

INDEX OF DRAINAGE DRAWING SET

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C	25 AUG 25	T.Z.	S.W.W.	ISSUE FOR SECTION 4.55	 LMW DESIGN GROUP P/L Building Consultants and Structural Engineers 15 Woodlands Ave. Lugarno NSW 2210 Phone: (02) 9533 5778 Fax: (02) 9543 1058 Mobile: 0418 285 592 Email : lmwdesigngroup@gmail.com
B	22 MAR 23	S.C.	S.W.W.	UPDATED AS PER COUNCIL	
A	25 OCT 21	S.C.	S.W.W.	FOR DA	
REV.	DATE	BY	CHECKED	AMENDMENTS	

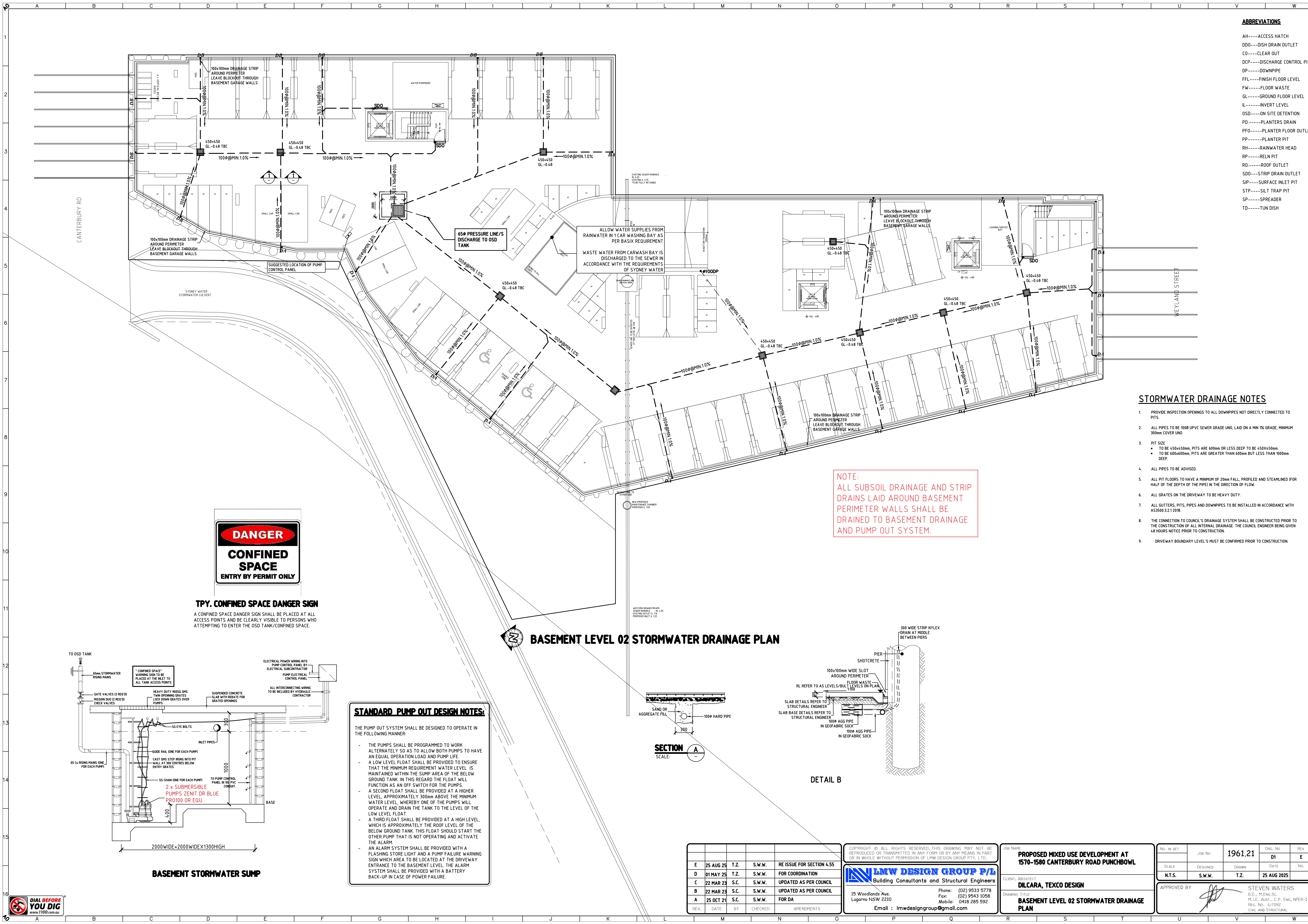
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INDEX OF DRAINAGE DRAWING SET

APPROVED BY  STEVEN WATERS
B.E., M.ENG.SC.
M.I.E. AUST., C.P. ENG, NPER-3
REG. NO. 417092
CIVIL AND STRUCTURAL



ABBREVIATIONS

- AH-----ACCESS HATCH
- DDO-----DISH DRAIN OUTLET
- CO-----CLEAR OUT
- DCP-----DISCHARGE CONTROL PIT
- DP-----DOWNPIPE
- FFL-----FINISH FLOOR LEVEL
- FW-----FLOOR WASTE
- GL-----GROUND FLOOR LEVEL
- IL-----INVERT LEVEL
- OSD-----ON SITE DETENTION
- PD-----PLANTERS DRAIN
- PFO-----PLANTER FLOOR OUTLET
- PP-----PLANTER PIT
- RH-----RAINWATER HEAD
- RP-----REIN PIT
- RO-----ROOF OUTLET
- SDO-----STRIP DRAIN OUTLET
- SIP-----SURFACE INLET PIT
- STP-----SILT TRAP PIT
- SP-----SPREADER
- TD-----TUN DISH

STORMWATER DRAINAGE NOTES

- PROVIDE INSPECTION OPENINGS TO ALL DOWNPIPES NOT DIRECTLY CONNECTED TO PITS.
- ALL PIPES TO BE 1000 UPVC SEWER GRADE UNO, LAID ON A MIN 1% GRADE, MINIMUM 300mm COVER UNO.
- PIT SIZE
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- ALL PIT FLOORS TO HAVE A MINIMUM OF 20mm FALL, PROFILED AND STEAMLANED (FOR HALF OF THE DEPTH OF THE PIPE) IN THE DIRECTION OF FLOW.
- ALL GRATES ON THE DRIVEWAY TO BE HEAVY DUTY.
- ALL GUTTERS, PITS, PIPES AND DOWNPIPES TO BE INSTALLED IN ACCORDANCE WITH AS3500.3.2.1 2018.
- THE CONNECTION TO COUNCIL'S DRAINAGE SYSTEM SHALL BE CONSTRUCTED PRIOR TO THE CONSTRUCTION OF ALL INTERNAL DRAINAGE. THE COUNCIL ENGINEER BEING GIVEN 48 HOURS NOTICE PRIOR TO CONSTRUCTION.
- DRIVEWAY BOUNDARY LEVEL'S MUST BE CONFIRMED PRIOR TO CONSTRUCTION.

BASEMENT LEVEL 02 STORMWATER DRAINAGE PLAN

STANDARD PUMP OUT DESIGN NOTES:

- THE PUMP OUT SYSTEM SHALL BE DESIGNED TO OPERATE IN THE FOLLOWING MANNER:
- THE PUMPS SHALL BE PROGRAMMED TO WORK ALTERNATELY SO AS TO ALLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP LIFE.
 - A LOW LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIREMENT WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK. IN THIS REGARD THE FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS.
 - A SECOND FLOAT SHALL BE PROVIDED AT A HIGHER LEVEL, APPROXIMATELY 300mm ABOVE THE MINIMUM WATER LEVEL, WHEREBY ONE OF THE PUMPS WILL OPERATE AND DRAIN THE TANK TO THE LEVEL OF THE LOW LEVEL FLOAT.
 - A THIRD FLOAT SHALL BE PROVIDED AT A HIGH LEVEL, WHICH IS APPROXIMATELY THE ROOF LEVEL OF THE BELOW GROUND TANK. THIS FLOAT SHOULD START THE OTHER PUMP THAT IS NOT OPERATING AND ACTIVATE THE ALARM.
 - AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STORE LIGHT AND A PUMP FAILURE WARNING SIGN WHICH AREA TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT LEVEL. THE ALARM SYSTEM SHALL BE PROVIDED WITH A BATTERY BACK-UP IN CASE OF POWER FAILURE.

