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Sue Description By Date

Z ARCHITECTURAL DESIGN

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Civil & Structural Engineers

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PROJECT TITLE:

PROPOSED SUBDIVISION at 130 & 132 ELANORA ROAD, **ELANORA HEIGHTS for KELLY GALLO** 

**DRAWING TITLE:** 

**SPECIFICATIONS & DETAILS** 

DRAWN: | DESIGN: | DRAWING SIZE DATE: SCALE: UNO 1:100 @ A1 27May2020

1:200 @ A3

PROJECT NUMBER:

DRAWING NUMBER:

ISSUE:

# Portes Project & Services Pty Ltd

## CIVIL & STRUCTURAL ENGINEERING CONSULTING

## STORMWATER DESIGN

CED//ICE	MATERIAL					
SERVICE	ABBREVIATION	DESCRIPTION	STANDARD	NOTES		
STORMWATER	LIED 40	UNPLASTICIZED	- AS 1254	- BELOW GROUND		
DRAINAGE	UPVC	POLYVINIL CHLORIDE	- AS 1260 - AS 2032	- ABOVE GROUND - INSTALLATION		
	RCP	REINFORCED CONCRETE	- AS 4058 - AS 3725	CLASS 4 UNO LAYING		
	HDPE	HIGH DENSITY POLYETHYLENE	INSTALLED IN ACCORDANCE WITH MANUFACTURERS (VINIDEX / GEBERIT) REQUIREMENTS			
	FRC	FIBRE REINFORCED CEMENT	- AS 4139 - AS 3725	- CLASS 4 UNO - LAYING & INST.		

MINIMUM INTERNAL MEASUREMENTS:					
DEPTH TO BASE	RECTANGULAR		CIRCULAR	LADDER /	
OF CHAMBER	WIDTH	LENGTH		STEP IRON	
SMALLER THAN 600	450	600	600	NO	
601 TO 900	600	900	900	NO	
GREATER THAN 900	750	1200	1050	YES	

ALL PIPEWORK TO BE 100mm @ 1% FALL UNO						
TABLE: STORMWATER PIT	SIZES					
MINIMUM INTERNAL MEASUREMENTS:						
DEPTH TO BASE	RECTANGULAR		CIRCULAR	LADDER /		
OF CHAMBER	WIDTH	LENGTH		STEP IRON		
SMALLER THAN 600	450	450	600	NO		
601 TO 900	600	600	900	NO		
901 TO 1200	600	900	1050	NO		
GREATER	900	900	1050	YES		

SYMBOLS	
TWL	TOP WATER LEVEL
FFL	FINISHED FLOOR LEVEL
FGL TK	FINISHED GARAGE LEVEL TOP OF KERB
RL11.0	FINISHED LEVEL
* RL	EXISTING LEVEL
SL	PIT SURFACE LEVEL
IL	INVERT LEVEL
<b></b>	DOWNPIPE AND STORMWATER PIPE
●DP	DOWN PIPE
● SP	SPREADER
● IP	INSPECTION POINT
7//////////////////////////////////////	MASONRY RETAINING WALL
TW 81.20	TOP OF WALL LEVEL
⊗ FW <sub>(RWO)</sub>	FLOOR WASTE 150Ø
	GRATED INLET PIT - NON TRAFFICABLE - CHILD SAFE LID
	GRATED DRAIN - TRAFFICABLE TRANSVERSE
RWH	RAIN WATER HEAD
[] OF	OVER FLOW POINT (Ø40mm MIN)
	PIPE FLOW
$\longrightarrow$	RUNOFF FLOW DIRECTION
	EMERGENCY OVERLAND FLOW PATH
1	

### IMPORTANT - FOR PRINCIPAL CONTRACTOR

TO ENABLE THE ISSUE OF STORMWATER CERTIFICATION PERMITTING OCCUPATION IN ALIGNMENT WITH COUNCIL LEGISLATION, SITE INSPECTIONS MUST OCCUR. THE PRINCIPAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL STORMWATER INSPECTIONS. ABSENCE OF INSPECTION WILL PREVENT ISSUE OF STORMWATER CERTIFICATION. SITE INSPECTIONS ARE TO BE COMPLETED BY PORTES PROJECTS & SERVICES (PPS) AS FOLLOWS:

