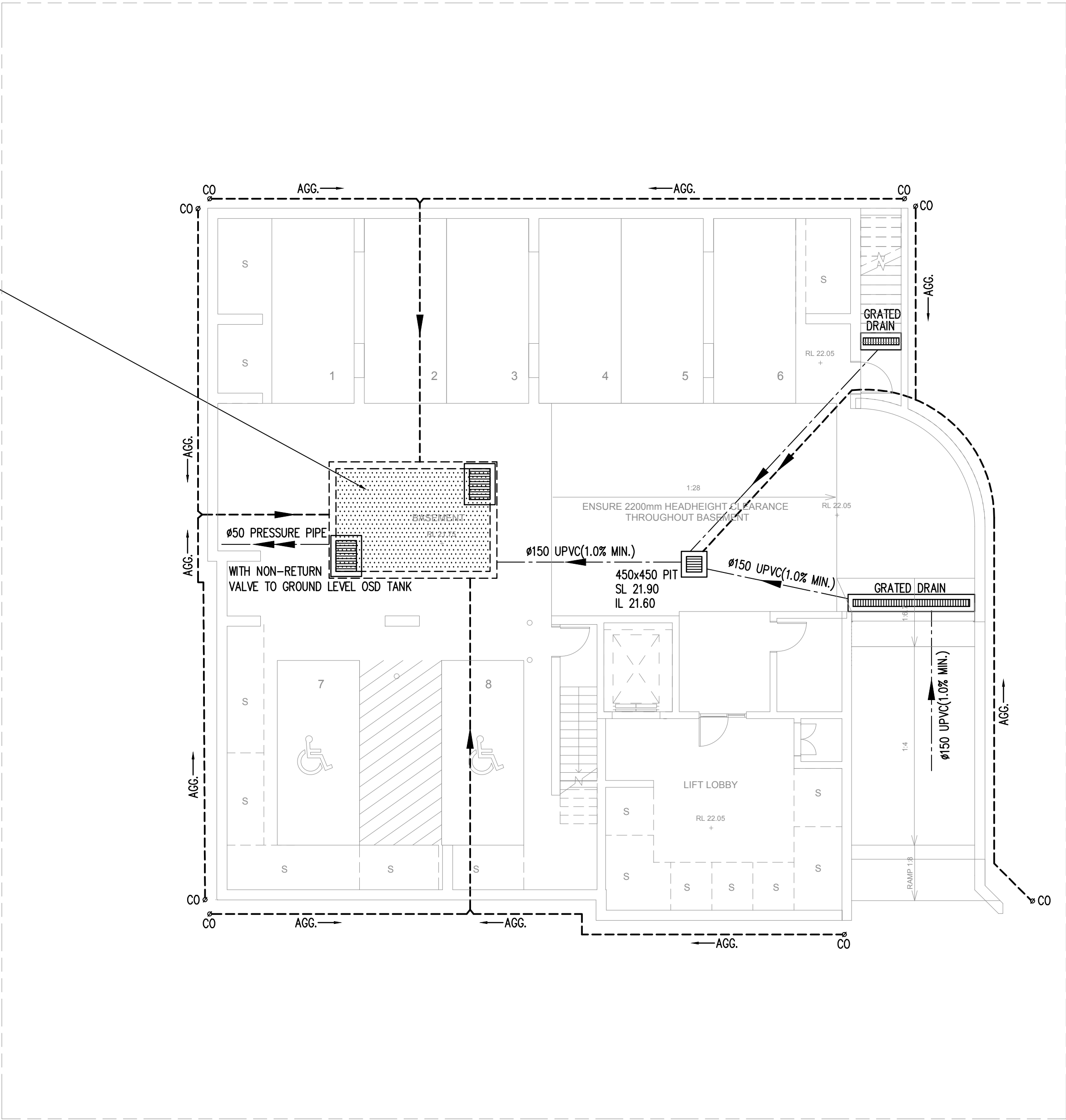


UNDERGROUND PUMP-OUT TANK
AREA:13.50 m²
SL: 21.75
TWL: 21.50
IL: 20.50
AVERAGE WATER DEPTH:1000mm
STORAGE VOLUME REQUIRED:9.90 m³
STORAGE VOLUME PROVIDED:12.25 m³
DUAL ALTERNATING PUMPSET
Zenit DRE100 OR EQUIVALENT



MICHAEL ELL CONSULTING ENGINEERS Pty Ltd
Structural, Hydraulic, & Civil Engineers
Ph : (02) 9807 5355
Fax : (02) 9807 5366

Basement Pump Out Pit Design

Address : 8-10 COLLETT PARADE, PARRAMATTA

Area Draining to Basement $A = 83 \text{ m}^2$

Design Rainfall Intensity $I_{100}^{120} = 79.9 \text{ mm/hr}$ (100yr, 2hr Duration)

Runoff Coefficient $C_{100}^{120} = 1$

Flow to Pit $Q = 1/3600 * C * I * A$
 $Q_{100}^{120} = 1.842 \text{ l/s}$

Volume $V = Q * (\text{Duration in second})$
 $V_{100}^{60} = 9.947 \text{ m}^3$ (A)

Volume of underground tank (A) $= 9.9 \text{ m}^3$

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NOTES	rev	amendments	date	consultants	north	status	project	project no.	drawing title	drawing no.	rev	scale
	A	FOR DA ISSUE	05/10/2018									
1. This drawing is not to be scaled for dimensioning purposes. Use only figured dimensions.				structural/civil/ stormwater			RESIDENTIAL HOUSING DEVELOPMENT 8-10 COLLETT PARADE, NORTH PARRAMATTA	2017 5430	BASEMENT STORMWATER DRAINAGE PLAN		A	1 : 100
2. LFA (Pacific) Pty Ltd. All rights reserved. This work is covered by copyright and cannot be reproduced or copied in any form or by any means without written permission of LFA (Pacific) Pty Ltd				electrical/hydraulic/ mechanical								
3. All footing, slabs, columns and beams to future detail. Refer to Structural Engineer's drawings.				landscape			LAHC					
4. Mechanical ventilation to future detail. Refer to Mechanical Engineer's drawings				certifier								
5. Stormwater and sanitary drainage to future detail. Refer to Hydraulic Engineer's drawings				BASIX/Energy								
6. Drawings for Development Application only				traffic								
NOT FOR CONSTRUCTION												

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M PO BOX 209, EDGECLIFF NSW 2027 T 02 9327 6822 F 02 9327 5554
E fa@lfa.com.au W www.lfa.com.au ABN 92 830 134 905 OM ISO 9001-2008

NOMINATED ARCHITECTS

ALF LESTER NO 2198 STEPHEN ANDERS NO 5764

project

RESIDENTIAL HOUSING DEVELOPMENT
8-10 COLLETT PARADE, NORTH PARRAMATTA

client

LAHC

project no.

2017 5430

drawing title

BASEMENT STORMWATER DRAINAGE PLAN

drawing no.

17037-C01

rev

A

scale

1 : 100

consultants

Michael Ell Consulting02 98075355

Marlene02 49259300

Susan Stratton02 95473157

Dix Gardner02 82703500

Sustainable Thermal Solutions0420 312721

TBA

north

status

DA

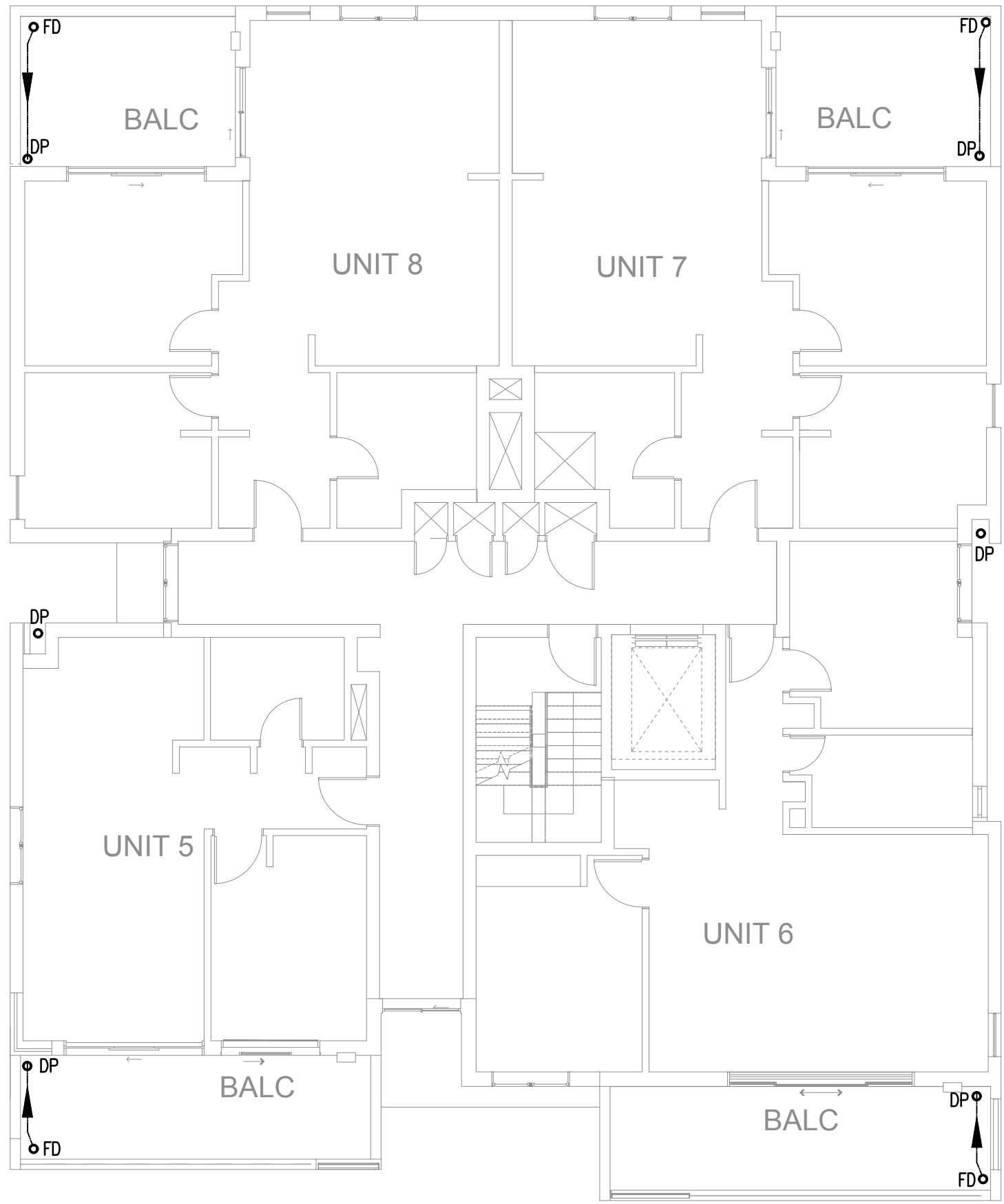
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INTERIORS



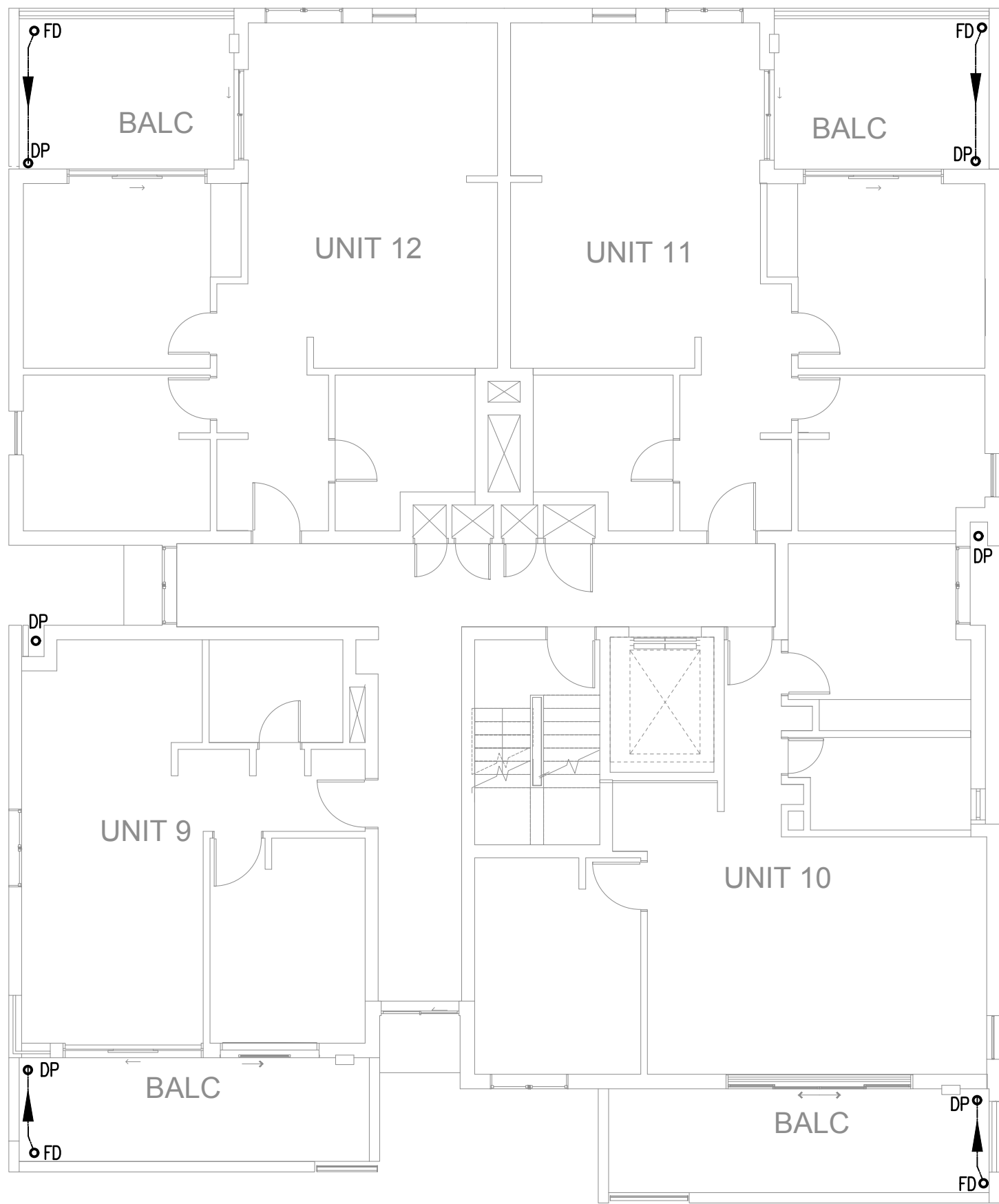
consultants			
structural/civil/ stormwater	Michael Eli Consulting	02 98075535	
electrical/hydraulic/ mechanical	Marline	02 49259300	
landscape	Susan Stratton	02 95473157	
certifier	Dix Gardner	02 82703500	
BASIX/Energy	Sustainable Thermal Solutions	0420 312721	
traffic	TBA		status
			DA

project no.		DA	
2017 5430		drawn EZ	
drawing title		project dir ME	
GROUND FLOOR STORMWATER DRAINAGE PLAN		date 05/10/2018	checked ME
drawing no.		date plotted	
17037-C02		rev C	scale 1 : 100



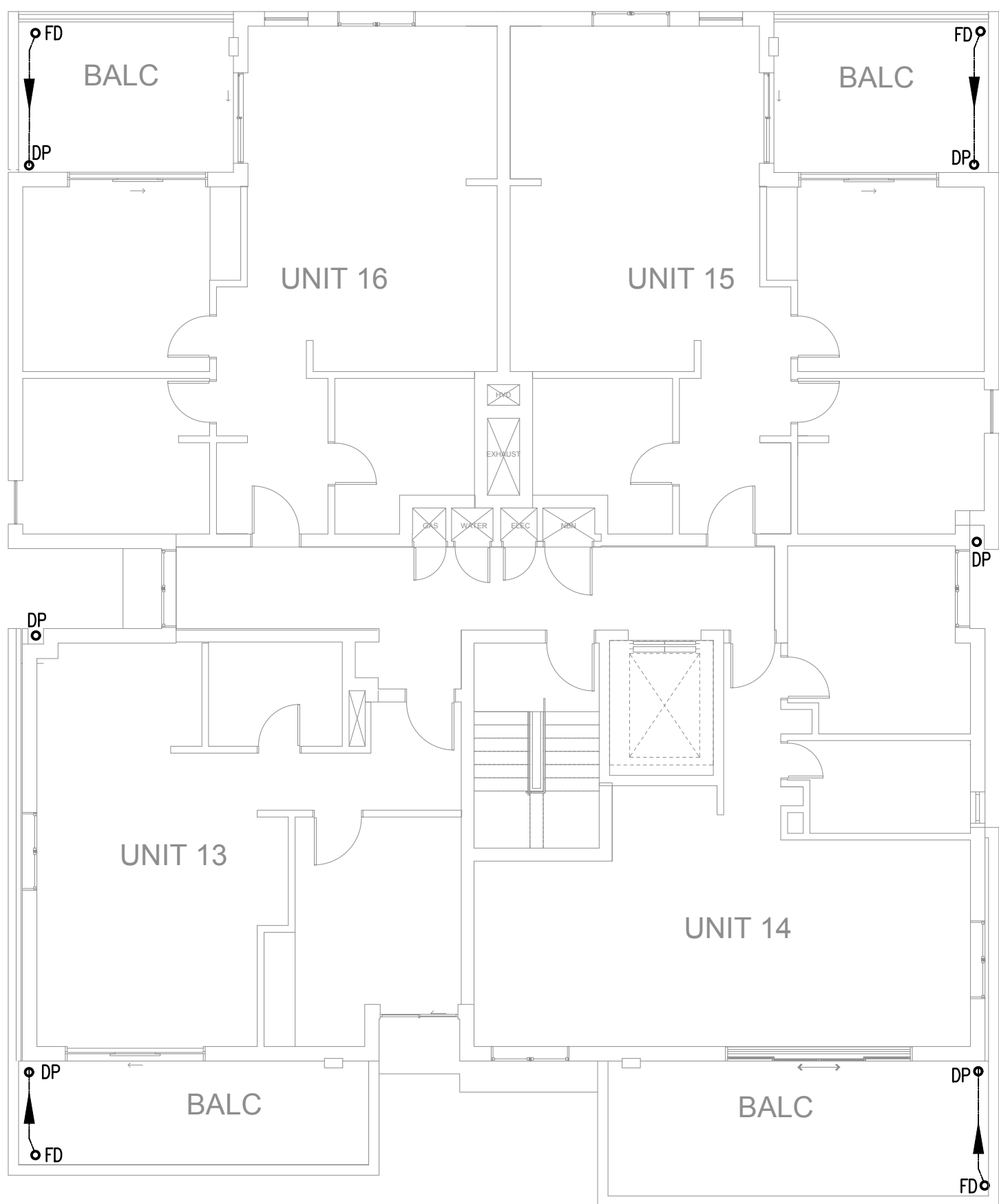
FIRST FLOOR STORMWATER DRAINAGE LAYOUT PLAN

