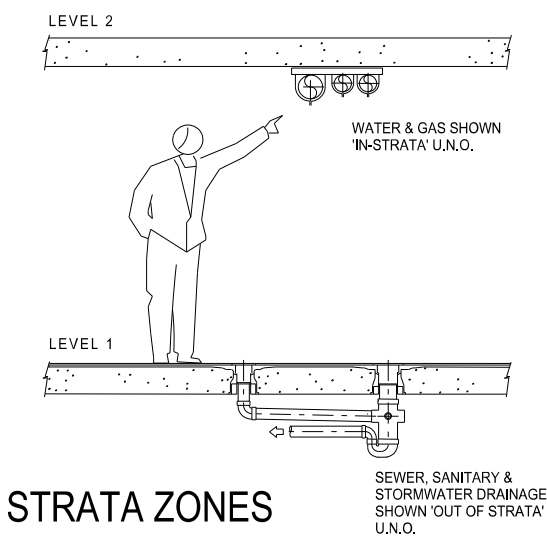


# STORMWATER DRAINAGE

## MIXED USE DEVELOPMENT: 134-144 PITT STREET, REDFERN



### GENERAL NOTES

1. INTRODUCTION  
THESE PLANS AND NOTES SHALL BE READ IN CONJUNCTION WITH THE APPROVED ARCHITECTURAL, STRUCTURAL AND OTHER SERVICE DRAWINGS AS WELL AS OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED THROUGHOUT THE TERM OF THE CONTRACT.

2. AUTHORITIES AND STANDARDS  
ALL WORK SHALL COMPLY TO AND BE IN ACCORDANCE WITH AS 3500, THE BCA AND THE REQUIREMENTS OF THE RELEVANT AUTHORITIES HAVING JURISDICTION OVER THE WORK.  
ALL WORK SHALL BE CARRIED OUT UNDER THE SUPERVISION OF A FULLY LICENSED PLUMBER.  
ALL TRADESMEN SHALL HAVE THE NECESSARY EXPERIENCE AND SKILLS TO PERFORM THE WORK DESCRIBED HEREIN.

3. STORMWATER DESIGN DRAWINGS  
THE DESIGN DRAWINGS ARE DIAGRAMMATIC ONLY AND SHOW DESIGN INTENT; THEY DO NOT PURPORT SHOW ALL NECESSARY FITTINGS AND ITEMS INCLUDING DROPPERS, RISERS, OFFSETS AND BRACKETS, THE CONTRACTOR SHALL ALLOW FOR ALL NECESSARY ITEMS AND FITTINGS REQUIRED FOR THE COMPLETE AND COMPLIANT INSTALLATION OF THE STORMWATER DRAINAGE SYSTEM.  
ANY DISCREPANCY OR VARIATIONS OF DESIGN SHALL BE REFERRED TO THE PRINCIPLE FOR DECISIONS PRIOR THE COMMENCEMENT OF ANY SUCH WORK.

4. MATERIALS AND WORKMANSHIP  
UNLESS INDICATED OTHERWISE THE WHOLE OF THE MATERIALS USED SHALL BE NEW, OF FIRST QUALITY AND OF AN APPROVED MANUFACTURE AND TYPE ALL WORK SHALL BE CARRIED OUT IN A TRADESMAN LIKE MANNER TO THE SATISFACTION OF THE PRINCIPLE.

5. EXISTING SERVICES  
THE LOCATION OF UNDERGROUND SERVICES SHOWN ON THESE PLANS HAVE BEEN PLOTTED FROM DIAGRAMS PROVIDED BY SERVICE AUTHORITIES. THIS INFORMATION HAS BEEN PREPARED FOR THE AUTHORITIES OWN USE AND MAY NOT BE ACCURATE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND IDENTIFYING ALL EXISTING SERVICES PRIOR ANY EXCAVATION OR WORK. THIS SHALL INCLUDE CARRYING OUT A "DIAL-BEFORE-YOU DIG" APPLICATION AND MAY REQUIRE POT-HOLING OVER SERVICES TO DETERMINE EXACT LEVELS AND LOCATION.

6. SETTING OUT  
THE CONSTRUCTION MANAGER SHALL PROVIDE DATUM POINTS, GRID LINES AND BENCH MARKS ONLY.  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SET OUT AND PLACEMENT OF CORE HOLES AND PENETRATIONS. SUPERVISE ALL LAYOUTS, CHECK ALL MEASUREMENTS AND LEVELS IF IN DOUBT ASK.  
ALL DIMENSIONS SHALL BE TAKEN AS DOCUMENTED FROM APPROVED ARCHITECTURAL AND STRUCTURAL DRAWINGS. DO NOT SCALE FROM THESE DRAWINGS.

7. SAMPLES  
THE CONTRACTOR SHALL SUBMIT SAMPLES OF THE SELECTED MATERIALS AND ITEMS AND FITTINGS TO THE PRINCIPLE FOR APPROVAL PRIOR TO THE INSTALLATION OF SUCH MATERIAL OR ITEM. THIS MUST BE STRICTLY ADHERED TO WHEN OFFERING ALTERNATIVES TO SPECIFIED ITEMS.

8. BRACKETING AND NOISE  
ALL PIPEWORK SHALL BE INSTALLED SO THAT THERE WILL BE NO UNDUE STRESS ON ANY FITTING OR PIPE  
ALL PIPE CLAMPS, HANGERS AND BRACKETS SHALL BE PROPRIETARY MADE ITEMS, GALVANISED MILD STEEL OR OTHER SUITABLE MATERIAL. THEY SHALL BE EQUAL TO ASBEY MANUFACTURE OR UNI-STRUT DEPENDING ON THE PARTICULAR TYPE OF SUPPORT REQUIRED ALL FASTENERS AND ANCHORS SHALL BE EQUAL TO HILTI MANUFACTURE  
SPECIAL CARE SHALL BE TAKEN TO AVOID CONTACT OF DISSIMILAR MATERIALS  
ALL SERVICES INSTALLED WITHIN NOISE SENSITIVE AREAS SHALL BE ACOUSTICALLY INSULATED USING A LOADED POLY VINYL CHLORIDE, WITH THE MINIMUM STANDARD BEING SOUNDLAG 4525C INSTALLED TO THE MANUFACTURES RECOMMENDATIONS.

9. EXCAVATION  
ALL EXCAVATION SHALL BE CARRIED OUT IN A SAFE WORKING MANNER WITH ALL NECESSARY SAFETY PRECAUTIONS TAKEN AND IN ACCORDANCE WITH WORKCOVER REQUIREMENTS.  
THE CONTRACTOR SHALL PAY ALL ASSOCIATED ROAD AND FOOTPATH OPENING FEES RELEVANT TO THE AUTHORITIES REQUIREMENTS.  
CONDUCT ALL NECESSARY SERVICE SEARCHES INCLUDING CONTACTING THE DIAL BEFORE YOU DIG SERVICE AND OTHER REQUIREMENTS AS NOTED ABOVE.  
ALL SERVICES SHALL BE LAID ON APPROVED BEDDING MATERIALS AND TO THE REQUIRED DEPTHS AND GRADES WHERE APPLICABLE.  
BACKFILL USING SAND TO THE REQUIRED DEPTH SUFFICIENTLY COVERING THE SERVICE TO THE REQUIREMENTS OF AS3500.  
SUBJECT TO THE APPROVAL OF THE PRINCIPLE FILL THE REMAINDER OF THE EXCAVATION USING THE EXCAVATED SOIL ENSURING COMPACTION TO 95% MODIFIED AASHO

10. FINISHED SITE LEVELS  
ENSURE FINAL SITE LEVELS AND CONTOURS OF NEW WORKS GRADE AWAY FROM ANY HABITABLE AREAS AND TOWARDS ANY GRATED PITS, DRAINS, SWALES OR LANDSCAPED AREAS.

11. DRAINAGE PITS  
STORMWATER PIT INTERNAL DIMENSIONS AS FOLLOWS:  
TOTAL DEPTH LESS THAN 600MM = 450MM SQUARE OR 600MM DIAMETER.  
TOTAL DEPTH 601MM TO 900MM = 600MM SQUARE OR 900MM DIAMETER.  
TOTAL DEPTH 901MM TO 1200MM = 600X900MM OR 1050MM DIAMETER.  
TOTAL DEPTH GREATER THAN 1200M = 900MM SQUARE OR 1050 DIAMETER.  
PITS DEEPER THAN 1200MM SHALL BE FITTED WITH STEP IRONS AT 300MM CENTRES. APPROVED PRE-CAST PITS MAY BE USED.  
PIT GRATES, FRAMES AND SOLID COVERS SHALL BE TYPE B IN NON-TRAFFICABLE AREAS AND TYPE D IN TRAFFICABLE AREAS OR IN ACCORDANCE WITH AS 3996 AND AS 1428.1  
ALL CONNECTIONS TO DRAINAGE PITS SHALL BE MADE IN A TRADESMAN LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.  
SUBSOL DRAINAGE AS NOTED BELOW SHALL EXTEND 3M UPSTREAM OF ANY DRAINAGE PIT AND BE SEALED WITH A SUITABLE CAP. THE OUTLET SHALL TERMINATE A MINIMUM OF 100MM ABOVE THE INVERT OF THE SUBJECT PIT.  
ALL BUILDING SURROUNDS SHALL BE GRADED TO ENSURE OVERLAND FLOW FROM UPSTREAM AREAS CAN DRAIN AROUND THE FOUNDATIONS, WALLS AND BUILDING.

12. SUBSOL DRAINAGE  
SUBSOL DRAINAGE SHALL BE CONSISTENT WITH THE STRUCTURAL ENGINEERS DETAILS AND SUBJECT TO THE FINDINGS OF THE GEOTECHNICAL REPORT.  
SUBSOL DRAINS SHALL BE SLOTTED UPVC 100MM DIAMETER FITTED WITH GEO-FABRIC FILTER SOCK.  
SUBSOL DRAINAGE SHALL BE LAID AT A MINIMUM GRADE OF 0.5% U.N.O.  
SUBSOL DRAINAGE SHOULD BE INSTALLED ON THE UPSTREAM END OF ANY PROPOSED PAVED AREAS AND CONNECTED TO THE PIPED DRAINAGE SYSTEM ON WATERCOURSE.  
ADDITIONAL SUBSOL DRAINAGE SHALL BE LAID TO SUIT SITE CONDITIONS AND GROUNDWATER PRESENCE AS DIRECTED.

13. DRAINAGE PIPES  
MINIMUM GRADE OF ANY DRAINAGE PIPES TO BE 1% (U.N.O.)  
ALL DRAINAGE PIPES LESS THAN 300MM IN DIAMETER SHALL BE SEWER GRADE UPVC WITH SOLVENT WELDED JOINTS (U.N.O.)  
ALL PIPE JUNCTIONS AND TAPERS SHALL BE VIA PROPRIETARY MADE FITTINGS.  
ALL DRAINAGE PIPES 300MM AND GREATER IN DIAMETER SHALL BE REINFORCED CONCRETE RUBBER RING JOINTED CLASS 2' (U.N.O.) MANUFACTURED TO AS 4058.  
EQUIVALENT STRENGTH FRC PIPES MAY BE USED.  
MINIMUM PIPE DIAMETER 100MM U.N.O.  
PROVIDE FAIL SAFE OVERFLOW SPITTERS NO LESS THAN 50MM DIAMETER FOR ALL BALCONIES AND TERRACES.

14. DOWNPIPES & GUTTERS  
THE FINAL NUMBER, SIZES AND LOCATION OF RAINWATER DOWNPIPES AND GUTTERS SHALL BE CO-ORINATED ON-SITE BETWEEN THE PLUMBING CONTRACTOR, THE BUILDER AND THE ROOFING CONTRACTOR, TO THE APPROVAL OF THE ARCHITECT AND ENGINEER AND IN ACCORDANCE WITH AS3500.3  
MINIMUM DOWNPIPE DIAMETER 100MM U.N.O. EQUILENT SIZE RECTANGULAR DOWNPIPES MAY BE USED IN PLACE OF EXTERNAL, NON CHARGED CIRCULAR DOWNPIPES  
ALL DOWNPIPES LOCATED IN NOISE SENSITIVE AREAS AS DEEMED BY THE ARCHITECTS, ACOUSTIC ENGINEER OR EQUIVALENT PERSONS SHALL BE ACOUSTICALLY INSULATED USING AS SYSTEM NO LESS IN STANDARDS THAN SOUNDLAG 4525C INSTALLED TO THE MANUFACTURES RECOMMENDATIONS.  
ALL LEAVES GUTTERS SHALL BE SIZED FOR THE 20YR (Tc 5mm) ARI STORM EVENT IN ACCORDANCE WITH AS3500.3  
ALL BOX GUTTERS, RAINWATER HEADS AND FAILSAFE OVERFLOWS SHALL BE SIZED FOR A 100YR (Tc 5mm) ARI STORM EVENT IN ACCORDANCE WITH AS3500.3

15. STORMWATER RE-USE PIPEWORK  
ALL WORK CARRIED OUT SHALL COMPLY TOO AND BE IN ACCORDANCE WITH COUNCIL REQUIREMENTS AND SYDNEY WATER'S PUBLICATION 'GUIDELINES FOR RAINWATER TANKS ON RESIDENTIAL PROPERTIES'.  
THE CONTRACTOR IS TO MAKE APPLICATIONS AND PAY ALL FEES AND CHARGES AS REQUIRED BY THE REGULATORY AUTHORITIES.  
SYDNEY WATER'S APPROVAL IS REQUIRED FOR ANY TOP UP FROM DRINKING WATER SUPPLY REGARDLESS OF TANK SIZE.  
THE CONTRACTOR SHALL PROVIDE A FLOW RESTRICTOR RATED AT 2 LITRES PER MINUTE TO THE DOMESTIC WATER INLET FILLING VALVE IN ACCORDANCE WITH THE CODE REQUIREMENTS.  
ALL PIPEWORK AND OUTLETS ARE TO BE LABELLED 'RAINWATER' IN ACCORDANCE WITH CODE REQUIREMENTS.  
RE-CYCLED RAINWATER PIPEWORK IS TO BE INSTALLED WITH A 300MM CLEARANCE FROM DOMESTIC WATER SUPPLIES IN ACCORDANCE WITH CODE REQUIREMENTS.  
RE-CYCLED RAINWATER PIPEWORK IS TO BE STAINLESS STEEL PRESS FIT OR APPROVED COMPOSITE PLASTIC SUCH AS PEX ONLY. COPPER PIPEWORK SHALL NOT BE USED  
A TESTABLE DOUBLE CHECK VALVE SHALL BE INSTALLED AT THE PROPERTIES WATER METER IN ACCORDANCE WITH CODE REQUIREMENTS.  
ON COMPLETION PROVIDE A COPY OF 'AS INSTALLED DRAWINGS' WITH CERTIFICATION FOR THE COMPLETED WORKS AND BACKFLOW PROTECTION.

