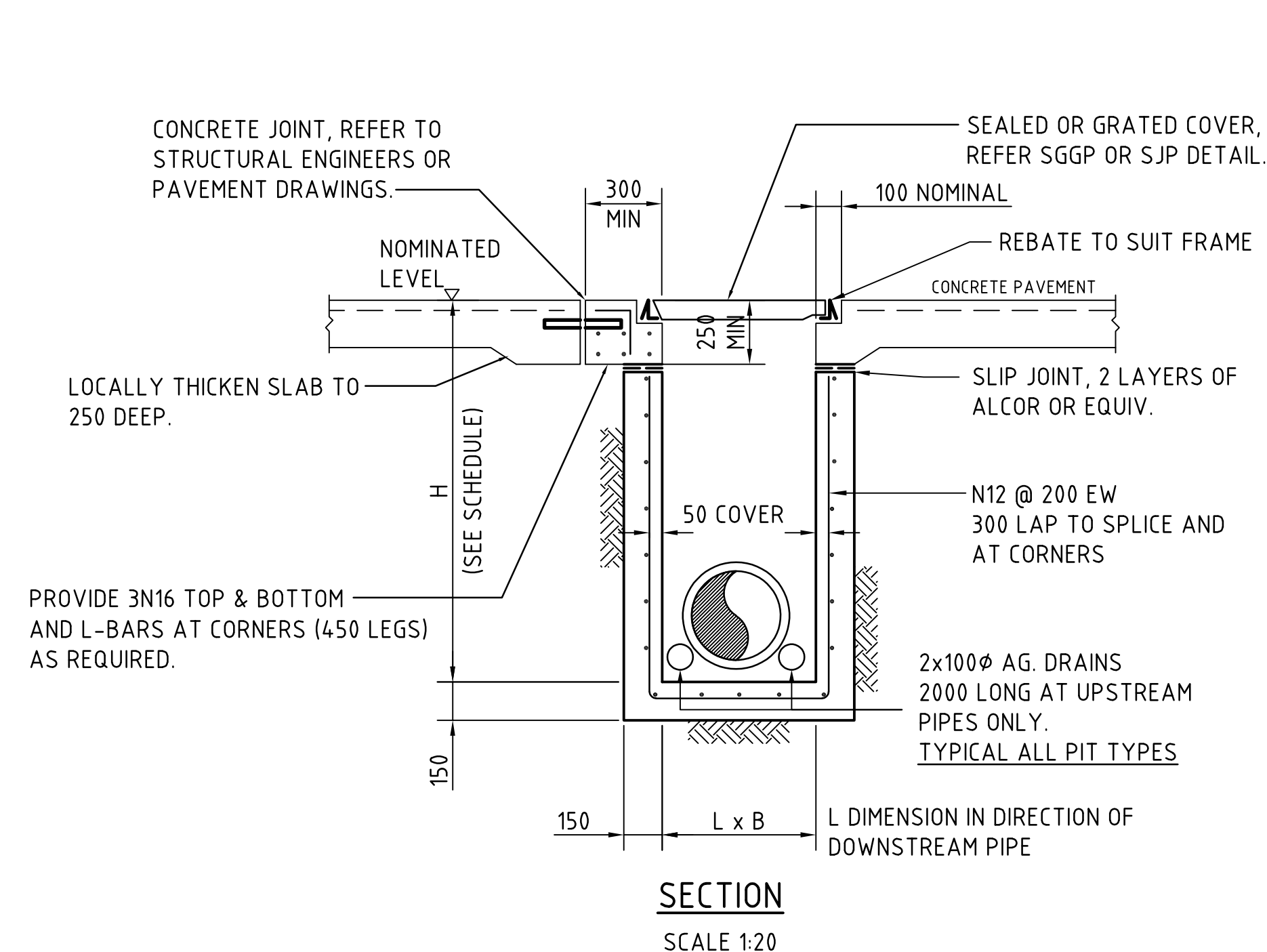
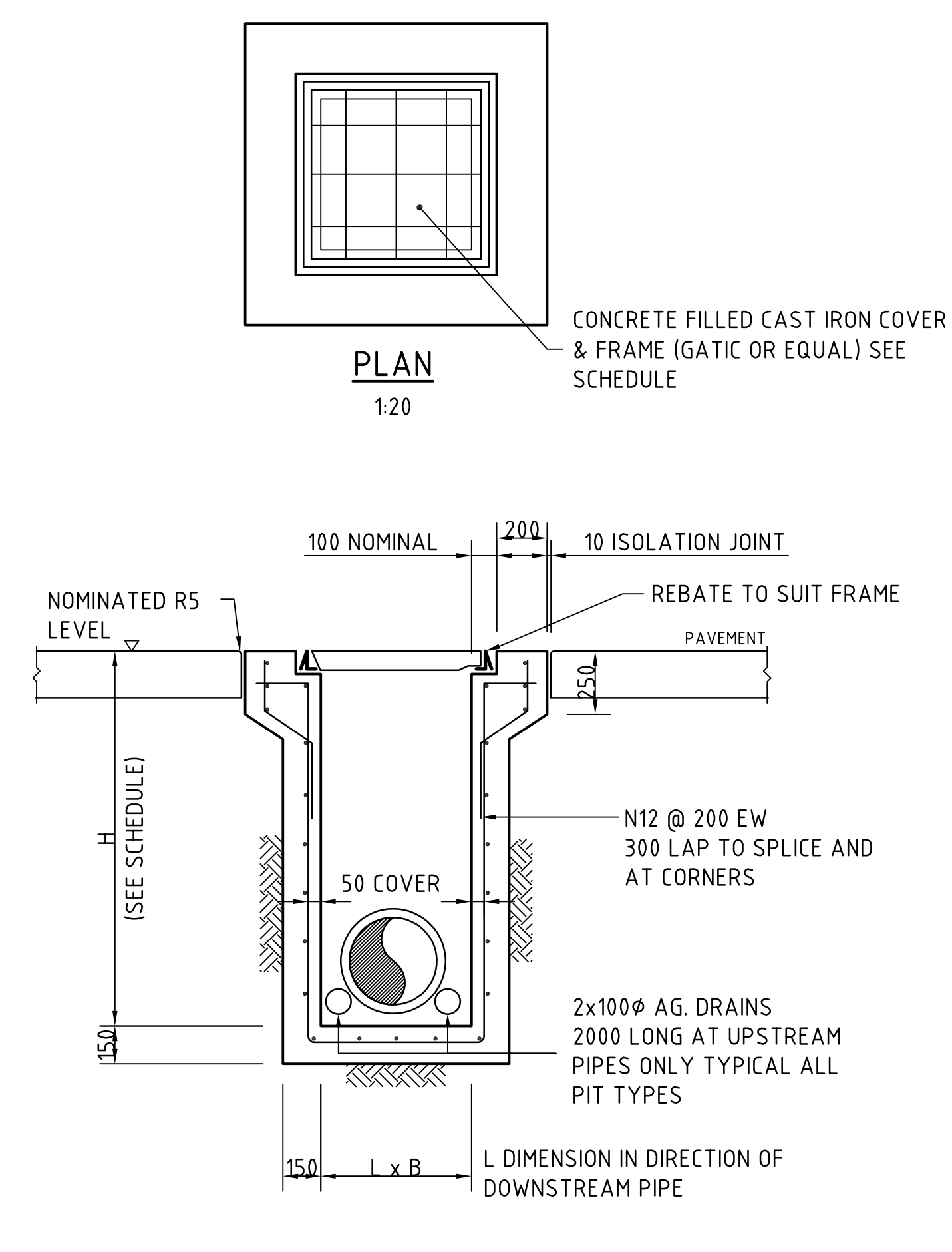
PROJECT PROPOSED DISTRIBUTION CENTRE HORSLEY DRIVE BUSINESS PARK WETHERILL PARK, NSW					 CONSULT AUSTRALIA	
DESIGNED M.C	DRAWN M.C	DATE DEC 19	CHECKED M.W	SIZE A0		SCALE AS SHOWN