— DENOTES #150 UPVC WITH 1.0% MIN. SLOPE UNO..
FD DENOTES FLOOR DRAIN
DP DENOTES DOWN PIPE



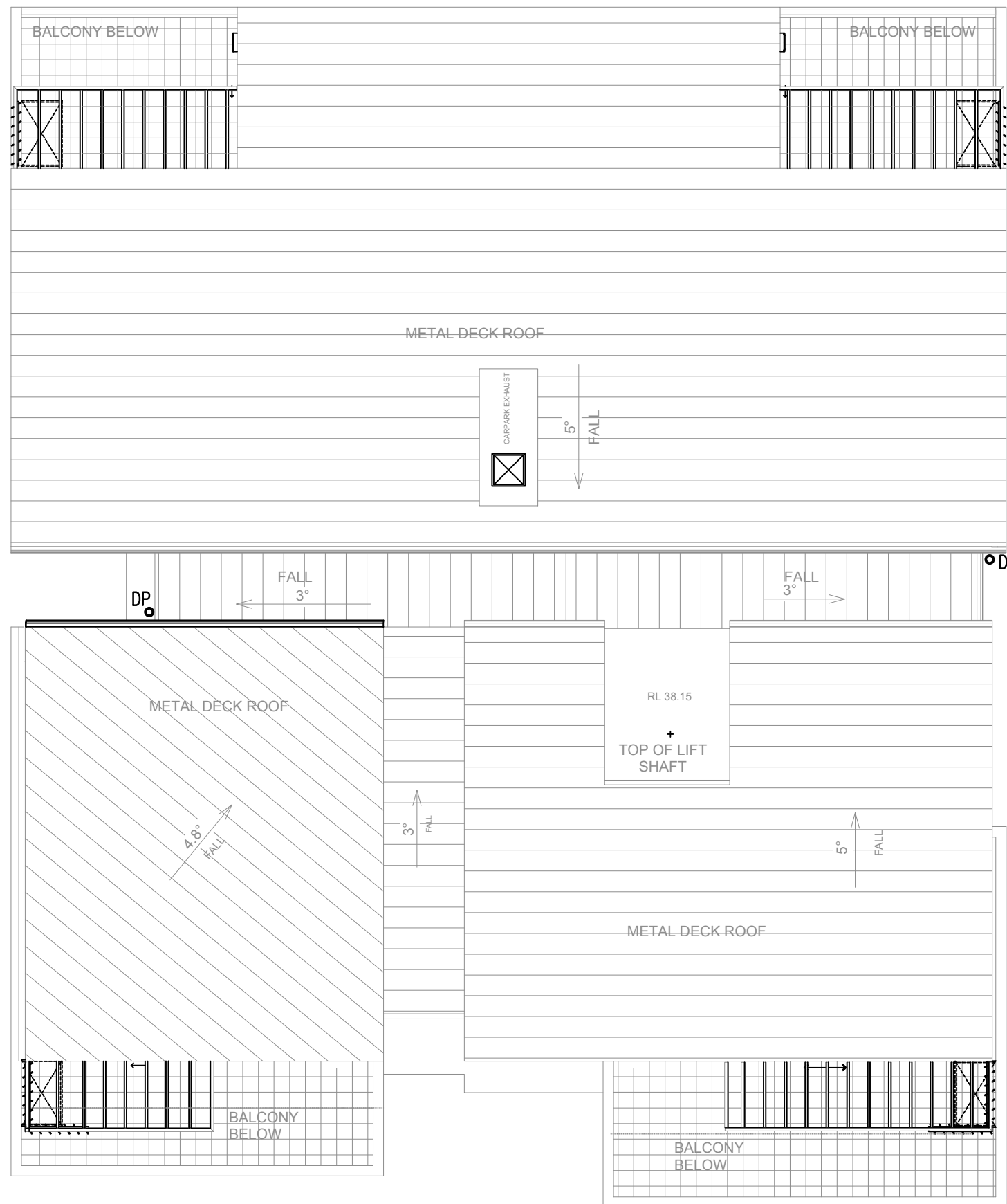
SECOND FLOOR STORMWATER DRAINAGE LAYOUT PLAN

— DENOTES #150 UPVC WITH 1.0% MIN. SLOPE UNO..
FD DENOTES FLOOR DRAIN
DP DENOTES DOWN PIPE



THIRD FLOOR STORMWATER DRAINAGE LAYOUT PLAN

— DENOTES #150 UPVC WITH 1.0% MIN. SLOPE UNO..
FD DENOTES FLOOR DRAIN
DP DENOTES DOWN PIPE



ROOF STORMWATER DRAINAGE LAYOUT PLAN

DP DENOTES DOWN PIPE

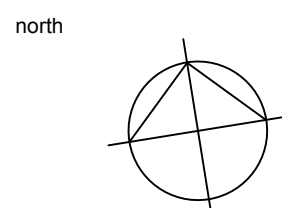
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5. Stormwater and sanitary drainage to future detail. Refer to Hydraulic Engineer's drawings			
6. Drawings for Development Application only			
NOT FOR CONSTRUCTION			

consultants			
structural/civil/stormwater	Michael Ell Consulting	02 98075355	
electrical/hydraulic/mechanical	Marlene	02 49259300	
landscape	Susan Stratton	02 95473157	
certifier	Dix Gardner	02 82703500	
BASIX/Energy	Sustainable Thermal Solutions	0420 312721	
traffic	TBA		



status
DA

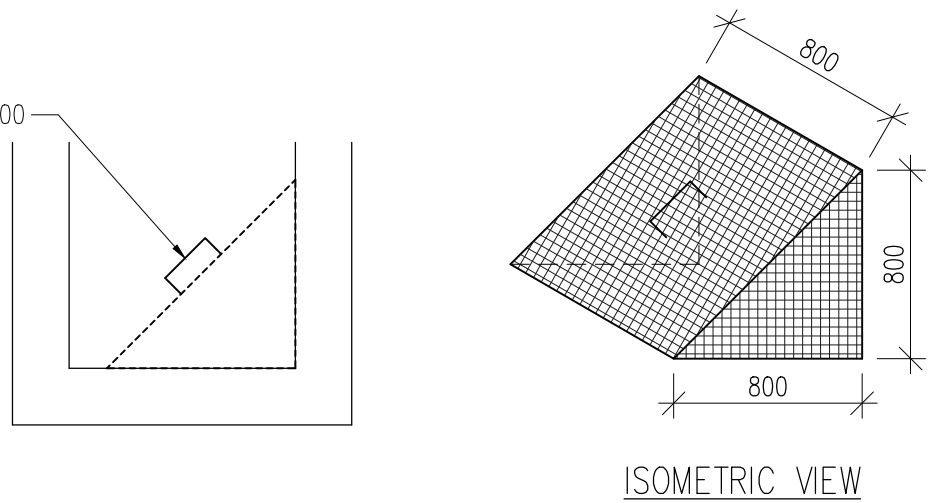


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NOMINATED ARCHITECTS ALF LESTER NO 2128 STEPHEN ANDERS NO 57664

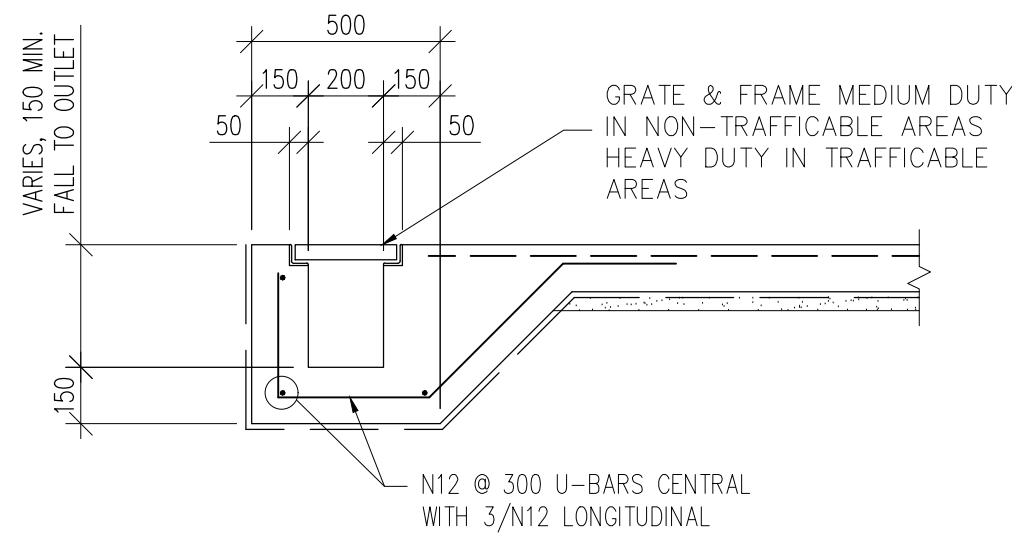
project
**RESIDENTIAL HOUSING DEVELOPMENT
8-10 COLLETT PARADE, NORTH
PARRAMATTA**
client
LAHC

project no. 2017 5430		drawing title FIRST FLOOR~ROOF STORMWATER DRAINAGE LAYOUT PLAN	
drawing no. 17037-C03		rev A	scale 1 : 100
project dir ME		date 05/10/2018	checked ME
date plotted 05/10/2018		status DA	

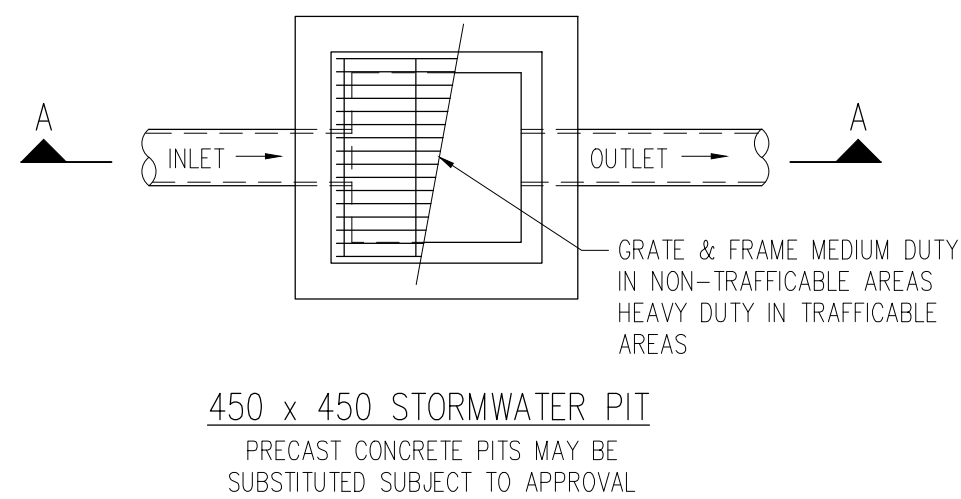
SCREEN MADE FROM LYSAGHTS
MAXIMESH 3030 FROM H & U
ENGINEERING PH. (02) 9790-0100
OR EQUIVALENT



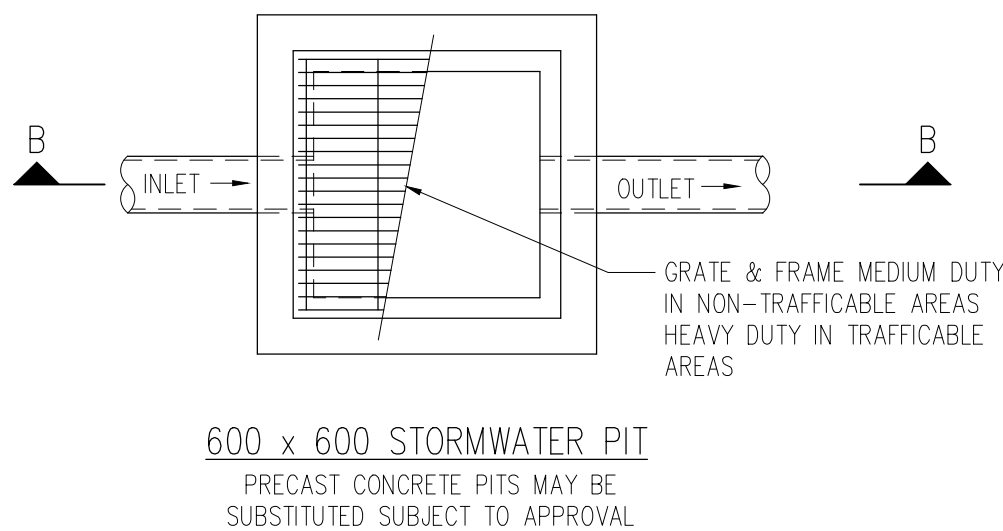
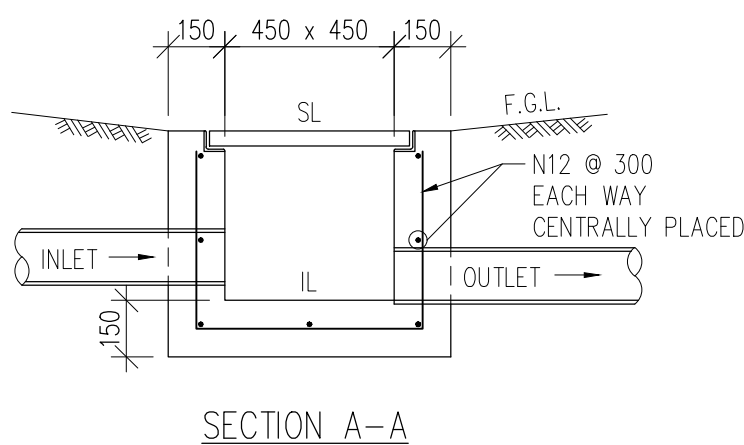
LITTER & LEAF SCREEN DETAIL



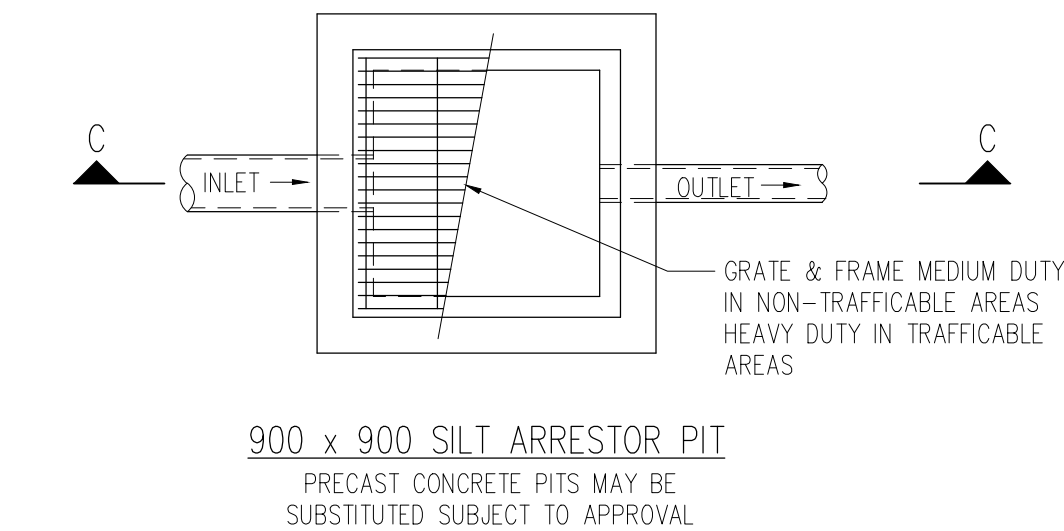
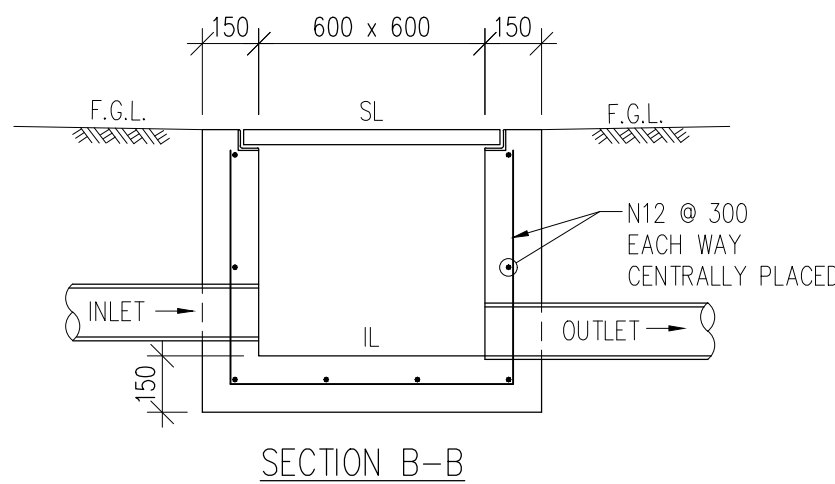
GRADED DRAIN
SCALE 1:20



