

**PIPEWORK**

- STW STORMWATER
- SS SUBSOIL
- DP DOWNPIPE
- OFF OVERFLOW PIPE
- EXISTING SERVICE
- EXISTING SERVICE TO BE DISCONNECTED AND REMOVED

**PIPEWORK SYMBOLS**

- R RISER
- D DROPPER
- COF CAPPED OFF
- HP HORIZONTAL PENETRATION
- DOF DIRECTION OF FLOW
- NC NEW CONNECTION
- C CONTINUATION
- MH MAN HOLE
- IO INSPECTION OPENING
- STWKP STORMWATER KERB INLET PIT
- STWIP STORMWATER INLET PIT
- GRD GRATED DRAIN
- SO SAFETY OVERFLOW
- SP SPREADER
- RWO RAINWATER OUTLET
- BRWO BALCONY RAINWATER OUTLET
- PRWO PLANTER RAINWATER OUTLET
- SRWO SPOON DRAIN RAINWATER OUTLET

**ABBREVIATIONS**

- FFL FINISH FLOOR LEVEL
- IL INVERT LEVEL
- RL REDUCED LEVEL
- UPVC UNPLASTICIZED POLYVINYL CHLORIDE
- NTS NOT TO SCALE
- UNO UNLESS NOTED OTHERWISE
- SQ SQUARE
- mm MILLIMETRES
- m METRES
- m2 SQUARE METRES
- m3 CUBIC METRES
- /sec PER SECOND
- MIN MINIMUM
- MAX MAXIMUM
- APPR APPROXIMATELY
- DIA DIAMETER
- EX EXISTING
- AHD AUSTRALIAN HEIGHT DATUM

**STORMWATER GENERAL NOTES**

ALL IN ACCORDANCE WITH COUNCIL'S STORMWATER REQUIREMENTS

**PIPEWORK DESIGN**

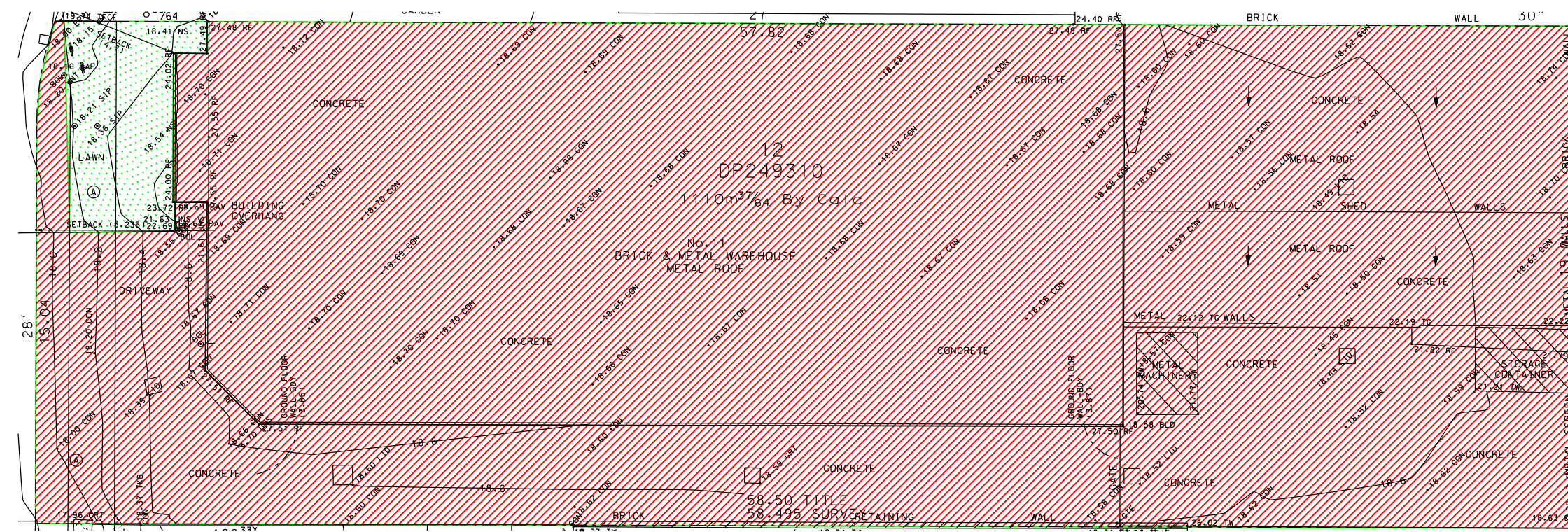
ALL PIPEWORK IS SIZED AND DESIGNED TO HANDLE A 1100 YEAR EVENT RAINFALL

**PIPEWORK**

ALL PIPEWORK TO BE 100mm @ 1% FALL (UNO)

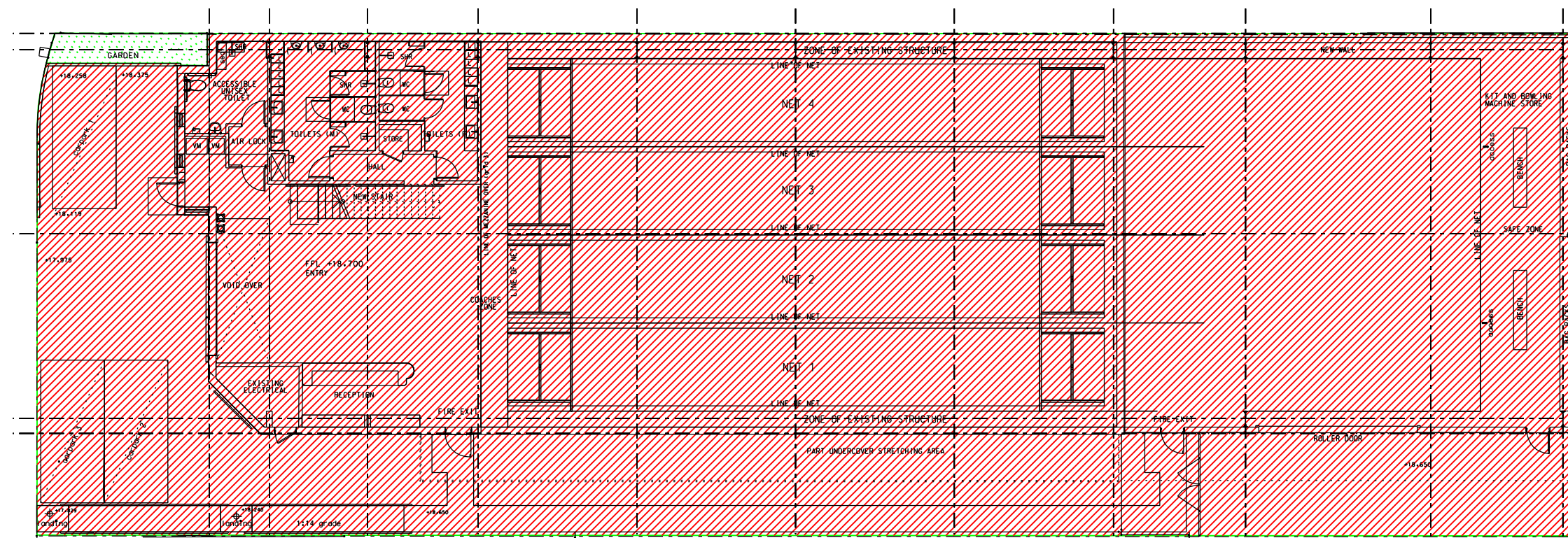
**STORMWATER PIT SIZES**

MINIMUM INTERNAL MEASUREMENTS:				
DEPTH TO BASE OF CHAMBER	RECTANGULAR WIDTH	RECTANGULAR LENGTH	CIRCULAR	LADDER / STEP IRON
SMALLER THAN 600	450	450	600	NO
601 TO 900	600	600	900	NO
901 TO 1200	600	900	1050	NO
GREATER THAN 1200	900	900	1050	YES