				INSPECTION		
INSPECTION #	STORMWATER INSPECTION REQUIREMENTS	PPS REPRESENTATIVE  NAME SIGNATURE		DATE	PASS	FAIL
					✓	
	INSPECTION OF INGROUND STORMWATER					
1	DRAINAGE PRIOR TO BACKFILL (MANDATORY)					
	INSPECTION OF ANY INGROUND STORMWATER					
	DRAINAGE NOT VIEWED AT INSPECTION NO. 1					
2	(OPTIONAL)					
	INSPECTION OF INFILTRATION PIT / TANK /					
3	TRENCH PRIOR TO BACKFILL (JOB SPECIFIC)					
	FINAL INSPECTION* ON COMPLETION OF ALL					
	LANDSCAPING & POST COMMISSIONING OF THE					
4	STORMWATER SYSTEM (MANDATORY)					

\*SURVEY OF RAINWATER & ON-SITE DETENTION STORAGE & WORKS-AS-EXECUTED STORMWATER DRAWINGS (MANDATORY) TO BE PROVIDED TO PPS PRIOR TO INSPECTION MINIMUM PRIOR NOTICE OF TWO WORKING DAYS (& PREFERABLY AT LEAST A WEEK) SHOULD BE PROVIDED IN ORDER TO ARRANGE A SITE INSPECTION BY PPS WITHIN THE SYDNEY METROPOLITAN AREA

## STORAGE VERIFICATION CHECKLIST OF CERTIFICATION ITEMS FOR VERIFICATION BY SURVEYOR **AVERAGE STORAGE TANK DIMENSIONS:** AVERAGE WIDTH AVERAGE DEPTH AVAILABLE VOLUME OF STORED WATER (BETWEEN PUMP SUCTION & OVERFLOW LEVEL) COVER LEVEL OF TANK ACCESS THE SURVEYOR SHALL ADVISE ON ANY VARIATION TO THE APPROVED TANK LEVELS AND THIS INFORMATION SHALL BE CLEARLY MARKED ON THE AS-BUILT DRAWINGS. NAME OF SURVEYOR: DETENTION STORAGE VERIFICATION CHECKLIST OF CERTIFICATION ITEMS FOR VERIFICATION BY SURVEYOR AVERAGE STORAGE TANK OR BASIN DIMENSIONS: AVERAGE LENGTH **AVERAGE WIDTH** AVERAGE DEPTH AVAILABLE VOLUME OF STORED WATER (BETWEEN ORIFICE & OVERFLOW LEVEL) TOP OF BASIN WALL OR TANK OVERFLOW LEVEL = RL GRATE LEVEL OF CONTROL PIT OR TANK ACCESS = RL CENTRE OF ORIFICE COMPONENT SIZES: DIAMETER OF ORIFICE mm DIA DIAMETER OF OUTLET PIPE mm DIA SIZE OF OPENINGS IN DEBRIS SCREEN mm X THE SURVEYOR SHALL ADVISE ON ANY VARIATION TO THE APPROVED TANK LEVELS AND THIS INFORMATION SHALL BE CLEARLY MARKED ON THE AS-BUILT DRAWINGS. NAME OF SURVEYOR:

UNDERGROUND SERVICES IN THE FOOTPATH AREA MAY AFFECT THE DESIGN OF THE STORMWATER SYSTEM. DIAL 1100 BEFORE YOU DIG FOR THEIR LOCATION DIAL 1100 DIAL BEFORE YOU DIG BEFORE CONSTRUCTION COMMENCES