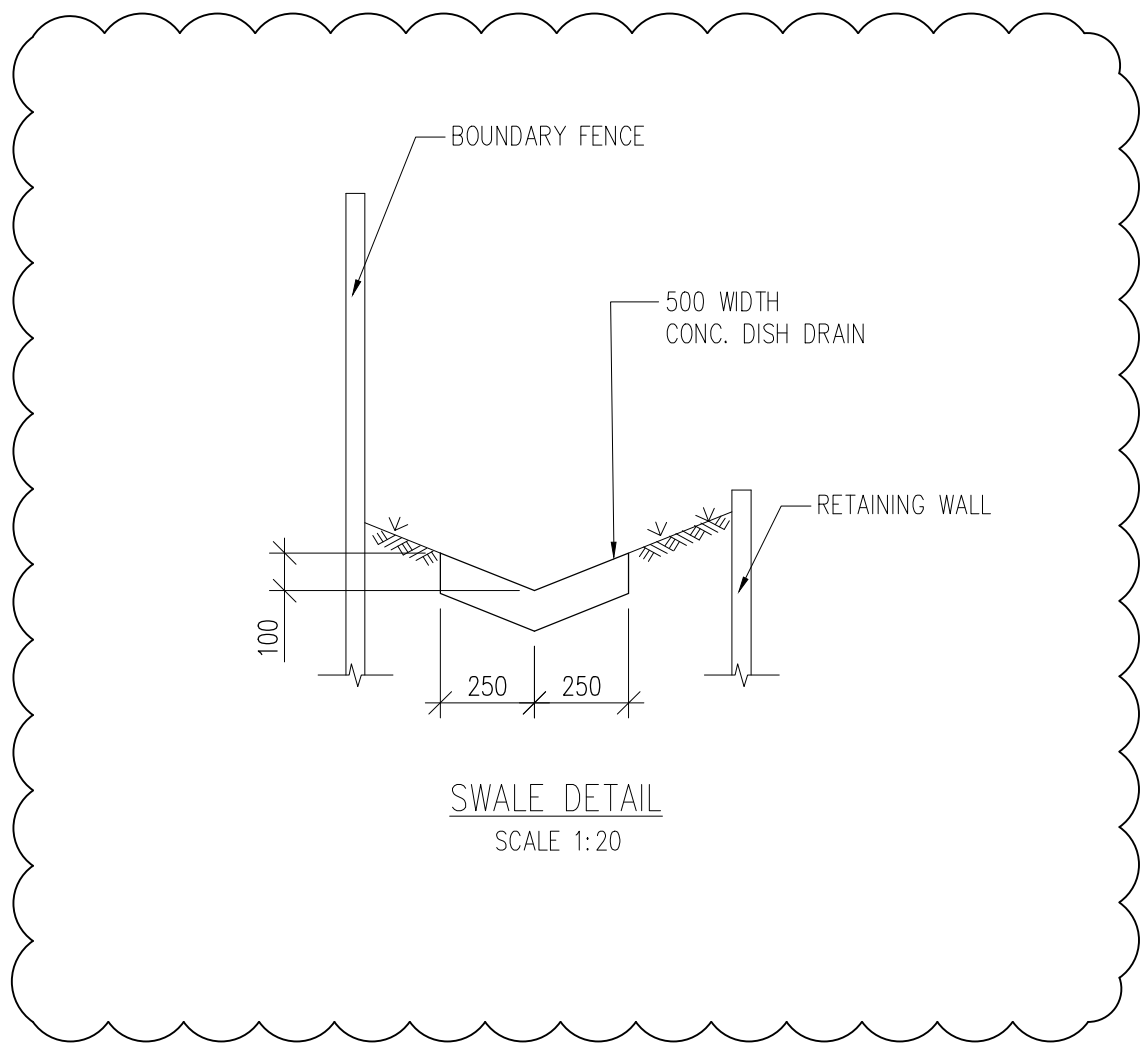
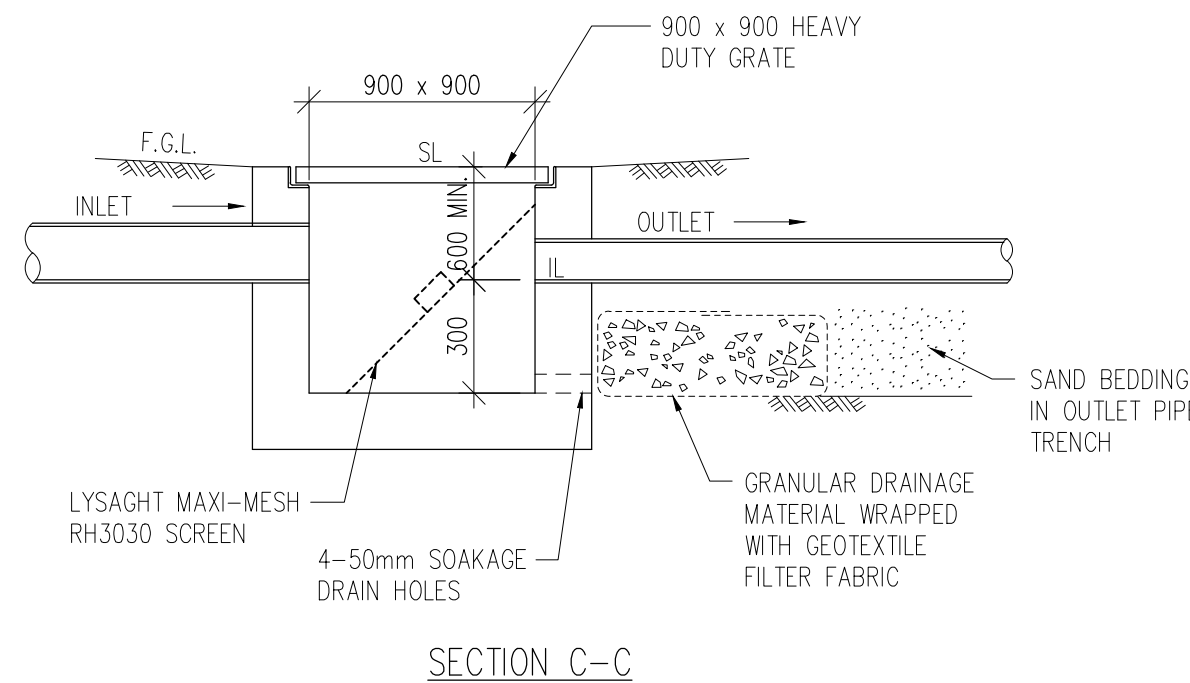
450 x 450 STORMWATER PIT
PRECAST CONCRETE PITS MAY BE
SUBSTITUTED SUBJECT TO APPROVAL



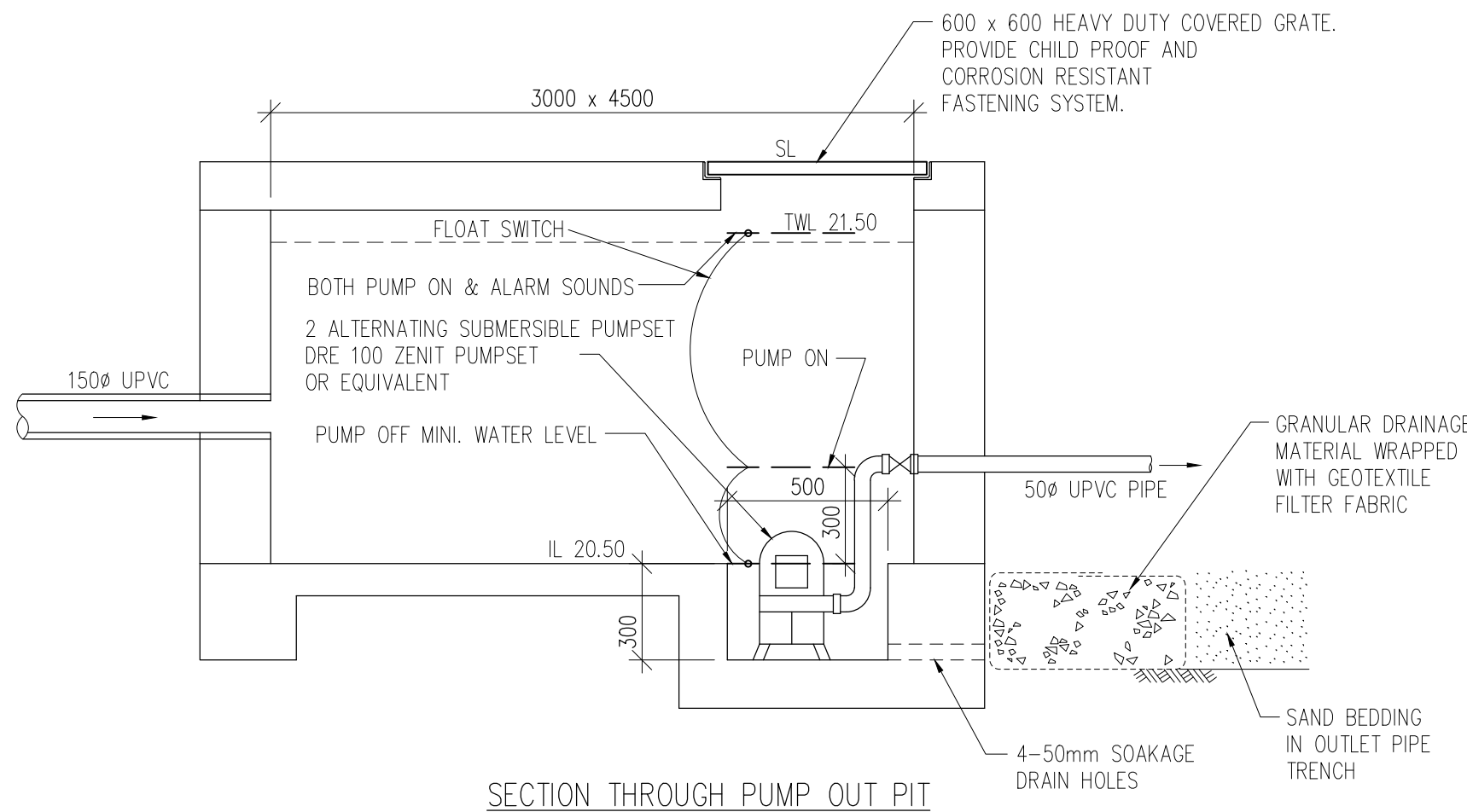
600 x 600 STORMWATER PIT
PRECAST CONCRETE PITS MAY BE
SUBSTITUTED SUBJECT TO APPROVAL



900 x 900 SILT ARRESTOR PIT
PRECAST CONCRETE PITS MAY BE
SUBSTITUTED SUBJECT TO APPROVAL



SWALE DETAIL
SCALE 1:20



SECTION THROUGH PUMP OUT PIT

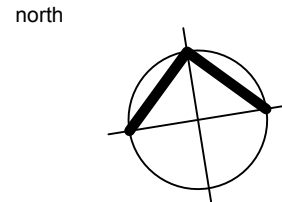
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4. Mechanical ventilation to future detail. Refer to Mechanical Engineer's drawings.			
5. Stormwater and sanitary drainage to future detail. Refer to Hydraulic Engineer's drawings.			
6. Drawings for Development Application only NOT FOR CONSTRUCTION			

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Michael Ell Consulting	02 98075355					
Marlene	02 49259300					
Susan Stratton	02 95473157					
Dix Gardner	02 82703500					
Sustainable Thermal Solutions	0420 312721					
TBA						