BASEMENT STORMWATER SUMP

DETAIL B

SECTION A



REV.	DATE	BY	CHECKED	AMENDMENTS
E	25 AUG 25	T.Z.	S.W.W.	RE ISSUE FOR SECTION 4.55
D	01 MAY 25	T.Z.	S.W.W.	FOR COORDINATION
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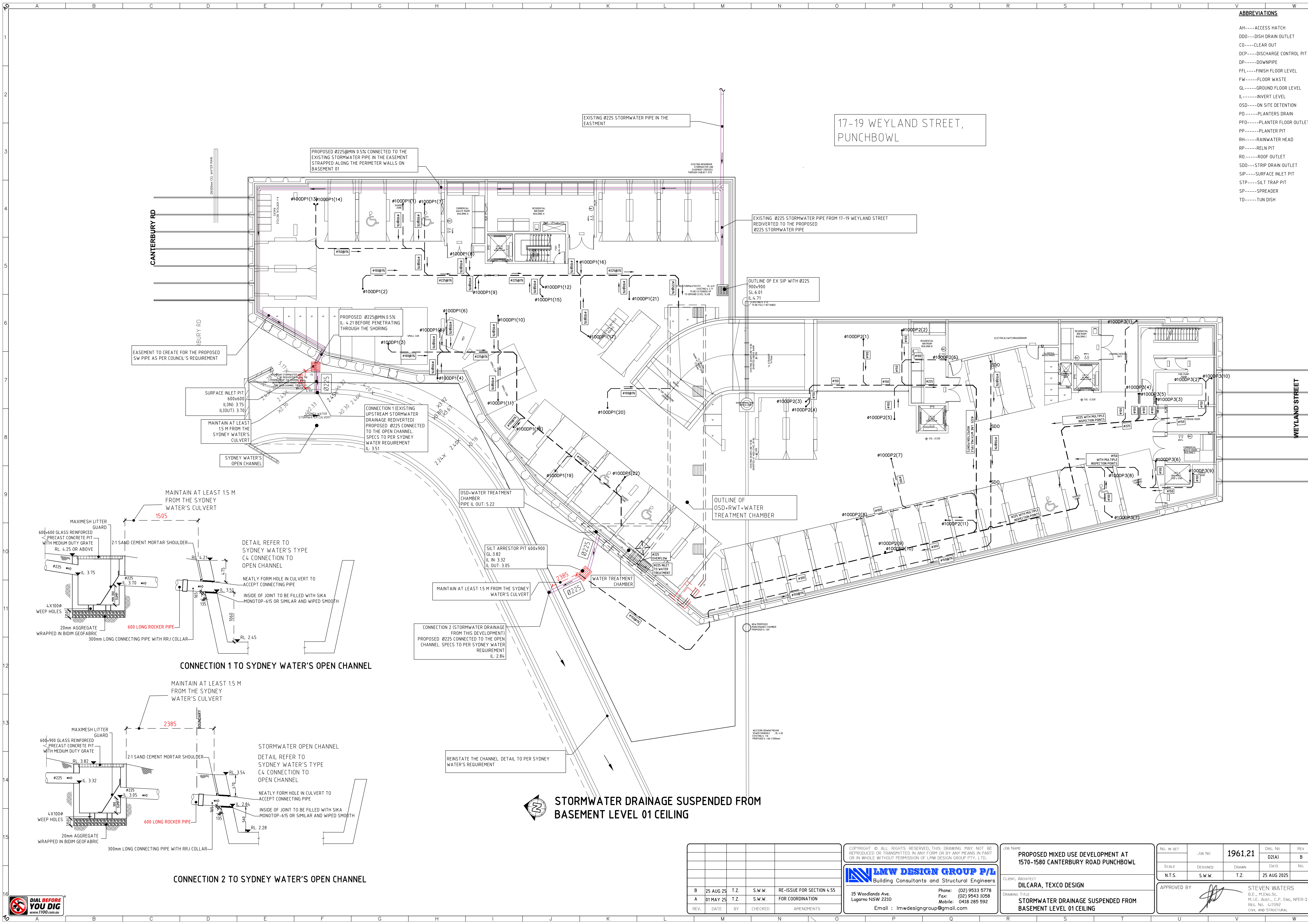
Email: lmwdesigngroup@gmail.com

JOB NAME
PROPOSED MIXED USE DEVELOPMENT AT 1570-1580 CANTERBURY ROAD PUNCHBOWL

CLIENT, ARCHITECT
DILCARA, TEXCO DESIGN

DRAWING TITLE
BASEMENT LEVEL 02 STORMWATER DRAINAGE PLAN

No. IN SET	JOB No	1961.21	DRG. No	REV
SCALE	DESIGNED	DRAWN	DATE	No.
N.T.S.	S.W.W.	T.Z.	25 AUG 2025	
APPROVED BY	STEVEN WATERS B.E., M.ENG. SC. M.L.E., AUST., C.P. ENG. NFER-3 REG. No. G17092 CIVIL AND STRUCTURAL			



ABBREVIATIONS	
AH----	ACCESS HATCH
DDO----	DISH DRAIN OUTLET
CO----	CLEAR OUT
DCP----	DISCHARGE CONTROL PIT
DP----	DOWNPIPE
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PFO----	PLANTER FLOOR OUTLET
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RH----	RAINWATER HEAD
RP----	RELIN PIT
RO----	ROOF OUTLET
SDO----	STRIP DRAIN OUTLET
SIP----	SURFACE INLET PIT
STP----	SILT TRAP PIT
SP----	SPREADER
TD----	TUN DISH

17-19 WEYLAND STREET,
PUNCHBOWL

CONNECTION 1 TO SYDNEY WATER'S OPEN CHANNEL

CONNECTION 2 TO SYDNEY WATER'S OPEN CHANNEL

STORMWATER DRAINAGE SUSPENDED FROM BASEMENT LEVEL 01 CEILING

REV.	DATE	BY	CHECKED	AMENDMENTS
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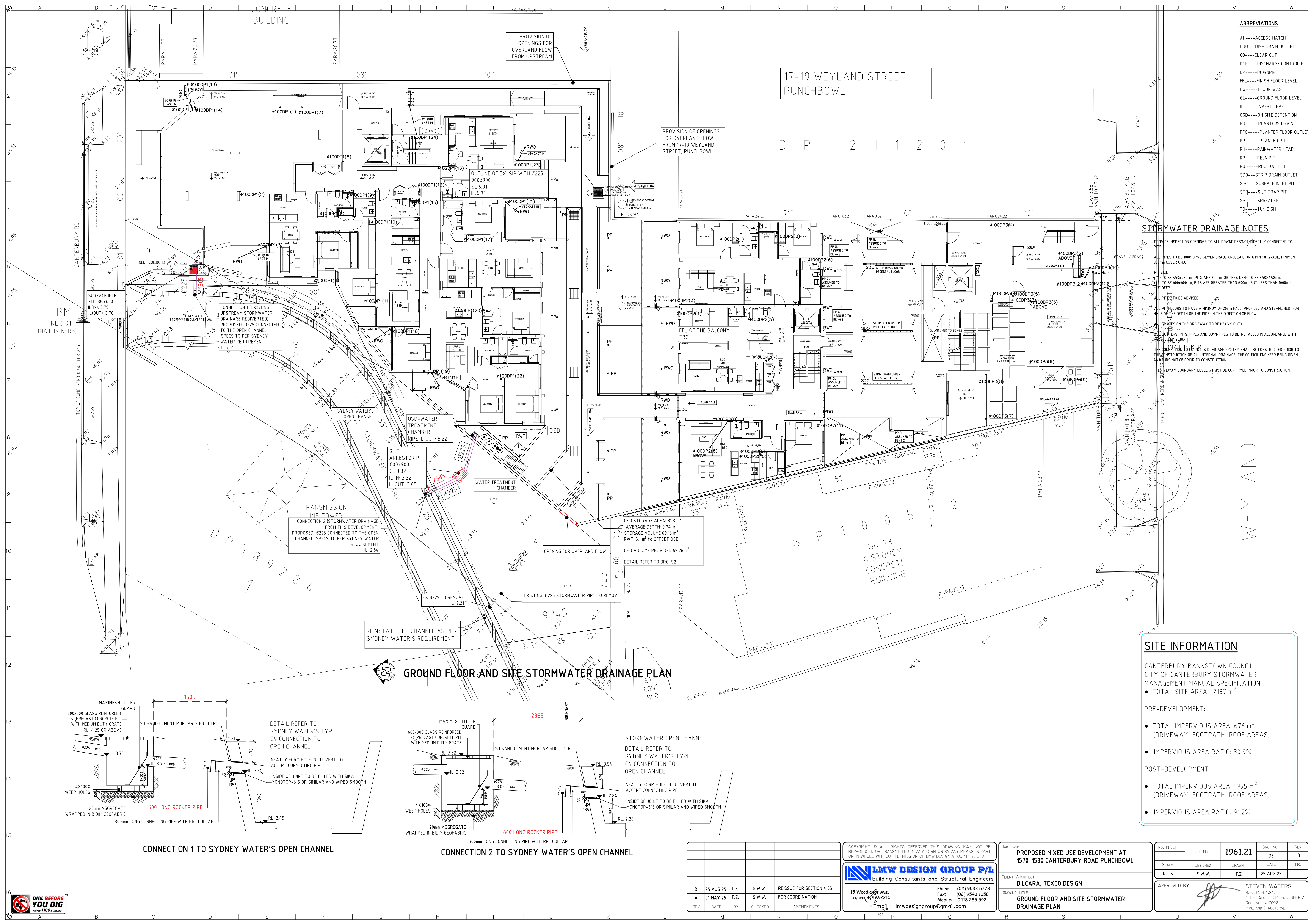
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CLIENT, ARCHITECT
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DRAWING TITLE
STORMWATER DRAINAGE SUSPENDED FROM BASEMENT LEVEL 01 CEILING