#### **GENERAL NOTES**

- CONFIRM LOCATION, SIZE, CONDITION AND LEVELS OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORK
- ALL WORK TO BE IN ACCORDANCE WITH SPECIFICATION, AUTHORITIES REQUIREMENTS, BCA AND RELEVANT AUSTRALIAN STANDARDS (IN PARTICULARLY AS 3500)
- DISCONNECT, CAP OFF AND REMOVE ALL EXISTING, REDUNDANT SERVICES TO **AUTHORITIES APPROVAL**
- ALL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL AND OTHER CONSULTANTS DOCUMENTS. ALL DISCREPANCIES SHALL BE REFERRED TO THE PROJECT MANAGER BEFORE PROCEEDING WITH THE
- LOCATION OF ALL PIPEWORK IS DIAGRAMMATIC ONLY FINAL LOCATION TO BE CO-ORDINATED ON SITE AND APPROVED BY THE PROJECT MANAGER PRIOR TO COMMENCEMENT OF ANY WORK

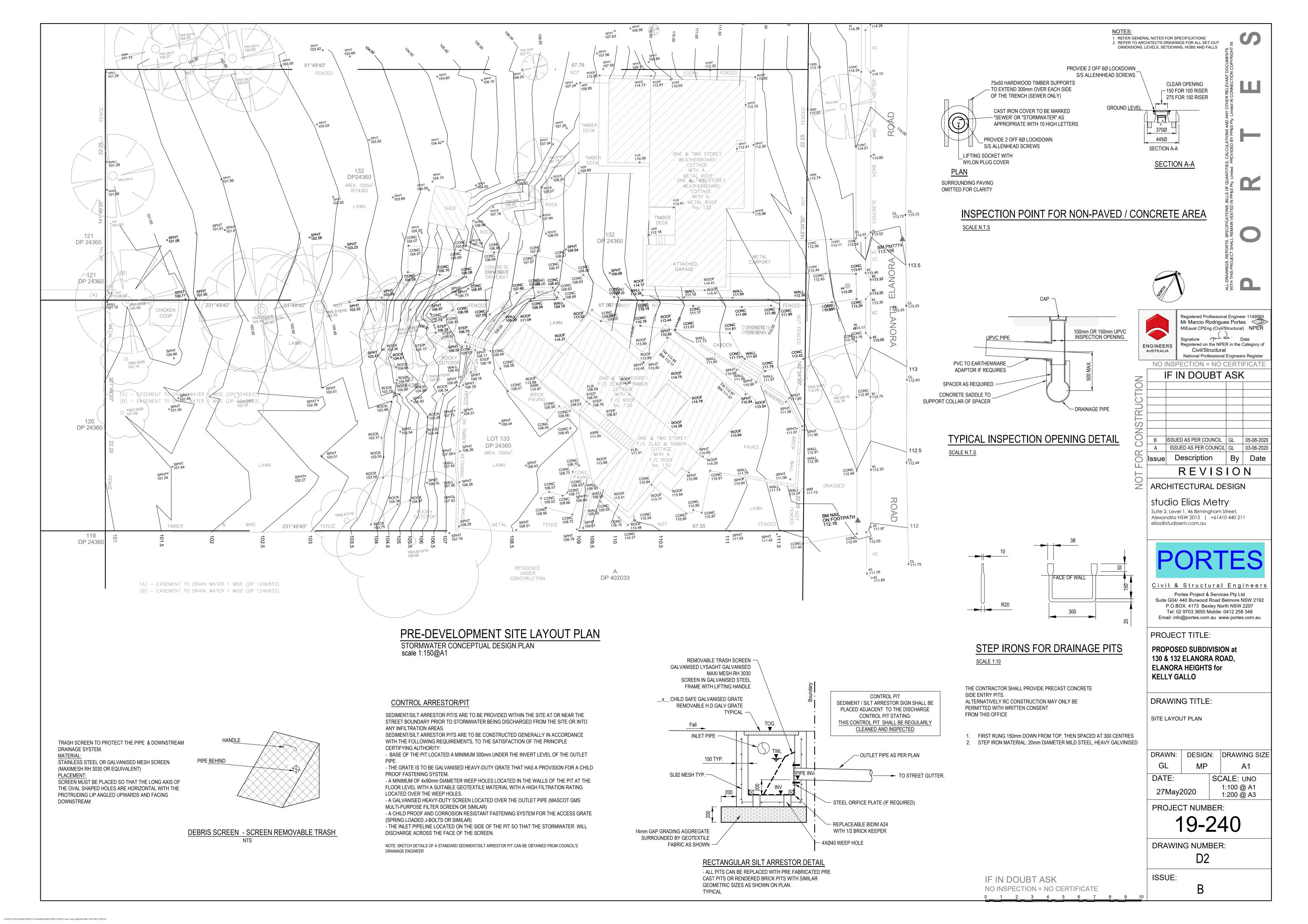
#### **GENERAL DRAINAGE NOTES:**

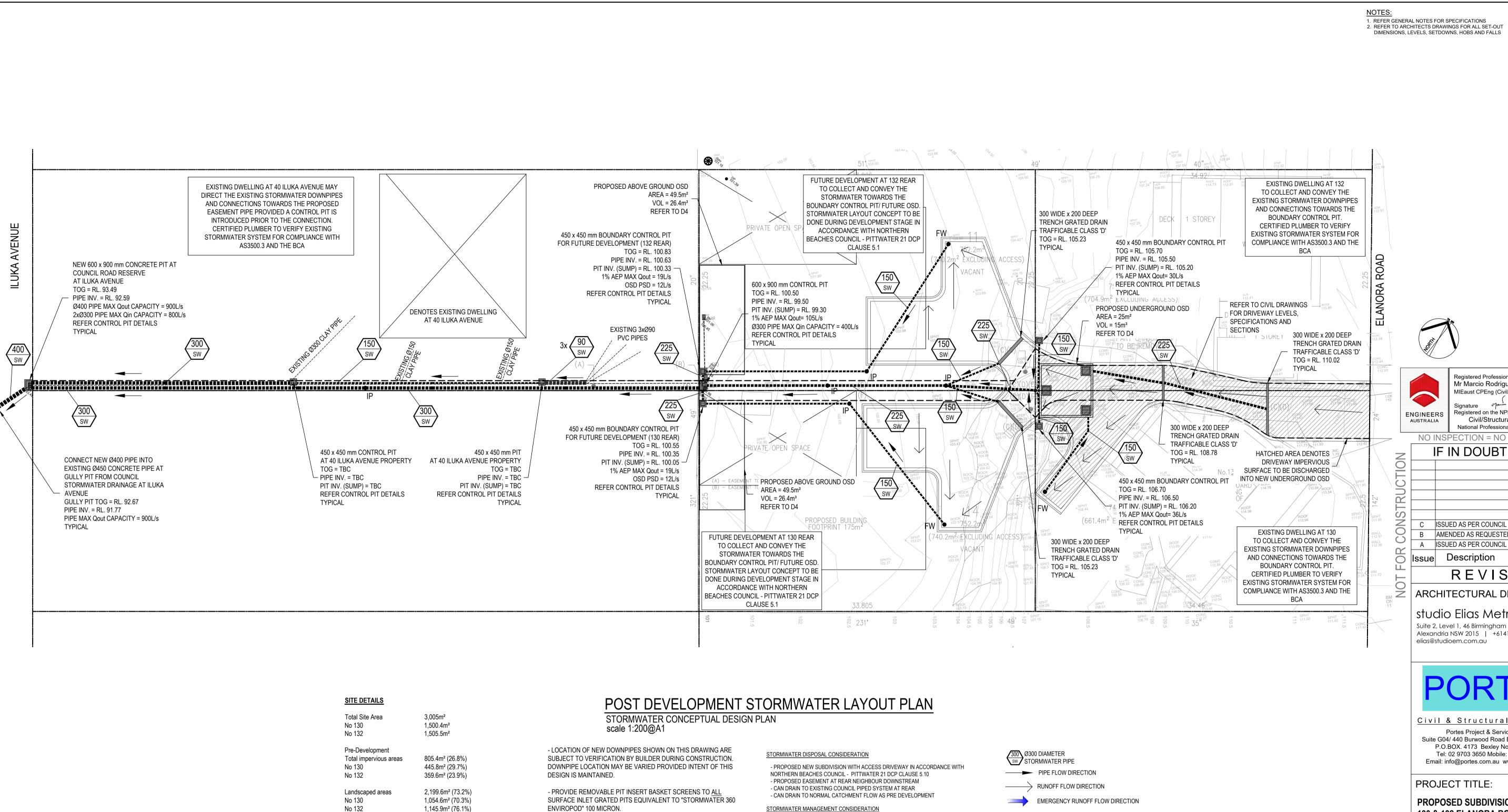