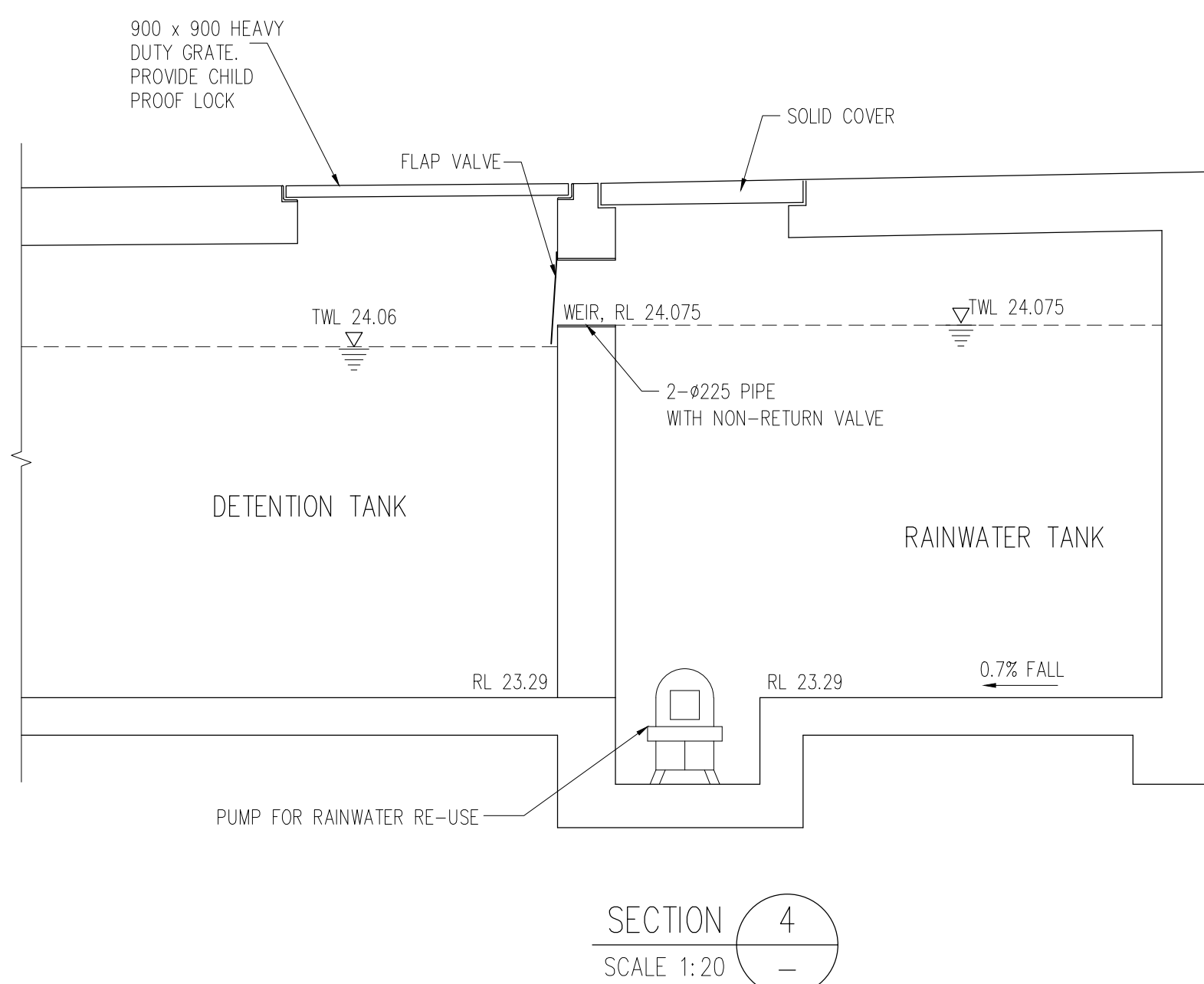
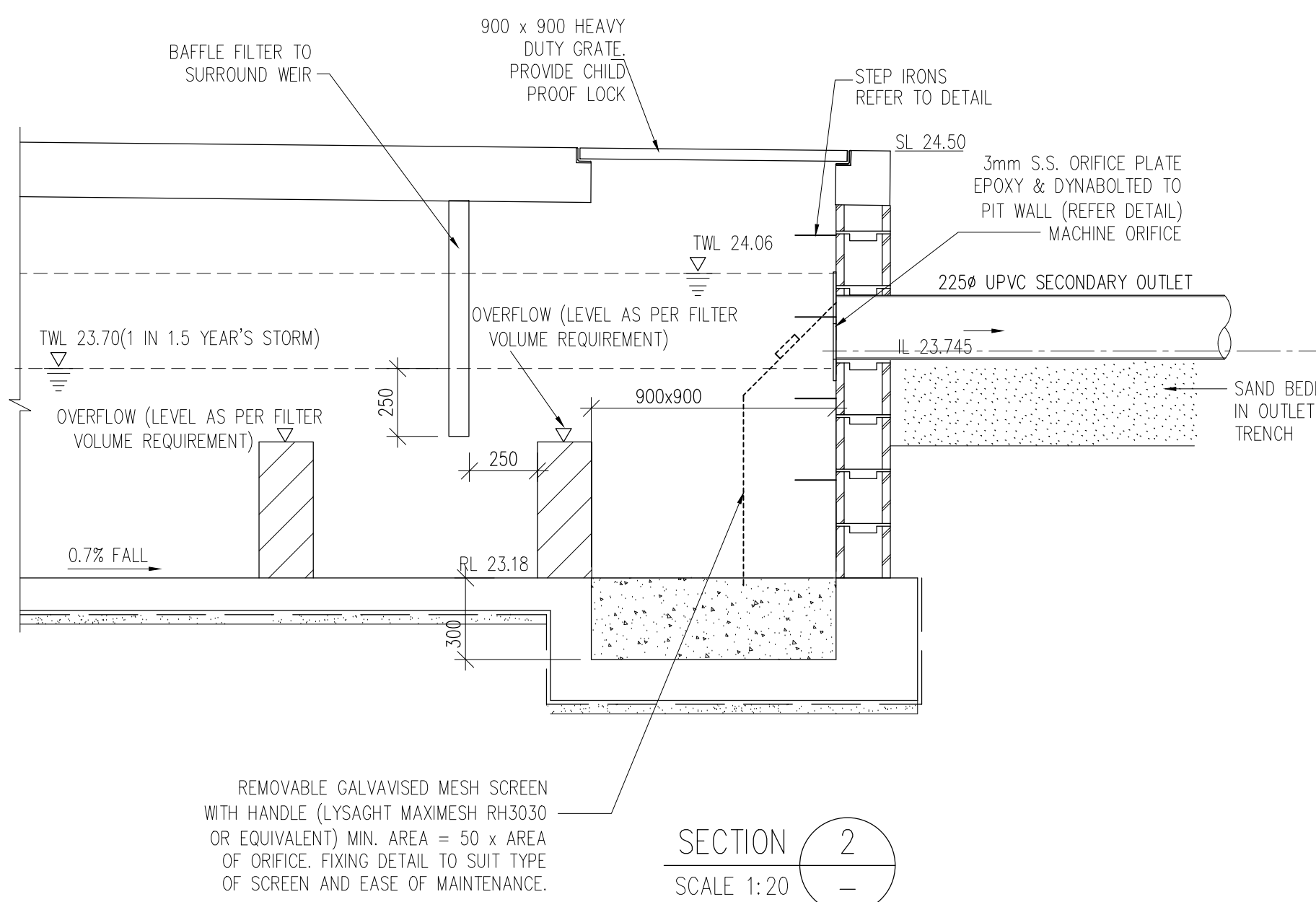
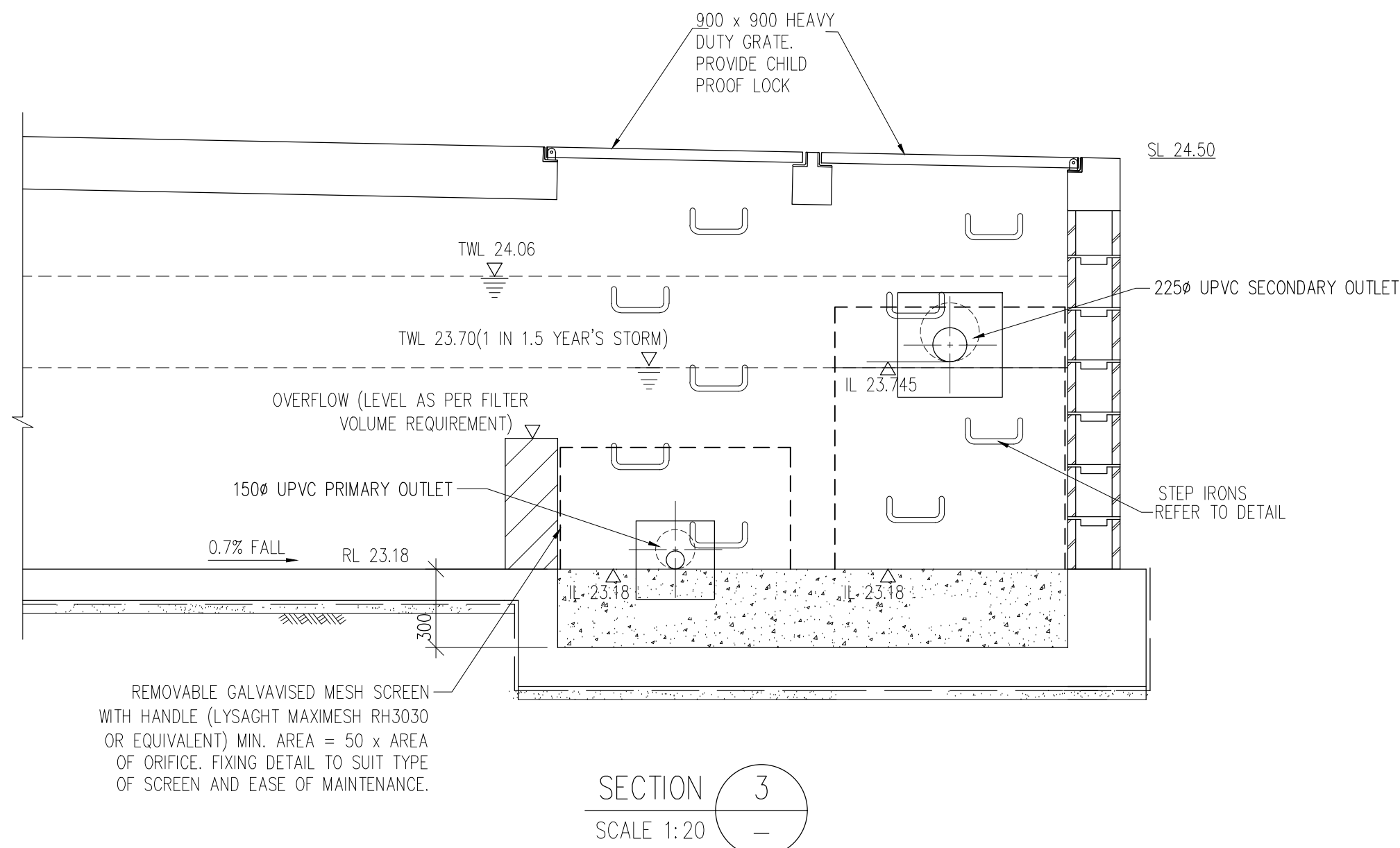
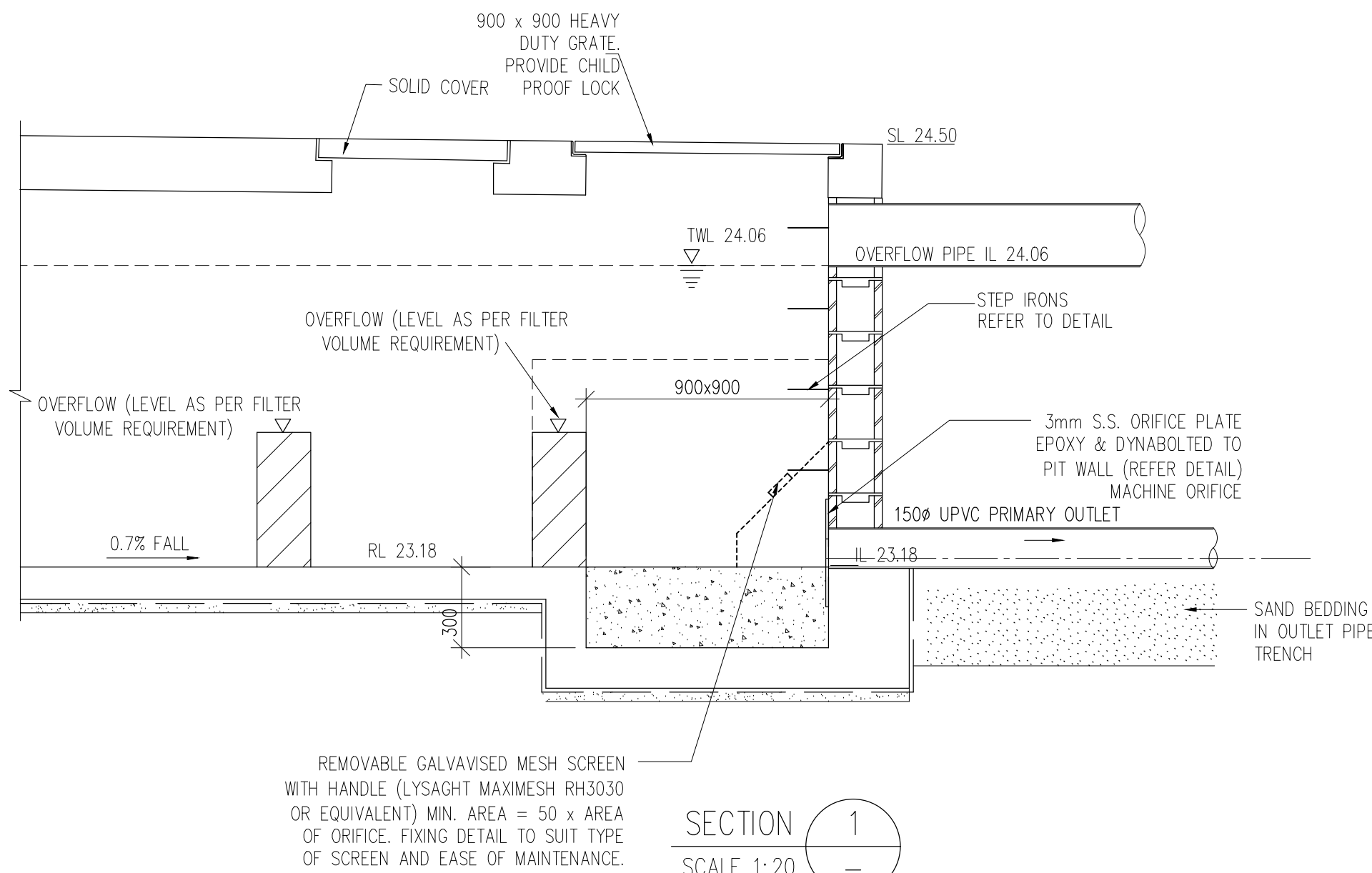
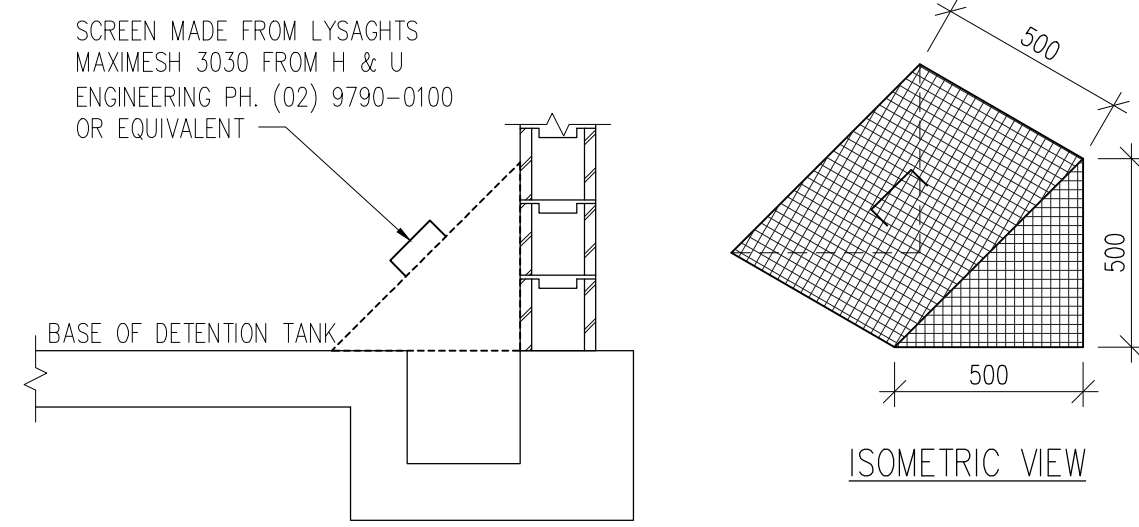
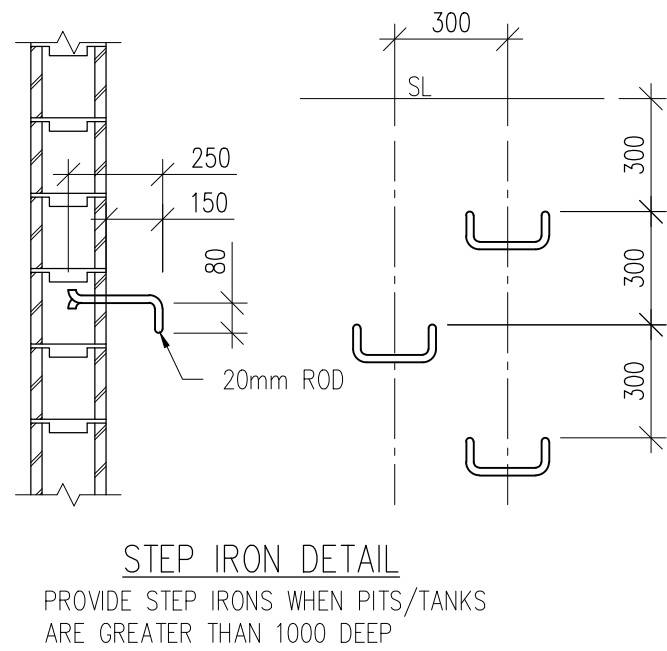
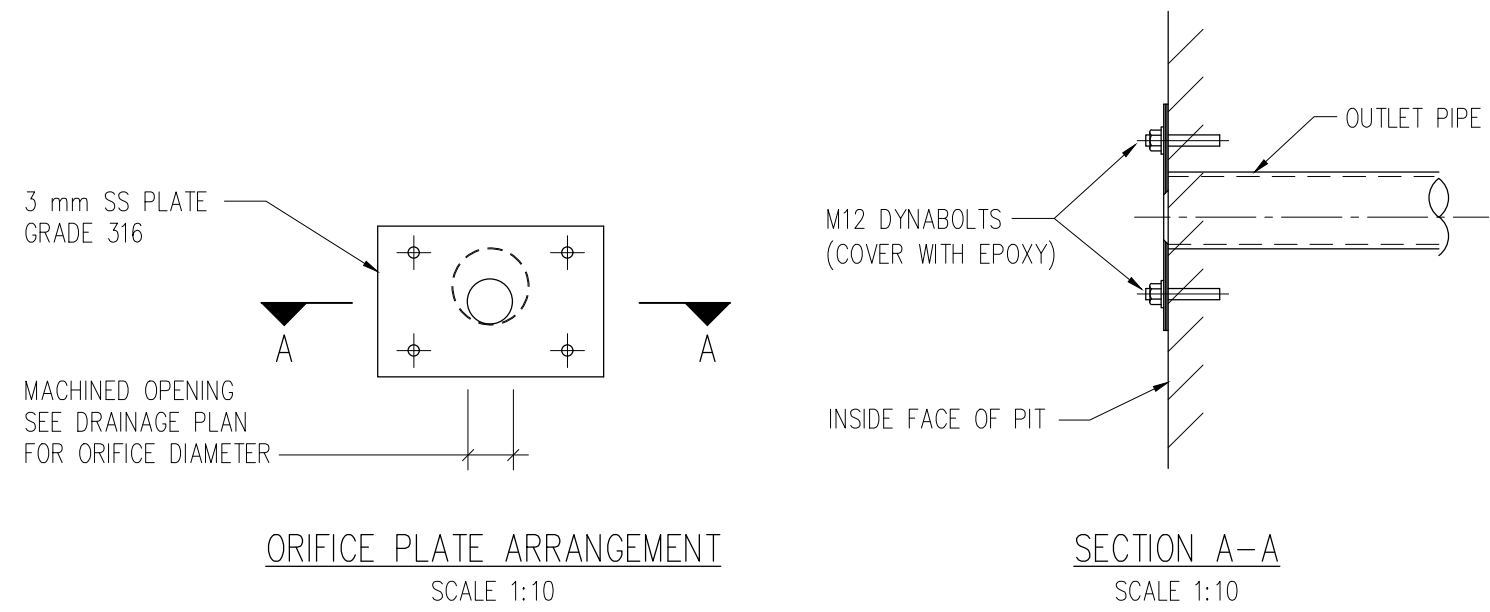
status
DA



project	RESIDENTIAL HOUSING DEVELOPMENT 8-10 COLLETT PARADE, NORTH PARRAMATTA
client	LAHC

project no.	2017 5430
drawing title	STORMWATER DETAILS
drawing no.	17037-C04

DA
drawn EZ
project dir ME
date 05/10/2018 checked ME
date plotted 05/10/2018
scale 1:20