16. TESTING AND COMMISSIONING  
ALL WORK SHALL BE PROGRESSIVELY TESTED AND INSPECTED TO THE APPROVAL OF THE CONSTRUCTION MANAGER AND AUTHORITY HAVING JURISDICTION. COPIES OF ALL TEST AND COMPLIANCE CERTIFICATES SHALL BE FORWARDED TO THE CONSTRUCTION MANAGER AND PRINCIPLE. THE CONTRACTOR SHALL PROVIDE ALL LABOUR AND MATERIALS REQUIRED FOR THE CARRYING OUT OF SUCH TESTS AND SHALL ALSO BE RESPONSIBLE FOR THE RECTIFICATION OF ANY WORK FAILING ANY TEST.  
THE ENTIRE SYSTEM SHALL BE COMMISSIONED PRIOR PRACTICAL COMPLETION, WHICH SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING:-  
~ THE CLEARING OF ALL DEBRIS FROM ANY INLINE FILTER OR STRAINER.  
~ CLEANING OF DEBRIS FROM ALL PITS  
~ ENSURING ALL TRASH SCREENS ARE CLEAR AND CLEAN OF DEBRIS  
~ ALL ACCESS GRATES AND FRAMES ARE SECURE AND WHERE REQUIRED FITTED WITH CHILD LOCKING DEVICES  
~ ENSURING ALL FAILSAFE OVERFLOWS ARE INSTALLED AND CLEAR OF ANY OBSTRUCTION  
~ PUMPS HAVE BEEN COMMISSIONED WITH FLOAT SWITCHES SET AT CORRECT LEVELS

17. STORMWATER MAINTENANCE  
AFTER COMPLETION AND OCCUPATION OF THE BUILDING IT IS THE RESPONSIBILITY OF THE OWNERS OR BODY CORPORATE TO MAINTAIN THE INTEGRITY AND FUNCTIONALITY OF ALL STORM WATER SYSTEMS.  
THIS INCLUDES ALL OVERFLOWS, GRATES, BALCONY OUTLETS, SURFACE PITS, ON-SITE DETENTION STORAGE, TRASH SCREENS, FAILSAFE FLOW PATHS, SUBMERSIBLE PUMPS AND ASSOCIATED INFRASTRUCTURE

18. DISCLAIMER  
ALL CALCULATIONS PRESENTED IN THIS DOCUMENT HAVE BEEN CALCULATED IN ACCORDANCE WITH AUSTRALIAN RAINFALL AND RUNOFF AND COUNCILS POLICIES AND CODES. GAH HAS PERFORMED THESE CALCULATIONS TO THE BEST OF THEIR ABILITY TO ENSURE COMPLIANCE WITH THE ABOVE MANUALS AND COUNCIL POLICIES. BEST PRACTICE AND THE INSTITUTION OF ENGINEERS, AUSTRALIA CODE OF ETHICS. GAH TAKES NO RESPONSIBILITY OR LIABILITY FOR ANY DAMAGES OR LOSSES INCURRED TO ANY PERSONS OR PROPERTY (INCLUDING THE DEVELOPMENT SITE) AS A RESULT OF MISINTERPRETATION OF THE RESULTS AND UNFORESEEN CIRCUMSTANCES SUCH AS POOR CONSTRUCTION, LACK OF MAINTENANCE AFTER CONSTRUCTION, ALTERATIONS TO GROUND FLOOR LEVELS UPSTREAM, DOWNSTREAM OR ADJACENT TO THE DEVELOPMENT

### DRAWING SCHEDULE:

- H-01 - SURVEY AND SITE SERVICES
- H-02 - BASEMENT 2 PLAN
- H-03 - BASEMENT 1 PLAN
- H-04 - LOWER GROUND FLOOR PLAN
- H-05 - GROUND FLOOR PLAN
- H-06 - LEVEL 1 PLAN
- H-07 - LEVEL 2 PLAN
- H-08 - LEVEL 3 PLAN
- H-09 - LEVEL 4 PLAN
- H-10 - LEVEL 5 PLAN
- H-11 - ROOF PLAN
- H-12 - DETAILS

### LEGEND

PIPEWORK  
SW SEWER DRAINAGE  
SSO SUB SOIL  
STW STORMWATER  
TM TRUNK MAIN  
SSR SITE STORAGE REQUIREMENTS  
STW STORMWATER  
SW SEWER  
SYDP SYPHONIC DOWNPIPES  
RWR RAIN WATER RE-USE  
R RISE IN SERVICE  
D DROP IN SERVICE  
E FLOW DIRECTION  
CIS ELECTRICAL  
CAST IN SLAB

SERVICE ACCESSORIES  
D2 R42 REFER DETAIL NO.  
SS REFER DRAWING NO.  
100 DIRECTION OF SERVICE  
100 TYPE OF SERVICE  
100 SIZE OF SERVICE

F FIRST FLUSH DIVERTER  
RWT RAINWATER TANK  
S RAINWATER SUMP  
R RAINHEAD  
D DOWN PIPE  
D DOWN PIPE & SPREADER

P PLANTER BOX DRAINAGE OUTLET 100 DIA U.N.O  
R RAINWATER OUTLET (150GRATE U.N.O)  
D DRAINAGE TURN UP POINT 100 DIA U.N.O  
B BALCONY RAINWATER OUTLET (100GRATE U.N.O)  
O OVERFLOW SPITTER (50MM DIA U.N.O)  
C CLEAR OUT  
G GRATED STORMWATER PIT

CONCRETE COVERED JUNCTION PIT  
G GRATED TRENCH DRAIN (150 WIDE U.N.O.)  
K KERB INLET PIT

STORMWATER PUMP WELL

VEHICULAR CROSSING

REVISION

+ 5.17 EXISTING SURFACE LEVEL  
21.11 FINISHED SURFACE LEVEL

### ABBREVIATIONS

APFL ABOVE FINISHED FLOOR LEVEL  
BRWO BALCONY RAINWATER OUTLET  
BTW BUCKET TRAP FLOOR WASTE  
CI CAST IRON  
CIC CAST IN COLUMN  
CIS CAST IN SLAB  
CO CLEAROUT  
CP CHROME PLATED  
CU COPPER  
DIA DIAMETER  
DP DOWNPIPE  
DTU DRAINAGE TURN UP POINT  
EJ EXPANSION JOINT  
EX EXISTING  
FSL FINISHED FLOOR LEVEL  
FRC FIBRE REINFORCED CONCRETE  
FSL FINISHED SURFACE LEVEL  
GTD GRATED TRENCH DRAIN  
HOPE HIGH DENSITY POLYETHYLENE  
HL HIGH LEVEL  
IL INVERT LEVEL  
IO INSPECTION OPENING  
KPA PRESSURE IN KILOPASCALS  
LL LOW LEVEL  
LVS LITRES PER SECOND  
M METER  
MH PRESSURE IN METERSHEAD  
NPCW NON POTABLE COLD WATER  
NPHT NON POTABLE HOSE TAP  
OF OVERFLOW  
PBO PLANTER BOX OUTLET  
PSD PERMISSIBLE SITE DISCHARGE  
PVC POLYVINYL CHLORIDE  
RHS RECTANGULAR HOLLOW SECTION  
RL REDUCED LEVEL  
RM REINS MAIN  
RWO RAINWATER OUTLET  
RWR RAINWATER RE-USE

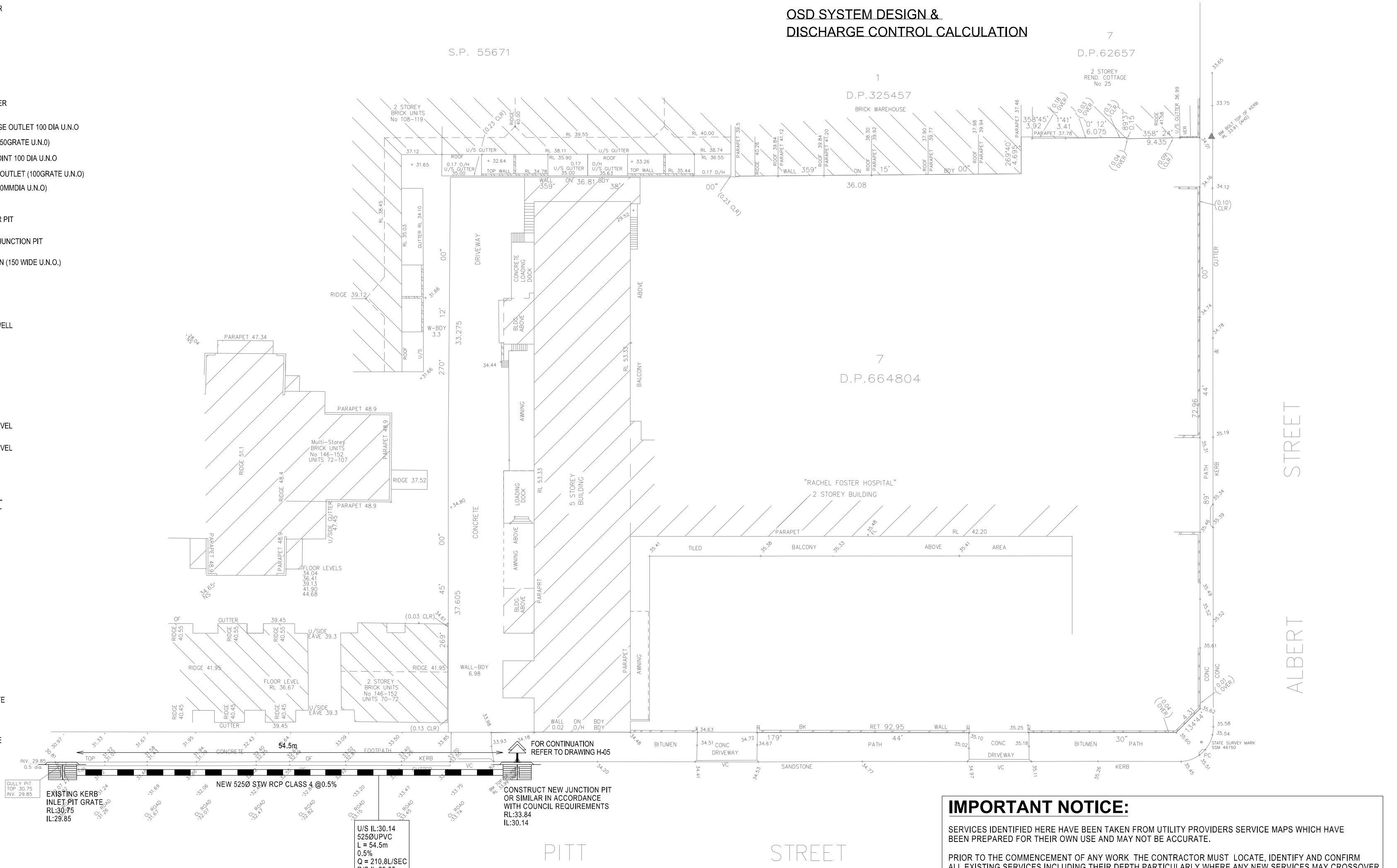
WT RAIN WATER TANK  
SDO SPOON DRAIN OUTLET  
SL SURFACE LEVEL  
SQ SQUARE  
SSR SITE STORAGE REQUIREMENTS  
STW STORMWATER  
SW SEWER  
SYDP SYPHONIC DOWNPIPES  
TD TUNOISH  
TOW TOP OF WALL  
TTD TRAPPED TUNDISH  
UNO UNLESS NOTED OTHERWISE  
UPVC UNPLASTISIZED POLYVINYL CHLORIDE  
US UNDERSIDE