No. in SET	JOB No	1961.21	DRG. No	REV
			D2(A)	B
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SITE INFORMATION

CANTERBURY BANKSTOWN COUNCIL
CITY OF CANTERBURY STORMWATER
MANAGEMENT MANUAL SPECIFICATION
• TOTAL SITE AREA: 2187 m²

PRE-DEVELOPMENT:

- TOTAL IMPERVIOUS AREA: 676 m²
(DRIVEWAY, FOOTPATH, ROOF AREAS)
- IMPERVIOUS AREA RATIO: 30.9%

POST-DEVELOPMENT:

- TOTAL IMPERVIOUS AREA: 1995 m²
(DRIVEWAY, FOOTPATH, ROOF AREAS)
- IMPERVIOUS AREA RATIO: 91.2%

GROUND FLOOR AND SITE STORMWATER DRAINAGE PLAN

CONNECTION 1 TO SYDNEY WATER'S OPEN CHANNEL

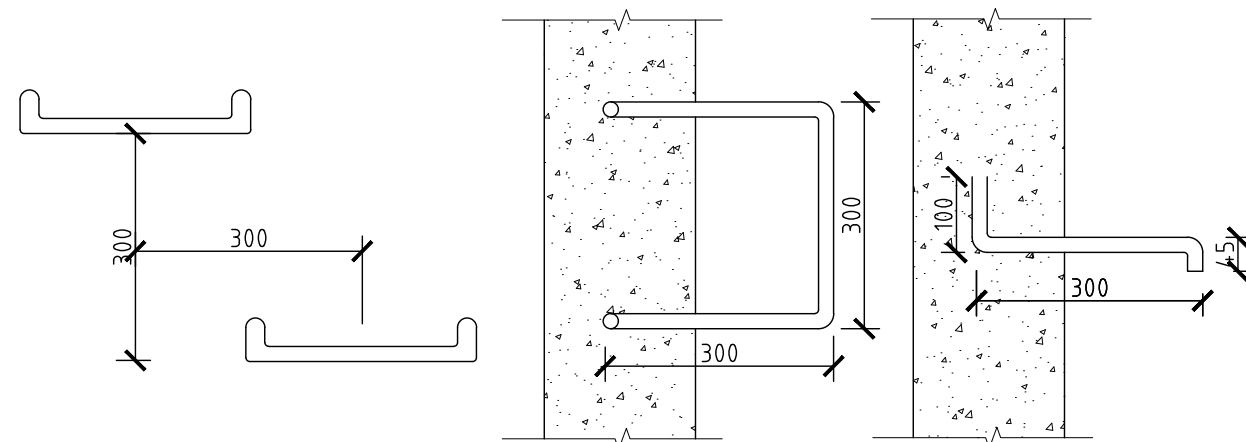
CONNECTION 2 TO SYDNEY WATER'S OPEN CHANNEL

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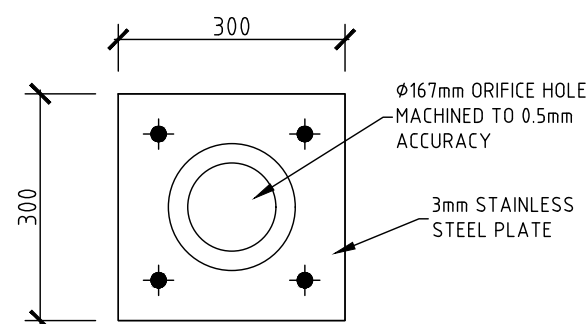
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JOB NAME PROPOSED MIXED USE DEVELOPMENT AT 1570-1580 CANTERBURY ROAD PUNCHBOWL	
CLIENT, ARCHITECT DILCARA, TEXCO DESIGN	
DRAWING TITLE GROUND FLOOR AND SITE STORMWATER DRAINAGE PLAN	

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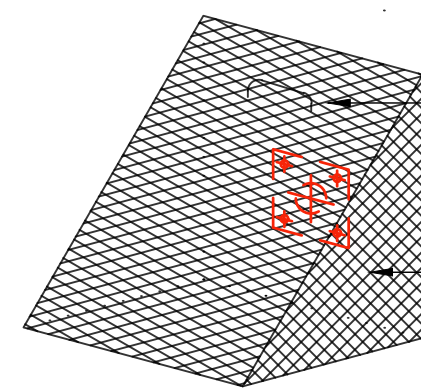