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6. Drawings for Development Application only NOT FOR CONSTRUCTION			

consultants	status
structural/civil/stormwater Michael Ell Consulting 02 98075355	north
electrical/hydraulic/mechanical Marline 02 49259300	
landscape Susan Stratton 02 95473157	status DA
certifier Dix Gardner 02 82703500	
BASIX/Energy Sustainable Thermal Solutions 0420 312721	
traffic TBA	

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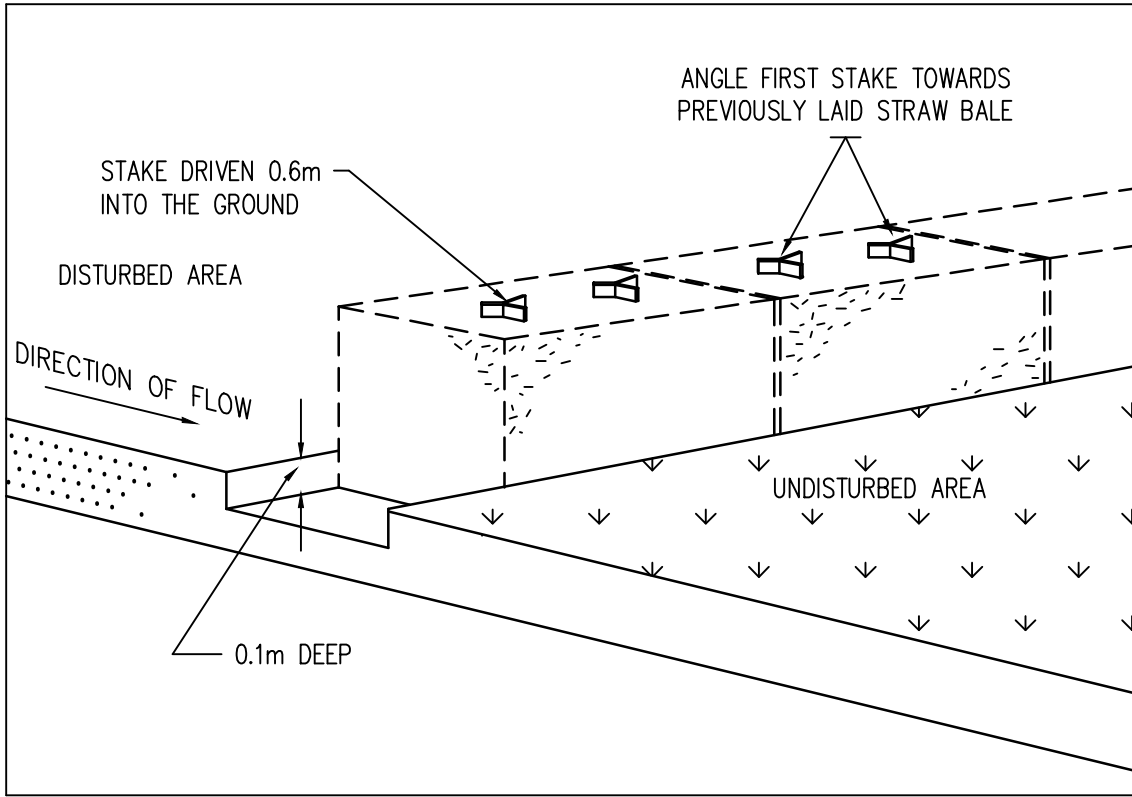
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INTERIORS

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E fa@lfa.com.au W www.lfa.com.au ABN 92 830 134 905 OM ISO 9001-2008
NOMINATED ARCHITECTS ALF LESTER NO 2198 STEPHEN ANDERSON NO 57664

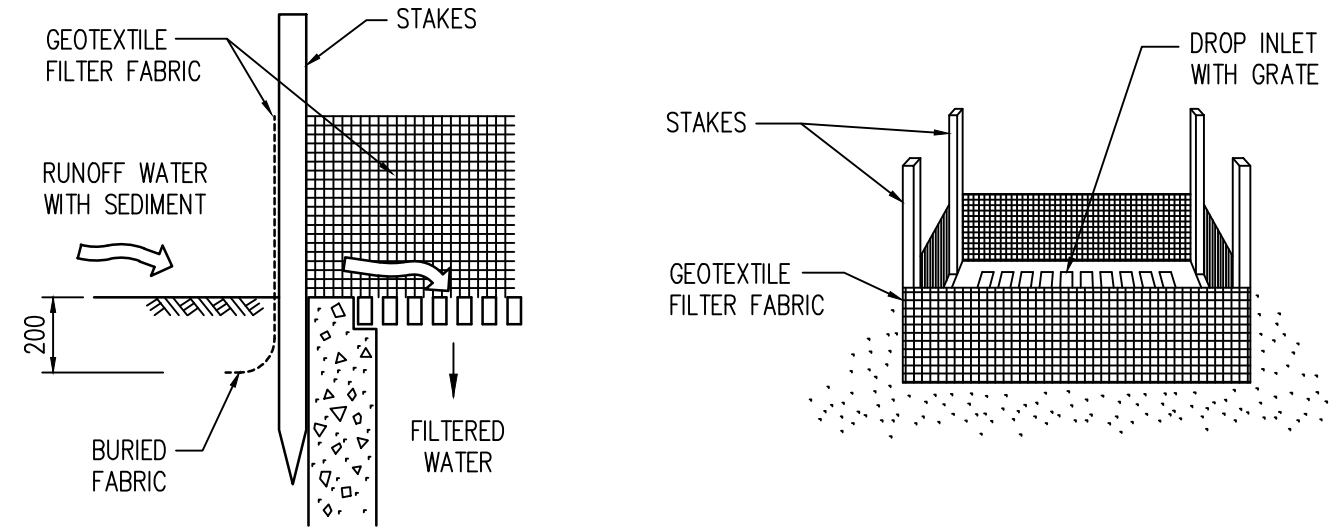
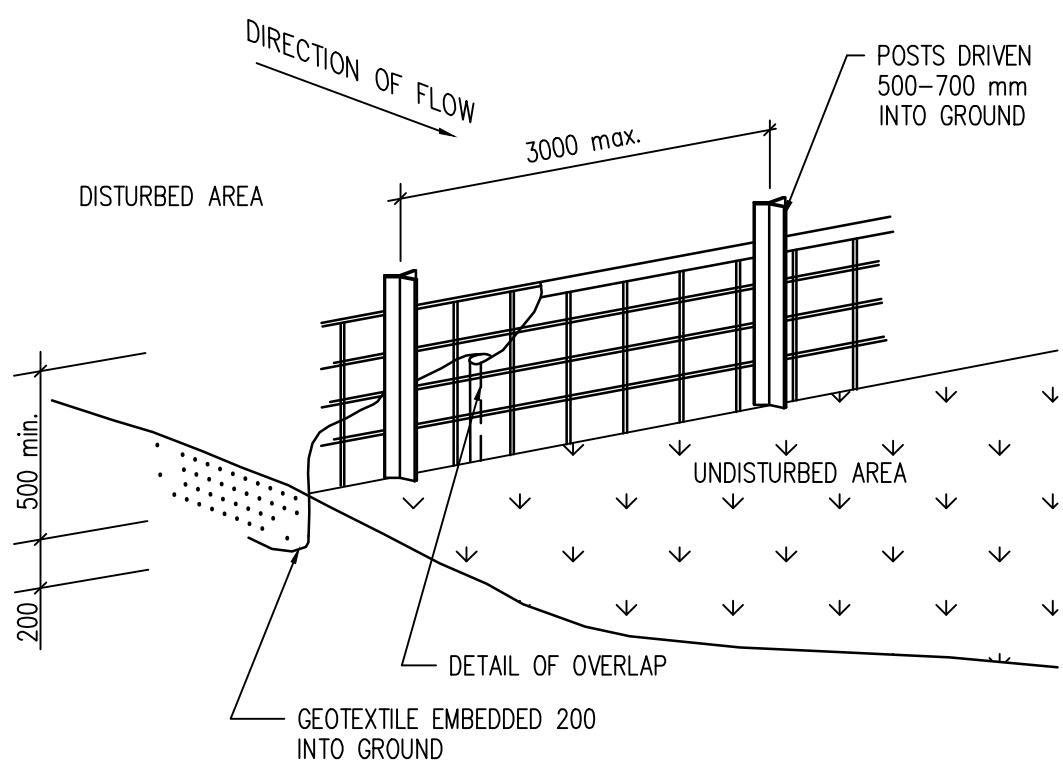
project RESIDENTIAL HOUSING DEVELOPMENT 8-10 COLLETT PARADE, NORTH PARRAMATTA	client LAHC
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drawn EZ	project dir ME	rev B
date 05/10/2018	checked ME	scale 1:20
date plotted 05/10/2018		

rev	
B	



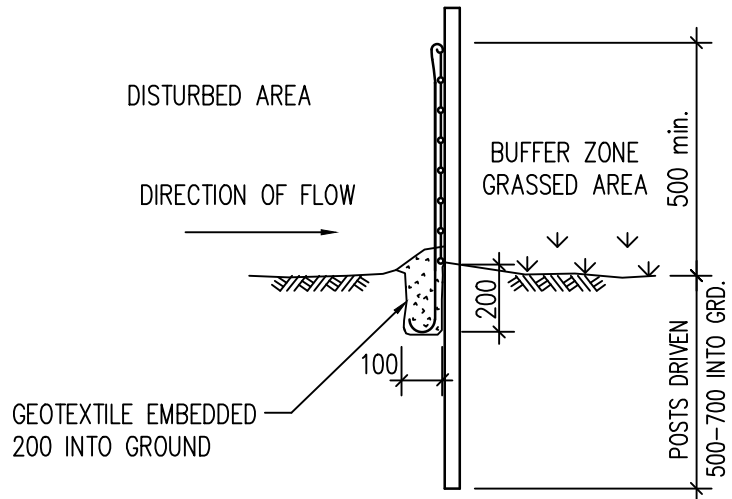
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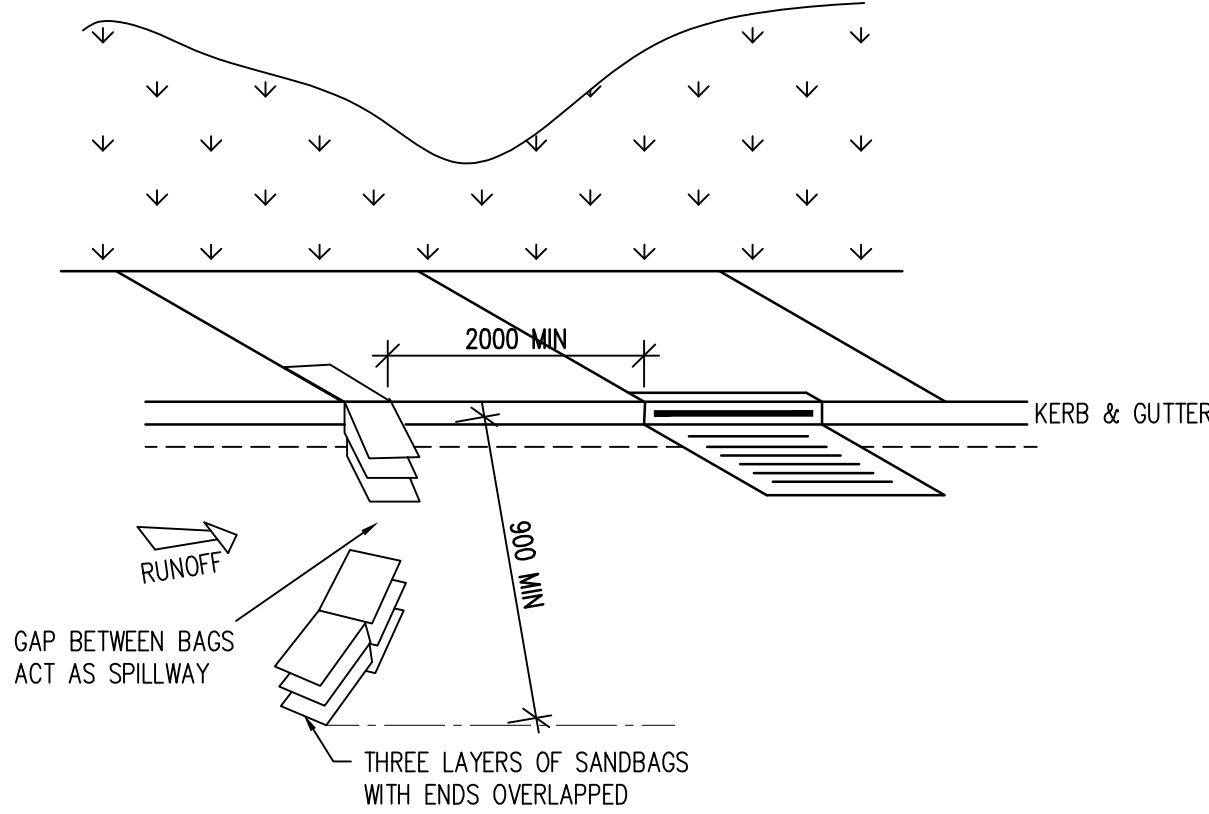
GEOTEXTILE FILTER FABRIC DROP INLET SEDIMENT TRAP
NTS

EROSION CONTROL NOTES:

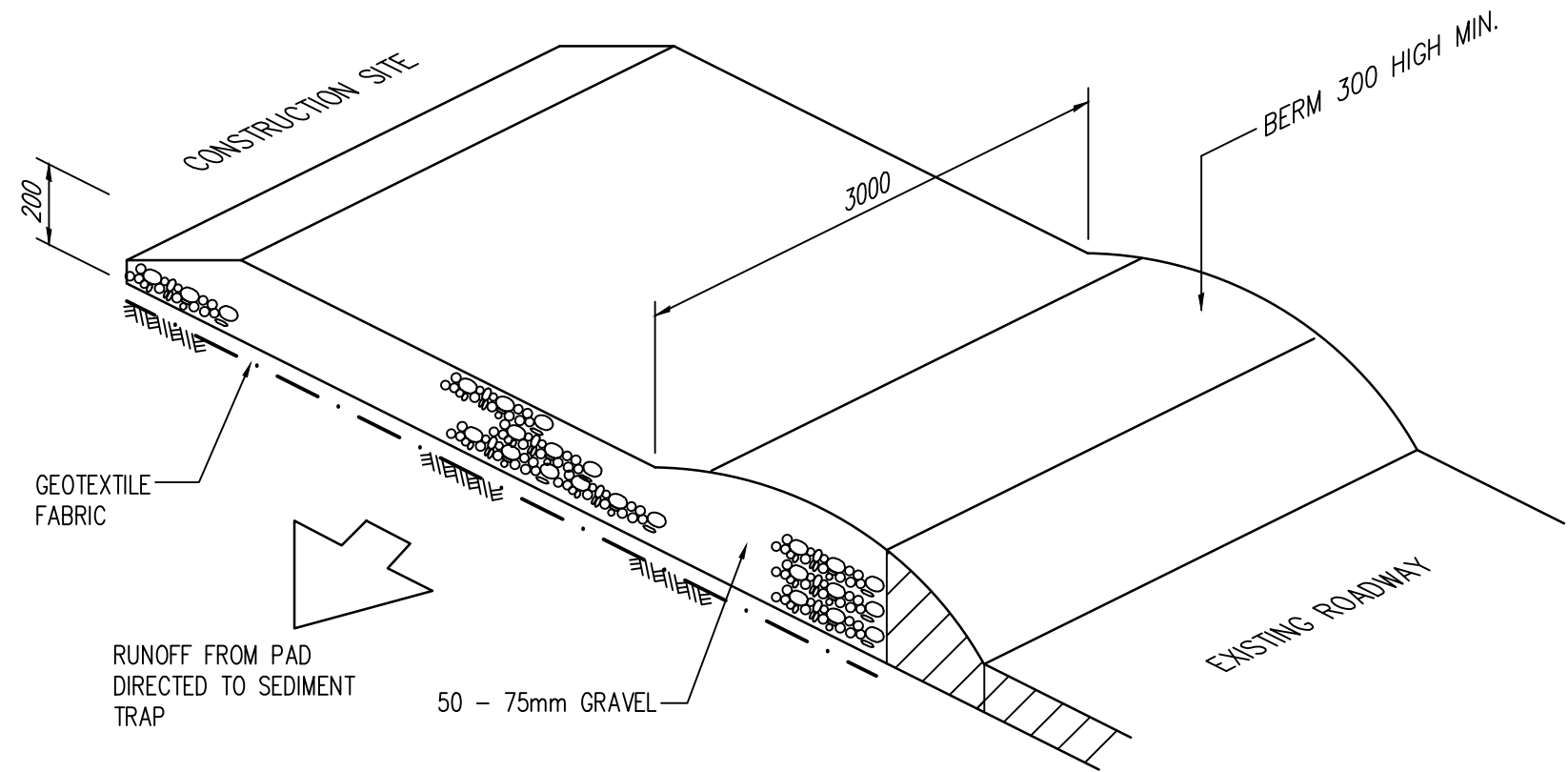
1. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED PRIOR TO SITE DISTURBANCE
2. STRIPPING OF GRASS AND VEGETATION ETC. FROM SITE SHALL BE KEPT TO A MINIMUM
3. TOPSOIL FROM ALL AREAS THAT WILL BE DISTURBED TO BE STRIPPED AND STOCKPILED ON SITE.
4. ALL SEDIMENT CONTROL STRUCTURES TO BE INSPECTED AFTER EACH RAINFALL EVENT FOR STRUCTURAL DAMAGE AND ALL TRAPPED SEDIMENT TO BE REMOVED TO A NOMINATED SOIL STOCKPILE SITE



GEOFABRIC LINED 'SILT' FENCE
N.T.S.