SYMBOL	CATCHMENT	IMPERVIOUS AREA	PERVIOUS AREA	PERCENTAGE
[Red Hatched]	ROOF AND PAVED AREAS	1076.4m <sup>2</sup>	-	96.8%
[Green Hatched]	DEEPSOIL LANDSCAPING	-	33.6m <sup>2</sup>	3.2%
<b>TOTAL</b>		1110m <sup>2</sup>		100%

**PRE DEVELOPED CATCHMENT AREAS**



SYMBOL	CATCHMENT	IMPERVIOUS AREA	PERVIOUS AREA	PERCENTAGE
[Red Hatched]	ROOF AND PAVED AREAS	1101.9m <sup>2</sup>	-	99.3%
[Green Hatched]	DEEPSOIL LANDSCAPING	-	8.1m <sup>2</sup>	0.7%
<b>TOTAL</b>		1110m <sup>2</sup>		100%

**POST DEVELOPED CATCHMENT AREAS**

**NORTHERN BEACHES COUNCIL NOTES**

**PROPOSED WORKS**  
CONVERSION OF EXISTING FACTORY BUILDING TO INDOOR CRICKET FACILITY (ALTERATIONS AND ADDITIONS / CHANGE OF USE)

**ON SITE DETENTION**  
THE EXISTING SITE IS 96.8% IMPERVIOUS GIVEN THAT THE SITE IS ALMOST 100% IMPERVIOUS AND GIVEN THAT THERE IS ONLY A SMALL INCREASE IN IMPERVIOUS AREAS (99.3%) EXEMPTION FROM ON SITE DETENTION IS REQUESTED

**STORMWATER GENERAL NOTES**

ALL IN ACCORDANCE WITH COUNCIL'S STORMWATER REQUIREMENTS

**PIPEWORK DESIGN**

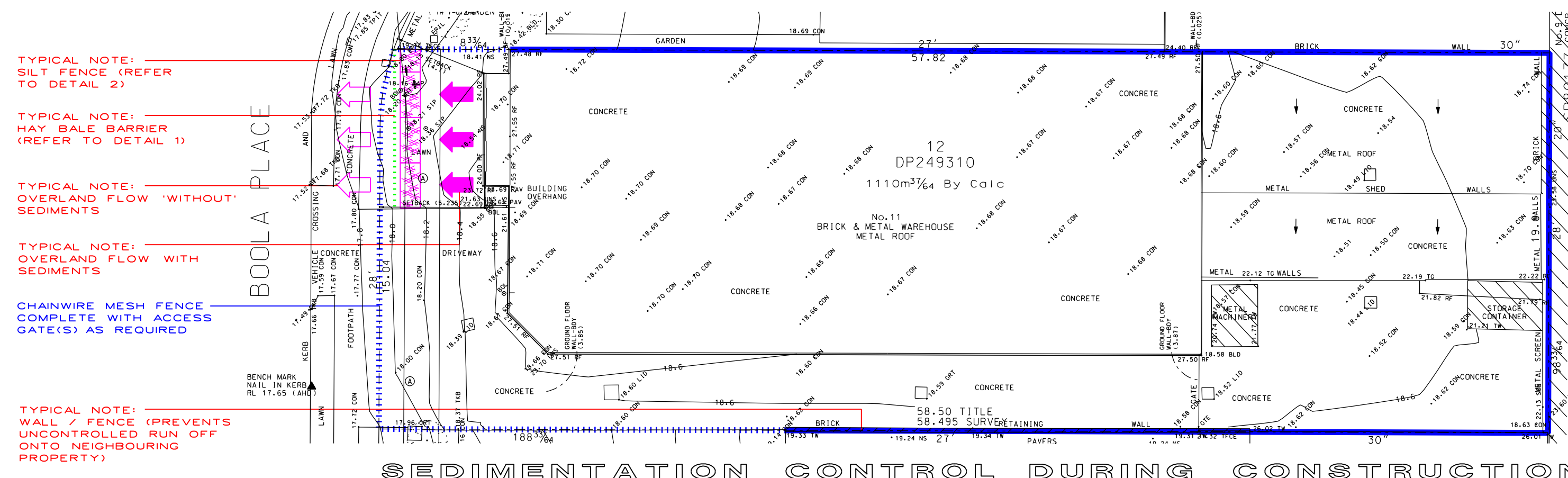
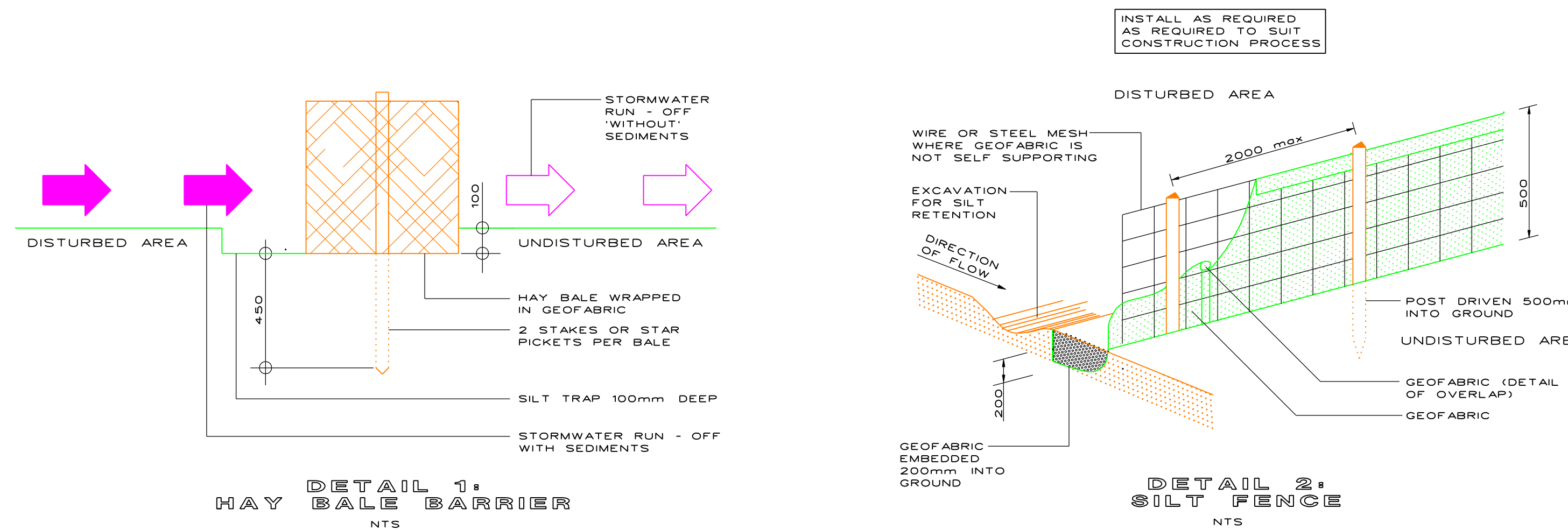
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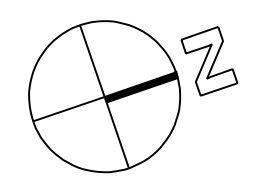
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**STORMWATER PIT SIZES**