TPY. STEP IRON DETAIL



TYPICAL ORIFICE PLATE
ELEVATION

NTS



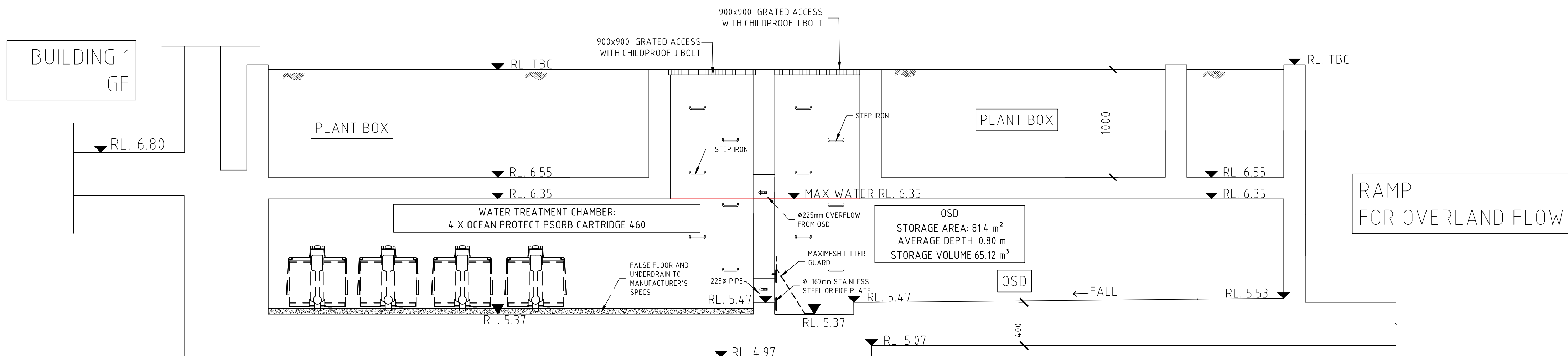
TYPICAL TRASH SCREEN

NTS



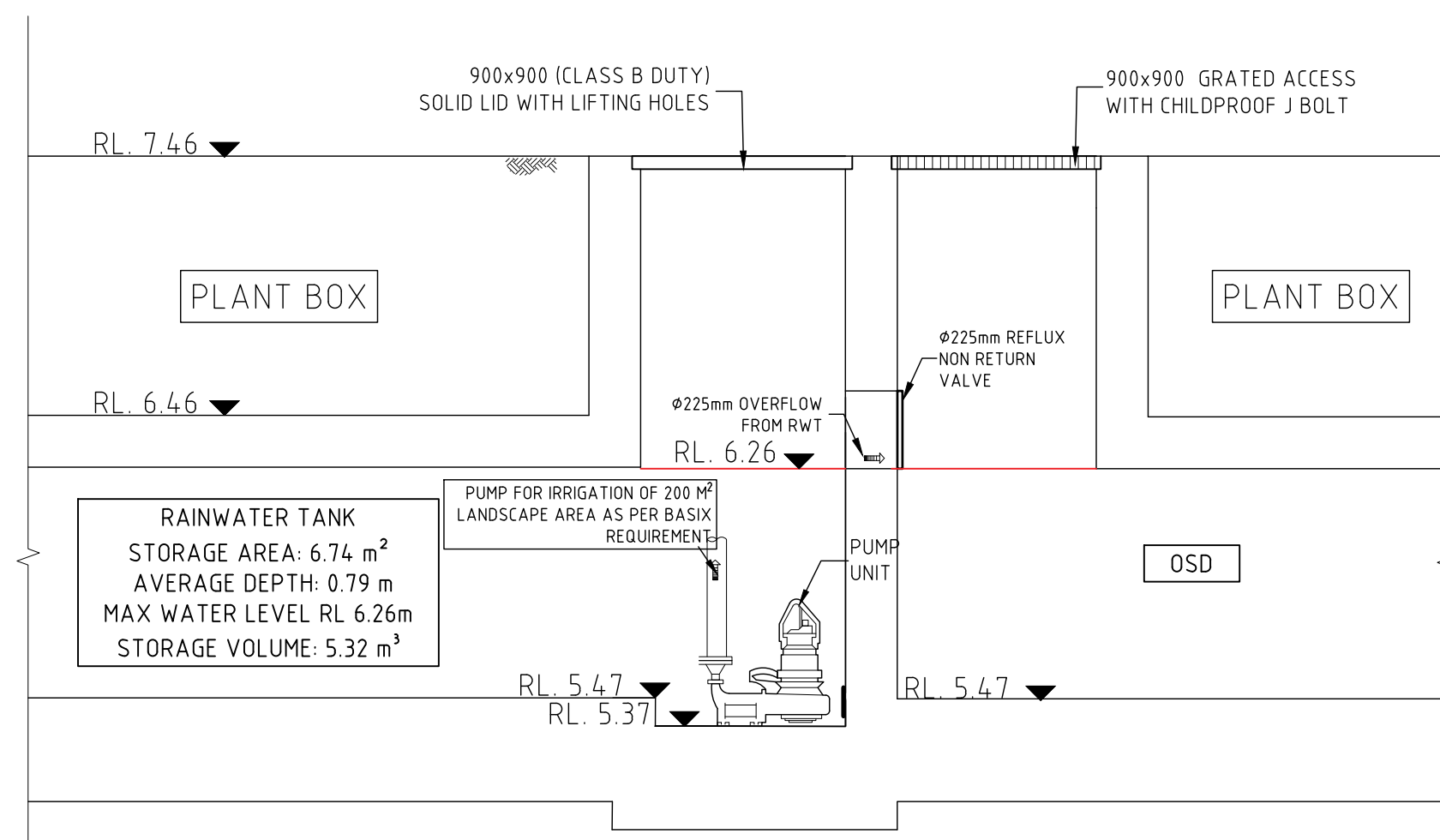
TPY. CONFINED SPACE DANGER SIGN

A CONFINED SPACE DANGER SIGN SHALL BE PLACED AT ALL ACCESS POINTS AND BE CLEARLY VISIBLE TO PERSONS WHO ATTEMPTING TO ENTER THE OSD TANK/CONFINED SPACE.