SANDBAG KERB INLET
SEDIMENT TRAP
N.T.S.



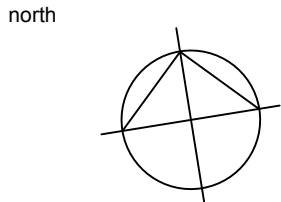
RUBBLE CROSSING
FOR USE AT ALL TRUCK/CONSTRUCTION
VEHICLE ENTRY POINTS TO THE SITE

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consultants	structural/civil/ stormwater	electrical/hydraulic/ mechanical	landscape	certifier	BASIX/Energy	traffic
Michael Eli Consulting	02 98075355					
Marline	02 49259300					
Susan Stratton	02 95473157					
Dix Gardner	02 82703500					
Sustainable Thermal Solutions	0420 312721					
TBA						



status
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NOMINATED ARCHITECTS ALF LESTER NO 2198 STEPHEN ANDERSS NO 5764

project	RESIDENTIAL HOUSING DEVELOPMENT 8-10 COLLETT PARADE, NORTH PARRAMATTA
client	LAHC

project no.	2017 5430	drawn	EZ
drawing title	EROSION AND SEDIMENT CONTROL AND DETAILS	project dir	ME
date plotted	05/10/2018	checked	ME
drawing no.	17037-C07	rev	A
scale	1 : 20		

MECHANICAL SERVICES

FOR

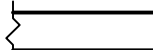
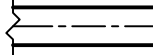
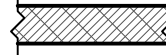
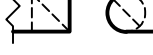
RESIDENTIAL HOUSING DEVELOPMENT

8 - 10 COLLETT PARADE

NORTH PARRAMATTA

DRAWING SCHEDULE:

MDA-01	LEGEND & NOTES	N.T.S.
MDA-02	SCHEDULES & DETAILS	N.T.S.
MDA-03	BASEMENT LEVEL VENTILATION LAYOUT	1:50
MDA-04	GROUND LEVEL VENTILATION LAYOUT	1:50
MDA-05	LEVEL 1 VENTILATION LAYOUT	1:50
MDA-06	LEVEL 2 VENTILATION LAYOUT	1:50
MDA-07	LEVEL 3 VENTILATION LAYOUT	1:50
MDA-08	ROOF VENTILATION LAYOUT	1:50

LEGEND			NOTE: SOME ITEMS MAY NOT BE USED
DUCTWORK	DUCT & PIPEWORK INSULATION	DAMPERS	
 DUCT (GENERAL SYMBOL)  Ø200mm ALUMINIUM SEMI-RIGID DUCTING SERVING RANGEHOODS	 50mm INTERNAL & ACOUSTIC INSULATION	 BLADE DAMPERS VCD = VOLUME CONTROL DAMPER OBD = OPPOSED BLADE DAMPER NRD = NON-RETURN DAMPER	
 EXHAUST DUCT - VISIBLE SECTION	SYMBOLS		
 EXHAUST DUCT - HIDDEN SECTION	 ← GRILLE TYPE AIRFLOW L/s		
 FLEXIBLE CONNECTION	 FAN OR COWL REFERENCE RC = ROOF COWL E = EXHAUST CP = CARPARK		
 FLEXIBLE DUCT - CONNECTED TO MAIN DUCT WITH SPIGOT CONTAINING VOLUME CONTROL DAMPER. PROVIDE ACCESS PANELS IN CEILING WHERE REQUIRED TO BALANCE DAMPERS.	 CEILING ACCESS PANEL		
 EXHAUST DUCT RISER TO COWL ON ROOF ABOVE	 UNDERCUT DOOR 20mm		
GRILLES	ELECTRICAL & CONTROL		VENTILATION EQUIPMENT
 EXHAUST AIR GRILLE	 MECHANICAL SWITCHBOARD		 INLINE DUCT MOUNTED FAN
 CIRCULAR EXHAUST AIR GRILLE	 CARBON MONOXIDE DETECTION SENSOR		 ROOF EXHAUST COWL
	 MANUAL CONTROL SWITCH		 ROOF MOUNTED CARPARK EXHAUST FAN
	 CONTROL SWITCHWIRE		

NOTES - GENERAL MECHANICAL WORKS

- DUCTWORK DIMENSIONS SHOWN ARE CLEAR INTERNAL AIRWAYS DIMENSIONS.
- GRILLES AND REGISTERS ARE TO BE INSTALLED WITH PLENUM BOXES.
- ALL DUCTWORK CONNECTED WITHIN 3m UPSTREAM OR DOWNSTREAM OF A VENTILATION FAN (OTHER THAN FOR A KITCHEN EXHAUST DUCT) SHALL BE PROVIDED WITH A MINIMUM OF 50mm INTERNAL & ACOUSTIC INSULATION (UNLESS SHOWN OR NOTED OTHERWISE).
- ALL RIGHT ANGLE BENDS SHALL BE FITTED WITH DOUBLE SKIN TURNING VANES.
- PROVIDE CONDUITS OR COLORBOND COVER OVER ALL EXPOSED CABLING.
- EQUIPMENT IS TO BE MOUNTED ON ANTI-VIBRATION MOUNTS AS SPECIFIED.
- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT FLOOR LAYOUTS & REFLECTED CEILING PLAN FOR FINAL LOCATION OF DIFFUSERS, GRILLES & ACCESS PANELS.
- THE MECHANICAL CONTRACTOR IS REQUIRED TO UNDERTAKE A FULL CO-ORDINATION OF MECHANICAL SERVICES INSTALLATIONS WITH THE BUILDING STRUCTURE AND OTHER SERVICES PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORKS. TO DETERMINE AND CO-ORDINATE ALL MECHANICAL SPATIAL REQUIREMENTS FOR SYSTEMS.
- THE MECHANICAL CONTRACTOR IS TO FULLY CO-ORDINATE WITH THE TRUSS MANUFACTURER PRIOR TO TRUSS DESIGN AND MANUFACTURER ALL SPATIAL REQUIREMENTS FOR MECHANICAL SYSTEMS WITHIN THE ROOF SPACE. ANY MODIFICATION WORK REQUIRED AFTER TRUSSES ARE CONSTRUCTED SHALL BE AT NO COST TO THE CLIENT.
- ALLOW TO PAINT ALL EXPOSED DUCTWORK. COLOUR TO NOMINATED BY THE SUPERINTENDENT.
- PROVIDE WEATHER COVER OVER EXTERNAL FLEXIBLE CONNECTIONS & EXPOSED CONTROL EQUIPMENT. EXTERNAL DUCTWORK TO BE CROSS BROKEN TO PREVENT PONDING.
- ROOF PENETRATIONS SHALL BE OVERFLASHED TO APPROVAL AND SEALED WATER TIGHT.
- INTERNAL DUCTWORK AND FITTINGS VISIBLE THROUGH GRILLES/DAMPERS TO BE PAINTED MATTE BLACK.
- EQUIPMENT SHALL BE AS SPECIFIED. ALTERNATIVES ARE SUBJECT TO WRITTEN APPROVAL.
- PROVIDE NON-RETURN SELF CLOSING DAMPERS IN DUCTWORK SERVING RESIDENTIAL EXHAUST SYSTEMS. DAMPER RESISTANCE TO FULLY OPEN SHALL NOT EXCEED 10Pa. REFER TO FAN SCHEDULE AND TYPICAL DETAILS FOR FURTHER INFORMATION.
- THE ELECTRICAL TRADE IS TO PROVIDE POWER SUPPLY & CONTROL TO EACH EX-HAUST FAN. FULLY CO-ORDINATE INSTALLATION WITH ELECTRICAL TRADE.

FAN SCHEDULE

REF. No.	AREA SERVED	AIR FLOW (L/s)	EST. RESISTANCE (Pa)	FAN TYPE	MAX SPEED (r/s)	dBA @ 3m	MOTOR SIZE (W - No. PH)	UNIT SELECTION (FANTECH)	REMARKS
CPEF1	CARPARK	2000	150	ROOF MOUNTED	11	48	660 - 3	CD718VGL	NOTES 1 & 2
TEF1	BASEMENT TOILET	60	140	INLINE	33	33	44-1	TD-500/150SIL Lo	NOTE 3

NOTES:

- THE CARPARK EXHAUST FAN SHALL BE PROVIDED WITH A VARIABLE SPEED DRIVE & CONTROLLED BY A CARBON MONOXIDE (CO) DETECTION SYSTEM IN ACCORDANCE WITH AS1668.2.
- THE CARPARK EXHAUST FAN IS TO BE PROVIDED WITH INDIVIDUAL FAN CONTROLS & INDICATION AT THE FIRE DETECTION CONTROL & INDICATION EQUIPMENT PANEL (FDCIE) IN ACCORDANCE WITH AS1668.1 & AS1670.1 REQUIREMENTS. FULLY CO-ORDINATE INSTALLATION WITH FIRE/ELECTRICAL CONTRACTORS.
- FAN TO BE INTERLOCKED TO OPERATE WITH THE ROOM LIGHTING BEING SERVED. ELECTRICAL TRADE TO PROVIDE POWER AND CONTROL, FULLY CO-ORDINATE INSTALLATION WITH ELECTRICAL TRADE.

TYPICAL RESIDENTIAL FAN & COWL SCHEDULE

REF. No.	AREA SERVED	AIR FLOW (L/s)	EST. RESISTANCE (Pa)	FAN TYPE	MAX SPEED (r/s)	dBA @ 3m	MOTOR SIZE (W - No. PH)	UNIT SELECTION (FANTECH)	REMARKS
EFA	ENS, LDY, BATH OR WC	60	110	INLINE	33	33	44 - 1	TD-500/150SIL Lo	NOTES 1 & 2
RC	RANGE HOODS / ENSUITE	60-150	15-40	ROOF EXHAUST COWL	-	-	-	ERV200M	-

NOTES:

- FAN TO BE INTERLOCKED TO OPERATE WITH THE ROOM LIGHTING BEING SERVED. ELECTRICAL TRADE TO PROVIDE POWER AND CONTROL, FULLY CO-ORDINATE INSTALLATION WITH ELECTRICAL TRADE.
- PROVIDE FANTECH SJK MODEL BACKDRAFT SHUTTER TO SUIT FAN SIZE.

TYPICAL GRILLE SCHEDULE

LEGEND			
CDISC	=	CIRCULAR DISC	EXHAUST GRILLE
EG5-MF	=	EGGGRATE EXHAUST AIR GRILLE	IN MILL FINISH
RA45	=	HALF CHEVRON EXHAUST GRILLE	

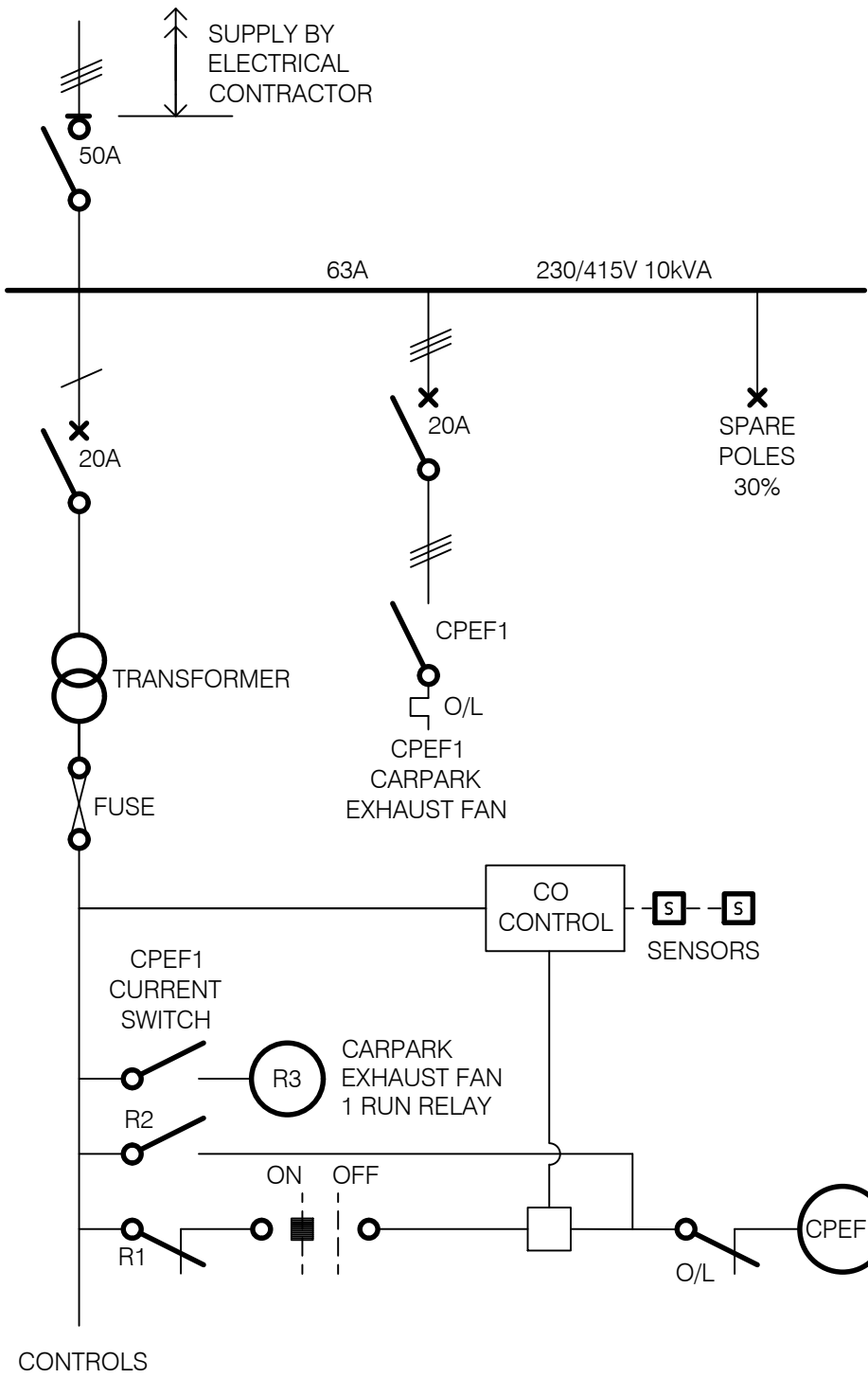
REF. NO.	TYPE	SIZE mm	FLEX. DIA mm
E1	CDISC	Ø150	-
E2	EG5-MF	250 x 250	-
E3	EG5-MF	350 x 350	-
E4	EG5-MF	900 x 600	-
E5	RA45	300 x 200	-

FLEXIBLE DUCT SCHEDULE

INTERNAL DIAMETER mm	AIR FLOW L/s
	RETURN OR EXHAUST AIR
150	0 - 50
200	51 - 90
250	91 - 165
300	166 - 250

NOTE:

FLEXIBLE DUCT TO BE 4 ZERO. AIR CONDITIONING DUCT TO BE INSULATED AND HAVE AN ACOUSTIC CORE. PROVIDE MULTIPLE FLEXIBLE DUCTS WHERE AIRFLOW EXCEEDS 620L/s.