SITE BREAK UP		
DESCRIPTION	AREA m2	% OF TOTAL AREA
LANDSCAPED AREA	742 m2	11 %
ROOF AREA	2869 m2	41 %
PAVED AREA	3381 m2	48 %
AREA TO OSD TANK	6250 m2	89 %
OSD BYPASS	742 m2	11 %
TOTAL SITE AREA	6992 m2	100 %

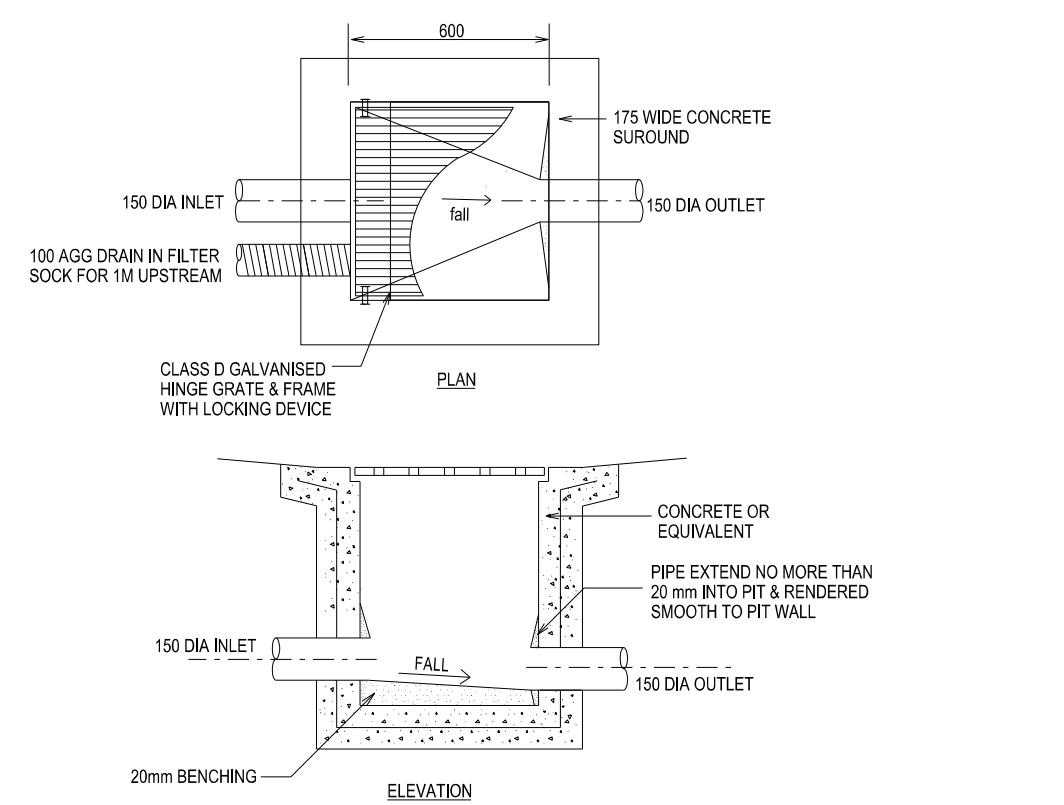
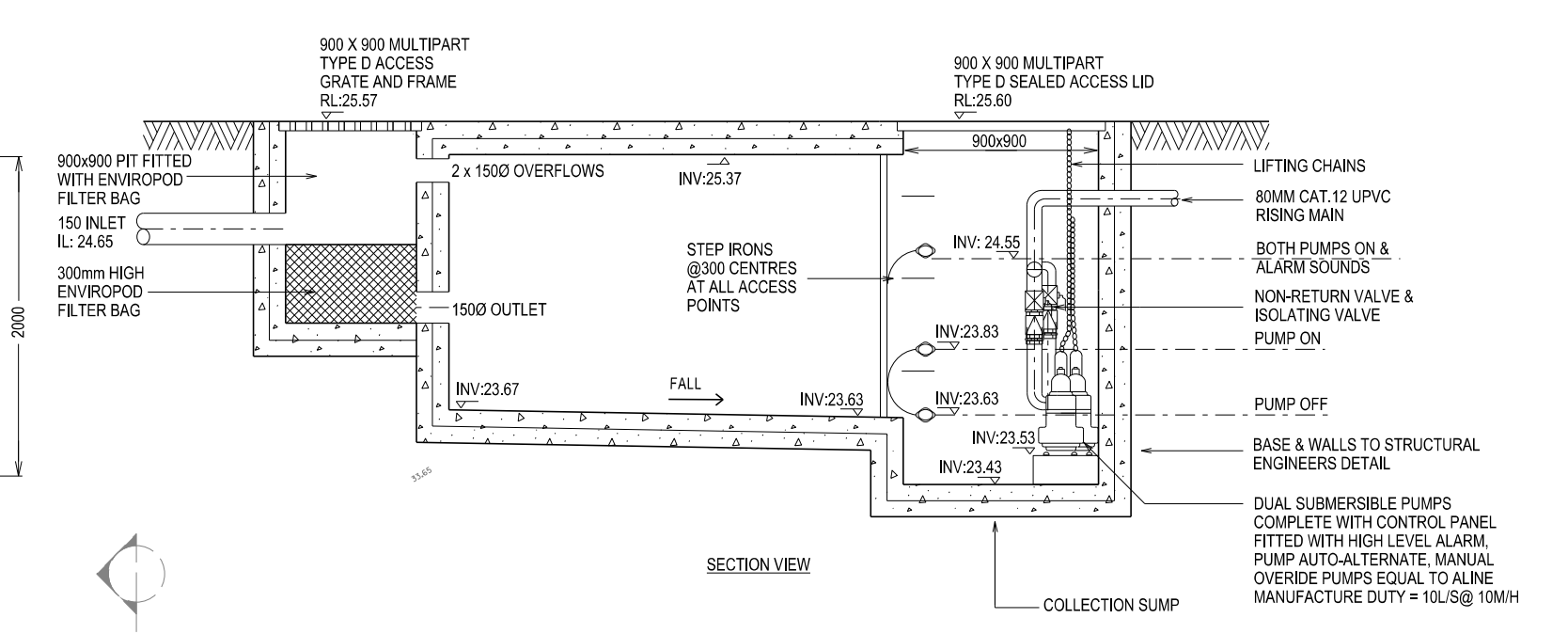
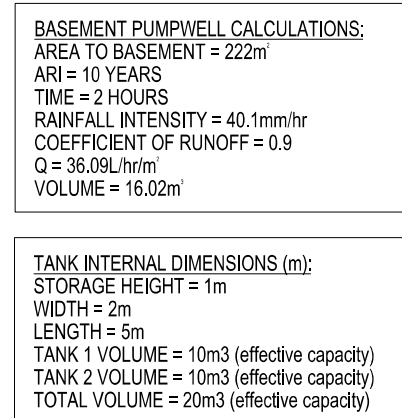
### OSD SYSTEM DESIGN AND DISCHARGE CONTROL CALCULATION

File: 216-1532, 134-144 Pitt Street, Redfern		
Site Area Total:	6992 m2	
On Site Detention Volume and PSD provided by Sydney Water via email on 20 September 2016 as follows:		
OSD Volume:	138 m3	
PSD	195 L/s	
OSD System Design		
Tank width	Varies m	
Tank length	Varies m	
Tank area	115.00 m2	
IL max	30.50 m AHD	
IL min	30.30 m AHD	
IL average	30.40 m AHD	
Top of water	31.60 m AHD	
Average depth	1.20 m	
Volume	138.00 m3	
Discharge Control		
Orifice dia	0.292 m	
IL	30.3 m AHD	
Head	1.3 m	
Head centre orifice	1.154 m	
Area o	0.066974872 m2	
Discharge	0.19440 m3/s	
	194.40 l/s	

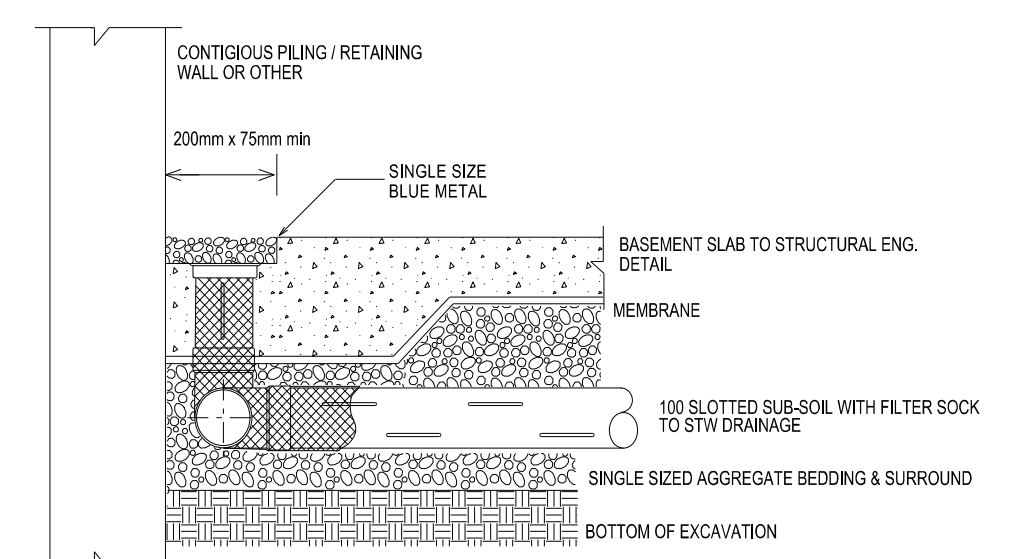
### OSD SYSTEM DESIGN & DISCHARGE CONTROL CALCULATION



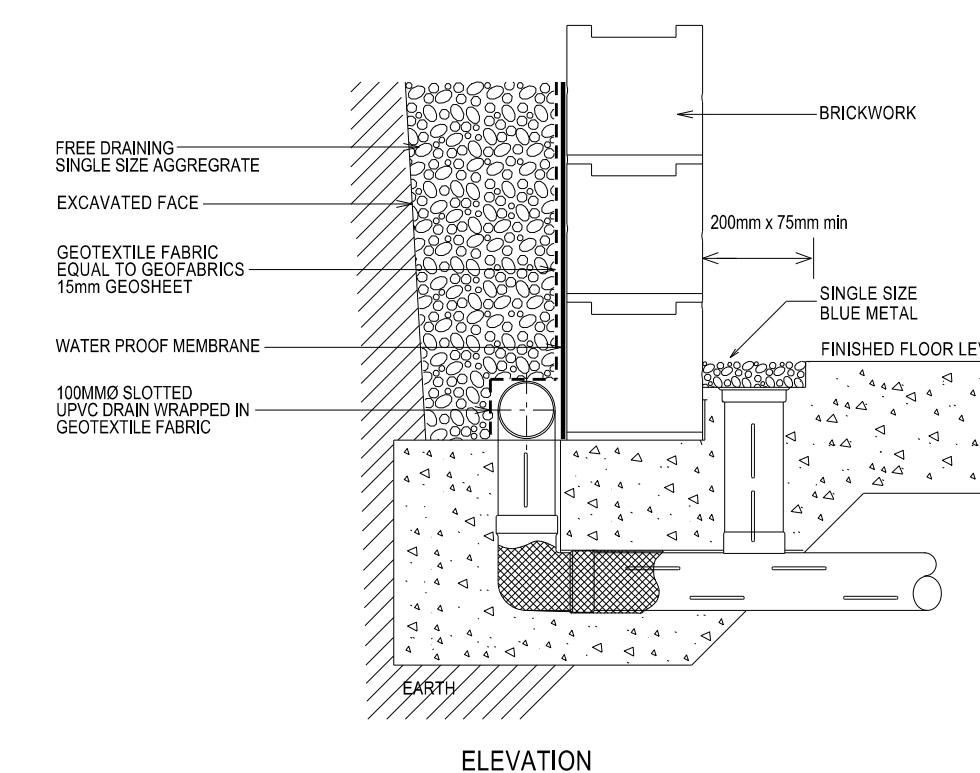




### STANDARD STORMWATER PIT DETAIL 3



BASEMENT PERIMETER DRAINAGE  
DETAIL 4



BASEMENT PERIMETER DRAINAGE  
DETAIL 5

- NOTES:
- 1) ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE RELEVANT BUILDING CODES OF AUSTRALIA AND AUSTRALIAN STANDARDS INCLUDING, BUT NOT LIMITED TO, ACCESS AND COUNCIL REQUIREMENTS.
  - 2) DO NOT SCALE FROM DRAWINGS. USE FIGURED DIMENSIONS FROM LATEST REVISION OF ARCHITECTURAL DRAWINGS.
  - 3) PRIOR TO COMMENCING ANY WORK, LOCATE & CONFIRM ALL EXISTING SERVICES AND LEVELS AT PROPOSED POINTS OF CONNECTION
  - 4) ALL INVERT LEVELS SHOWN SHALL BE TAKEN AS A GUIDE ONLY. THE CONTRACTOR SHALL CONFIRM ALL PIPE ROUTES AND CHECK LEVELS PRIOR TO COMMENCING ANY RUN OF PIPE. ALLOW TO COORDINATE WITH STRUCTURAL & MECHANICAL ELEMENTS ALLOW TO MAKE ADJUSTMENTS AS NECESSARY.
  - 5) SUB-SOIL DRAINAGE SHALL BE CONSISTENT WITH THE STRUCTURAL ENGINEERS DETAIL AND DESIGN. THE CONTRACTOR SHALL CONSULT THE GEOTECHNICAL REPORT, LAY ADEQUATE SUB-SOIL DRAINAGE AS SITE CONDITIONS dictate.
  - 6) ALL SEWER AND STORMWATER PIPES CAST IN CONCRETE SHALL BE HPMV WITH ELECTROFUSION JOINTS
  - 7) DOWNPIPES CAST IN COLUMNS SHALL BE WRAPPED IN NO LESS THAN 10MM SOFTLOAN FOAM.
  - 8) ALL DRAINPipes LOCATED IN AREAS DEEMED TO BE NOISE SENSITIVE SHALL BE ACOUSTIC INSULATED TO THE REQUIREMENTS OF THE ACOUSTIC ENGINEER AND BCA.
  - 9) PROVIDE FALLSAFE OVERFLOWS TO ALL BALCONIES AND TERRACE TERRACES
  - 10) FINAL LOCATION OF DOWNPIPES AND NUMBER OF DOWNPIPES TO BE DETERMINED AT CC STAGE.
  - 11) IF IN DOUBT? ASK

[illegible]

APPROVAL:

**DEVELOPMENT APPLICATION**

This drawing is copyright and shall remain the property of GreenArrow Hydraulics Pty Ltd.  
No reproduction without permission. Unless noted otherwise this drawing is NOT FOR CONSTRUCTION.