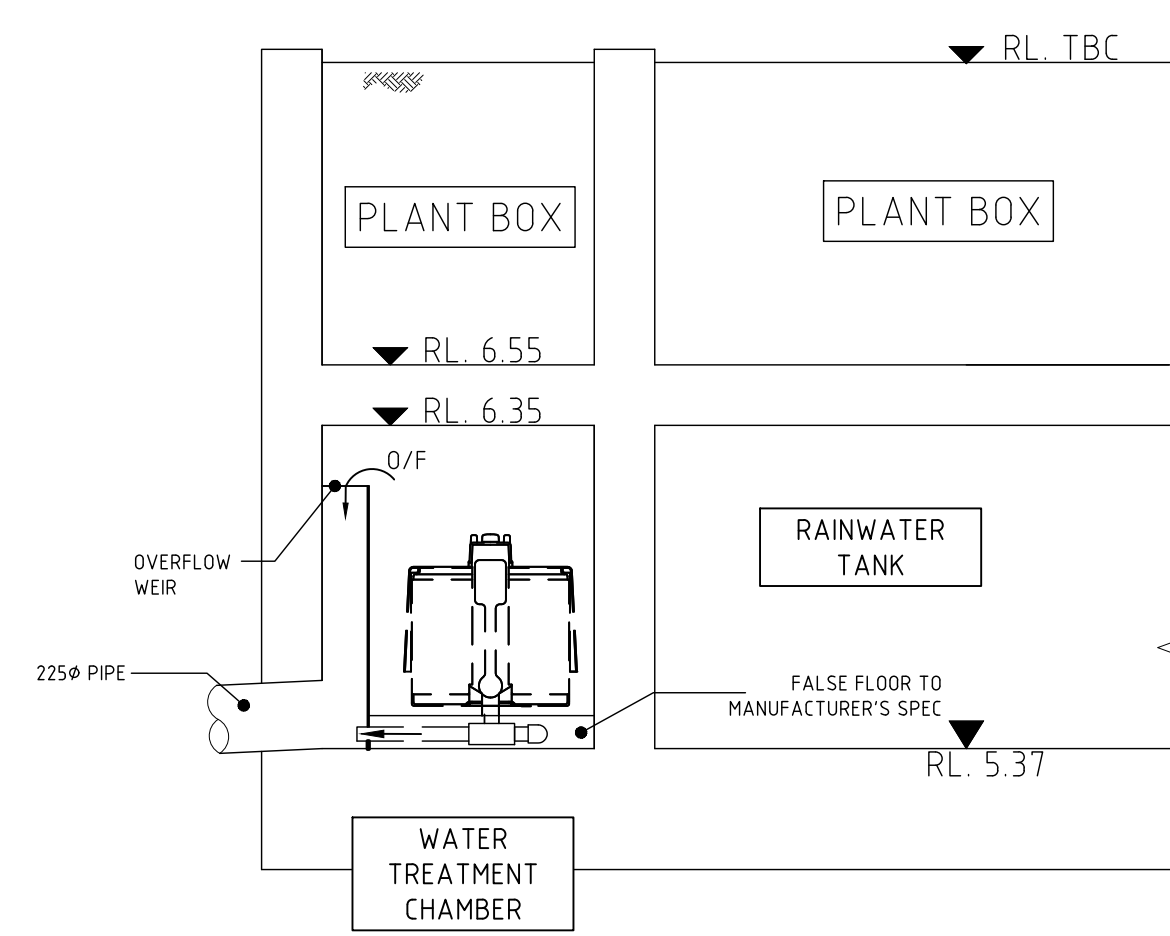
SECTION A
SCALE: 1/10

OSD AND WATER TREATMENT CHAMBER



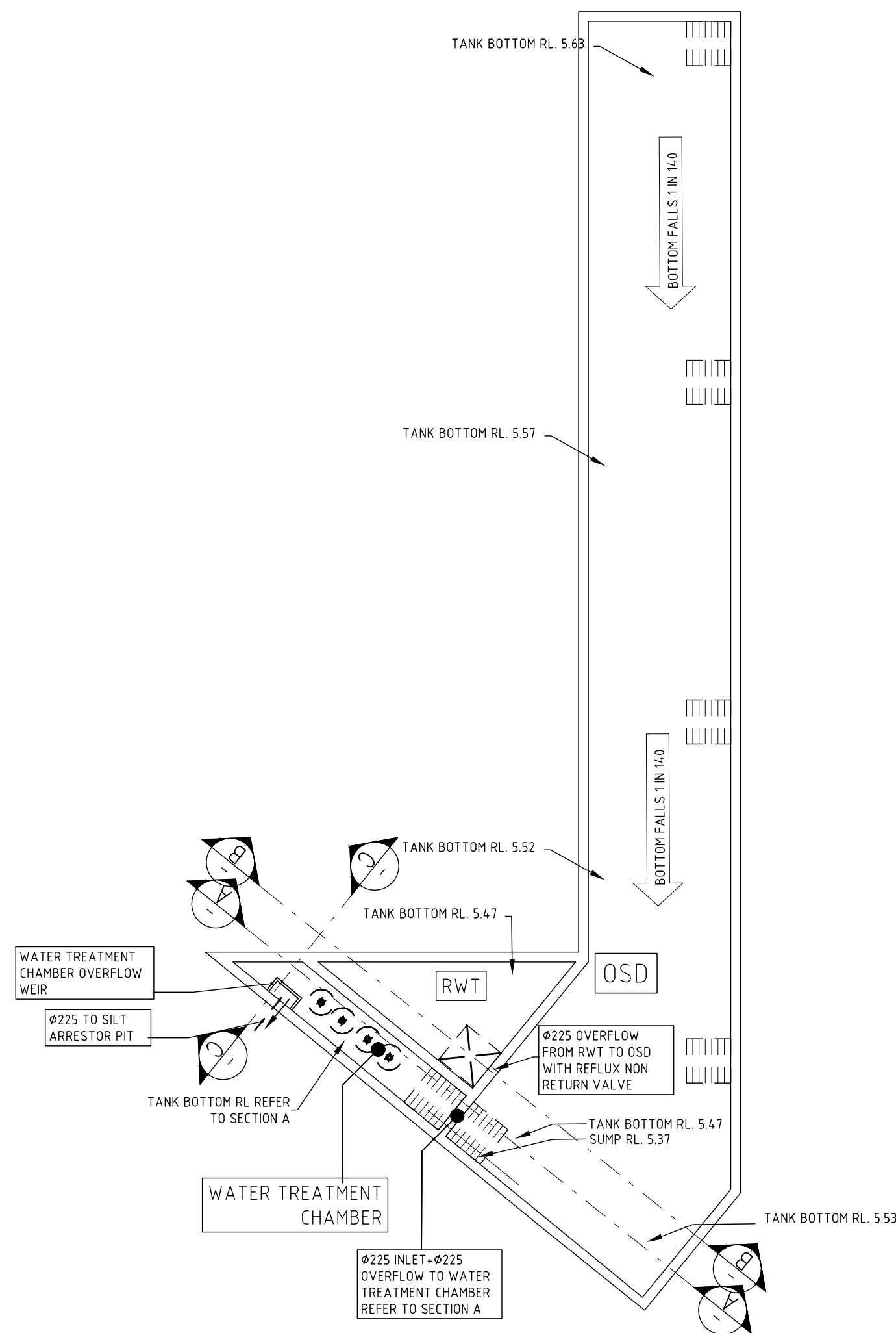
SECTION B
SCALE: 1/10

RAINWATER TANK TO OSD TANK



SECTION C
SCALE: 1/10

RAINWATER TANK AND WATER TREATMENT CHAMBER



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D	01 MAY 25	T.Z.	S.W.W.	FOR COORDINATION
C2	25 MAR 25	T.Z.	S.W.W.	UPDATE
C1	10 MAR 25	T.Z.	S.W.W.	UPDATE
C	06 MAR 25	T.Z.	S.W.W.	UPDATE

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JOB NAME
**PROPOSED MIXED USE DEVELOPMENT AT
1570-1580 CANTERBURY ROAD PUNCBOWL**

CLIENT, ARCHITECT

DRAWING TITLE
DETAILS OF OSD + RWT + WATER TREATMENT CHAMBER

No. IN SET	JOB No	1961.21	DRG. No	REV
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STEVEN WATERS
B.E., M.Eng.Sc.
M.I.E. Aust., C.P. Eng. NPER-3
REG. No. 447092
CIVIL AND STRUCTURAL





MUSIC RESULT

Online maintenance tracker

With many local authorities implementing complex and onerous stormwater regulations and water quality standards, compliance is an increasingly important issue for asset owners. The Stormwater360 Maintenance Service designs a sitespecific maintenance plan for each facility and through proper documentation and reporting provides evidence that all relevant procedures have been adhered to. In addition, Stormwater360 offers the unique service of online tracking for your maintenance and reporting, which enables you to access up-to-date images and reports of your system's maintenance.

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Water Sensitive Urban Design (WSUD) is water management that seeks to replicate the natural water cycle in urban areas. WSUD can:

- Protect our waterways by capturing, treating and productively using rainwater and stormwater before it enters our rivers.
- Prevent or reduce flooding in targeted locations.
- Reduce run off volume. The high amount of hard surfaces in cities mean that water cannot infiltrate the ground and enters creeks at a high rate causing erosion of creek beds.
- Reduce potable water use. Minimising the use of drinking water for things other than drinking through water efficient fixtures, rainwater tanks and enabling water reuse (rainwater, stormwater and greywater).
- Provide wildlife habitat.
- Create public open space, recreational opportunities and visual amenity that enhance and improve the look and feel of urban areas.

COUNCIL'S WATER SENSITIVE URBAN DESIGN STRATEGY

D	25 AUG 25	T.Z.	S.W.W.	REISSUE FOR SECTION 4.55
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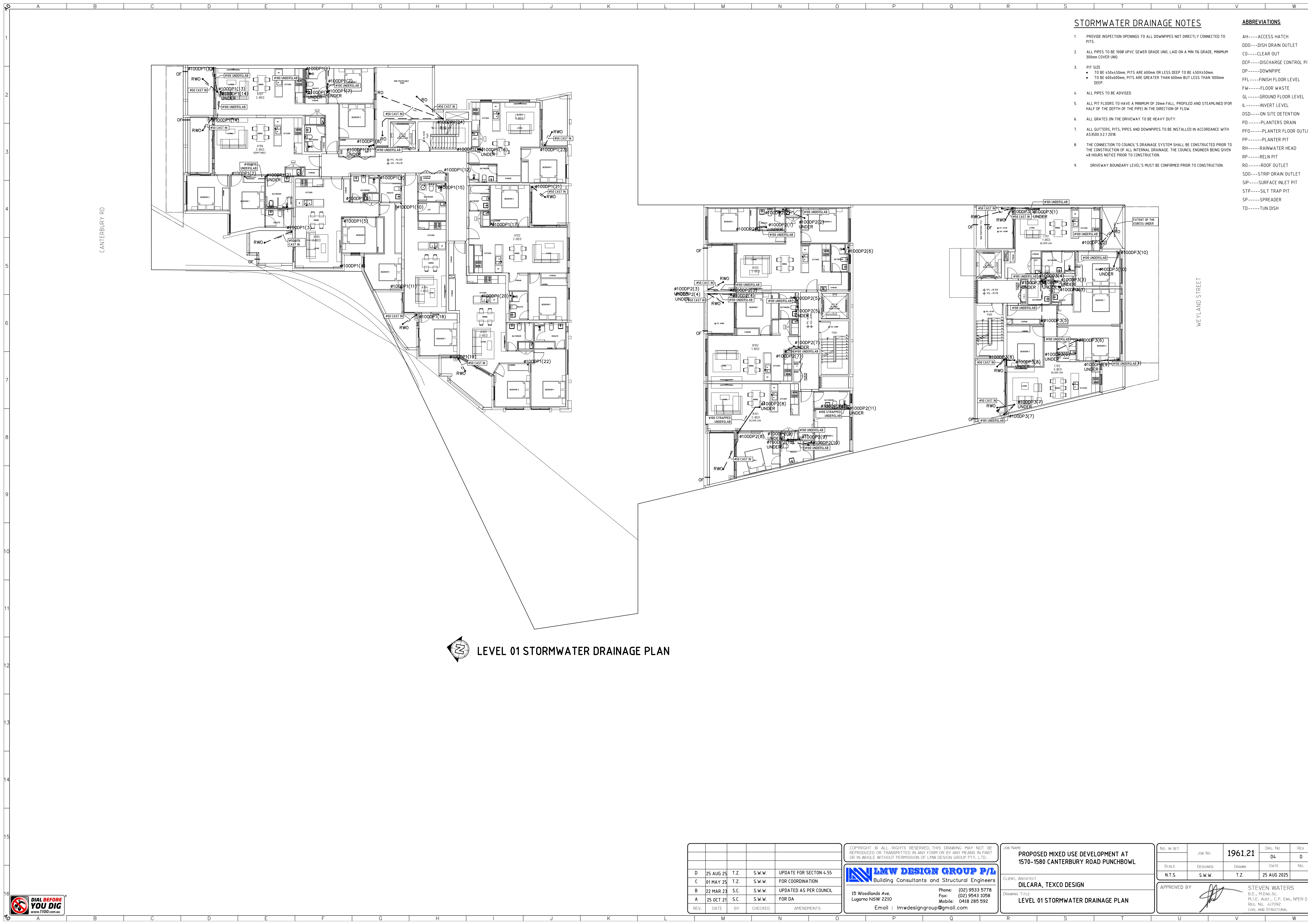
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DRAWING TITLE	MUSIC CALCULATION AND DETAILS