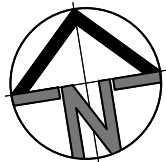
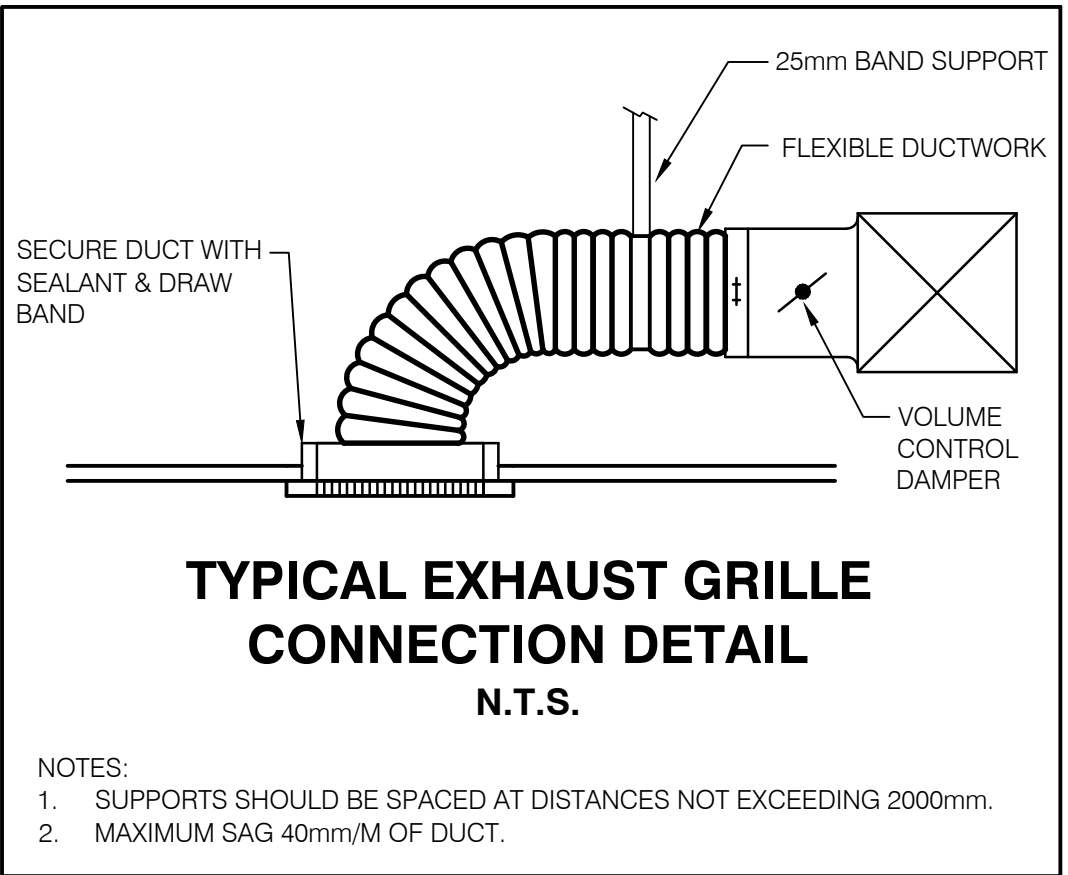
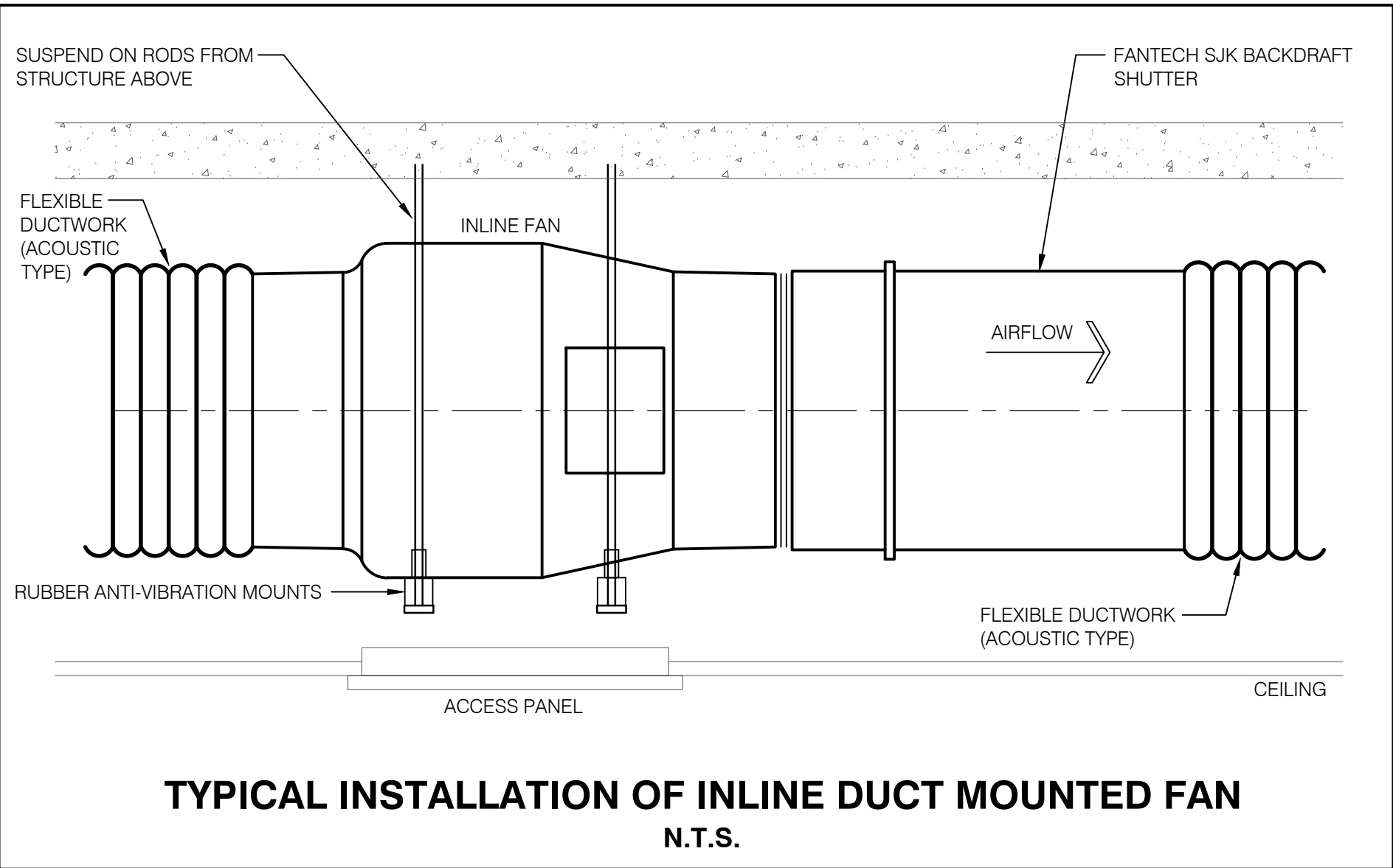
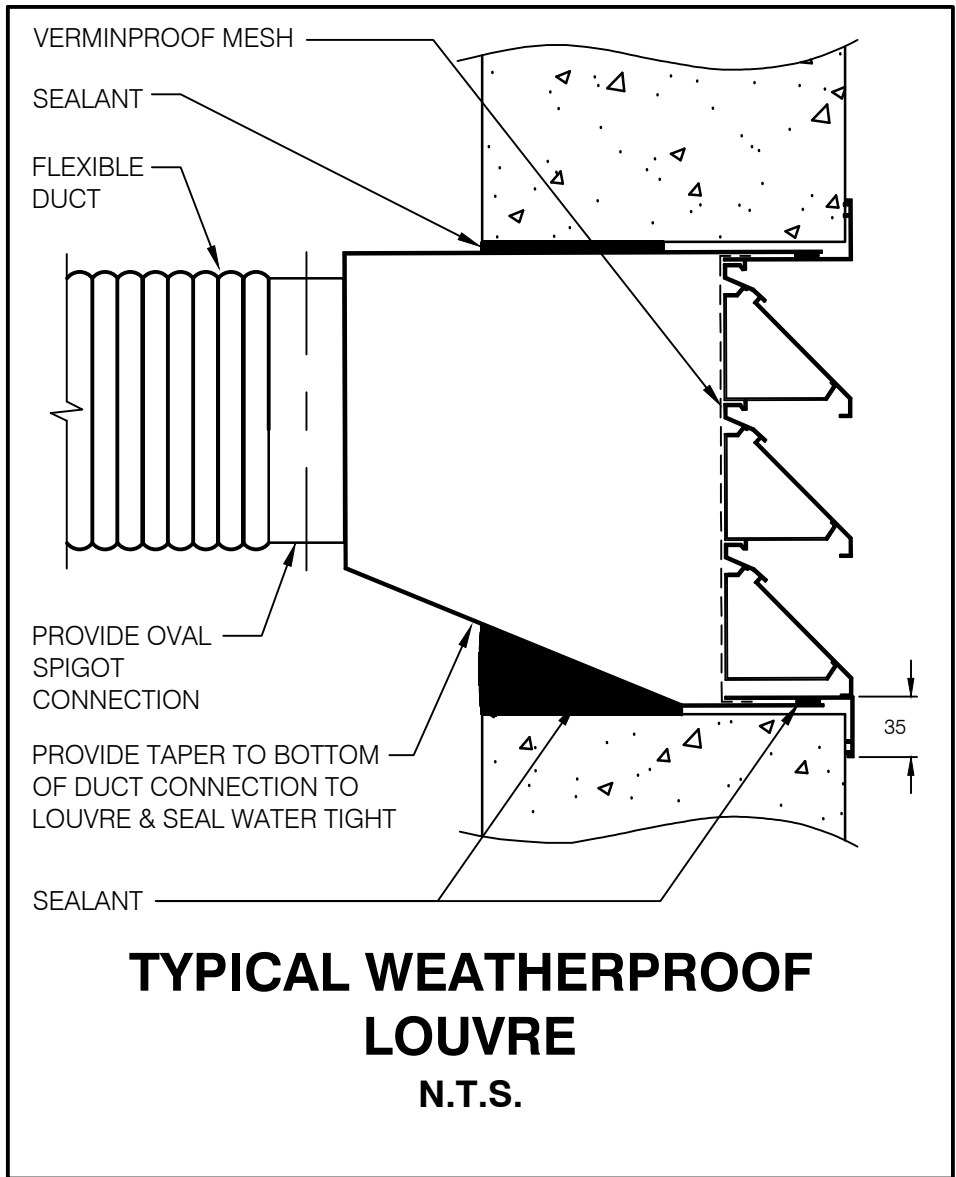
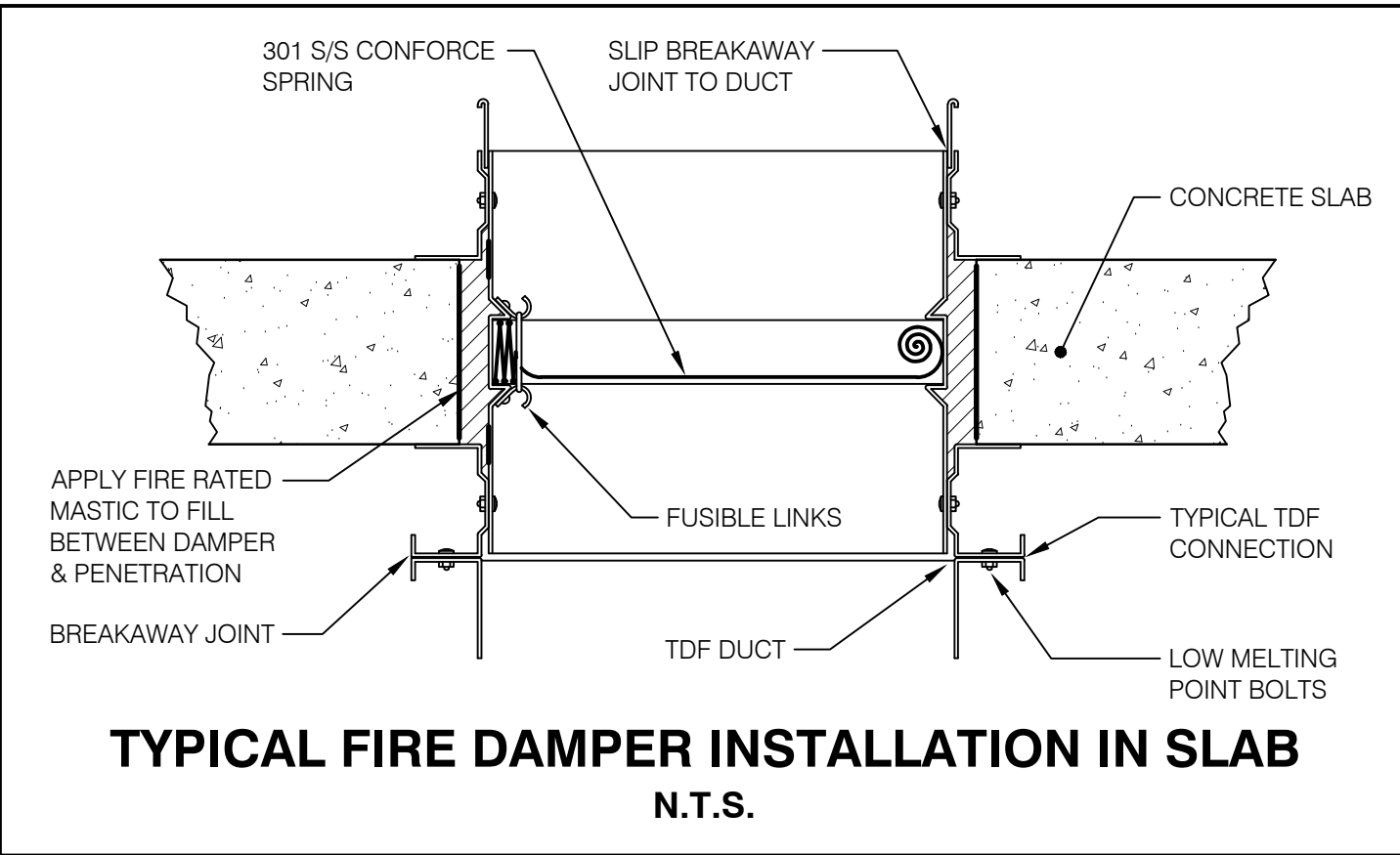
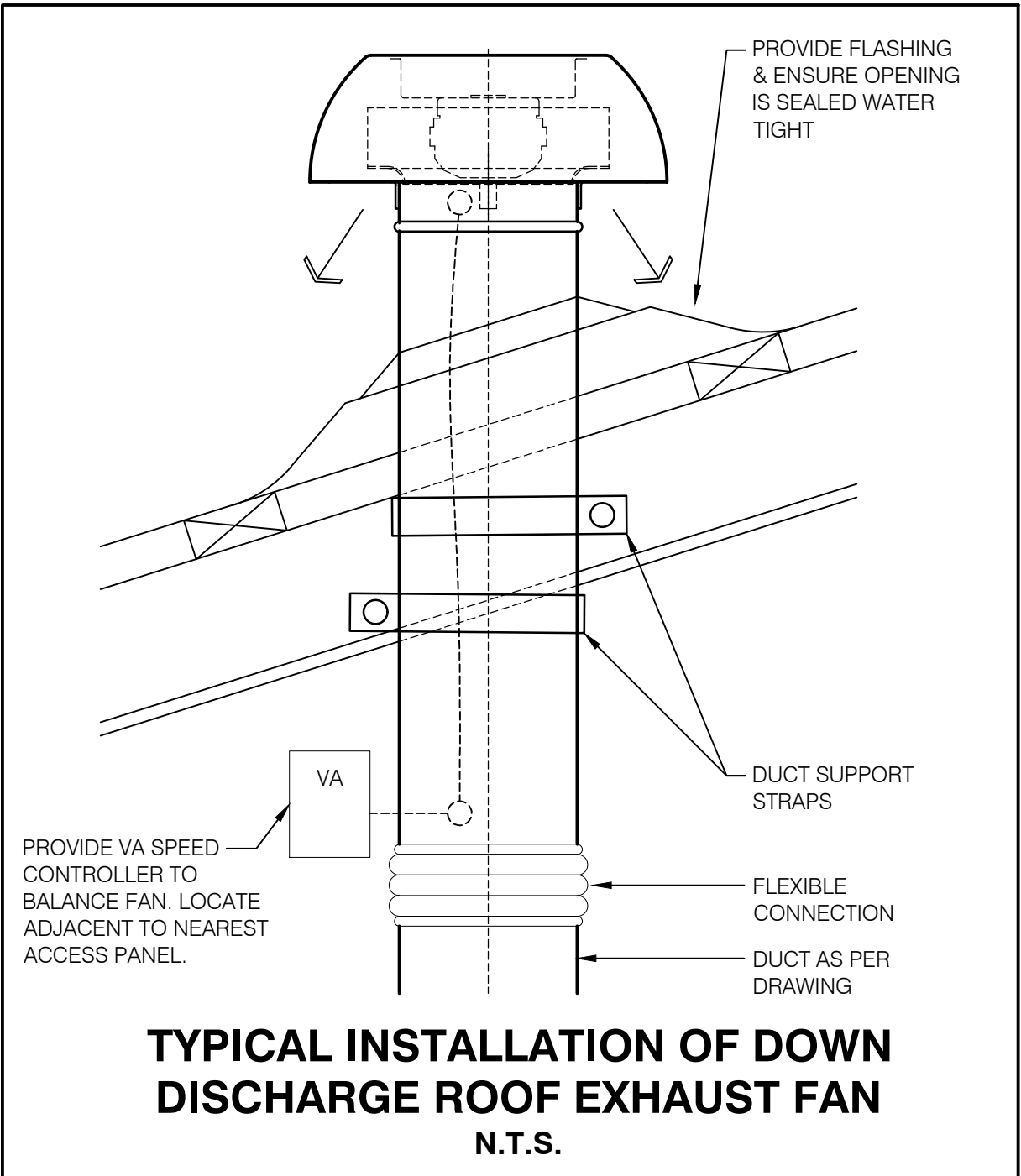
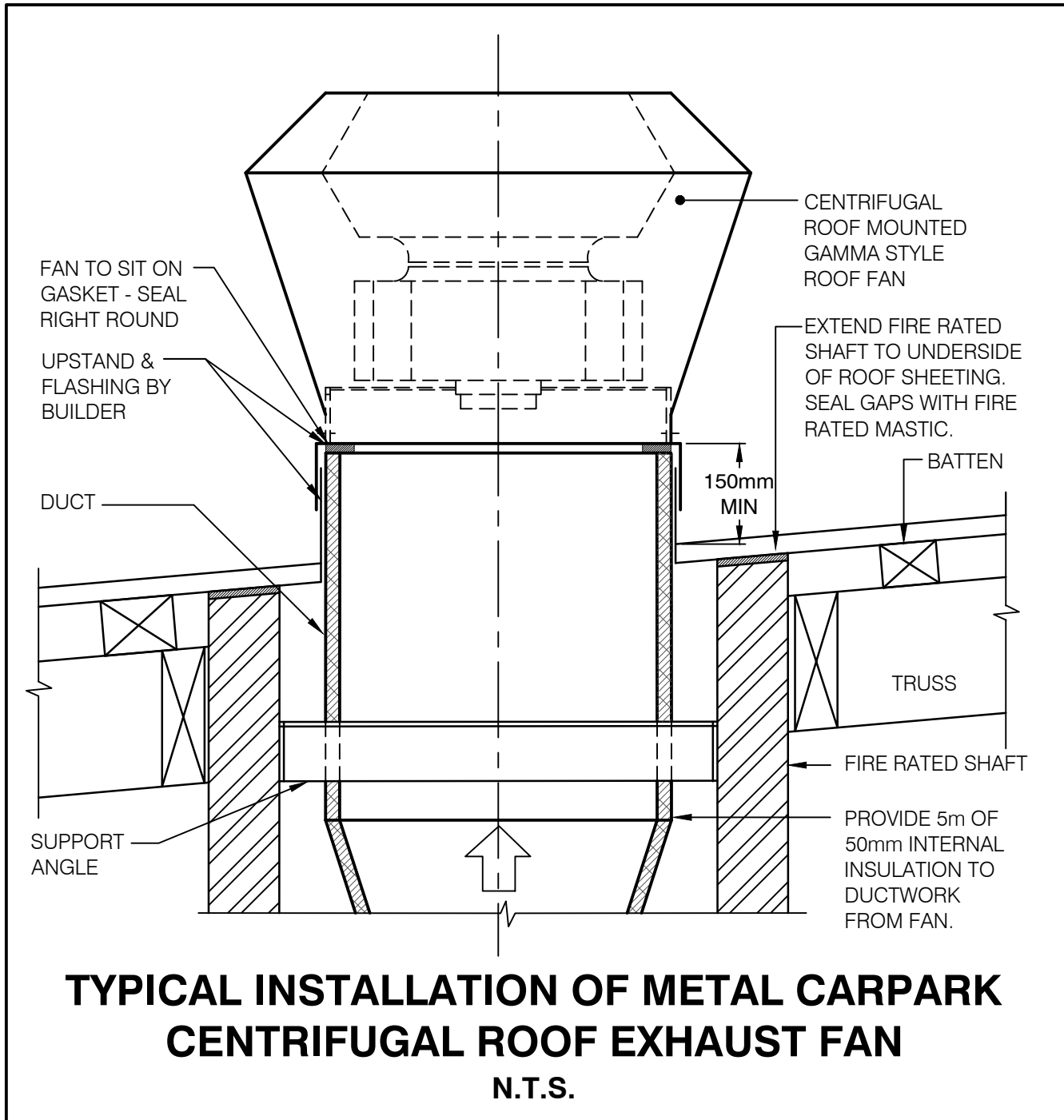
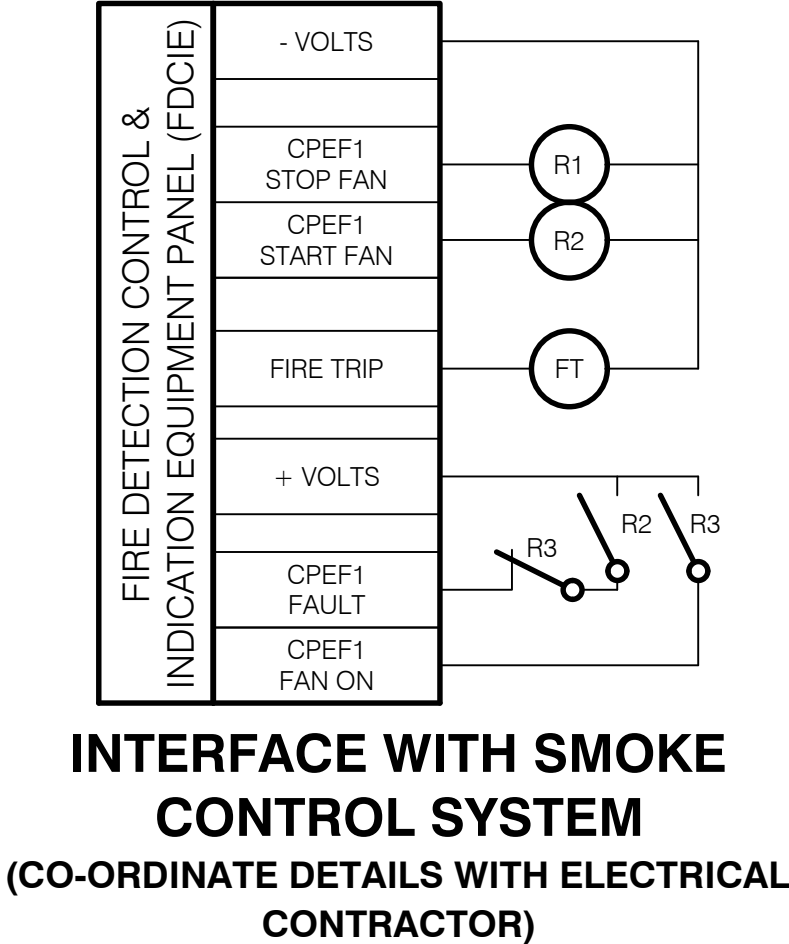
MECHANICAL SERVICES SWITCHBOARD - MSSB1