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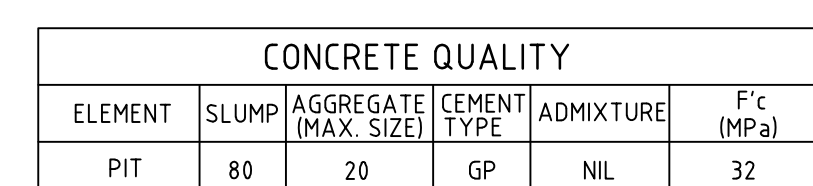
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PRECISION COMMUNICATION ACCOUNTABILITY
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DRAWING TITLE CONCEPT STORMWATER PLAN SHEET 4
DRAWING No C0114.92.18- DA44
ISSUE B



(ADOPT IN CONCRETE PAVEMENT FOR SGGP's & SJP's,
WHERE PITS ARE LOCATED IN THE CORNER OF SLAB
PANELS OR ADJACENT TO SLAB PANEL JOINTS)



1. WHERE GULLY PIT IS LOCATED ON KERB RETURNS OR BULB OF CUL-DE-SACS PROVIDE CURVED PRECAST CONCRETE LINTELS.
2. SAG PITS SHALL HAVE LINTEL PLACED CENTRALLY ABOUT THE GRATE.
3. ALL REINFORCING TO HAVE 50 MIN. CLEAR CONCRETE COVER.
4. FOR PITS DEEPER THAN 1000mm CLIMB RAILS SHALL BE PROVIDED.
5. ALL CONCRETE PITS GREATER THEN 3m DEEP SHALL HAVE WALL AND BASE THICKNESS INCREASED TO 200mm

INLET PIPE, REFER TO
 STORMWATER DRAWINGS
 FOR DETAILS.

OUTLET PIPE, REFER TO
 STORMWATER DRAWINGS
 FOR DETAILS.

ROCK RIP-RAP TO BE
 RECESSED INTO SURROUNDING
 LAND SURFACE. PROVIDE
 SMOOTH TRANSITION
 BETWEEN EXISTING GROUND
 AND SCOUR PROTECTION.

NEEDLE-PUNCHED
 GEOTEXTILE, AS NOTED.

DISSIPATER TO BE LEVEL ACROSS THE FULL
 WIDTH OF ROCK AT ITS TERMINATION POINT.