CLIENT: \_\_\_\_\_

ARCHITECT:  
TONY OWEN PARTNERS

PROJECT:

**134-144 PITT STREET, REDFERN**

HYDRAULIC CONSULTANT:

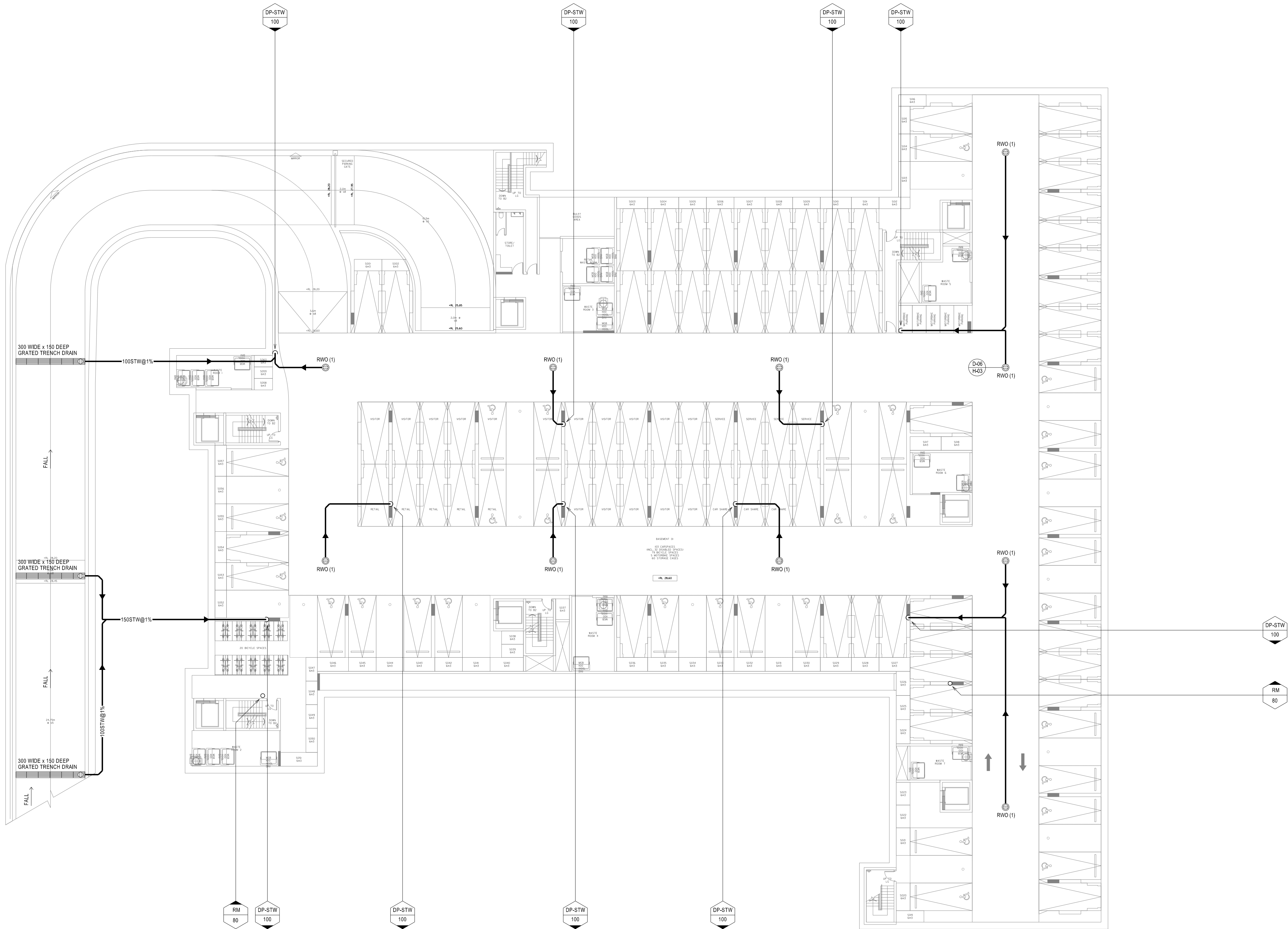


greenarrow hydraulics pty.ltd. admin@greenarrow.net.au Tel: (02) 4226 4490

SHEET TITLE:	PROJECT No:	DRAWING NO:	REVISION:	DRAWN: CC	CHECKED: MG	DATE: JUNE, 2016
<b>T 2 PLAN</b>	<b>216-1532</b>	<b>H-02</b>	<b>A</b>	SCALE: A1@1:200	SHEET: 2/12	



- NOTES:
- 1) ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE RELEVANT BUILDING CODES OF AUSTRALIA, AUSTRALIAN STANDARDS INCLUDING, BUT NOT LIMITED TO ASS500 AND COUNCIL REQUIREMENTS.
  - 2) DO NOT SCALE FROM DRAWINGS. USE FIGURED DIMENSIONS FROM LATEST REVISION OF ARCHITECTURAL DRAWINGS.
  - 3) PRIOR TO COMMENCING ANY WORK, LOCATE & CONFIRM ALL EXISTING SERVICES AND LEVELS AT PROPOSED POINTS OF CONNECTION.
  - 4) ALL INVERT LEVELS SHOWN SHALL BE TAKEN AS A GUIDE ONLY. THE CONTRACTOR SHALL CONFIRM ALL PIPE ROUTES AND CHECK LEVELS PRIOR TO COMMENCING ANY RUN OF PIPE. ALLOW TO COORDINATE WITH STRUCTURAL & MECHANICAL ELEMENTS. ALLOW TO MAKE ADJUSTMENT AS NECESSARY.
  - 5) SUB-SOL DRAINAGE SHALL BE CONSISTENT WITH THE STRUCTURAL ENGINEERS DETAIL AND SUBJECT TO THE FINDINGS OF THE GEOTECHNICAL REPORT. LAY ADDITIONAL SUB-SOL DRAINAGE AS SITE CONDITIONS DICTATE.
  - 6) ALL SEWER AND STORMWATER PIPES CAST IN CONCRETE SHALL BE HDPE WITH ELECTROFUSION JOINTS.
  - 7) DOWNPIPES CAST IN COLUMNS SHALL BE WRAPPED IN NO LESS THAN 10MM SOFTLOM FOAM.
  - 8) ALL DRAINPIPES LOCATED IN AREAS DEEMED TO BE NOISE SENSITIVE SHALL BE ACOUSTIC INSULATED TO THE REQUIREMENTS OF THE ACOUSTIC ENGINEER AND BCA.
  - 9) PROVIDE FAILSAFE OVERFLOWS TO ALL BALCONIES AND ROOF TERRACES
  - 10) FINAL LOCATION OF DOWNPIPES AND NUMBER OF DOWNPIPES TO BE DETERMINED AT CC STAGE.
  - 11) IF IN DOUBT TASK



**SPS Truflo 100mm & 150mm RWO with Class C Heavy-Duty Flat Grate**

**Specification codes:**  
TIA100F (100mm CI body, galvanized flat grate)  
TIA150F (150mm CI body, galvanized flat grate)  
TBS100F (100mm bronze body, 304 SS flat grate)  
TBS150F (150mm bronze body, 304 SS flat grate)

**Suggested applications:**  
Car park areas  
Plant rooms

Flat grate in heavy duty, non-adjust galvanized, reinforcement steel.

Load tested to class C of AS3996-2006

Integral profile design with 40mm x 4mm x 4mm.

Optional solution connector (ouffle "T")

Optional coupling connector (ouffle "T")



N.B.	A	B	C	D	E	F	G	H	L	U.S.
100	260	240	110	95	28	45	25	6.5		
150	280	260	160	90	38	57	25	9.4		

Based on 50mm head of water above surface level. For further data refer to flow charts.

**Speciality Plumbing Supplies Pty Ltd**  
Tel: (02) 9416 8031 Fax: (02) 9416 7514 E-mail: sps@sppld.net.au

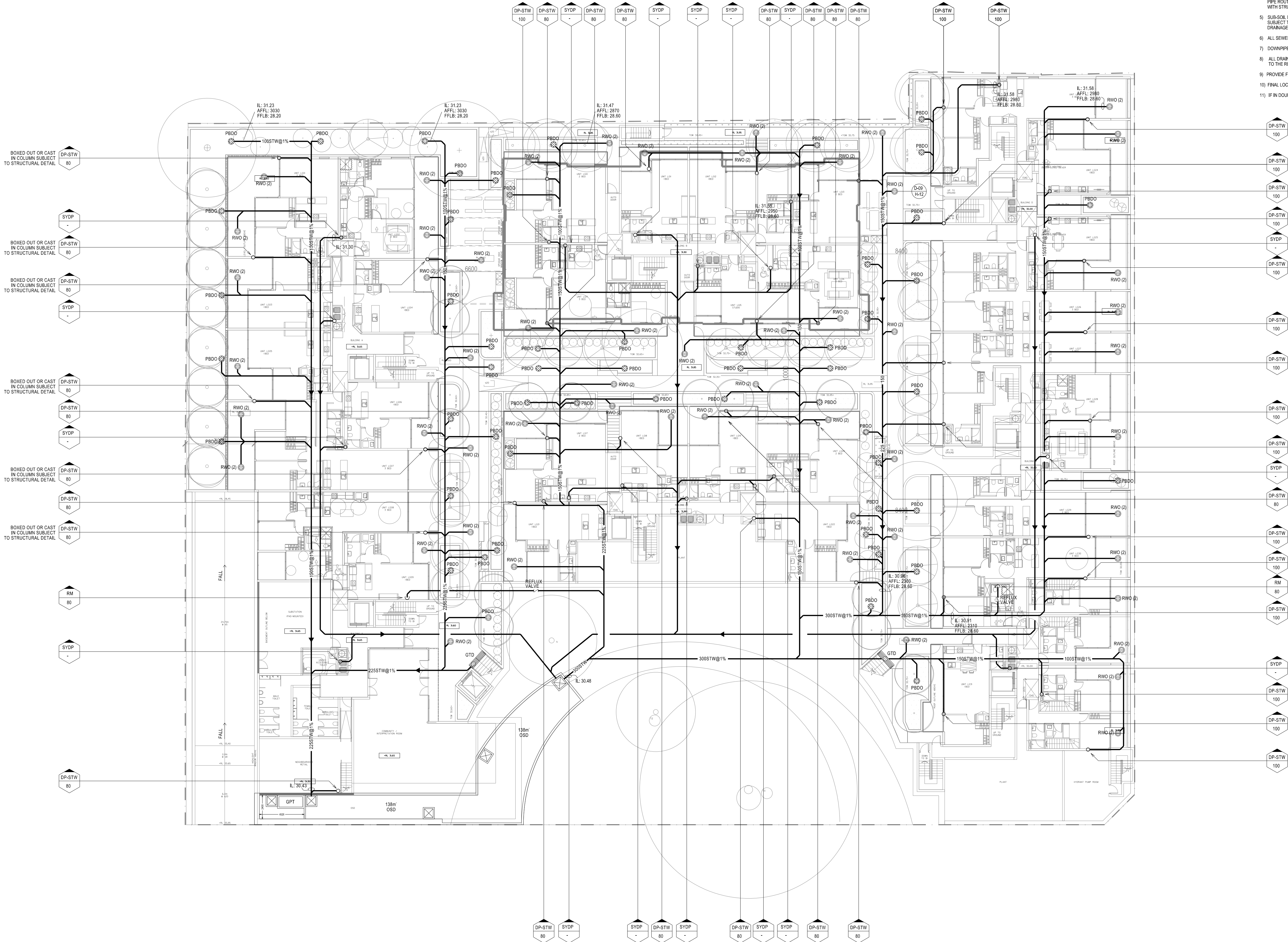
1.02

RWO (1) EQUAL TO  
'SPS TRUFLO TIA100F'  
DETAIL 6

										REFERENCED DRAWINGS											APPROVAL:										CLIENT:										PROJECT:										HYDRAULIC CONSULTANT:										SHEET TITLE:										PROJECT No:										DRAWING No:										REVISION:										DRAWN:										CHECKED:										DATE:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
																					DEVELOPMENT APPLICATION										KAYMET CONSTRUCTION PTY. LTD										134-144 PITT STREET, REDFERN																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
										DISCIPLINE:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