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CIVIL AND STRUCTURAL





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 **LEVEL 01 STORMWATER DRAINAGE PLAN**



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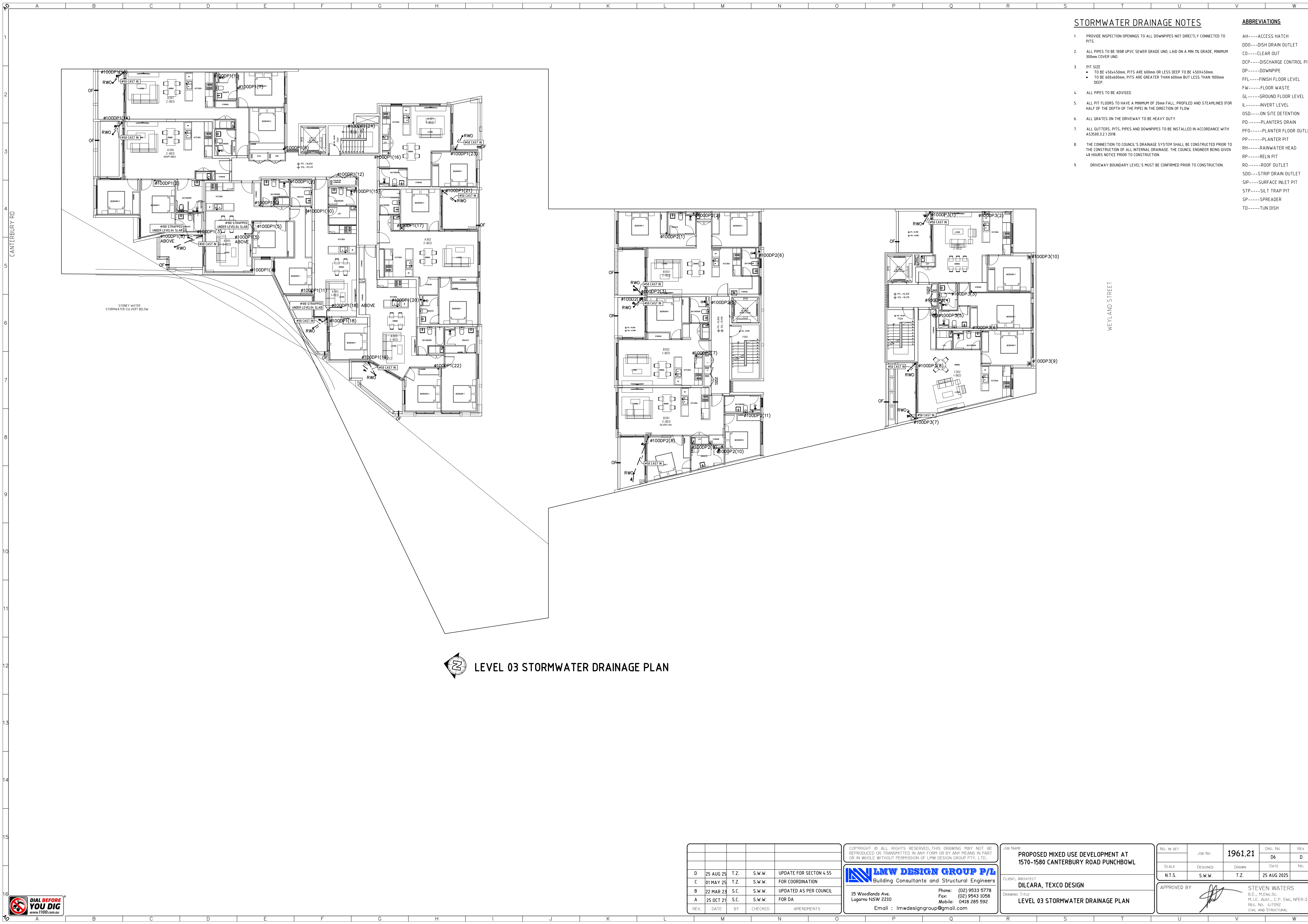
JOB NAME
PROPOSED MIXED USE DEVELOPMENT AT 1570-1580 CANTERBURY ROAD PUNCHBOWL

CLIENT, ARCHITECT
DILCARA, TEXCO DESIGN

DRAWING TITLE
LEVEL 02 STORMWATER DRAINAGE PLAN

NO. IN SET	JOB NO	1961.21	DRG. NO	REV
SCALE	DESIGNED	DRAWN	DATE	NO.
N.T.S.	S.W.W.	T.Z.	25 AUG 2025	
APPROVED BY	STEVEN WATERS B.E., M.ENG.SC. M.L.E., AUST., C.P. ENG. NFER-3 REG. NO. 617092 CIVIL AND STRUCTURAL			





STORMWATER DRAINAGE NOTES

1. PROVIDE INSPECTION OPENINGS TO ALL DOWNPIPES NOT DIRECTLY CONNECTED TO PITS.
2. ALL PIPES TO BE 1000 UPVC SEWER GRADE UNO, LAID ON A MIN 1% GRADE, MINIMUM 300mm COVER UNO.
3. PIT SIZE
 - TO BE 450x150mm, PITS ARE 600mm OR LESS DEEP TO BE 450x150mm.
 - TO BE 600x600mm, PITS ARE GREATER THAN 600mm BUT LESS THAN 1000mm DEEP.
4. ALL PIPES TO BE ADVISED.
5. ALL PIT FLOORS TO HAVE A MINIMUM OF 20mm FALL, PROFILED AND STEAMLINED (FOR HALF OF THE DEPTH OF THE PIPE) IN THE DIRECTION OF FLOW.
6. ALL GRATES ON THE DRIVEWAY TO BE HEAVY DUTY.
7. ALL GUTTERS, PITS, PIPES AND DOWNPIPES TO BE INSTALLED IN ACCORDANCE WITH AS3500.3.2.1 2018.
8. THE CONNECTION TO COUNCIL'S DRAINAGE SYSTEM SHALL BE CONSTRUCTED PRIOR TO THE CONSTRUCTION OF ALL INTERNAL DRAINAGE. THE COUNCIL ENGINEER BEING GIVEN 48 HOURS NOTICE PRIOR TO CONSTRUCTION.
9. DRIVEWAY BOUNDARY LEVEL'S MUST BE CONFIRMED PRIOR TO CONSTRUCTION.