SECTION 1:50

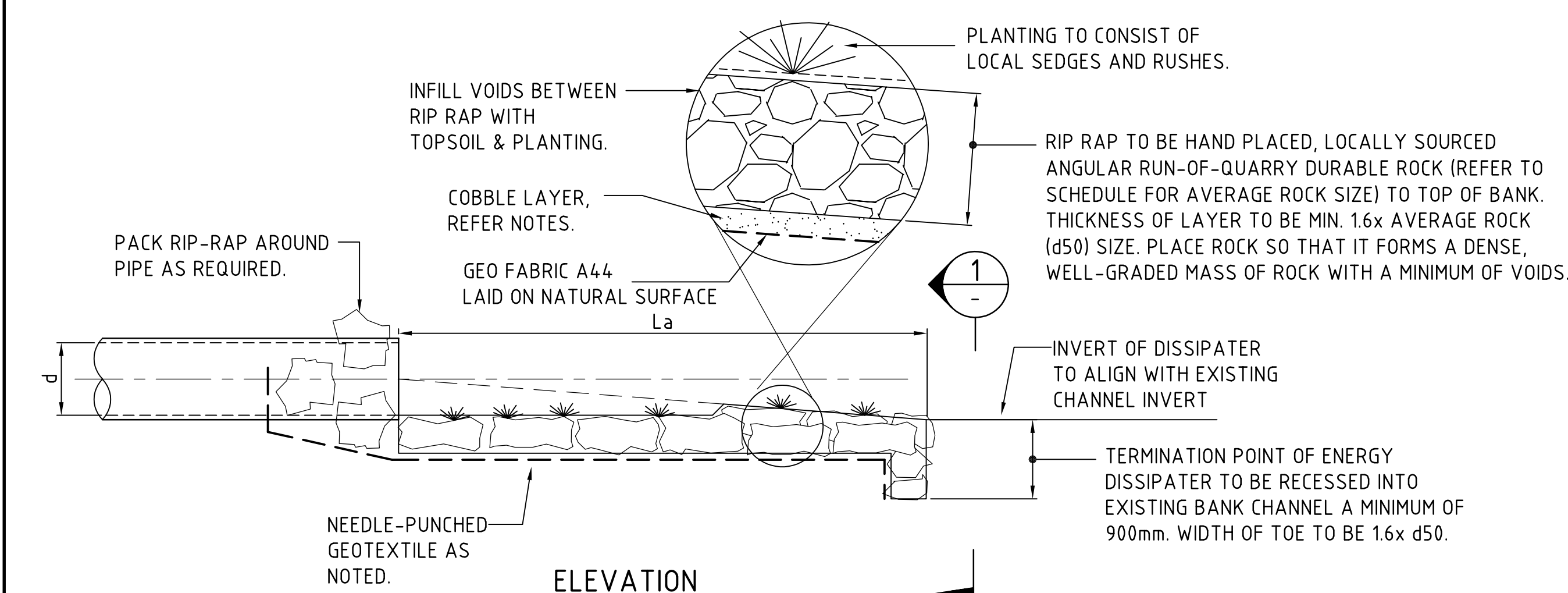
2
 200 MIN.

W

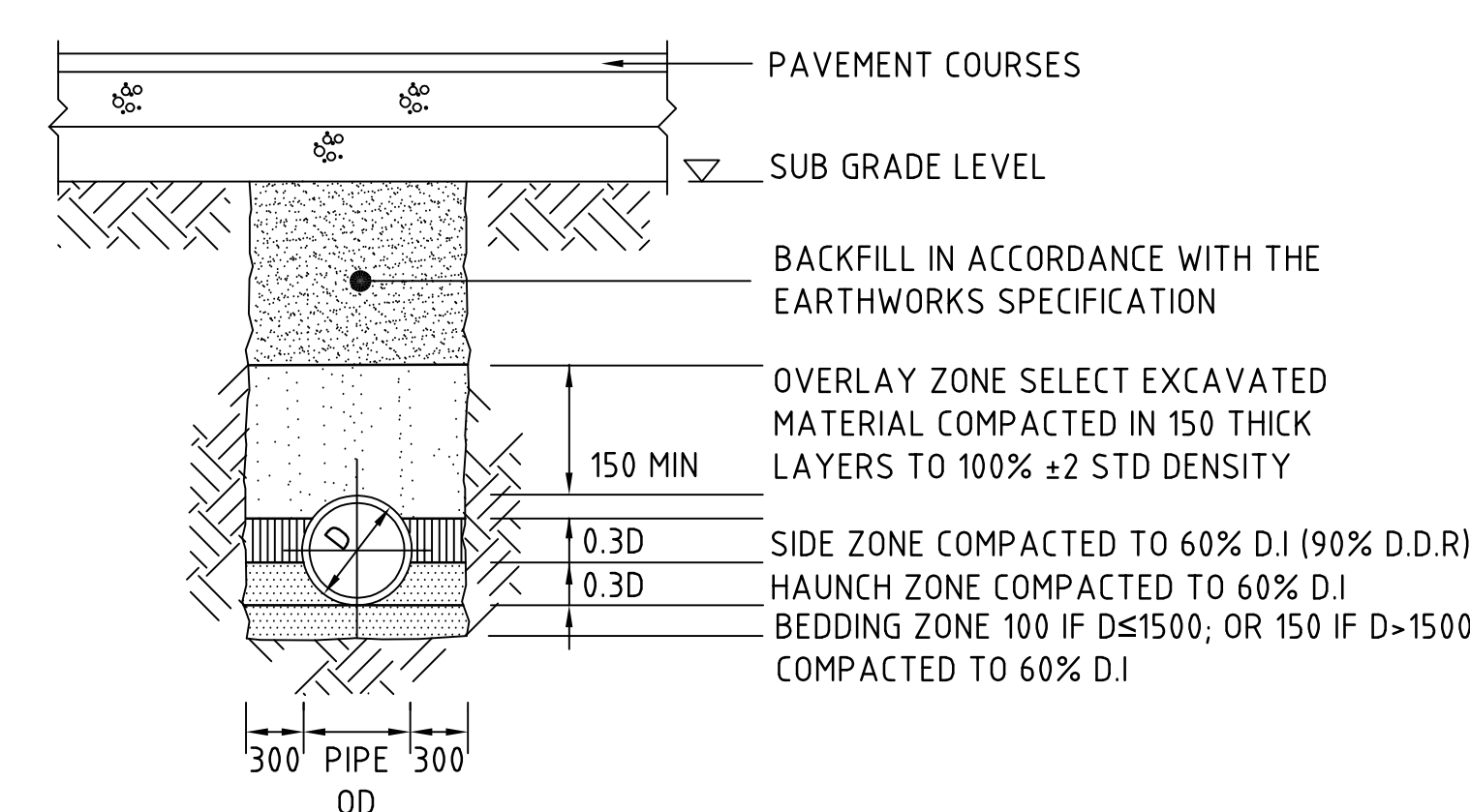
1 2
 100 MIN.