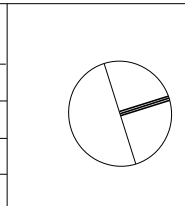


- NOTES:
- 1) ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE RELEVANT BUILDING CODES OF AUSTRALIA, AUSTRALIAN STANDARDS INCLUDING, BUT NOT LIMITED TO AS3500 AND COUNCIL REQUIREMENTS.
  - 2) DO NOT SCALE FROM DRAWINGS. USE FIGURED DIMENSIONS FROM LATEST REVISION OF ARCHITECTURAL DRAWINGS.
  - 3) PRIOR TO COMMENCING ANY WORK, LOCATE & CONFIRM ALL EXISTING SERVICES AND LEVELS AT PROPOSED POINTS OF CONNECTION
  - 4) ALL INVERT LEVELS SHOWN SHALL BE TAKEN AS A GUIDE ONLY. THE CONTRACTOR SHALL CONFIRM ALL PIPE ROUTES AND CHECK LEVELS PRIOR TO COMMENCING ANY RUN OF PIPE. ALLOW TO COORDINATE WITH STRUCTURAL & MECHANICAL ELEMENTS. ALLOW TO MAKE ADJUSTMENT AS NECESSARY.
  - 5) SUB-SOIL DRAINAGE SHALL BE CONSISTENT WITH THE STRUCTURAL ENGINEERS DETAIL AND SUBJECT TO THE FINDINGS OF THE GEOTECHNICAL REPORT. LAY ADDITIONAL SUB-SOIL DRAINAGE AS SITE CONDITIONS DICTATE
  - 6) ALL SEWER AND STORMWATER PIPES CAST IN CONCRETE SHALL BE HDPE WITH ELECTROFUSION JOINTS
  - 7) DOWNPIPES CAST IN COLUMNS SHALL BE WRAPPED IN NO LESS THAN 10MM SOFT-ON FOAM.
  - 8) ALL DRAINPIPES LOCATED IN AREAS DEEMED TO BE NOISE SENSITIVE SHALL BE ACOUSTIC INSULATED TO THE REQUIREMENTS OF THE ACOUSTIC ENGINEER AND BCA
  - 9) PROVIDE FAILSAFE OVERFLOWS TO ALL BALCONIES AND ROOF TERRACES
  - 10) FINAL LOCATION OF DOWNPIPES AND NUMBER OF DOWNPIPES TO BE DETERMINED AT CC STAGE.
  - 11) IF IN DOUBT ASK



REV.	ISSUE	DRAFT	ENG.	DATE	REV.	ISSUE	DRAFT	ENG.	DATE
B	AMENDMENTS TO ON-SITE DETENTION			05.10.2016					
A	DA SUBMISSION			06.09.2016					
P1	PRELIMINARY ISSUE			17.08.2016					

REFERENCED DRAWINGS			
DISCIPLINE:			
DWG NO:			
REVISION:			
DATED:			



APPROVAL:  
**DEVELOPMENT APPLICATION**

CLIENT:  
KAYMET CONSTRUCTION PTY. LTD

ARCHITECT:  
TONY OWEN PARTNERS

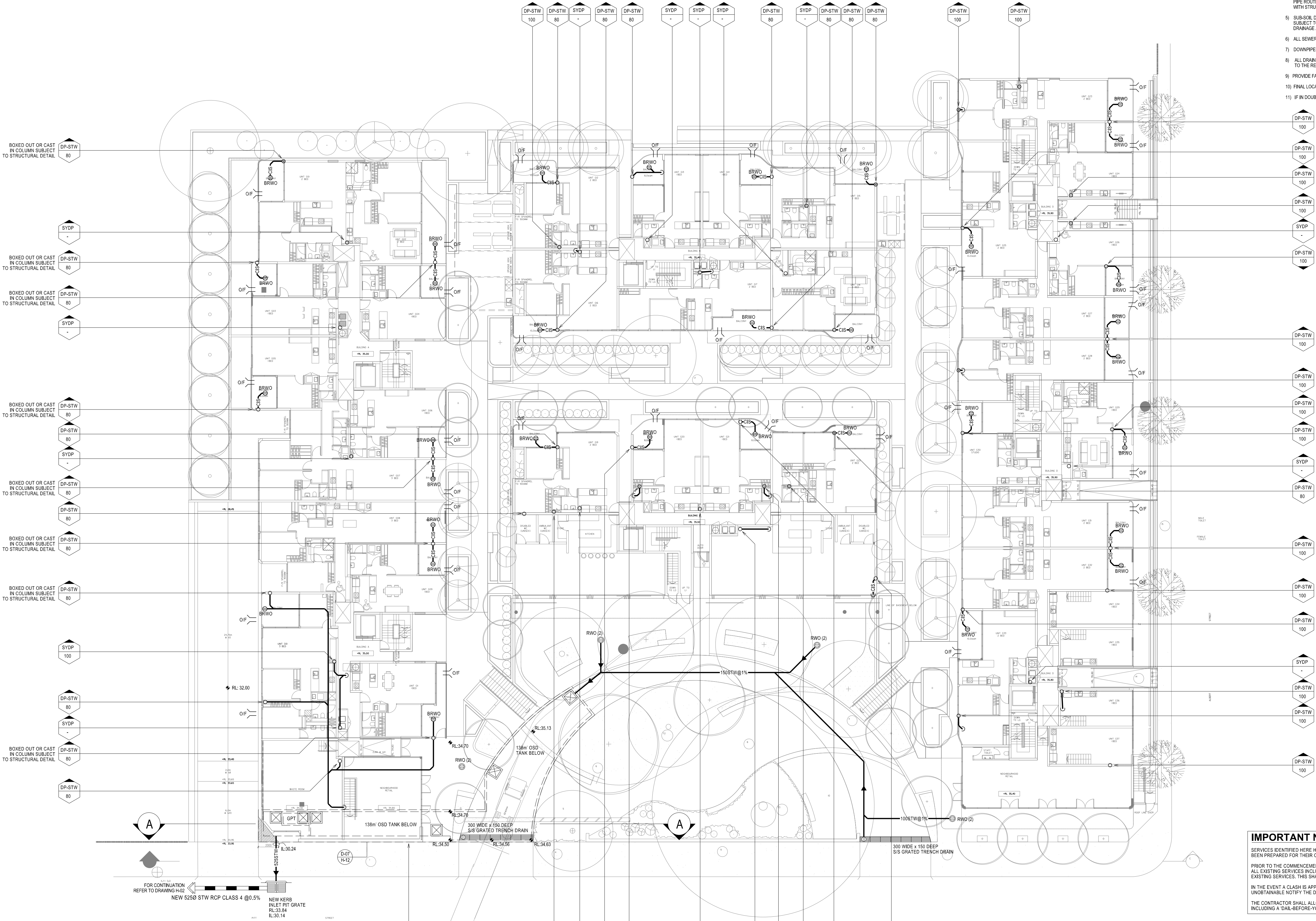
PROJECT:  
**134-144 PITT STREET, REDFERN**

HYDRAULIC CONSULTANT:  
**greenarrow**  
hydraulics/fire suppression-civil drainage  
greenarrow hydraulics pty ltd. admin@greenarrow.net.au Tel: (02) 4226 4480

SHEET TITLE:	PROJECT No:	DRAWING NO:	REVISION:	DRAWN:	CHECKED:	DATE:
<b>LOWER GROUND FLOOR PLAN</b>	<b>216-1532</b>	<b>H-04</b>	<b>B</b>	CC	MG	JUNE. 2016
				SCALE:	SHEET:	
				A1@1:200	4/12	



- NOTES:
- 1) ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE RELEVANT BUILDING CODES OF AUSTRALIA, AUSTRALIAN STANDARDS INCLUDING, BUT NOT LIMITED TO AS3500 AND COUNCIL REQUIREMENTS.
  - 2) DO NOT SCALE FROM DRAWINGS. USE FIGURED DIMENSIONS FROM LATEST REVISION OF ARCHITECTURAL DRAWINGS.
  - 3) PRIOR TO COMMENCING ANY WORK, LOCATE & CONFIRM ALL EXISTING SERVICES AND LEVELS AT PROPOSED POINTS OF CONNECTION.
  - 4) ALL INVERT LEVELS SHOWN SHALL BE TAKEN AS A GUIDE ONLY. THE CONTRACTOR SHALL CONFIRM ALL PIPE ROUTES AND CHECK LEVELS PRIOR TO COMMENCING ANY RUN OF PIPE. ALLOW TO COORDINATE WITH STRUCTURAL & MECHANICAL ELEMENTS. ALLOW TO MAKE ADJUSTMENT AS NECESSARY.
  - 5) SUB-SOIL DRAINAGE SHALL BE CONSISTENT WITH THE STRUCTURAL ENGINEERS DETAIL AND SUBJECT TO THE FINDINGS OF THE GEOTECHNICAL REPORT. LAY ADDITIONAL SUB-SOIL DRAINAGE AS SITE CONDITIONS DICTATE.
  - 6) ALL SEWER AND STORMWATER PIPES CAST IN CONCRETE SHALL BE HDPE WITH ELECTROFUSION JOINTS.
  - 7) DOWNPIPES CAST IN COLUMNS SHALL BE WRAPPED IN NO LESS THAN 10MM SOFT/LON FOAM.
  - 8) ALL DRAINPIPES LOCATED IN AREAS DEEMED TO BE NOISE SENSITIVE SHALL BE ACOUSTIC INSULATED TO THE REQUIREMENTS OF THE ACOUSTIC ENGINEER AND BCA.
  - 9) PROVIDE FAILSAFE OVERFLOWS TO ALL BALCONIES AND ROOF TERRACES.
  - 10) FINAL LOCATION OF DOWNPIPES AND NUMBER OF DOWNPIPES TO BE DETERMINED AT CC STAGE.
  - 11) IF IN DOUBT ASK



**IMPORTANT NOTICE:**

SERVICES IDENTIFIED HERE HAVE BEEN TAKEN FROM UTILITY PROVIDERS SERVICE MAPS WHICH HAVE BEEN PREPARED FOR THEIR OWN USE AND MAY NOT BE ACCURATE.

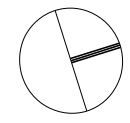
PRIOR TO THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR MUST LOCATE, IDENTIFY AND CONFIRM ALL EXISTING SERVICES INCLUDING THEIR DEPTH PARTICULARLY WHERE ANY NEW SERVICES MAY CROSSOVER EXISTING SERVICES. THIS SHALL APPLY TO ALL SERVICES IE. TELSTRA, GAS, WATER, FIBRE OPTIC, SEWER ETC.

IN THE EVENT A CLASH IS APPARENT OR NOMINATED CONNECTION LEVELS ARE UNOBTAINABLE NOTIFY THE DESIGN ENGINEER IMMEDIATELY.

THE CONTRACTOR SHALL ALLOW TO CARRY OUT ALL NECESSARY SEARCHES AND INVESTIGATIONS INCLUDING A 'DAIL-BEFORE-YOU DIG' APPLICATION. ALLOW TO POT HOLE WHERE NECESSARY.

REV.	ISSUE	DRAFT	ENG.	DATE	REV.	ISSUE	DRAFT	ENG.	DATE
B	AMENDMENTS TO ON-SITE DETENTION	CC	MG	05.10.2016					
A	DA SUBMISSION	CC	MG	06.09.2016					
P1	PRELIMINARY ISSUE	CC	MG	17.08.2016					

REFERENCED DRAWINGS			
DISCIPLINE:			
DWG NO:			
REVISION:			
DATED:			



APPROVAL:

**DEVELOPMENT APPLICATION**

This drawing is copyright and shall remain the property of GreenArrow Hydraulics Pty Ltd. No reproduction without permission. Unless noted otherwise this drawing is NOT FOR CONSTRUCTION. Do not scale from drawings. Figured dimensions shall take precedence.