- 1. ALL GRATED DRAINAGE PITS ARE TO BE BENCHED OR STREAMLINED, UNLESS NOTED OTHERWISE.
- 2. ALL DRAINAGE PIPES ARE TO BE UPVC GRADE, UNLESS NOTED OTHERWISE
- 3. THE MINIMUM COVER OVER ALL DRAINAGE PIPES IS TO BE 150mm UNO.
- 4. ALL DRAINAGE PIPES ARE TO HAVE A MINIMUM PIPE GRADIENT OF 1.0%. UNO.
- 5. ALL DRAINAGE PITS ARE TO BE INSTALLED WITH A CHILD PROOF SAFETY LATCH ON THE ACCESS GRATE.
- 6. ALL DOWNPIPES ARE TO BE 100 x 75 SQUARE BOX OR 100Ø CIRCULAR SECTIONS UNLESS NOTED OTHERWISE MAXIMUM PROJECTED ROOF AREA PER DOWN PIPE = 65 m<sup>2</sup>
- 7. ALL INLET & OUTLET PIPES SHALL BE CUT FLUSH WITH PIT WALL
- 8. PROVIDE ALL GRATED PIT LIDS TO BE HINGED AND FITTED WITH AN APPROPRIATE CHILDPROOF LOCK-DOWN SYSTEM
- 9. ALL PITS TO BE CONSTRUCTED ARE SHOWN IN CONCRETE, HOWEVER PRECAST OR BRICK PITS (PLASTIC FOR NO TRAFFICABLE AREAS) OF SIMILAR SIZE AND CONSTRUCTION AND TO THE SAME LEVELS ARE ACCEPTABLE
- 10. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE & LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS
- 11. ALL PITS IN DRIVEWAYS TO BE 600x600 INTERNAL AND ALL PITS IN
- LANDSCAPED AREAS TO BE 450x450 INTERNAL UNO 12. ALL WORK DO BE DONE IN ACCORDANCE WITH AS/NZ 3500.3:1998 AND
- COUNCIL SPECIFICATIONS. 13. COUNCIL APPROVAL REQUIRED FOR ANY STORMWATER WORKS IN THE ROAD RESERVE INCLUDING PIPE CONNECTION TO KERB & GUTTER
- 14. PORTES PROJECT AND SERVICES P/L ISSUED A STORMWATER CONCEPTUAL DESIGN PLAN FOR CLIENT ( CLIENT REPRESENTATIVE) AND THE DESIGN MUST BE APPROVED BY THE PRINCIPAL CERTIFYING AUTHORITY PRIOR TO BE IMPLEMENTED ON SITE.
- 15. STORMWATER DRAWINGS TO BE USED ON SITE MUST BE APPROVED AND STAMPED BY PRINCIPAL CERTIFYING AUTHORITY. APPROVED STAMPED DRAWINGS BY PRINCIPAL CERTIFYING AUTHORITY SHALL BE AVAILABLE ON SITE