1. ALIGN STRUCTURE EVENLY WITH BANK.
2. LOCATE STRUCTURE AT INVERT LEVEL OF STREAM AND POINT IN A DOWNSTREAM DIRECTION.
3. PIPE TO REST ON, AND BE PACKED IN, BY RIP-RAP (SIZE AS NOTED).
4. DISCHARGE INTO STREAM WHERE BEDROCK IS PRESENT, OTHERWISE SCOUR PROTECT AS REQUIRED.
5. SCOUR PROTECT THE OPPOSITE BANK AS REQUIRED. SCOUR PROTECTION TO BE PROVIDED WHERE OPPOSITE BANK IS WITHIN 12-14 TIMES THE PIPE DIAMETER.
6. RIP-RAP TO CONSIST OF ANGULAR RUN-OF-QUARRY ROCK (d50= 300mm MINIMUM) AS NOTED IN THE SCHEDULE. RIP-RAP TO BE MINIMUM THICKNESS OF RIP-RAP LAYER TO BE 16x AVERAGE ROCK SIZE (d50).
7. RIP-RAP IS TO BE PLACED OVER A 200mm LAYER OF 140mm COBBLES OVER NEEDLE-PUNCHED GEOFAB A4.4.
8. PLACE ROCK SO THAT IT FORMS A DENSE, WELL-GRADED MASS OF ROCK WITH A MINIMUM OF VOIDS. THE FINISHED RIP-RAP SURFACE SHOULD BE FREE OF POCKETS OF SMALL ROCK OR CLUSTERS OF LARGE ROCKS.
9. GAPS IN RIP-RAP TO BE HAND PACKED WITH TOPSOIL & PLANTED WITH WEDGE SEDGES & RUSHES TO PROVIDE. THE INTENT IS FOR THERE TO BE NO VOIDS BETWEEN RIP-RAP BOULDERS.
10. ENSURE THE FINISHED ROCK SURFACE BLENDS WITH THE SURROUNDING GROUND LEVELS. NO OVERFALL OR PROTRUSION OF ROCK SHOULD BE APPARENT.
11. ENSURE THAT STORMWATER FROM SURROUNDING GROUND IS FREE TO ENTER THE STRUCTURE WITHOUT CAUSING UNDESIRABLE PONDING OR SCOUR.

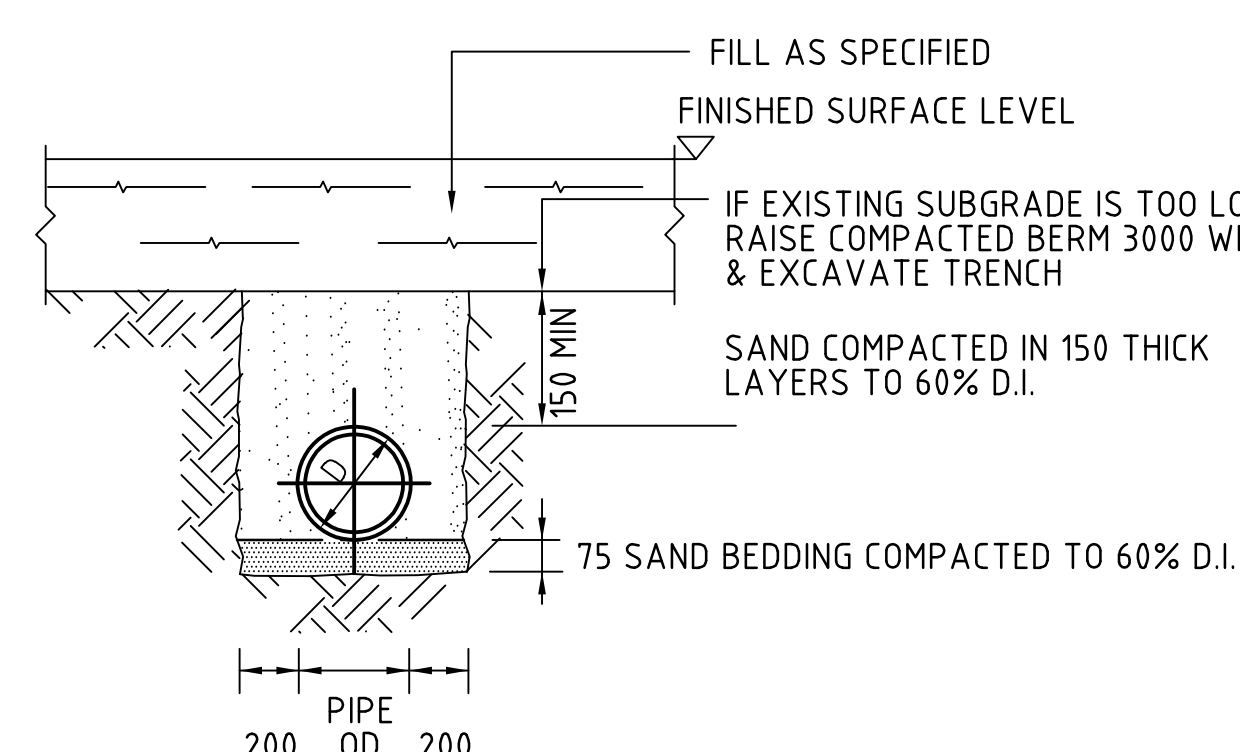
DISSIPATER SCHEDULE				
DISCHARGE POINT	d	La	W	RIP-RAP
OUTLET TYPE 1	1200	5000	3500	500