CLIENT:  
KAYMET CONSTRUCTION PTY. LTD

ARCHITECT:  
TONY OWEN PARTNERS

PROJECT:  
**134-144 PITT STREET, REDFERN**

HYDRAULIC CONSULTANT:

**greenarrow**  
hydraulics • fire suppression • civil drainage

greenarrow hydraulics pty ltd. admin@greenarrow.net.au Tel. (02) 4226 4480

**GROUND FLOOR PLAN 216-1532 H-05 B**

SHEET TITLE:	PROJECT No:	DRAWING NO:	REVISION:	DRAWN:	CHECKED:	DATE:
				CC	MG	JUNE 2016
				SCALE:		SHEET:
				A1@1200		5/12

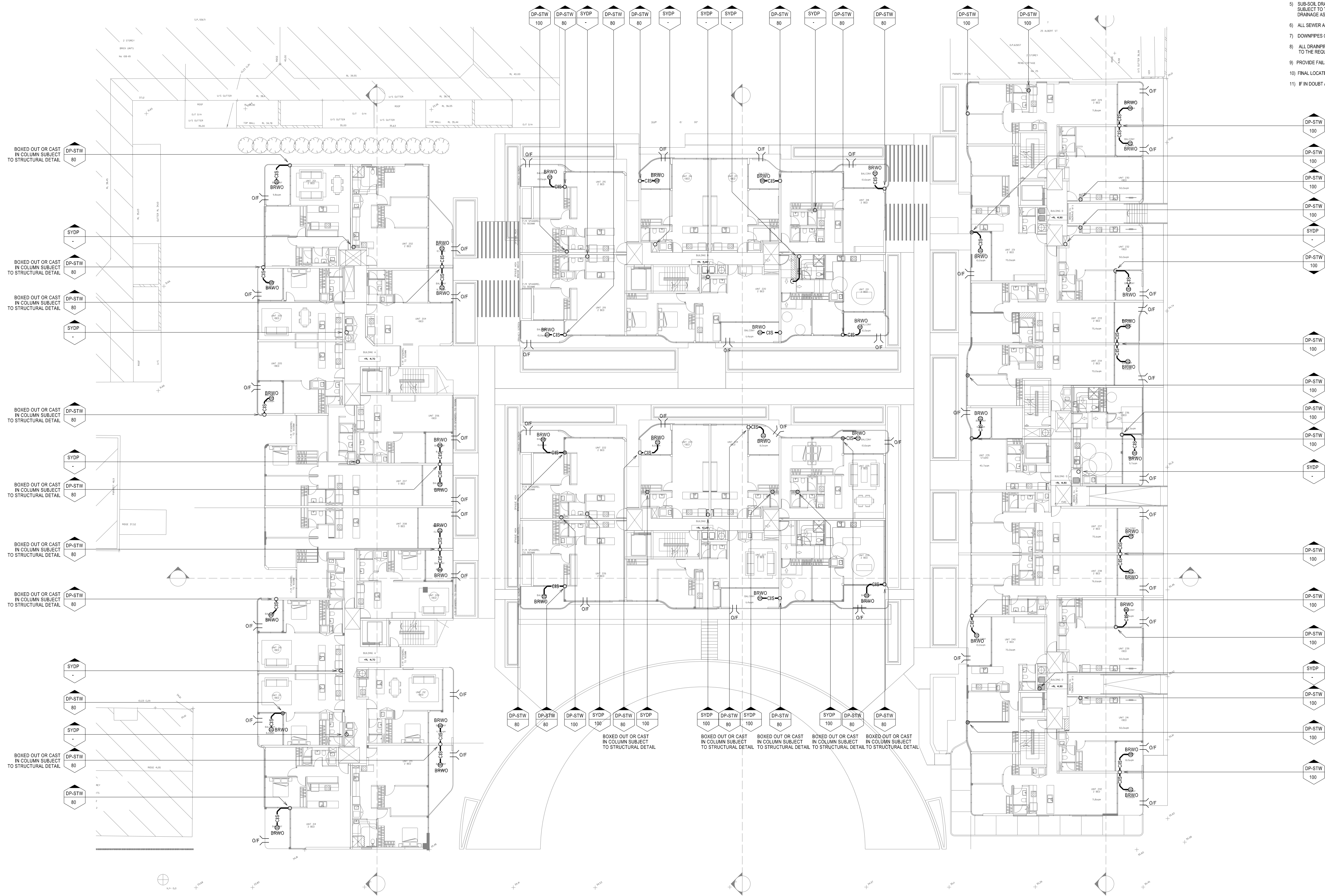






## NOTES:

- 1) ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE RELEVANT BUILDING CODES OF AUSTRALIA, AUSTRALIAN STANDARDS INCLUDING, BUT NOT LIMITED TO AS3500 AND COUNCIL REQUIREMENTS.
- 2) DO NOT SCALE FROM DRAWINGS. USE FIGURED DIMENSIONS FROM LATEST REVISION OF ARCHITECTURAL DRAWINGS.
- 3) PRIOR TO COMMENCING ANY WORK, LOCATE & CONFIRM ALL EXISTING SERVICES AND LEVELS AT PROPOSED POINTS OF CONNECTION.
- 4) ALL INVERT LEVELS SHOWN SHALL BE TAKEN AS A GUIDE ONLY. THE CONTRACTOR SHALL CONFIRM ALL PIPE ROUTES AND CHECK LEVELS PRIOR TO COMMENCING ANY RUN OF PIPE. ALLOW TO COORDINATE WITH STRUCTURAL & MECHANICAL ELEMENTS. ALLOW TO MAKE ADJUSTMENT AS NECESSARY.
- 5) SUB-SOIL DRAINAGE SHALL BE CONSISTENT WITH THE STRUCTURAL ENGINEERS DETAIL AND SUBJECT TO THE FINDINGS OF THE GEOTECHNICAL REPORT. LAY ADDITIONAL SUB-SOIL DRAINAGE AS SITE CONDITIONS DICTATE.
- 6) ALL SEWER AND STORMWATER PIPES CAST IN CONCRETE SHALL BE HOPE WITH ELECTROFUSION JOINTS.
- 7) DOWNPIPES CAST IN COLUMNS SHALL BE WRAPPED IN NO LESS THAN 10MM SOFTLOF FOAM.
- 8) ALL DRAINPIPES LOCATED IN AREAS DEEMED TO BE NOISE SENSITIVE SHALL BE ACOUSTIC INSULATED TO THE REQUIREMENTS OF THE ACOUSTIC ENGINEER AND BCA.
- 9) PROVIDE FALLSAFE OVERFLOWS TO ALL BALCONIES AND ROOF TERRACES.
- 10) FINAL LOCATION OF DOWNPIPES AND NUMBER OF DOWNPIPES TO BE DETERMINED AT CC STAGE.
- 11) IF IN DOUBT ASK



REV.		ISSUE	DRAFT	ENG.	DATE	REV.	ISSUE	DRAFT	ENG.	DATE
A		DA SUBMISSION			06.09.2016					
P1		PRELIMINARY ISSUE			17.08.2016					

REV.		ISSUE	DRAFT	ENG.	DATE	REV.	ISSUE	DRAFT	ENG.	DATE
CC		ING			06.09.2016					
CC		ING			17.08.2016					

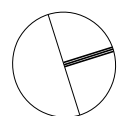
## REFERENCED DRAWINGS

DISCIPLINE:

DWG NO:

REVISION:

DATED:



## APPROVAL:

## DEVELOPMENT APPLICATION

This drawing is copyright and shall remain the property of GreenArrow Hydraulics Pty Ltd. No reproduction without permission. Unless noted otherwise this drawing is NOT FOR CONSTRUCTION. Do not scale from drawings. Figured dimensions shall take precedence.

## CLIENT:

KAYMET CONSTRUCTION PTY. LTD

## ARCHITECT:

TONY OWEN PARTNERS

## PROJECT:

134-144 PITT STREET, REDFERN

## HYDRAULIC CONSULTANT:

**greenarrow**  
hydraulics • fire suppression • civil drainage

greenarrow hydraulics pty ltd. admin@greenarrow.net.au Tel. (02) 4226 4480

## SHEET TITLE:

## PROJECT No:

## DRAWING NO:

## REVISION:

## DRAWN:

## CHECKED:

## DATE:

CC

MG

JUNE 2016

## SCALE:

## SHEET:

A1@1200

7/12

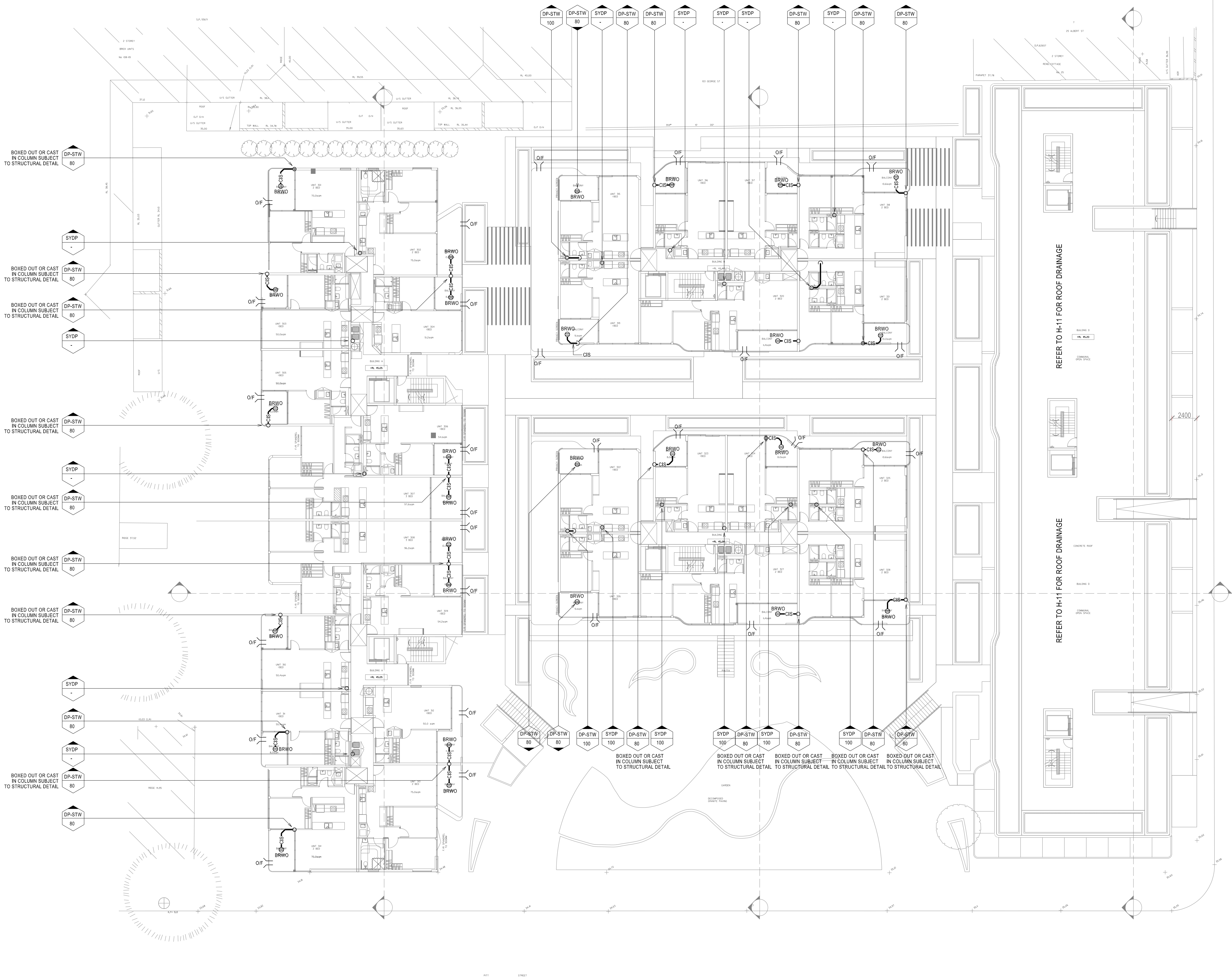
LEVEL 2 PLAN

216-1532

H-07

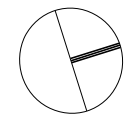
A

- NOTES:
- 1) ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE RELEVANT BUILDING CODES OF AUSTRALIA, AUSTRALIAN STANDARDS INCLUDING, BUT NOT LIMITED TO AS3500 AND COUNCIL REQUIREMENTS.
  - 2) DO NOT SCALE FROM DRAWINGS, USE FIGURED DIMENSIONS FROM LATEST REVISION OF ARCHITECTURAL DRAWINGS.
  - 3) PRIOR TO COMMENCING ANY WORK, LOCATE & CONFIRM ALL EXISTING SERVICES AND LEVELS AT PROPOSED POINTS OF CONNECTION.
  - 4) ALL INVERT LEVELS SHOWN SHALL BE TAKEN AS A GUIDE ONLY. THE CONTRACTOR SHALL CONFIRM ALL PIPE ROUTES AND CHECK LEVELS PRIOR TO COMMENCING ANY RUN OF PIPE, ALLOW TO COORDINATE WITH STRUCTURAL & MECHANICAL ELEMENTS, ALLOW TO MAKE ADJUSTMENT AS NECESSARY.
  - 5) SUB-SOL DRAINAGE SHALL BE CONSISTENT WITH THE STRUCTURAL ENGINEERS DETAIL AND SUBJECT TO THE FINDINGS OF THE GEOTECHNICAL REPORT. LAY ADDITIONAL SUB-SOL DRAINAGE AS SITE CONDITIONS DICTATE.
  - 6) ALL SEWER AND STORMWATER PIPES CAST IN CONCRETE SHALL BE HOPE WITH ELECTROFUSION JOINTS
  - 7) DOWNPIPES CAST IN COLUMNS SHALL BE WRAPPED IN NO LESS THAN 10MM SOFTLON FOAM.
  - 8) ALL DRAINPIPES LOCATED IN AREAS DEEMED TO BE NOISE SENSITIVE SHALL BE ACOUSTIC INSULATED TO THE REQUIREMENTS OF THE ACOUSTIC ENGINEER AND BCA.
  - 9) PROVIDE FALLSAFE OVERFLOWS TO ALL BALCONIES AND ROOF TERRACES
  - 10) FINAL LOCATION OF DOWNPIPES AND NUMBER OF DOWNPIPES TO BE DETERMINED AT CC STAGE.
  - 11) IF IN DOUBT ASK



REV.	ISSUE	DRAFT	ENG.	DATE	REV.	ISSUE	DRAFT	ENG.	DATE
A	DA SUBMISSION			06.09.2016					
P1	PRELIMINARY ISSUE			17.08.2016					

REFERENCED DRAWINGS			
DISCIPLINE:			
DWG NO:			
REVISION:			
DATED:			



APPROVAL:  
**DEVELOPMENT APPLICATION**

This drawing is copyright and shall remain the property of GreenArrow Hydraulics Pty Ltd. No reproduction without permission. Unless noted otherwise this drawing is NOT FOR CONSTRUCTION. Do not scale from drawings, figured dimensions shall take precedence.