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SMALLER THAN 600	450	450	600	NO
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901 TO 1200	600	900	1050	NO
GREATER THAN 1200	900	900	1050	YES



APPROVAL



REV	DESCRIPTION	DATE
B	RE - ISSUED FOR DA	28.08.23
A	ISSUED FOR DA	25.08.23

CLIENT THE BOOLA PLACE TRUST

ARCHITECT CORBEN ARCHITECTS

PROJECT 11 BOOLA PLACE CROMER

DRAWING TITLE LEGEND, CATCHMENT CALCS. AND SED. CONTROL

SCALE 1:200 @ A1 / 1:400 @ A3 JOB No 21/71

DISCIPLINE HYD DRAWING No H-DA-00 REVISION 8

**itmdesign** itd  
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po box 1438 mono vale nsw 1660  
tel (02) 9997 1566 fax (02) 9997 3266  
email: markus@itmdesign.com.au

STW DRAWING



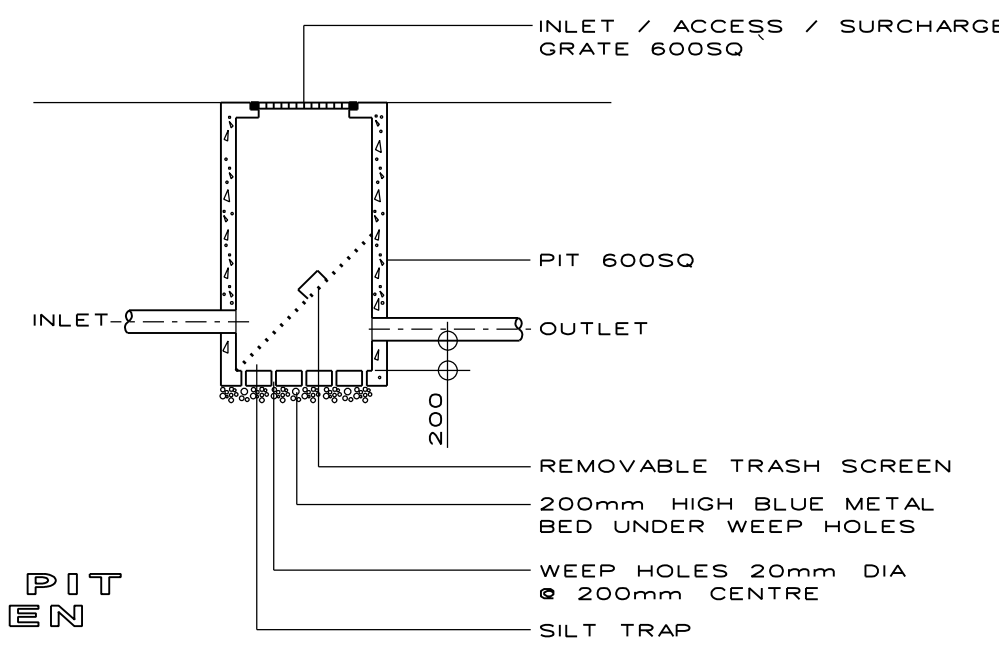
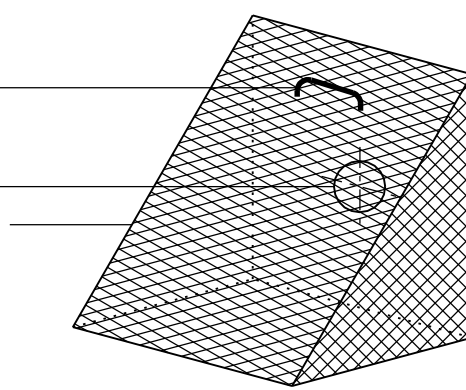
**STORMWATER DA  
DRAWING ONLY**

- NOT FOR CONSTRUCTION  
- FINAL LOCATION OF ALL DOWNPIPES, PITS, RAINWATER OUTLETS AND SUBSOIL PIPES TO BE CONFIRMED DURING CONSTRUCTION CERTIFICATE STAGE OF THE PROPOSED DEVELOPMENT

**EXISTING DRAINAGE**

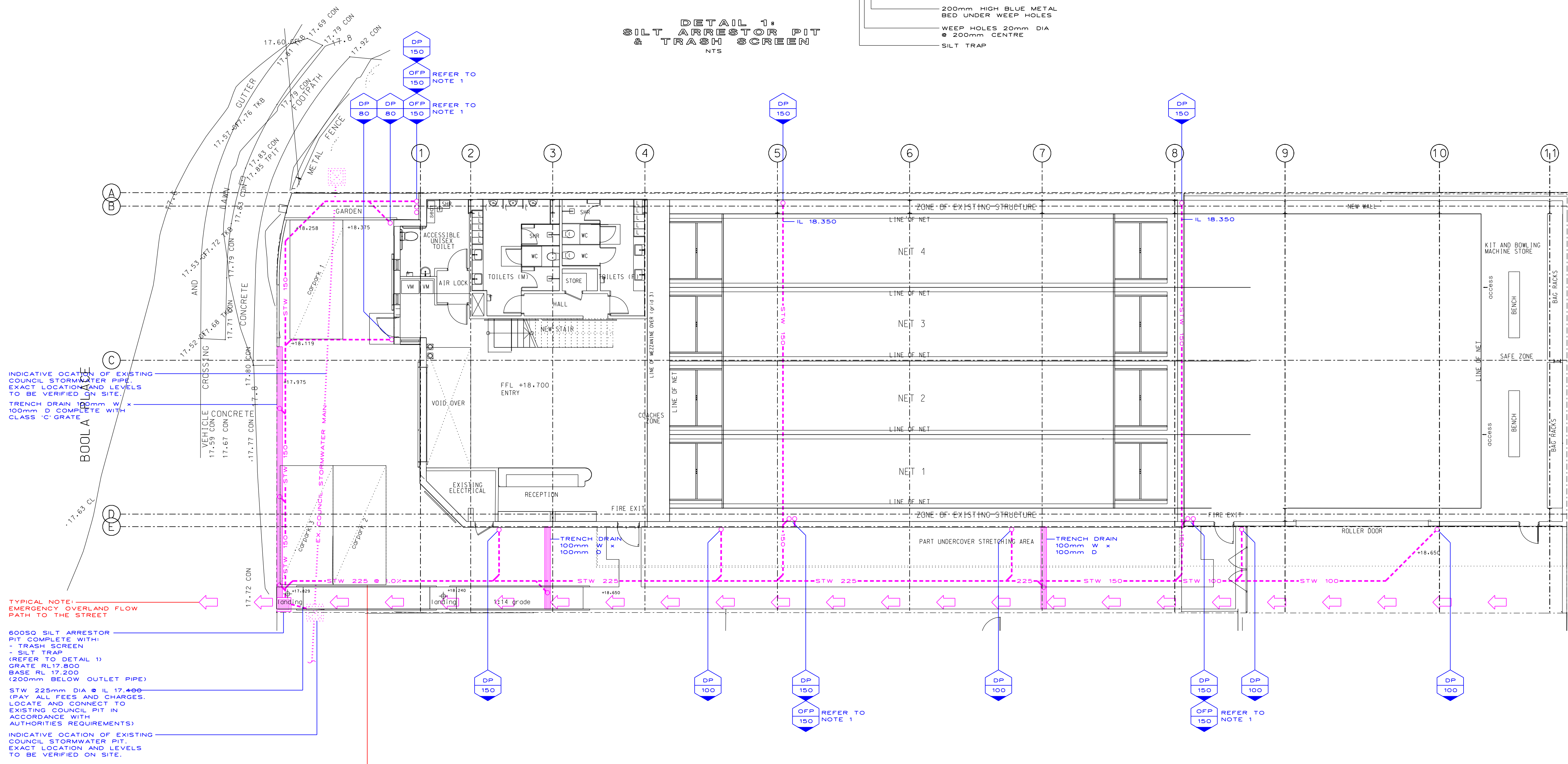
DURING DEMOLITION / CONSTRUCTION ALLOW TO INVESTIGATE EXACT LOCATION, SIZE AND CONDITION OF ALL DRAINAGE PIPES. LIAISE WITH *itm* design TO DISCUSS THE FINDINGS. ALLOW TO REPLACE / UPGRADE AS REQUIRED.