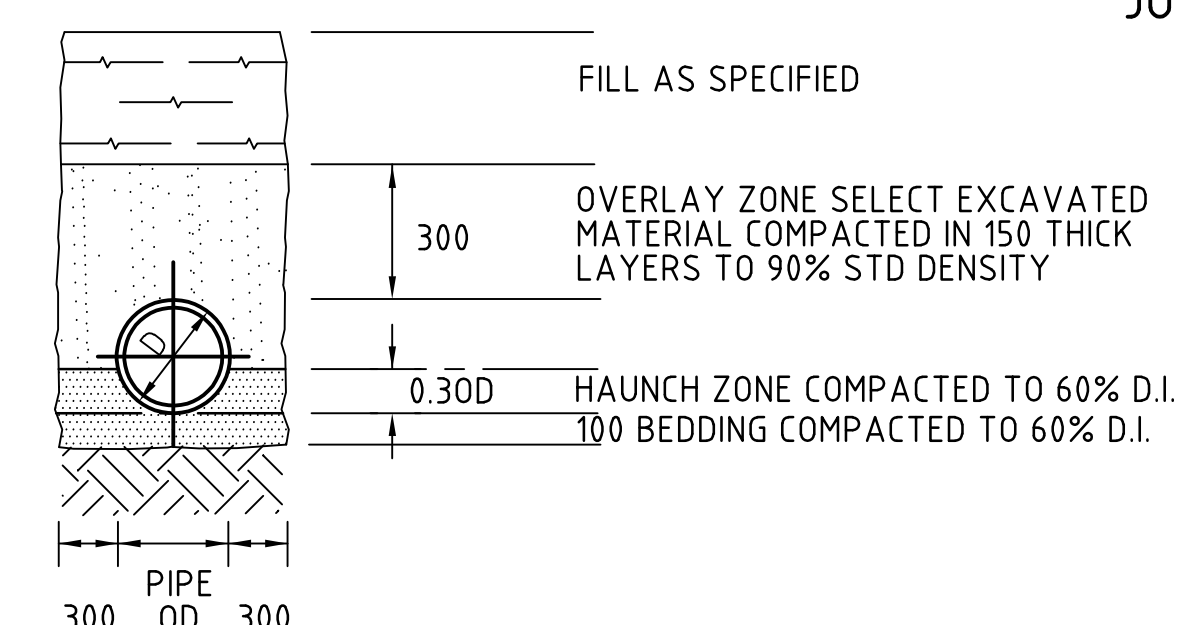
SCALE 1:50



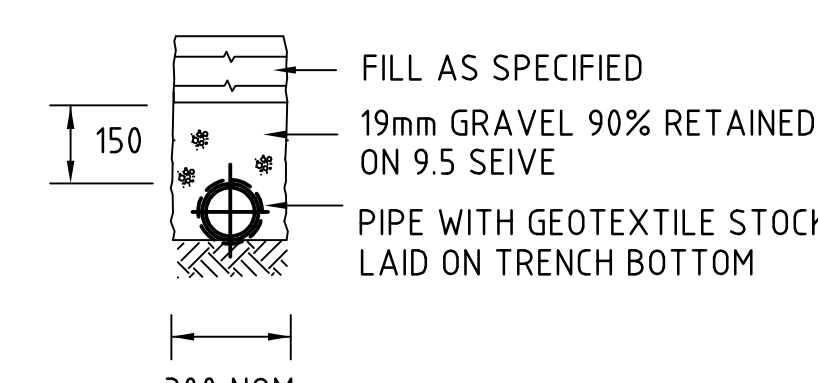
TYPE HS2 SUPPORT TO
CONCRETE PIPES
UNDER PAVEMENT