ABBREVIATIONS

- AH-----ACCESS HATCH
DDO-----DISH DRAIN OUTLET
CO-----CLEAR OUT
DCP-----DISCHARGE CONTROL PIT
DP-----DOWNPIPE
FFL-----FINISH FLOOR LEVEL
FW-----FLOOR WASTE
GL-----GROUND FLOOR LEVEL
IL-----INVERT LEVEL
OSD-----ON SITE DETENTION
PD-----PLANTERS DRAIN
PFO-----PLANTER FLOOR OUTLET
PP-----PLANTER PIT
RH-----RAINWATER HEAD
RP-----REIN PIT
RO-----ROOF OUTLET
SDO-----STRIP DRAIN OUTLET
SIP-----SURFACE INLET PIT
STP-----SILT TRAP PIT
SP-----SPREADER
TD-----TUN DISH

LEVEL 03 STORMWATER DRAINAGE PLAN



REV.	DATE	BY	CHECKED	AMENDMENTS
D	25 AUG 25	T.Z.	S.W.W.	UPDATE FOR SECTION 4.55
C	01 MAY 25	T.Z.	S.W.W.	FOR COORDINATION
B	22 MAR 23	S.C.	S.W.W.	UPDATED AS PER COUNCIL
A	25 OCT 21	S.C.	S.W.W.	FOR DA

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Building Consultants and Structural Engineers

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Lugarno NSW 2210

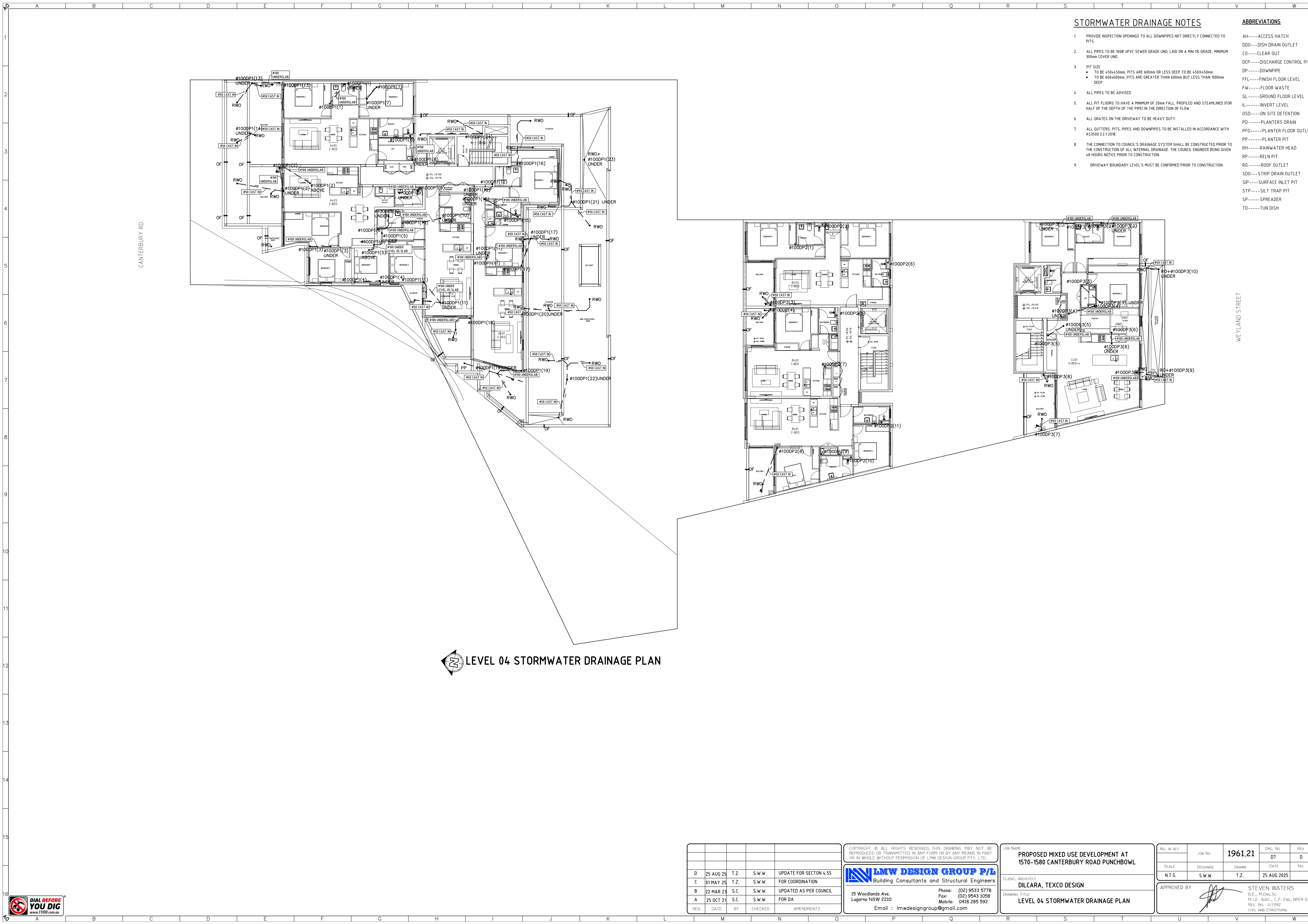
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JOB NAME
PROPOSED MIXED USE DEVELOPMENT AT 1570-1580 CANTERBURY ROAD PUNCHBOWL

CLIENT, ARCHITECT
DILCARA, TEXCO DESIGN

DRAWING TITLE
LEVEL 03 STORMWATER DRAINAGE PLAN

NO. IN SET	JOB NO	1961.21	DRG. NO	REV
SCALE	DESIGNED	DRAWN	DATE	NO.
N.T.S.	S.W.W.	T.Z.	25 AUG 2025	
APPROVED BY	STEVEN WATERS B.E., M.ENG.SC. M.L.E., AUST., C.P. ENG. NFER-3 REG. NO. 617092 CIVIL AND STRUCTURAL			



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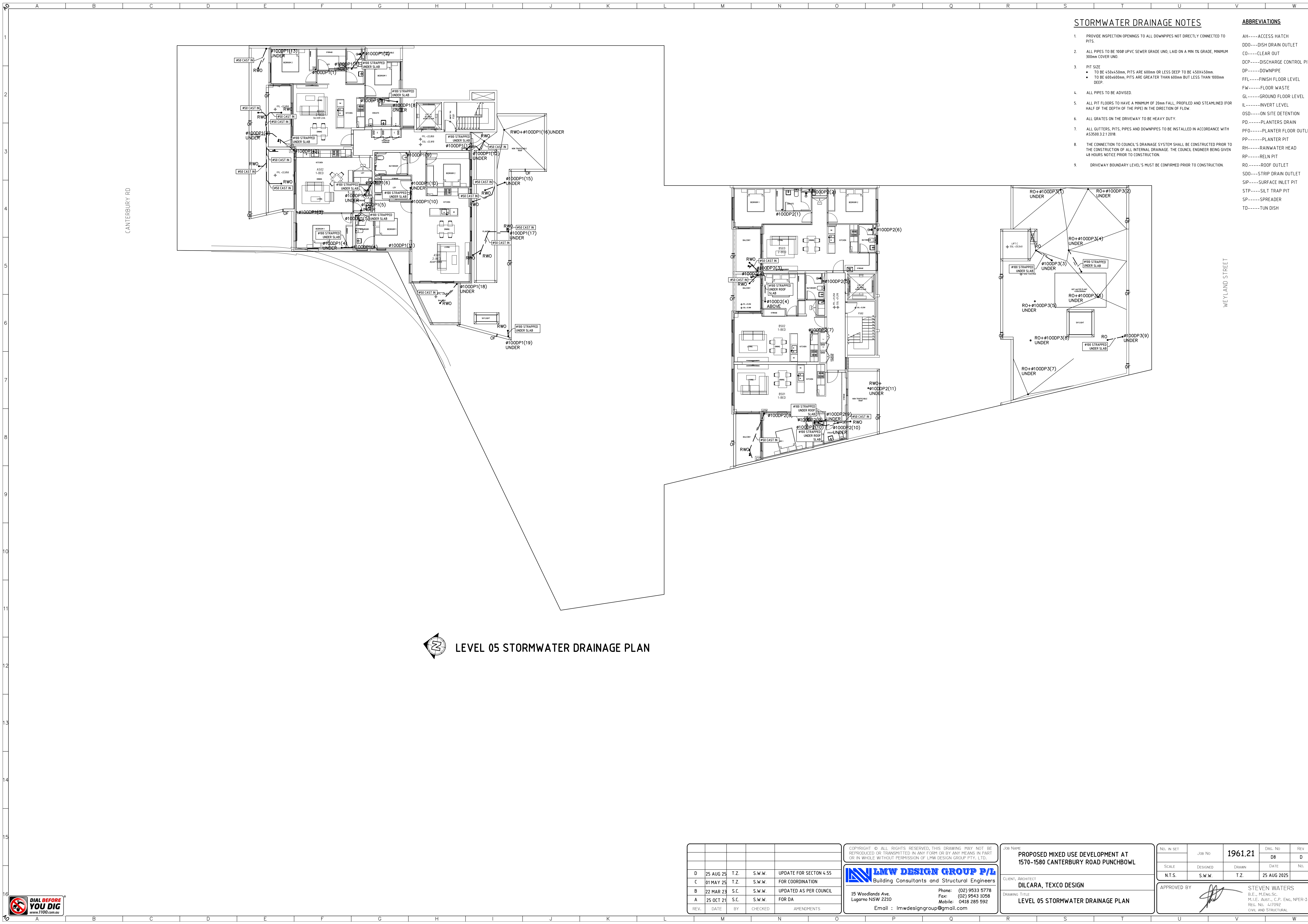
SP-----SPREADER