CLIENT:  
KAYMET CONSTRUCTION PTY. LTD

ARCHITECT:  
TONY OWEN PARTNERS

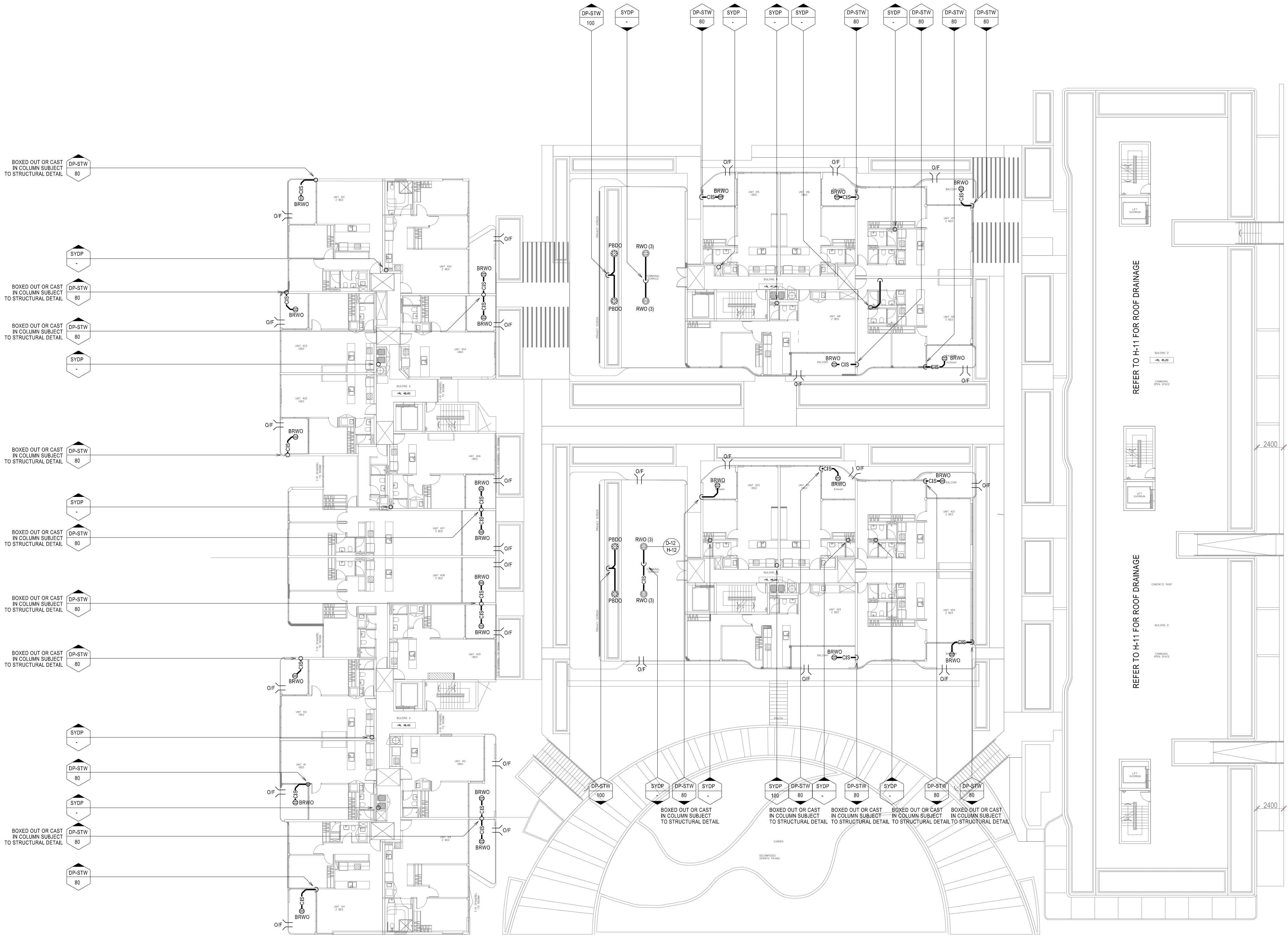
PROJECT:  
**134-144 PITT STREET, REDFERN**

HYDRAULIC CONSULTANT:  
**greenarrow**  
hydraulics/fire suppression-civil drainage  
greenarrow hydraulics pty ltd. admin@greenarrow.net.au Tel: (02) 4226 4480

SHEET TITLE:	PROJECT No:	DRAWING NO:	REVISION:	DRAWN:	CHECKED:	DATE:
<b>LEVEL 3 PLAN</b>	<b>216-1532</b>	<b>H-08</b>	<b>A</b>	CC	MG	JUNE 2016
				SCALE:		SHEET:
				A1@1200		8/12

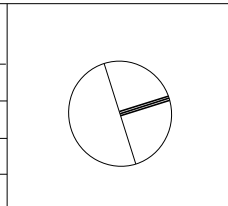


- NOTES:
- 1) ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE RELEVANT BUILDING CODES OF AUSTRALIA, AUSTRALIAN STANDARDS INCLUDING, BUT NOT LIMITED TO AS9000 AND COUNCIL REQUIREMENTS.
  - 2) DO NOT SCALE FROM DRAWINGS. USE FIGURED DIMENSIONS FROM LATEST REVISION OF ARCHITECTURAL DRAWINGS.
  - 3) PRIOR TO COMMENCING ANY WORK, LOCATE & CONFIRM ALL EXISTING SERVICES AND LEVELS AT PROPOSED POINTS OF CONNECTION.
  - 4) ALL INVERT LEVELS SHOWN SHALL BE TAKEN AS A GUIDE ONLY. THE CONTRACTOR SHALL CONFIRM ALL PIPE ROUTES AND CHECK LEVELS PRIOR TO COMMENCING ANY RUN OF PIPE. ALLOW TO COORDINATE WITH STRUCTURAL & MECHANICAL ELEMENTS. ALLOW TO MAKE ADJUSTMENT AS NECESSARY.
  - 5) SUB-SOIL DRAINAGE SHALL BE CONSISTENT WITH THE STRUCTURAL ENGINEERS DETAIL AND SUBJECT TO THE FINDINGS OF THE GEOTECHNICAL REPORT. LAY ADDITIONAL SUB-SOIL DRAINAGE AS SITE CONDITIONS DICTATE.
  - 6) ALL SEWER AND STORMWATER PIPES CAST IN CONCRETE SHALL BE HDPE WITH ELECTROFUSION JOINTS.
  - 7) DOWNPIPES CAST IN COLUMNS SHALL BE WRAPPED IN NO LESS THAN 10MM SOFTLOFON FOAM.
  - 8) ALL DRAINPIPES LOCATED IN AREAS DEEMED TO BE NOISE SENSITIVE SHALL BE ACOUSTIC INSULATED TO THE REQUIREMENTS OF THE ACOUSTIC ENGINEER AND BCA.
  - 9) PROVIDE FALLSAFE OVERFLOWS TO ALL BALCONIES AND ROOF TERRACES.
  - 10) FINAL LOCATION OF DOWNPIPES AND NUMBER OF DOWNPIPES TO BE DETERMINED AT CC STAGE.
  - 11) IF IN DOUBT ASK



REV.	ISSUE	DRAFT	ENG.	DATE	REV.	ISSUE	DRAFT	ENG.	DATE
A	DA SUBMISSION			06.09.2016					
P1	PRELIMINARY ISSUE			17.08.2016					

REFERENCED DRAWINGS			
DISCIPLINE:			
DWG NO:			
REVISION:			
DATED:			



APPROVAL:  
**DEVELOPMENT APPLICATION**

This drawing is copyright and shall remain the property of GreenArrow Hydraulics Pty Ltd. No reproduction without permission. Unless noted otherwise this drawing is NOT FOR CONSTRUCTION. Do not scale from drawings. Figured dimensions shall take precedence.

CLIENT:  
KAYMET CONSTRUCTION PTY. LTD

ARCHITECT:  
TONY OWEN PARTNERS

PROJECT:  
**134-144 PITT STREET, REDFERN**

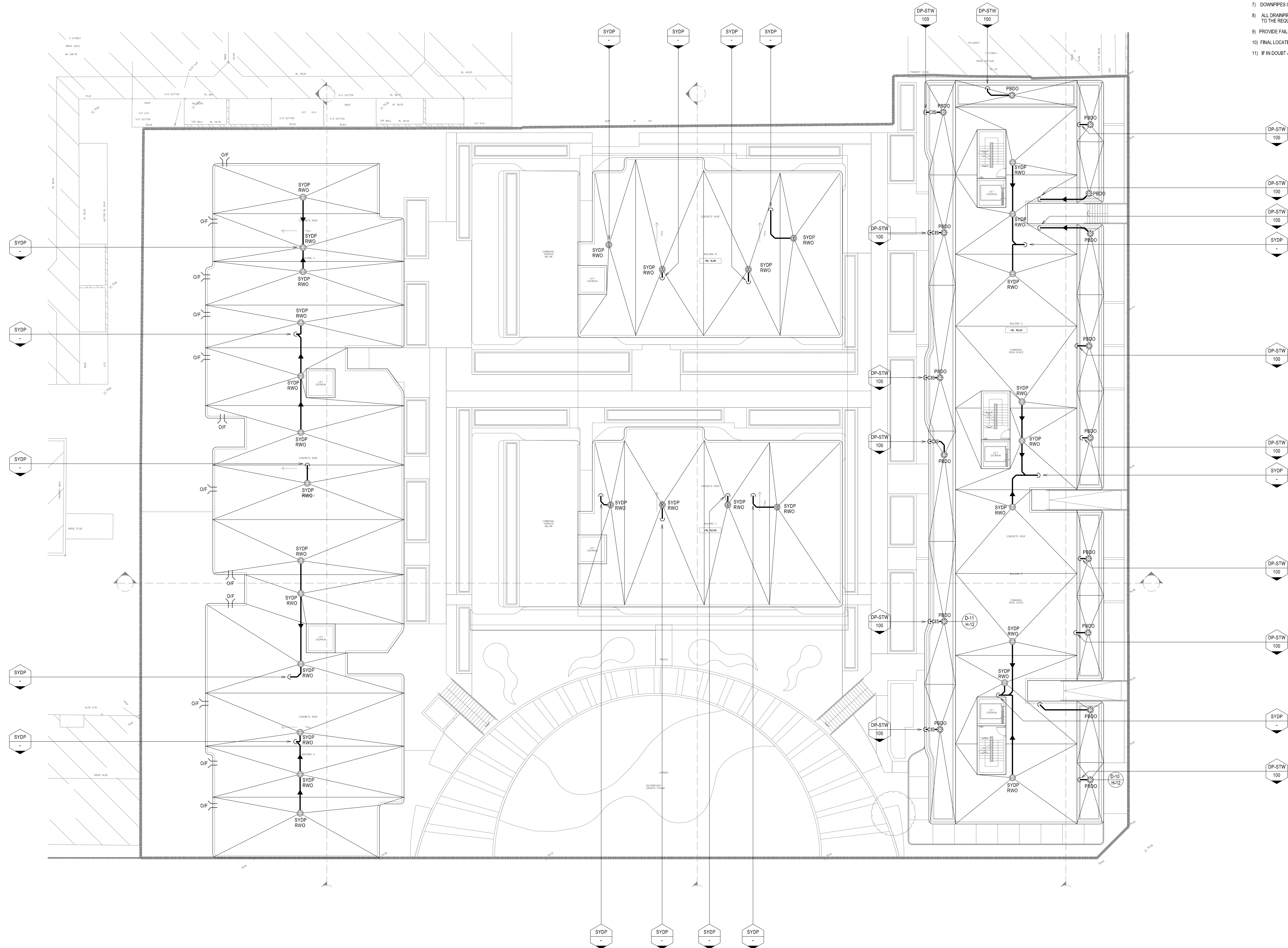
HYDRAULIC CONSULTANT:  
**greenarrow**  
hydraulics+fire suppression-civil drainage  
greenarrow hydraulics pty ltd. admin@greenarrow.net.au Tel: (02) 4226 4480