HANDLE  
OUTLET BEHIND  
TRASH SCREEN TO PROTECT THE OUTLET & DOWNSTREAM DRAINAGE SYSTEM  
MATERIAL: STAINLESS STEEL OR GALVANISED MESH SCREEN (MAXIMESH RH 3030 OR EQUIVALENT)  
PLACEMENT: SCREEN MUST BE PLACED SO THAT THE LONG AXIS OF THE OVAL SHAPED HOLES ARE HORIZONTAL WITH THE PROTRUDING LIP ANGLED UPWARDS AND FACING DOWNSTREAM



**DETAIL 1:  
SILT ARRESTOR PIT  
& TRASH SCREEN**  
NTS

**NOTES**  
FOR GENERAL NOTES AND LEGEND REFER TO DRAWING H - DA - 00  
1 EMERGENCY OVERFLOW PIPE FROM BOX GUTTER ABOVE TO DISCHARGE AT LOW LEVEL IN VISIBLE / EXTERNAL LOCATION.



TYPICAL NOTE:  
EMERGENCY OVERLAND FLOW PATH TO THE STREET

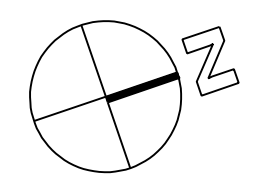
600SQ SILT ARRESTOR PIT COMPLETE WITH:  
- TRASH SCREEN  
- SILT TRAP  
(REFER TO DETAIL 1)  
GRATE RL 17.500  
BASE RL 17.200  
(200mm BELOW OUTLET PIPE)

STW 225mm DIA @ IL 17.400  
(PAY ALL FEES AND CHARGES. LOCATE AND CONNECT TO EXISTING COUNCIL PIT IN ACCORDANCE WITH AUTHORITIES REQUIREMENTS)

INDICATIVE LOCATION OF EXISTING COUNCIL STORMWATER PIT. EXACT LOCATION AND LEVELS TO BE VERIFIED ON SITE.

TYPICAL NOTE:  
ALL DRAINAGE PIPEWORK TO BE PVC MATERIAL INSTALLED AT MIN. 1.0% FALL

APPROVAL



CLIENT THE BOOLA PLACE TRUST	ARCHITECT CORBEN ARCHITECTS	PROJECT 11 BOOLA PLACE CROMER	DRAWING TITLE LEVEL 01 STORMWATER DRAINAGE
<p>consulting hydraulic engineers unit 6 / 3 apollo st, warriewood nsw 2102 po box 1438 manly vale nsw 1560 tel: (02) 9997 1566 fax: (02) 9997 3266 email: markus@itmdesign.com.au</p>		SCALE 1:100 @ A1 / 1:200 @ A3	JOB No 21/71
DISCIPLINE HYD		DRAWING No H-DA-01	REVISION B

REV	DESCRIPTION	DATE
B	RE - ISSUED FOR DA	28.08.23
A	ISSUED FOR DA	25.08.23

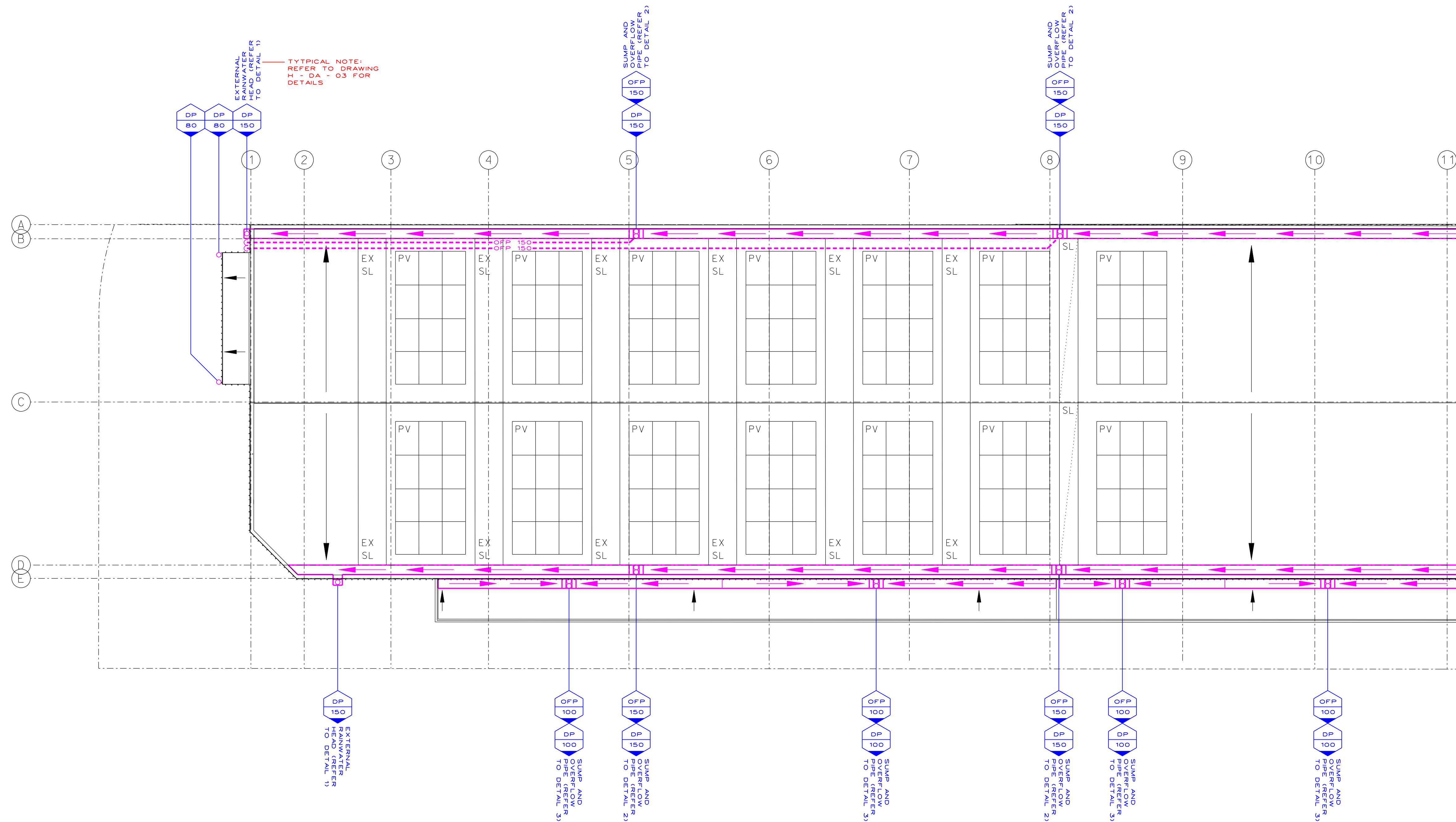
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STW DA DRAWING