TD-----TUN DISH

LEVEL 04 STORMWATER DRAINAGE PLAN



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 LMW DESIGN GROUP P/L Building Consultants and Structural Engineers					CLIENT, ARCHITECT DILCARA, TEXCO DESIGN		SCALE DESIGNED DRAWN		DATE 01 MAY 25		No.	
15 Woodlands Ave. Lugarno NSW 2210 Phone: (02) 9533 5778 Fax: (02) 9543 1058 Mobile: 0418 285 592 Email: lmwdesigngroup@gmail.com					DRAWING TITLE LEVEL 04 STORMWATER DRAINAGE PLAN		APPROVED BY 		STEVEN WATERS B.E., M.ENG. SC. M.L.E., AUST., C.P. ENG. NFER-3 REG. No. 417092 CIVIL AND STRUCTURAL			
REV.	DATE	BY	CHECKED	AMENDMENTS								
D	25 AUG 25	T.Z.	S.W.W.	UPDATE FOR SECTION 4.55								
C	01 MAY 25	T.Z.	S.W.W.	FOR COORDINATION								
B	22 MAR 23	S.C.	S.W.W.	UPDATED AS PER COUNCIL								
A	25 OCT 21	S.C.	S.W.W.	FOR DA								



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PFO-----PLANTER FLOOR OUTLET

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RH-----RAINWATER HEAD

RP-----REIN PIT

RO-----ROOF OUTLET

SDD-----STRIP DRAIN OUTLET

SIP-----SURFACE INLET PIT

STP-----SILT TRAP PIT

SP-----SPREADER

TD-----TUN DISH

LEVEL 05 STORMWATER DRAINAGE PLAN



D	25 AUG 25	T.Z.	S.W.W.	UPDATE FOR SECTION 4.55
C	01 MAY 25	T.Z.	S.W.W.	FOR COORDINATION
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REV.	DATE	BY	CHECKED	AMENDMENTS

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JOB NAME

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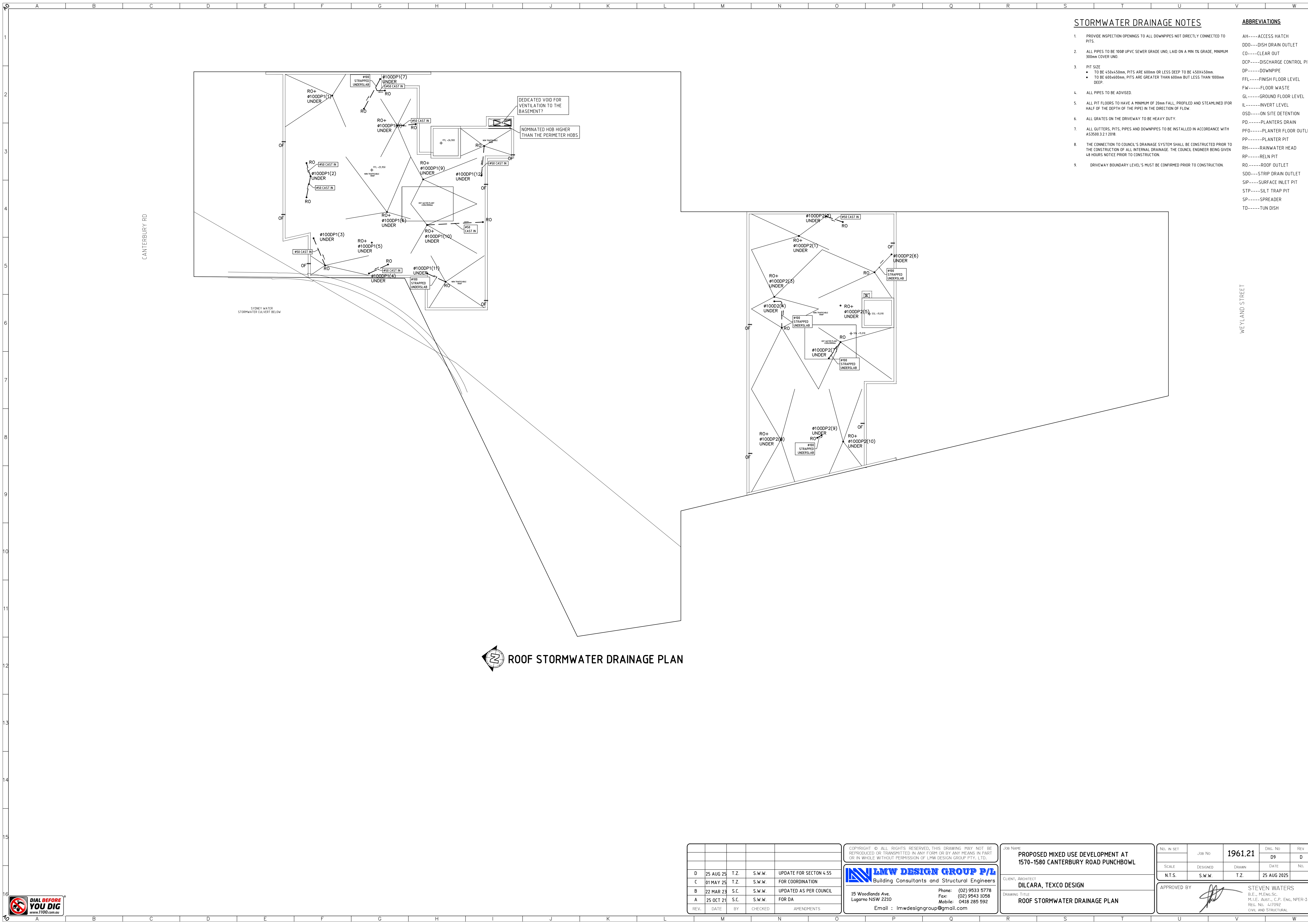
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DILCARA, TEXCO DESIGN

DRAWING TITLE

LEVEL 05 STORMWATER DRAINAGE PLAN

No. IN SET	JOB No	1961.21	DRG. No	REV
SCALE	DESIGNED	DRAWN	DATE	No.
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APPROVED BY	STEVEN WATERS B.E., M.ENG. SC. M.L.E., AUST., C.P. ENG. NFER-3 REG. No. 117092 CIVIL AND STRUCTURAL			



- ### STORMWATER DRAINAGE NOTES

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RP-----REIN PIT
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SDO-----STRIP DRAIN OUTLET
SIP-----SURFACE INLET PIT
STP-----SILT TRAP PIT
SP-----SPREADER
TD-----TUN DISH

 ROOF STORMWATER DRAINAGE PLAN



REV.	DATE	BY	CHECKED	AMENDMENTS
D	25 AUG 25	T.Z.	S.W.W.	UPDATE FOR SECTION 4.55
C	01 MAY 25	T.Z.	S.W.W.	FOR COORDINATION
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CLIENT, ARCHITECT
DILCARA, TEXCO DESIGN

DRAWING TITLE
ROOF STORMWATER DRAINAGE PLAN

NO. IN SET	JOB NO	1961.21	DRG. NO	REV
SCALE	DESIGNED	DRAWN	DATE	NO.
N.T.S.	S.W.W.	T.Z.	25 AUG 2025	

APPROVED BY

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M.L.E., AUST., C.P. ENG. NFER-3
REG. NO. 617092
CIVIL AND STRUCTURAL