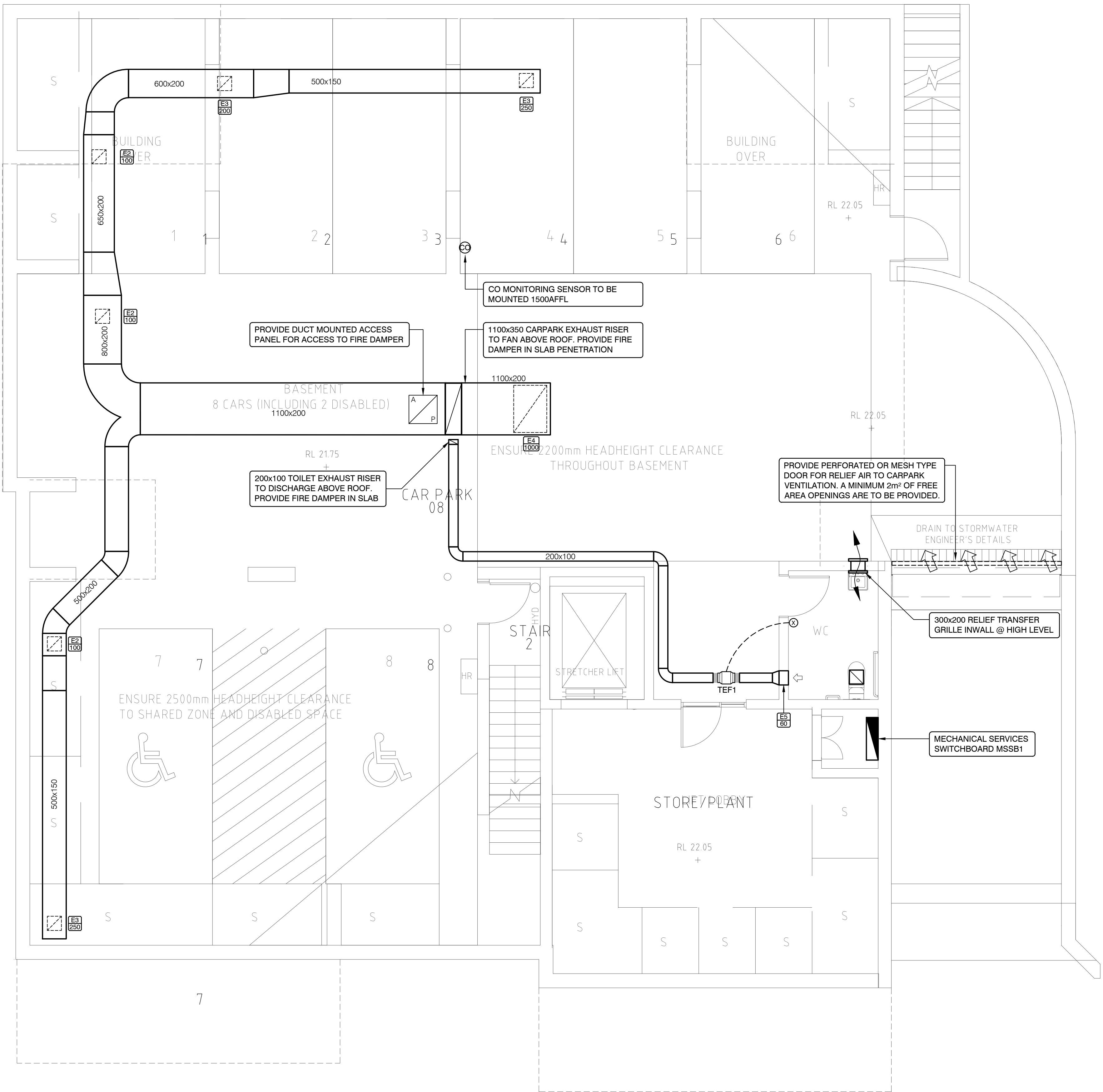
NOTES:

- SWITCHBOARD TO BE WALL MOUNTED.
- ELECTRICAL TRADE IS TO PROVIDE POWER SUPPLY TO THE SWITCHBOARD. MECHANICAL TRADE IS TO MAKE FINAL CONNECTIONS. FULLY CO-ORDINATE INSTALLATION WITH ELECTRICAL TRADE.
- CIRCUIT BREAKERS ARE TO BE THE SAME MAKE & MODELS AS THOSE USED IN THE MAIN ELECTRICAL SWITCHBOARD & SHALL BE CASCADED & DISCRIMINANT WITH THE SUPPLY. PROVIDE CASCADING & DISCRIMINATION CURVES FOR APPROVAL.
- THE CARPARK EXHAUST FAN IS TO BE CONTROLLED VIA AN ATMOSPHERIC CONTAMINANT MONITORING SYSTEM MONITORING CARBON MONOXIDE (CO) LEVELS. THE SYSTEM SHALL BE IN ACCORDANCE WITH AS1668.2.
- THE CARPARK EXHAUST FAN IS TO BE VARIABLE SPEED DRIVE TO MODULATE DUTY AS REQUIRED BY THE CO DETECTION SYSTEM.
- CARPARK EXHAUST FAN SHALL BE SET TO START & RUN AT FULL DUTY ON RECEIPT OF FIRE ALARM. ALL WIRING FROM THE FDCIE TO MECHANICAL FIRE TRIP RELAYS IN THE SWITCHBOARD IS TO BE DONE BY ELECTRICAL /FIRE CONTRACTORS, MECHANICAL TRADE IS TO MAKE FINAL CONNECTIONS & FULLY CO-ORDINATE INSTALLATION WITH ELECTRICAL/FIRE TRADES.

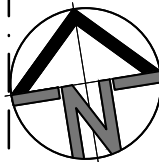
LEGEND

	ISOLATOR- FAULT MAKE LOAD BREAK		NORMALLY OPEN CONTACT		OVERLOAD CONTACT		FUSE
	CIRCUIT BREAKER RCD= RESIDUAL CURRENT DEVICE		NORMALLY CLOSED CONTACT		INDICATION LIGHT		CO SENSOR
	CONTACTOR/ RELAY EF = EXHAUST FAN R = RELAY SF = SUPPLY FAN		THERMAL / MAGNETIC OVERLOAD		2 POSITION SELECTOR SWITCH		
					TRANSFORMER		





BASEMENT



REV	DATE	NOTATION/AMENDMENT
2	05.10.18	DA ISSUE
1	31.08.18	DA ISSUE

DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE.
FIGURED DIMENSIONS TAKE PRECEDENCE.

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MN9833

BUSINESS PARTNER:

PROJECT:
**RESIDENTIAL HOUSING DEVELOPMENT
8-10 COLLETT PARADE,
NORTH PARRAMATTA**

TITLE:
**MECHANICAL SERVICES
BASEMENT LEVEL
VENTILATION LAYOUT**

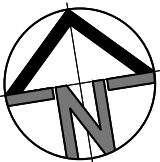
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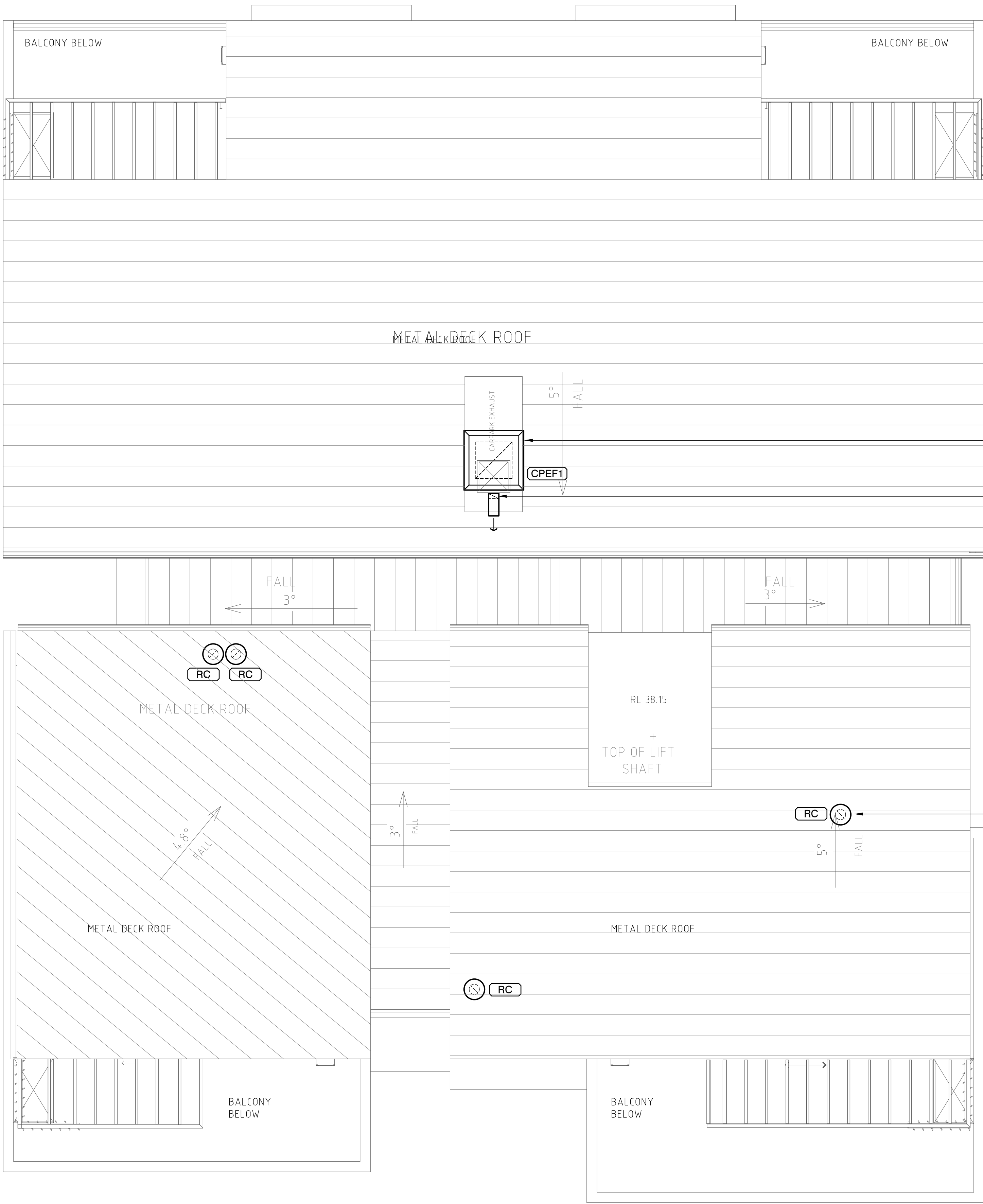
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DATE:	SCALE:	PROJ:	PROJECT NO:
10.08.18	1:50	-	-
STAGE:	DRAWN:	CHECKED:	NOMINATED ARCHITECT:
-	R.C.	B.HUNT	

TYPE:	SHEET:	REV:
M	MDA-03	2



ROOF



CARPARK EXHAUST FAN CPEF1. PROVIDE 50mm INTERNAL ACOUSTIC INSULATION TO FIRST 5m OF SHEETMETAL DUCT DROPPER FROM FAN.

200x100 TOILET EXHAUST DUCT WITH HORIZONTAL WEATHERPROOF DISCHARGE

UNDER & OVERFLASH EACH ROOF PENETRATION AND SEAL WATER TIGHT

REV	DATE	NOTATION/AMENDMENT
2	05.10.18	DA ISSUE
1	31.08.18	DA ISSUE

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BUSINESS PARTNER:

PROJECT:
**RESIDENTIAL HOUSING DEVELOPMENT
8-10 COLLETT PARADE,
NORTH PARRAMATTA**

TITLE:
**MECHANICAL SERVICES
ROOF VENTILATION LAYOUT**

FILE: **MN9833_M07-08.dwg**

PLOTTED:
05/10/2018/2.00PM

STATUS: DA ISSUE			
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STAGE: -	DRAWN: R.C.	CHECKED: B.HUNT	NOMINATED ARCHITECT:
TYPE: M	SHEET: MDA-08	REV: 2	