SUPPORT TO uPVC PIPES



TYPE H1 SUPPORT TO CONCRETE PIPES AT LANDSCAPED AREAS



SUPPORT TO AG. DRAIN

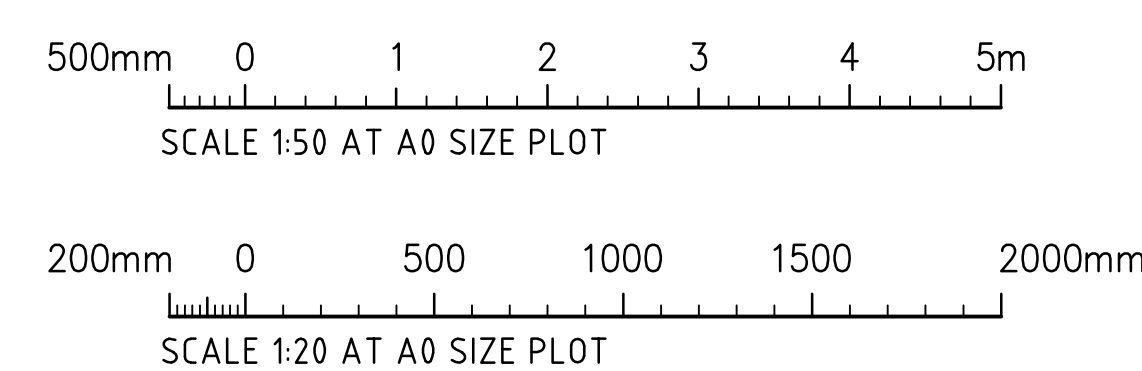
SIDE ZONE MATERIAL GRADING	
SIEVE SIZE	WEIGHT PASSING(%)
75	100
9.5	100 TO 50
2.36	100 TO 30
0.60	50 TO 15
0.075	25 TO 0

SELECT FILL MATERIAL IN ACCORDANCE WITH
TABLE 1 AS 3725

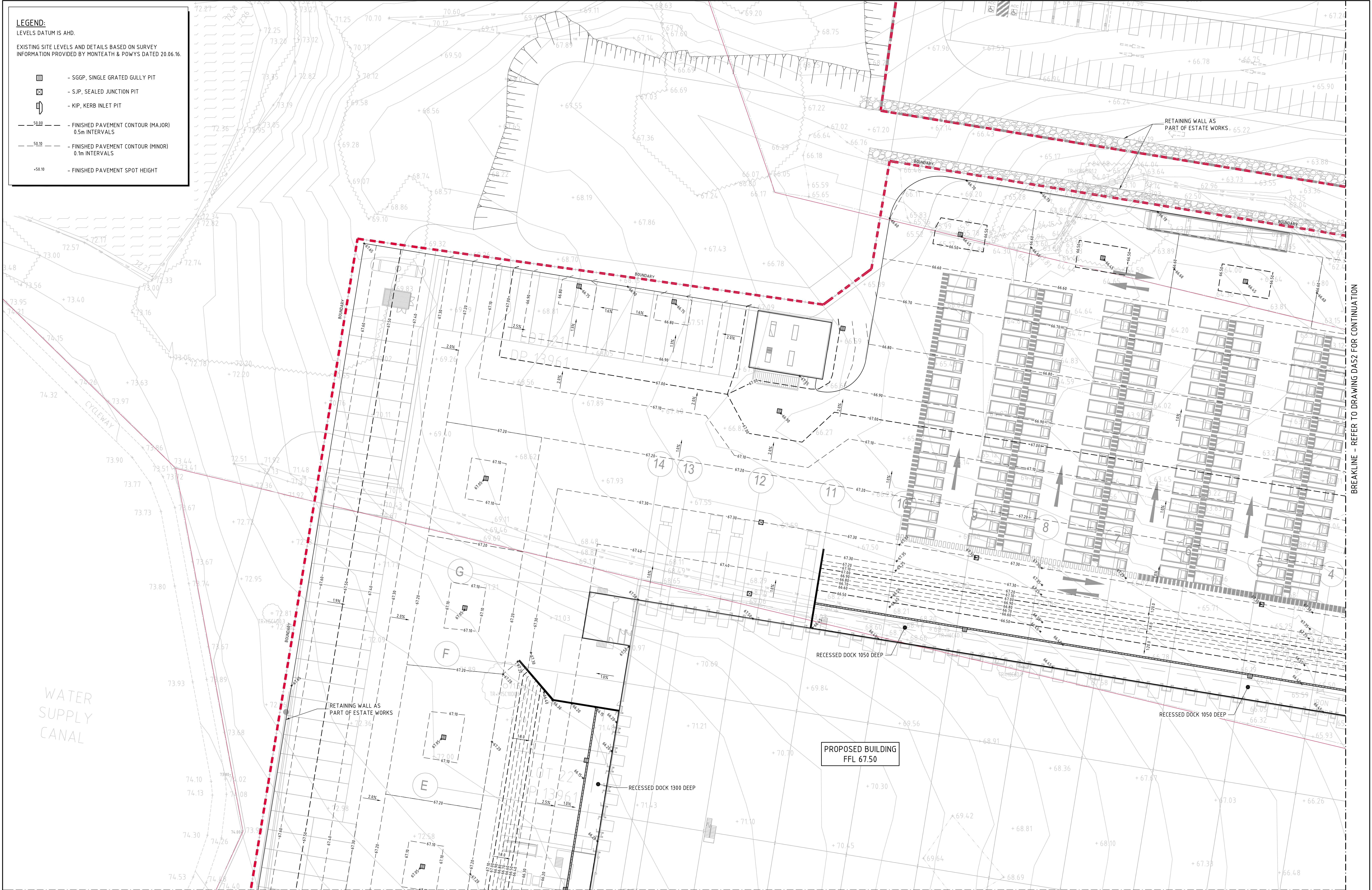
SIDE ZONE WIDTH	
PIPE SIZE	l_c (mm)
$\leq 900\phi$	150
1050 ϕ	175
1200 ϕ	200
1350 ϕ	225
1500 ϕ	250
1650 ϕ	275
1800 ϕ	300

REFER TO ENGINEER FOR TRENCH
WIDTHS FOR PIPE SIZES GREATER
THAN 1800 ϕ

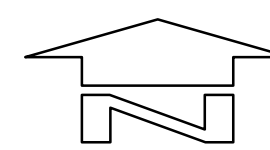
BEDDING & HAUNCH MATERIAL GRADING	
SIEVE SIZE	WEIGHT PASSING(%)
19	100
2.36	100 TO 50
0.60	90 TO 20
0.30	60 TO 10
0.15	25 TO 0
0.075	10 TO 0