IF IN DOUBT ASK

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- THIS DRAWING IS NOT TO BE USED FOR SETOUT PURPOSES -REFER TO ARCHITECTURAL DRAWINGS.

Post-Development

748.2m<sup>2</sup>

752.2m<sup>2</sup>

753.3m<sup>2</sup>

752.2m<sup>2</sup>

1,491.6m<sup>2</sup> (48.9%)

519.1m<sup>2</sup> (69.4%)

425.7m<sup>2</sup> (56.5%)

1,558.4m<sup>2</sup> (51.1%)

229.1m<sup>2</sup> (30.6%)

327.6m<sup>2</sup> (43.5%)

376.1m<sup>2</sup> (50.0%) - ASSUMED MAX

376.1m<sup>2</sup> (50.0%) - ASSUMED MAX

376.1m<sup>2</sup> (50.0%) - ASSUMED

376.1m<sup>2</sup> (50.0%) - ASSUMED

No 130

No 132

No 130

No 132

No 130

No 132

No 130 Rear

No 132 Rear

No 130 Rear

No 132 Rear

No 130 Rear

No 132 Rear

Landscaped areas

Total impervious areas

- LOCATION OF SURFACE STORMWATER GRATED INLET PITS MAY BE VARIED OR NEW PITS INSTALLED AT THE CONSTRUCTION STAGE PROVIDED INTENT OF THIS DRAWING IS MAINTAINED.

- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY PRIOR APPROVAL REQUIRED FROM COUNCIL WITH RESPECT TO POTENTIAL IMPACT ON TREES FOR ANY WORKS SHOWN ON THIS DRAWING PRIOR TO THE COMMENCEMENT OF THOSE WORKS.

STORMWATER MANAGEMENT CONSIDERATION

- ON SITE DETENTION TANK (OSD) MAY BE REQUIRED FOR FUTURE DEVELOPMENTS (TO BE ASSESSED DURING DEVELOPING STAGE) - EXISTING DWELLING (No 130 & 132) STORMWATER SYSTEMS ARE WORKING AND IN GOOD CONDITION, NO CHANGES PROPOSED - DRIVEWAY IMPERVIOUS SURFACE TO DISCHARGE INTO SEPARATED OSD - SILT CONTROL PIT PROVIDED PRIOR TO CONNECTIONS INTO EASEMENT DISCHARGE MAIN PIPE AT ALL SITES - CERTIFIED PLUMBER SHALL VERIFY EXISTING STORMWATER SYSTEM FOR COMPLIANCE WITH AS3500.3 AND THE BCA

> IMPERVIOUS AREAS AS NOTED. WAS ASSUMED FOR NEW DEVELOPMENTS (MAX ALLOWED)

**STORMWATER PIPE** 

IP INSPECTION POINT

DISCLAIMER 1% AEP MAX Qout PROVIDED IS BASED ON: 5min|100y RAINFALL INTENSITY IN ACCORDANCE TO AUSTRALIAN BUREAU OF METEOROLOGY. IMPERVIOUS AREAS AS NOTED FOR THE DEVELOPMENTS AT No 130 AND 132. FUTURE DEVELOPMENTS (130 REAR AND 132 REAR) FOR OSD CALCULATION, 50% IMPERVIOUS AREA

Registered Professional Engineer 1149560
Mr Marcio Rodrigues Portes MIEaust CPEng (Civil/Structural) NPER Signature Jack Date Registered on the NPER in the Category of Civil/Structural National Professional Engineers Register

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	Α	ISSUED AS PER COUNCIL	GL	03-06-2020				
FOR	Issue	Description	Ву	Date				

REVISION

Z ARCHITECTURAL DESIGN

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PROJECT TITLE:

PROPOSED SUBDIVISION at 130 & 132 ELANORA ROAD, **ELANORA HEIGHTS for KELLY GALLO** 

**DRAWING TITLE:** 

PROPOSED STORMWATER MANAGEMENT PLAN

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27May2020

1:200 @ A3

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ENVIROPOD" 100 MICRON.

- PRIOR ANY EXCAVATION CALL - CALL BEFORE YOU DIG -AND CHECK LOCATION AND DEPTH OF ALL UNDERGROUND SERVICES WITH THE RELEVANT AUTHORITIES. FOR SURVEYOR WORK-AS-EXECULTED PLAN, SURVEYOR TO CONFIRM **ALL** LEVELS, PIPE SIZES, ORIFICE DIAMETER, TANK VOLUME ETC AS SHOWN ON THIS PLAN. CONFIRM THE AS BUILT OSD FACILITY / STORMWATER

SYSTEM COMPLIES WITH THE DESIGN.

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