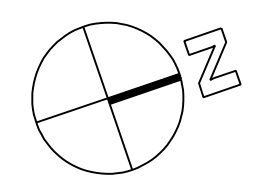
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AND SUBSOIL PIPES TO BE CONFIRMED DURING CONSTRUCTION  
CERTIFICATE STAGE OF THE PROPOSED DEVELOPMENT

**NOTES**  
FOR GENERAL NOTES AND LEGEND  
REFER TO DRAWING H - DA - 00



APPROVAL



REV	DESCRIPTION	DATE
A	ISSUED FOR DA	25.08.23

CLIENT  
THE BOOLA PLACE TRUST

ARCHITECT  
CORBEN ARCHITECTS

PROJECT  
11 BOOLA PLACE  
CROMER

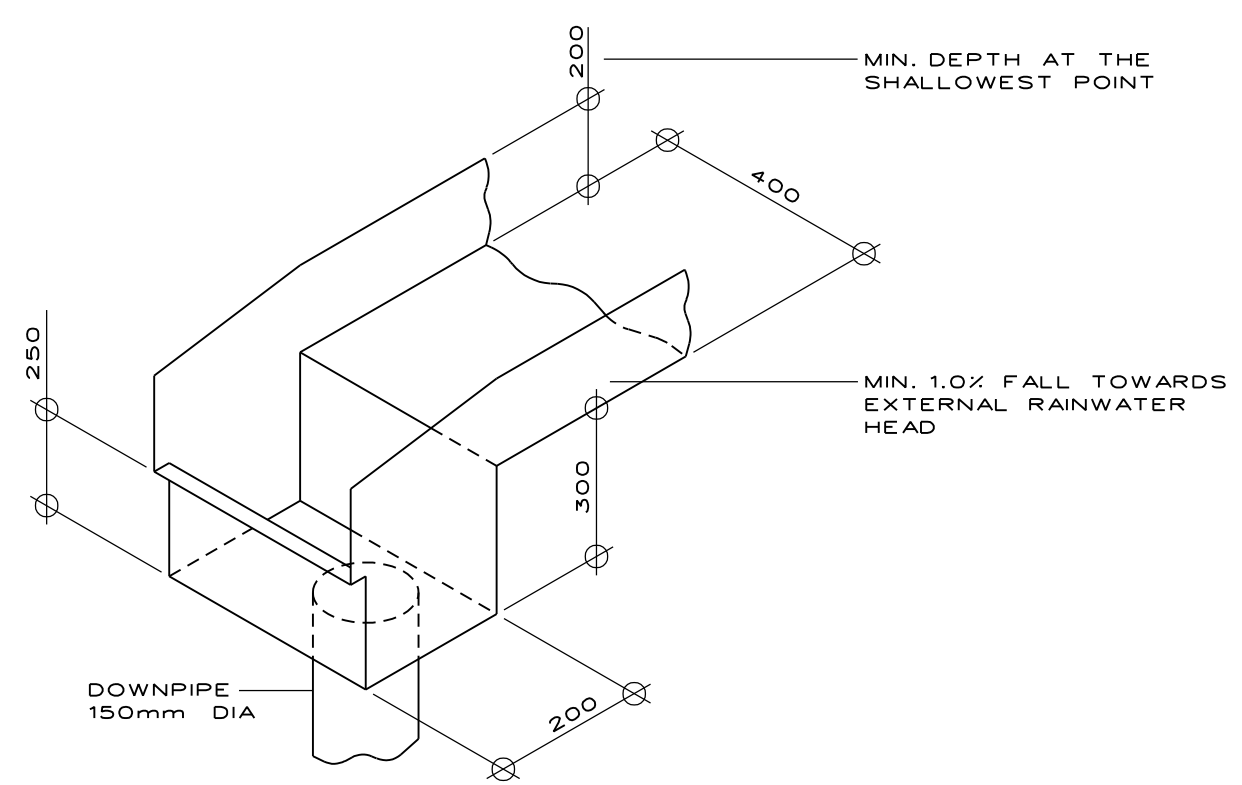
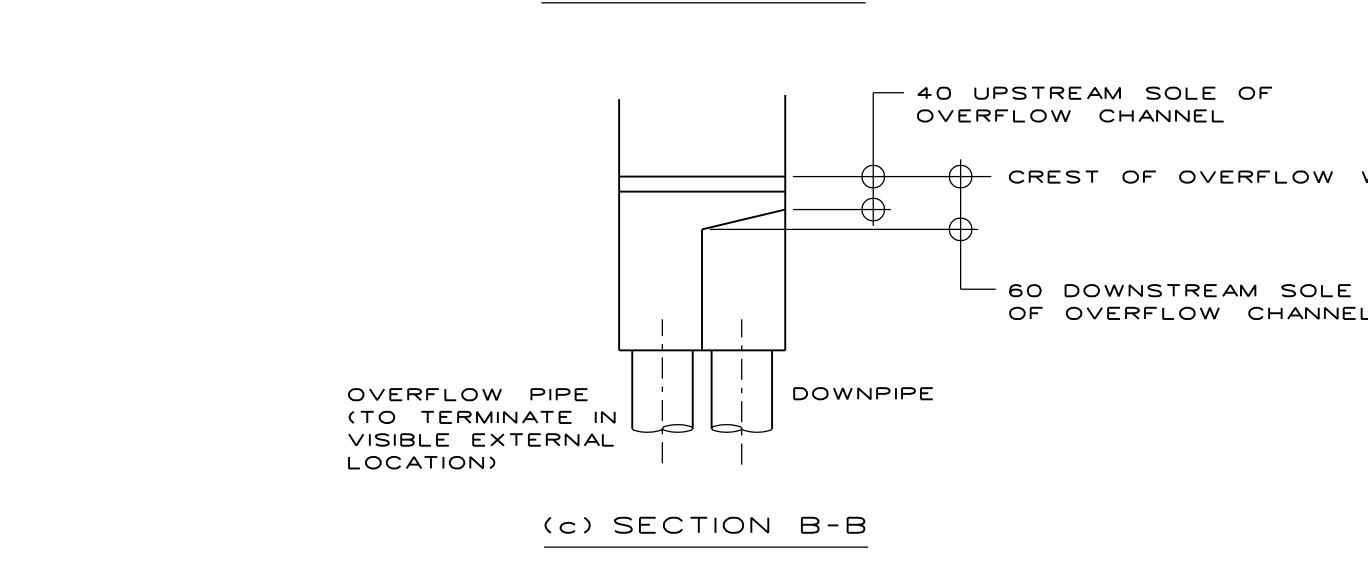