1:20



BREAKLINE - REFER TO DRAWING DA53 FOR CONTINUATION



FINISHED LEVELS PLAN - SHEET 1
SCALE 1:250

FOR DEVELOPMENT APPLICATION

2m 0 5 10 15 20 25m
SCALE 1:250 AT A0 SIZE PLOT

FOR DEVELOPMENT APPLICATION	29.01.20	B
FOR INFORMATION ONLY	20.12.19	A
AMENDMENTS	DATE	ISSUE
AMENDMENTS	DATE	ISSUE

FDC
BUILDING SERVICES PTY LIMITED
22-24 Junction Street, Forest Lodge NSW 2037
Ph: (02) 9558 2552 Fax: (02) 9558 2000
ACN 055 267 788

ARCHITECT
LEFFLER SIMESARCHITECTS

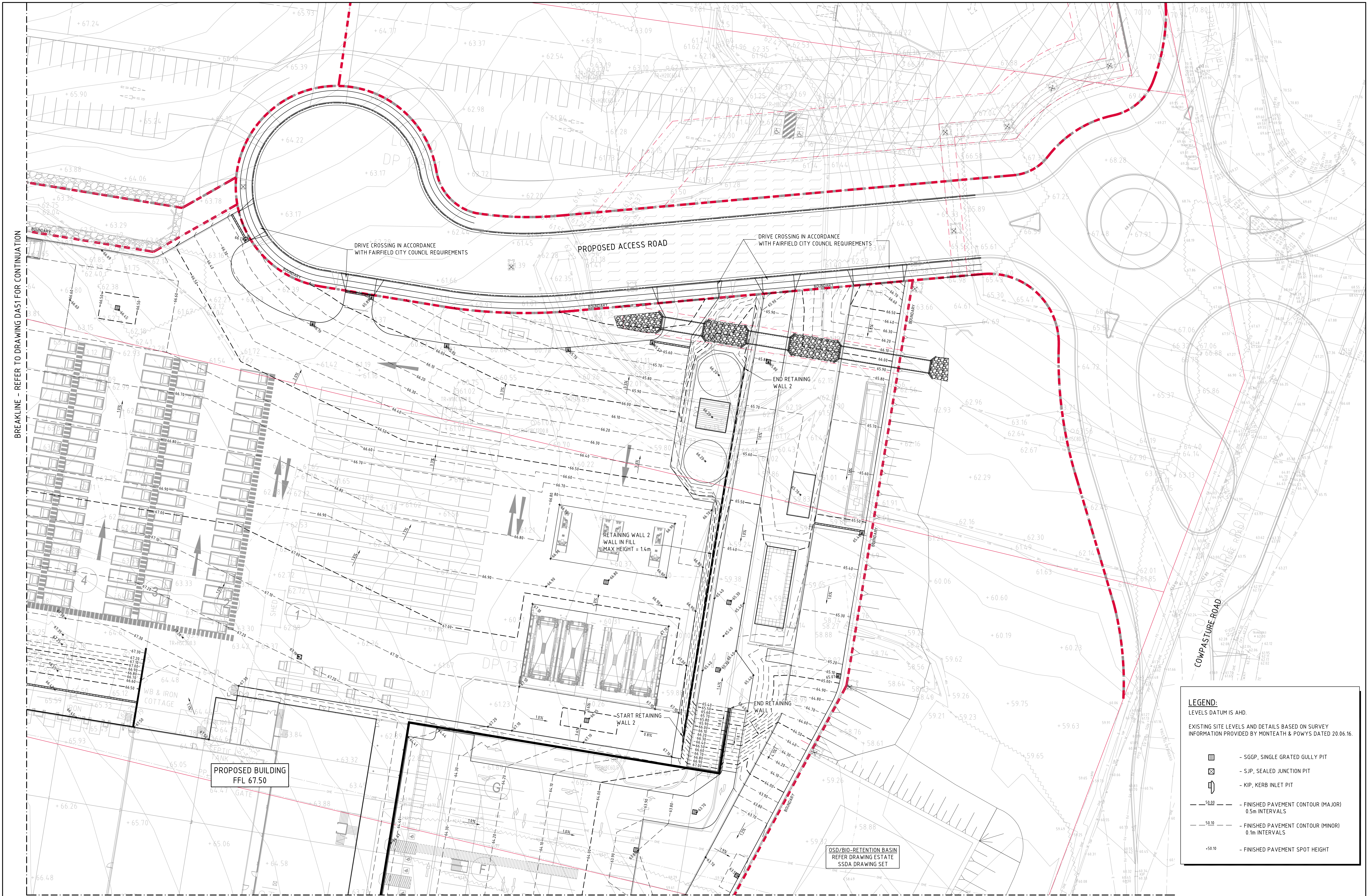
DEVELOPER
Charter Hall

PROJECT
PROPOSED DISTRIBUTION CENTRE
HORSLEY DRIVE BUSINESS PARK
WETHERILL PARK, NSW
DESIGNED: M.C. DATE: DEC 19 CHECKED: M.W. SCALE: A0 AS SHOWN CAD REF: C0114.92.18-DA51

COSTIN ROE CONSULTING PTY LTD.
Consulting Engineers
Level 1, 8 Windmill Street
Wahbah Bay, Sydney NSW 2000
Tel: (02) 9551-7699 Fax: (02) 9541-3721
email: mail@costinroe.com.au ©