SHEET TITLE:	PROJECT No:	DRAWING NO:	REVISION:	DRAWN:	CHECKED:	DATE:
<b>LEVEL 4 PLAN</b>	<b>216-1532</b>	<b>H-09</b>	<b>A</b>	CC	MG	JUNE 2016
				SCALE:		SHEET:
				A1@1:200		9/12





- 1) ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE RELEVANT BUILDING CODES OF AUSTRALIA, AUSTRALIAN STANDARDS INCLUDING, BUT NOT LIMITED TO AS3500 AND COUNCIL REQUIREMENTS.
- 2) DO NOT SCALE FROM DRAWINGS, USE FIGURED DIMENSIONS FROM LATEST REVISION OF ARCHITECTURAL DRAWINGS.
- 3) PRIOR TO COMMENCING ANY WORK, LOCATE & CONFIRM ALL EXISTING SERVICES AND LEVELS AT PROPOSED POINTS OF CONNECTION.
- 4) ALL INVERT LEVELS SHOWN SHALL BE TAKEN AS A GUIDE ONLY. THE CONTRACTOR SHALL CONFIRM ALL PIPE ROUTES AND CHECK LEVELS PRIOR TO COMMENCING ANY RUN OF PIPE. ALLOW TO COORDINATE WITH STRUCTURAL & MECHANICAL ELEMENTS, ALLOW TO MAKE ADJUSTMENT AS NECESSARY.
- 5) SUB-SOIL DRAINAGE SHALL BE CONSISTENT WITH THE STRUCTURAL ENGINEERS DETAIL AND ADJUST TO THE FININGS OF THE GEOTECHNICAL REPORT. LAY ADDITIONAL SUB-SOIL DRAINAGE AS SITE CONDITIONS DICTATE.
- 6) ALL SEWER AND STORMWATER PIPES CAST IN CONCRETE SHALL BE HOPE WITH ELECTROFUSION JOINTS
- 7) DOWNPIPES CAST IN COLUMNS SHALL BE WRAPPED IN NO LESS THAN 10MM SOFTEN FOAM.
- 8) ALL DRAINPIPES LOCATED IN AREAS DESIGNED TO BE NOISE SENSITIVE SHALL BE ACOUSTIC INSULATED TO THE REQUIREMENTS OF THE ACOUSTIC ENGINEER AND R.A.
- 9) PROVIDE FALLSAFE OVERFLOWS TO ALL BALCONIES AND ROOF TERRACES
- 10) FINAL LOCATION OF DOWNPIPES AND NUMBER OF DOWNPIPES TO BE DETERMINED AT CC STAGE.
- 11) IF IN DOUBT ASK

[illegible]

APPROVAL:

**DEVELOPMENT APPLICATION**

This drawing is copyright and shall remain the property of GreenArrow Hydraulics Pty Ltd.  
No reproduction without permission. Unless noted otherwise this drawings is NOT FOR  
CONSTRUCTION. Do not scale from drawings, figured dimensions shall take precedence.

CLIENT:  
KAYMET CONSTRUCTION PTY. LTD

ARCHITECT:  
TONY OWEN PARTNERS

PROJECT:  
**134-144 PITT STREET, REDFERN**

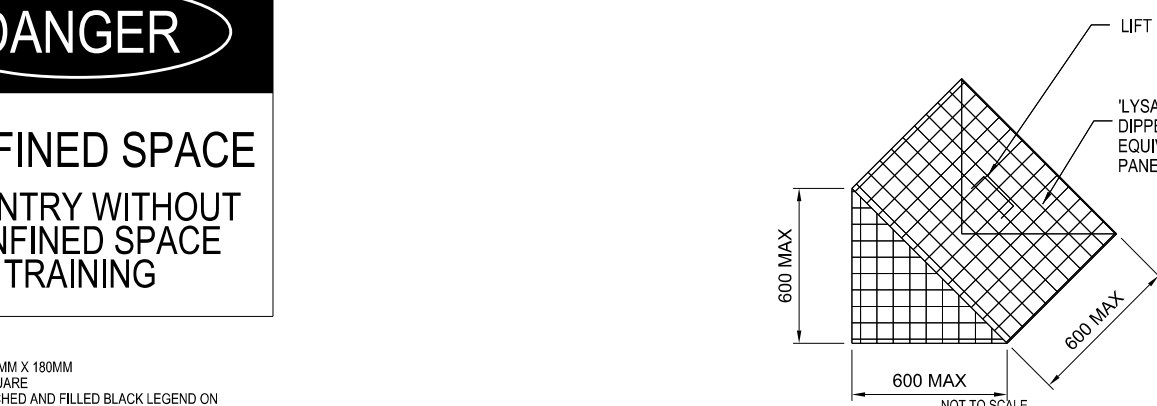
HYDRAULIC CONSULTANT:

 **greenarrow**  
*hydraulics-fire suppression-civil drainage*

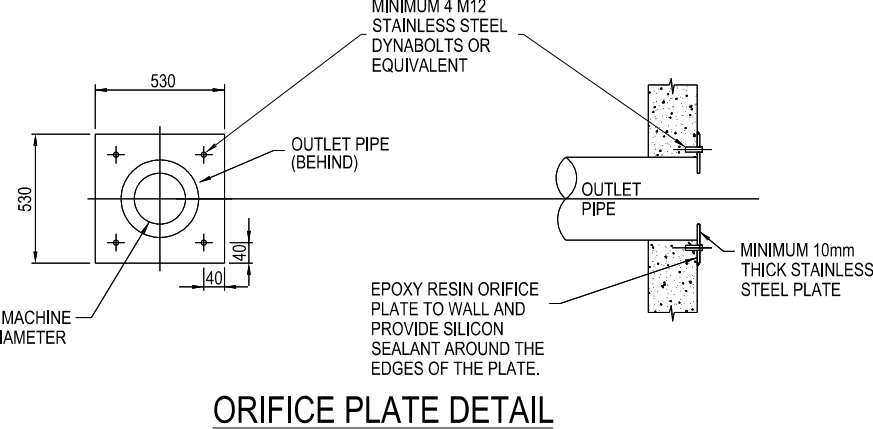
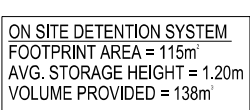
greenarrow hydraulics pty.ltd. admin@greenarrow.net.au Tel: (02) 4226 4490

SHEET TITLE:	PROJECT No:	DRAWING NO:	REVISION:	DRAWN: CC	CHECKED: MG	DATE: JUNE 2016
<b>ROOF PLAN</b>	<b>216-1532</b>	<b>H-11</b>	<b>A</b>	SCALE: A1@1:200	SHEET: 11/12	

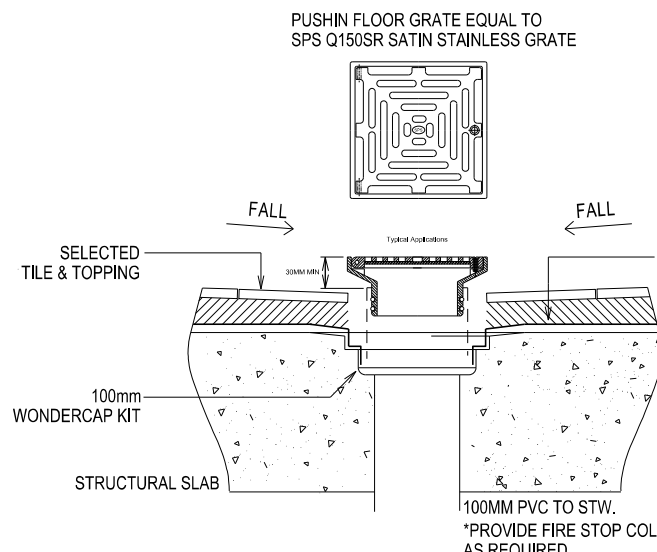




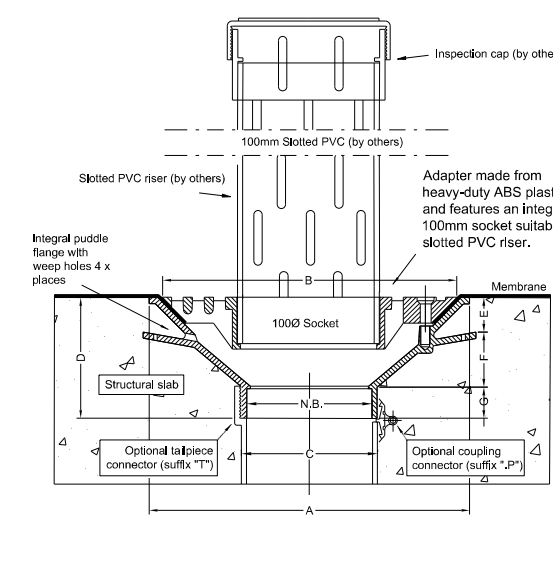
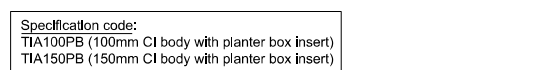
### TRASH SCREEN DETAIL



### ORIFICE PLATE DETAIL

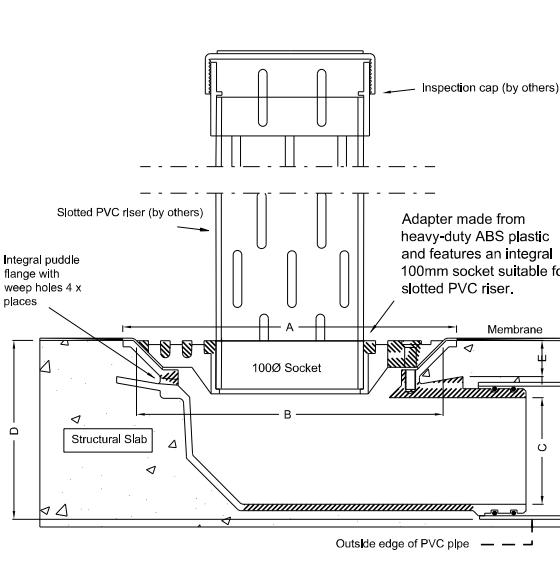


150 SQ RWO (2)  
DETAIL 9



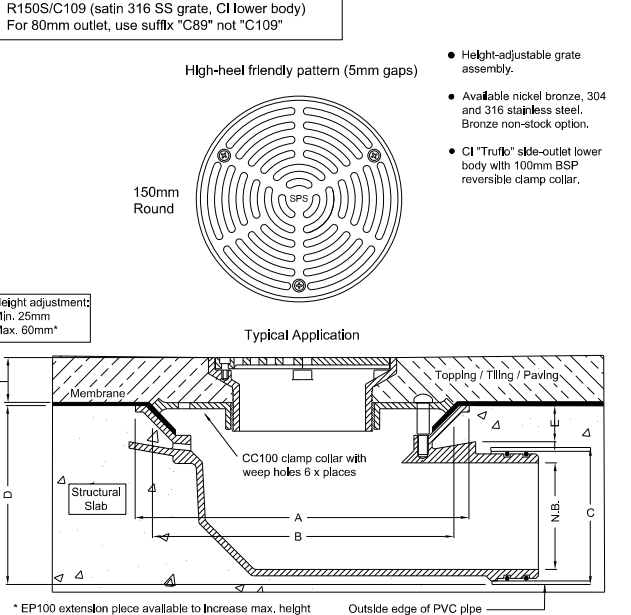
**Specialty Plumbing Supplies Pty Ltd**  
(02) 9416 8031 Fax: (02) 9416 7614 E-mail: [sps@bigpond.net.au](mailto:sps@bigpond.net.au)

Specification code:  
TIA90/90PB (80mm CI body with planter box insert)  
TIA100/90PB (100mm CI body with planter box insert)



**Speciality Plumbing Supplies Pty Ltd**  
Tel: (02) 9416 8031 Fax: (02) 9416 7614 E-mail: [sps@tiggpond.net.au](mailto:sps@tiggpond.net.au)

80mm outlet



**Speciality Plumbing Supplies Pty Ltd**  
Tel: (02) 9416 8031 Fax: (02) 9416 7614 E-mail: [spss@bigpond.net.au](mailto:spss@bigpond.net.au)

4.0

### FLOORWASTE & RAINWATER OUTLET SCHEDULE

<b>DETAILS</b>	<b>216-1532</b>	<b>H-12</b>
----------------	-----------------	-------------

DRAWN:	CHECKED:	DATE:
CC	MG	JUNE, 2016
SCALE:		SHEET:
A1@1:200		12/12

CLIENT:  
KAYMET CONSTRUCTION PTY. LTD

ARCHITECT:  
TONY OWEN PARTNERS

HYDRAULIC CONSULTANT:

 **greenarrow**  
*hydraulics-fire suppression-civil drainage*

greenarrow hydraulics pty ltd. admin@greenarrow.net.au Tel: (02) 4226 4450

SHEET TITLE:	PROJECT No:	DRAWING NO:	REVISION:	DRAWN: CC	CHECKED: MG	DATE: JUNE, 2016
<b>DETAILS</b>	<b>216-1532</b>	<b>H-12</b>	<b>B</b>	SCALE: A1 @ 1:200	SHEET: 12/12	