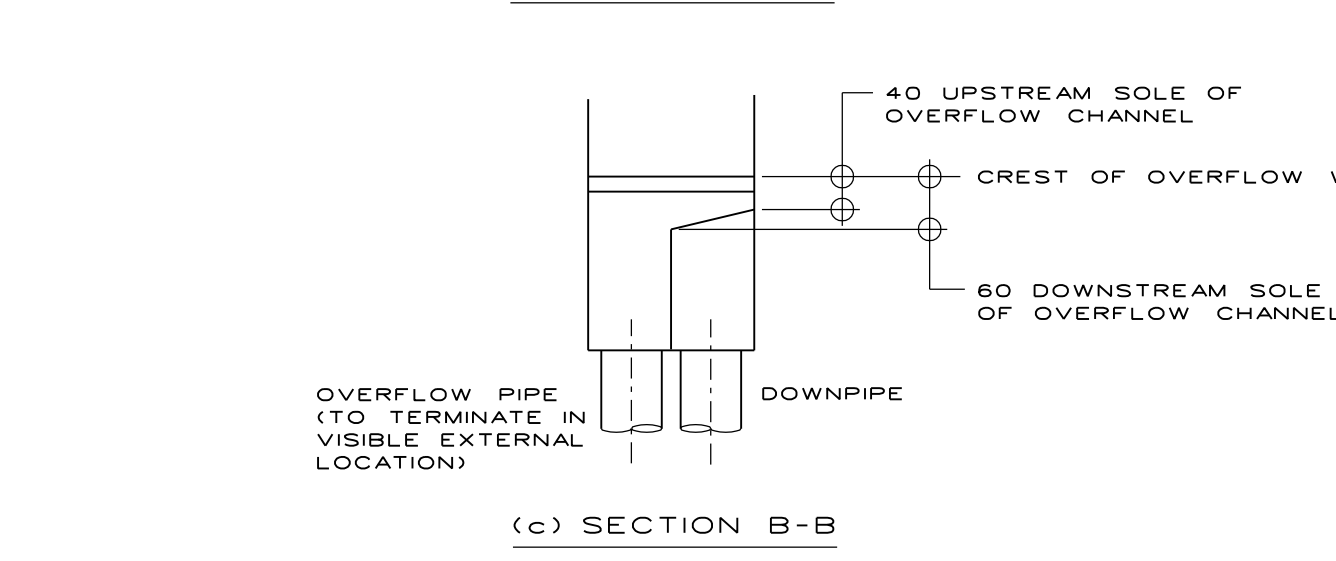
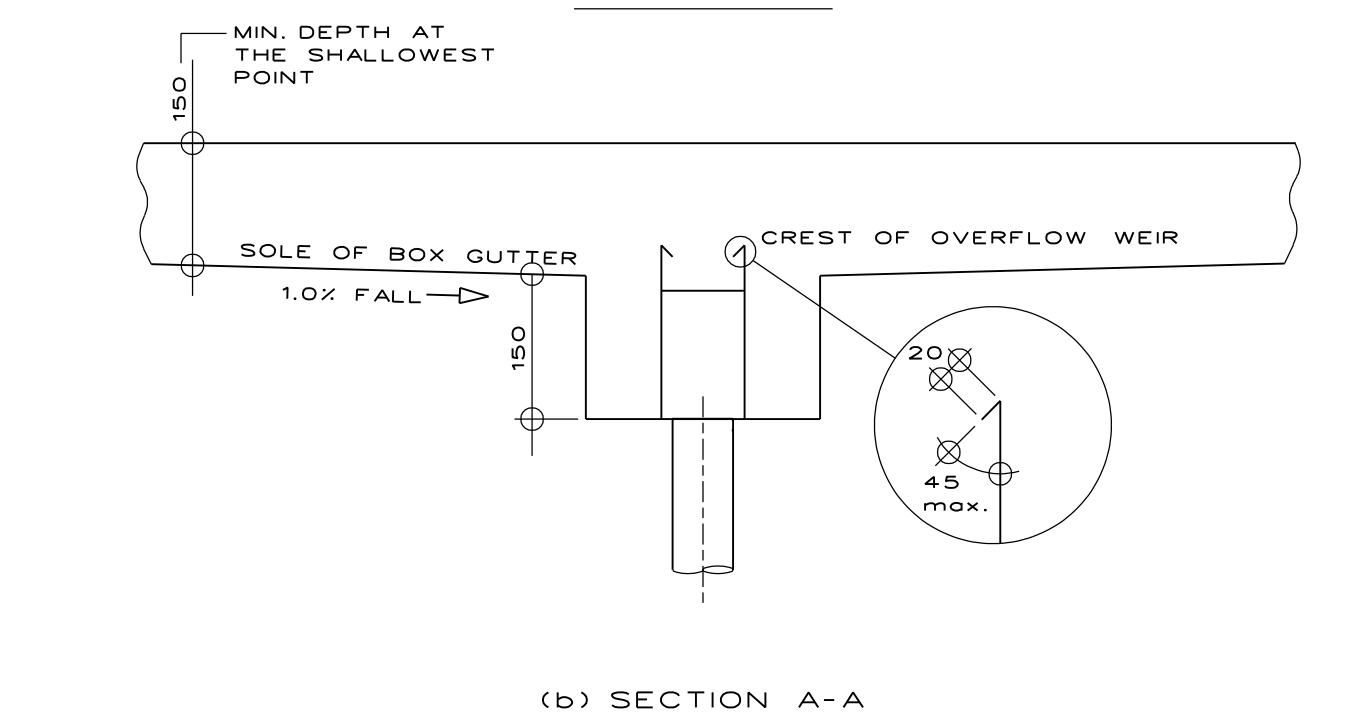
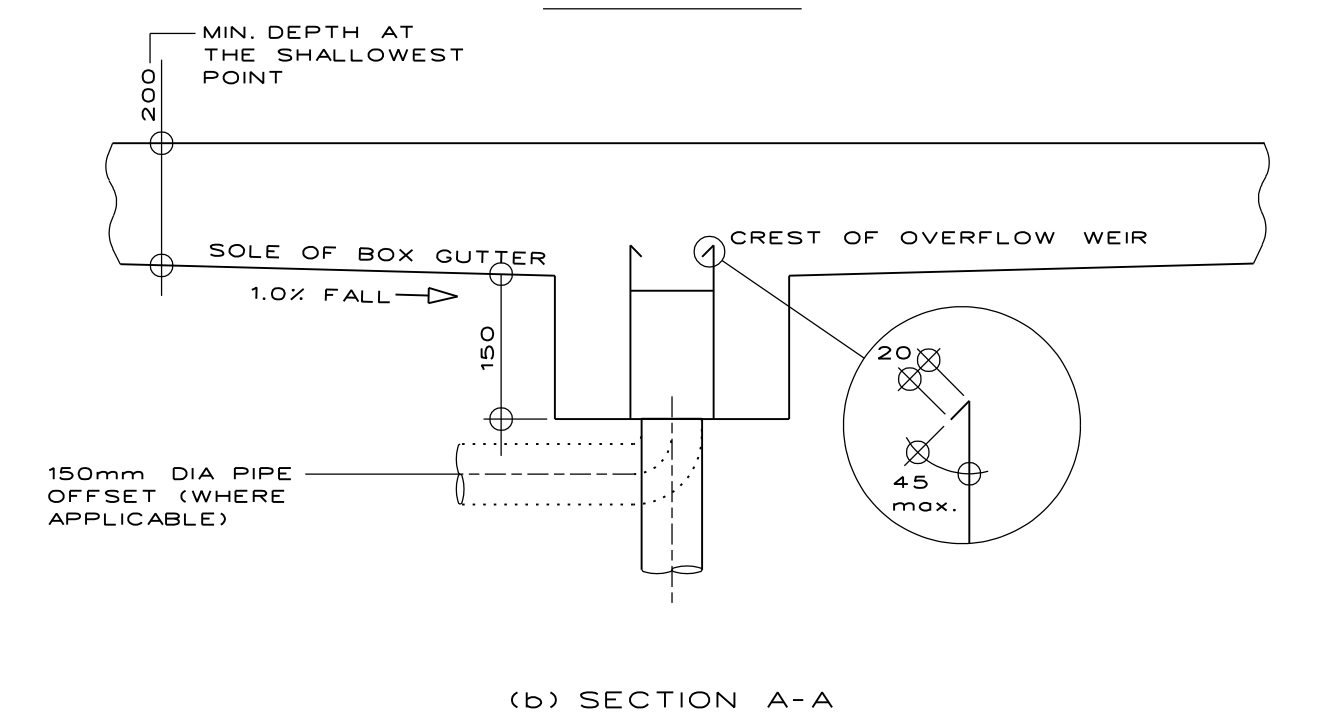
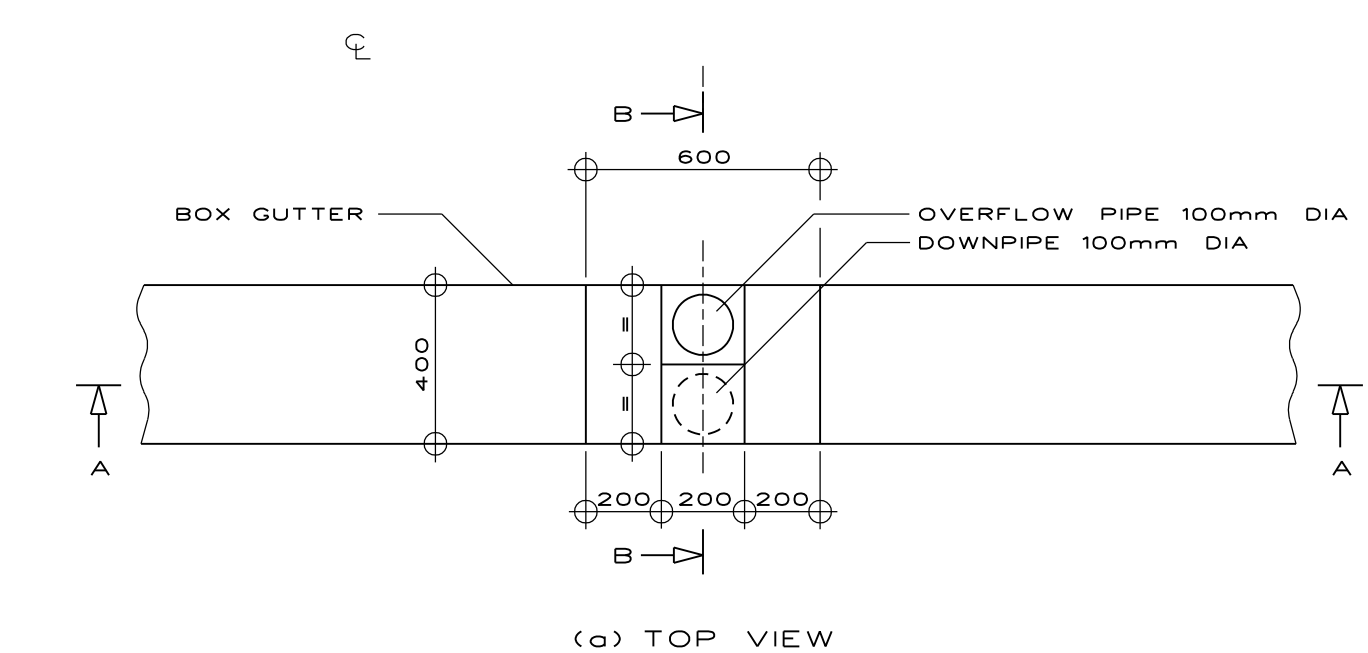
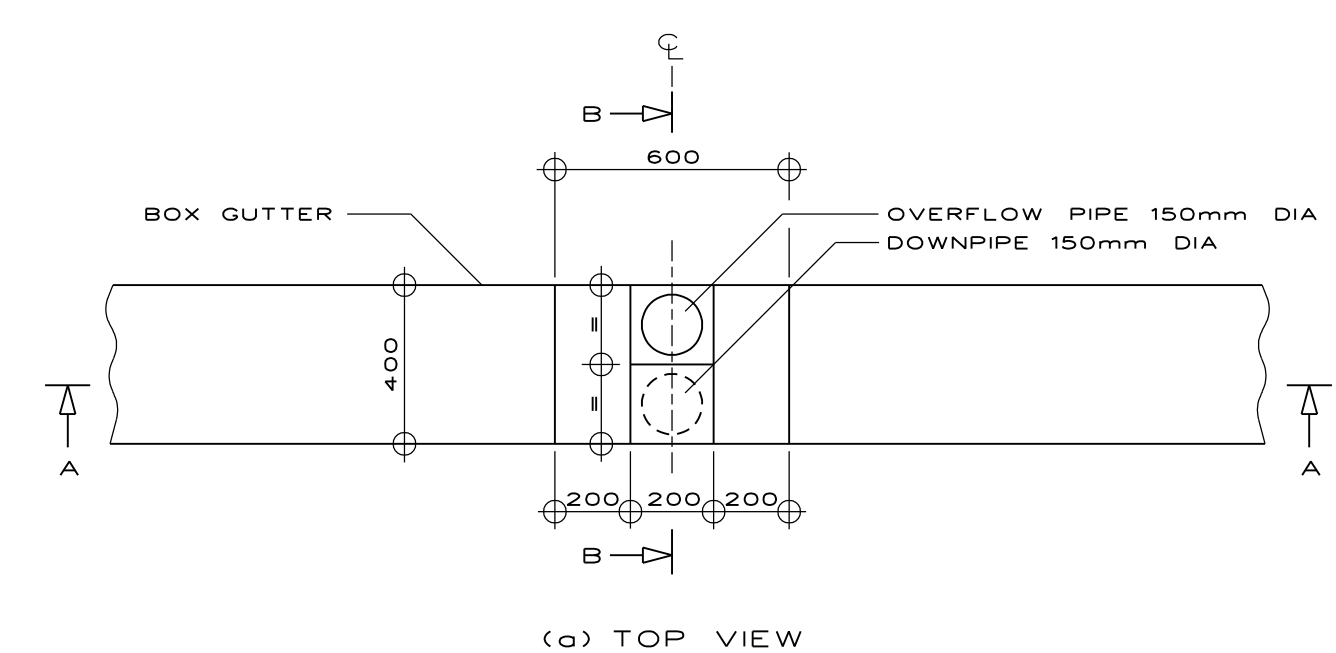
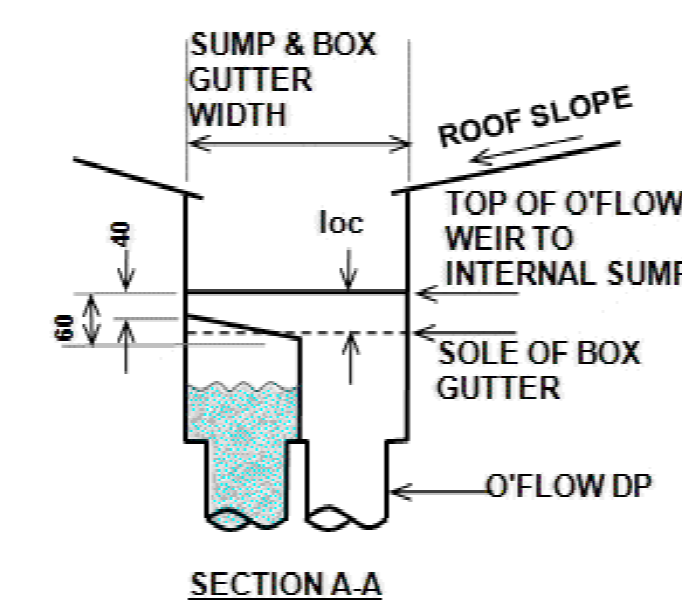
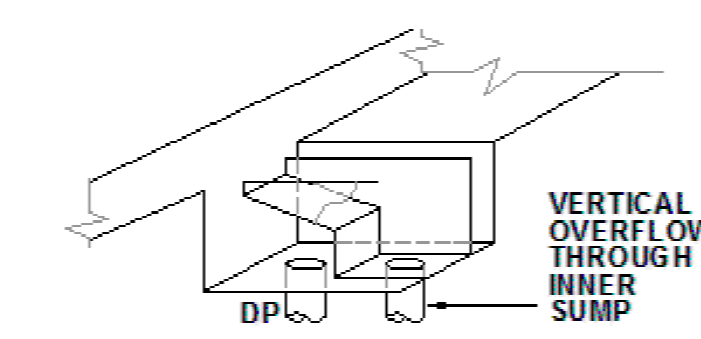
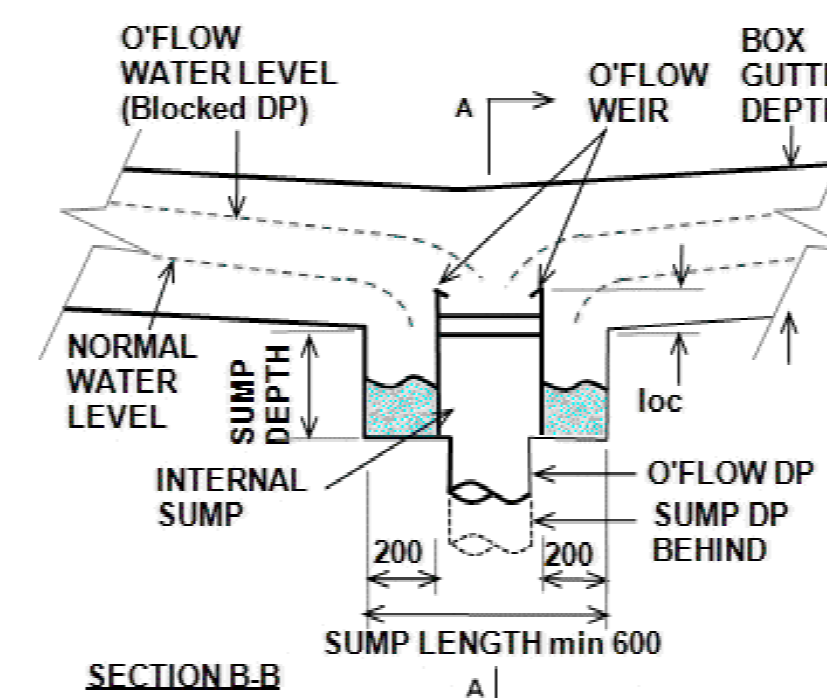
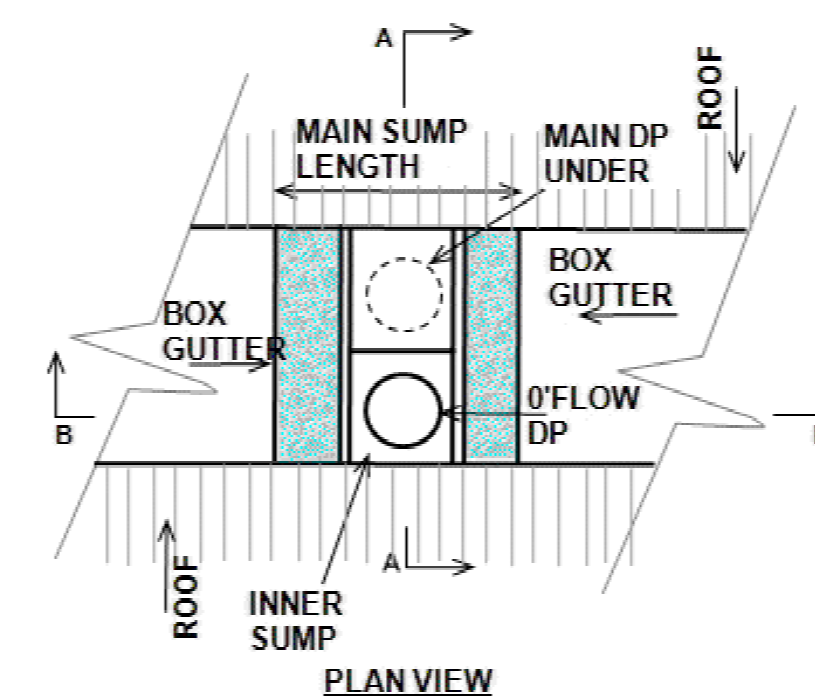
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DRAWING TITLE  
ROOF  
STORMWATER  
DRAINAGE

SCALE 1:100 @ A1 / 1:200 @ A3	JOB No 21/71
DISCIPLINE HYD	DRAWING No H-DA-02
	REVISION A

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

STW DA DRAWING



NOTES:  
- Width of rainhead is equal to the width of box gutter  
- The rainhead to be fully sealed to the box gutter and the front of the rainhead left open above the overflow weir

DETAIL 1:  
BOX GUTTER WITH EXTERNAL RAINWATER HEAD  
NTS

DETAIL 2:  
BOX GUTTER WITH SUMP AND PIPED OVERFLOW  
NTS

DETAIL 3:  
BOX GUTTER WITH SUMP AND PIPED OVERFLOW  
NTS

APPROVAL

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B	RE - ISSUED FOR DA	28.08.23
A	ISSUED FOR DA	25.08.23

CLIENT	THE BOOLA PLACE TRUST
ARCHITECT	CORBEN ARCHITECTS
PROJECT	11 BOOLA PLACE CROMER

CLIENT	THE BOOLA PLACE TRUST
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PROJECT	11 BOOLA PLACE CROMER

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DISCIPLINE	HYD
DRAWING No	H-DA-03
REVISION	B

DRAWING TITLE	GUTTER DETAILS
SCALE	NTS
JOB No	21/71