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DRAWING TITLE
FINISHED LEVELS PLAN
SHEET 1
DRAWING No: C0114.92.18- DA51 ISSUE: B



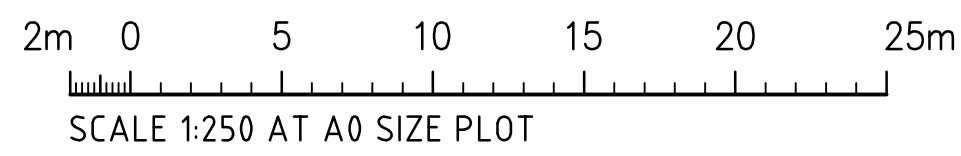
BREAKLINE - REFER TO DRAWING DA51 FOR CONTINUATION

BREAKLINE - REFER TO DRAWING DA54 FOR CONTINUATION

LEGEND:
LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY
INFORMATION PROVIDED BY MONTEATH & POWYS DATED 20.06.16.

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- FINISHED PAVEMENT CONTOUR (MAJOR)
0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR)
0.1m INTERVALS
- FINISHED PAVEMENT SPOT HEIGHT



FOR DEVELOPMENT APPLICATION		29.01.20	B
FOR INFORMATION ONLY		20.12.19	A
AMENDMENTS	DATE	ISSUE	AMENDMENTS

FDC
BUILDING SERVICES PTY LIMITED
22-24 Junction Street, Forest Lodge NSW 2037
Ph: (02) 9586 2852 Fax: (02) 9586 2900
ACN 055 267 768

ARCHITECT
LEFFLER SIMESARCHITECTS

DEVELOPER
Charter Hall

PROJECT
**PROPOSED DISTRIBUTION CENTRE
HORSLEY DRIVE BUSINESS PARK
WETHERILL PARK, NSW**

Costin Roe Consulting Pty Ltd.
Consulting Engineers
Level 1, 8 Windmill Street
Wah Bay, Sydney NSW 2000
Tel: (02) 9551-7699 Fax: (02) 9541-3731
email: mail@costinroe.com.au ©

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DRAWING TITLE
**FINISHED LEVELS PLAN
SHEET 2**
DRAWING No **Co114.92.18- DA52** ISSUE **B**

BREAKLINE - REFER TO DRAWING DA51 FOR CONTINUATION

BREAKLINE - REFER TO DRAWING DA54 FOR CONTINUATION

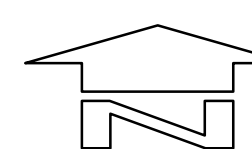


LEGEND:

LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY INFORMATION PROVIDED BY MONTEATH & POWS DATED 20.06.16.

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- FINISHED PAVEMENT SPOT HEIGHT



FINISHED LEVELS PLAN - SHEET 3
SCALE 1:250

FOR DEVELOPMENT APPLICATION

2m 0 5 10 15 20 25m
SCALE 1:250 AT A0 SIZE PLOT

FOR DEVELOPMENT APPLICATION	29.01.20	B
FOR INFORMATION ONLY	20.12.19	A
AMENDMENTS	DATE	ISSUE
AMENDMENTS	DATE	ISSUE

FDC
BUILDING SERVICES PTY LIMITED
22-24 Junction Street, Forest Lodge NSW 2037
Ph: (02) 9556 2552 Fax: (02) 9556 2000
ACN 055 267 788

ARCHITECT
LEFFLER SIMESARCHITECTS

DEVELOPER
Charter Hall

PROJECT
PROPOSED DISTRIBUTION CENTRE
HORSLEY DRIVE BUSINESS PARK
WETHERILL PARK, NSW

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DRAWING TITLE
FINISHED LEVELS PLAN
SHEET 3
DRAWING No. Co114.92.18- DA53
ISSUE B

BREAKLINE - REFER TO DRAWING DA52 FOR CONTINUATION

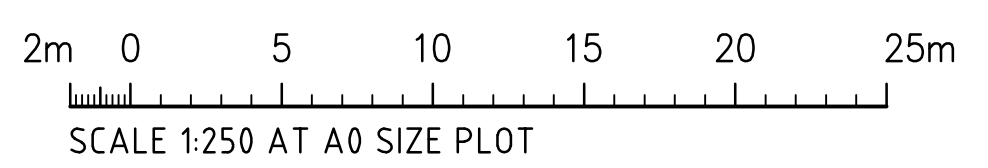
BREAKLINE - REFER TO DRAWING DA53 FOR CONTINUATION



LEGEND:
LEVELS DATUM IS AHD.

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- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- FINISHED PAVEMENT SPOT HEIGHT



FINISHES LEVELS PLAN - SHEET 4
SCALE 1:250

FOR DEVELOPMENT APPLICATION

FOR DEVELOPMENT APPLICATION	29.01.20	B
FOR INFORMATION ONLY	20.12.19	A
AMENDMENTS	DATE	ISSUE
AMENDMENTS	DATE	ISSUE

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ACN 055 267 788

ARCHITECT
LEFFLER SIMES ARCHITECTS

DEVELOPER
Charter Hall

PROJECT
PROPOSED DISTRIBUTION CENTRE
HORSLEY DRIVE BUSINESS PARK
WETHERILL PARK, NSW

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Level 1, 8 Windmill Street
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email: mail@costinroe.com.au ©

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DRAWING TITLE
FINISHED LEVELS PLAN SHEET 4
DRAWING No **Co114.92.18- DA54** ISSUE **B**