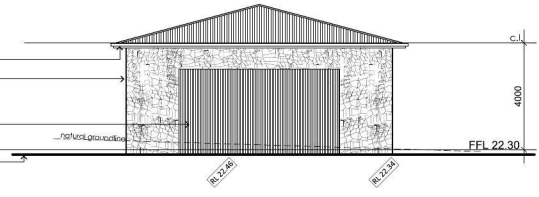
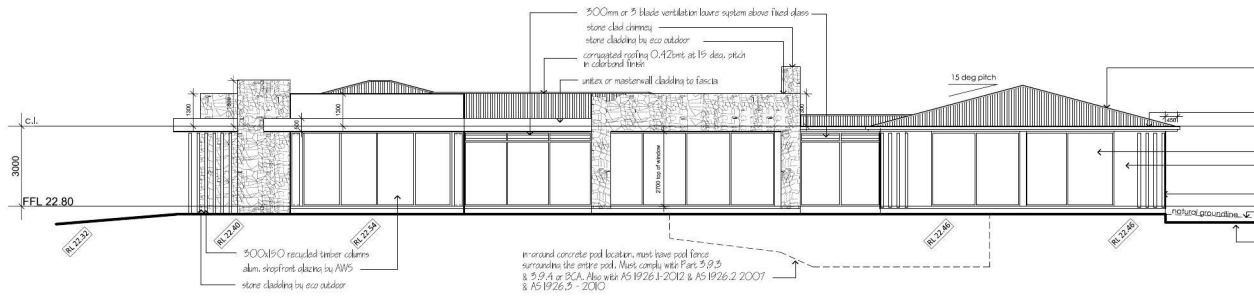


north elevation. (scale 1:100)
view from west wilchard road

skopfront roofing 0.42met at 15 deg. pitch in colorbond finish
250 brick veneer walls with rendered and painted finish unites or masterwall cladding to fascia
150 half round gutter and c/b fascia
stone cladding by eco outdoor
skopfront slabs by AWS
cement render and painted finish
double garage doors or similar
500x150 recycled posts
natural groundline

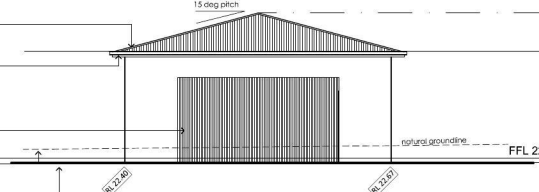


west elevation. (farm building)
view from castlereagh road (scale 1:100)

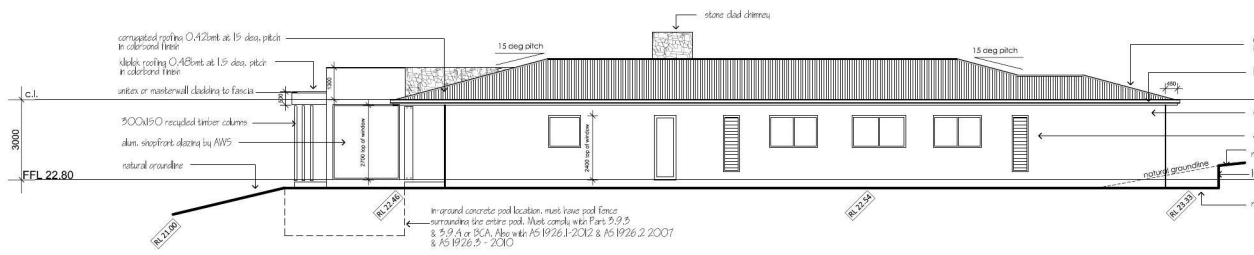


west elevation.

stone clad chimney
stone cladding by eco outdoor
compacted roofing 0.42met at 15 deg. pitch in colorbond finish
unites or masterwall cladding to fascia
skopfront slabs by AWS
cement render and painted finish
double garage doors or similar
500x150 recycled posts
natural groundline
new groundline

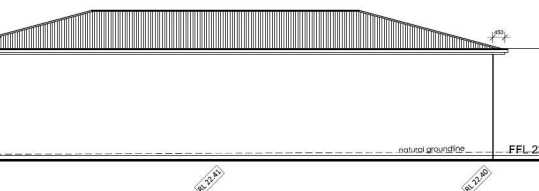


east elevation.

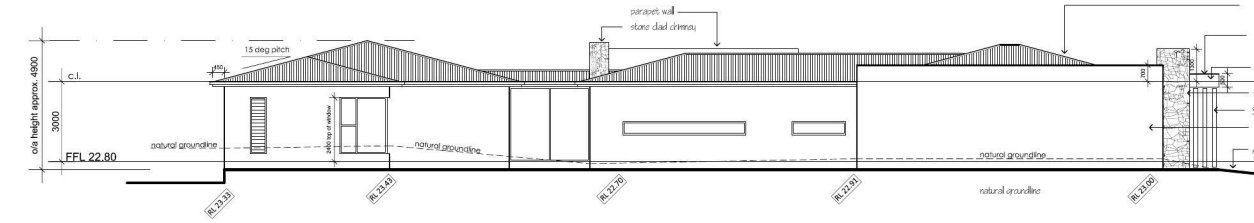


south elevation.

stone clad chimney
stone cladding by eco outdoor
compacted roofing 0.42met at 15 deg. pitch in colorbond finish
unites or masterwall cladding to fascia
skopfront slabs by AWS
cement render and painted finish
alum. windows by AWS
natural groundline
1000ish retaining wall
new groundline

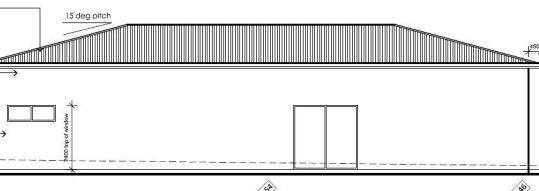


south elevation.



east elevation.

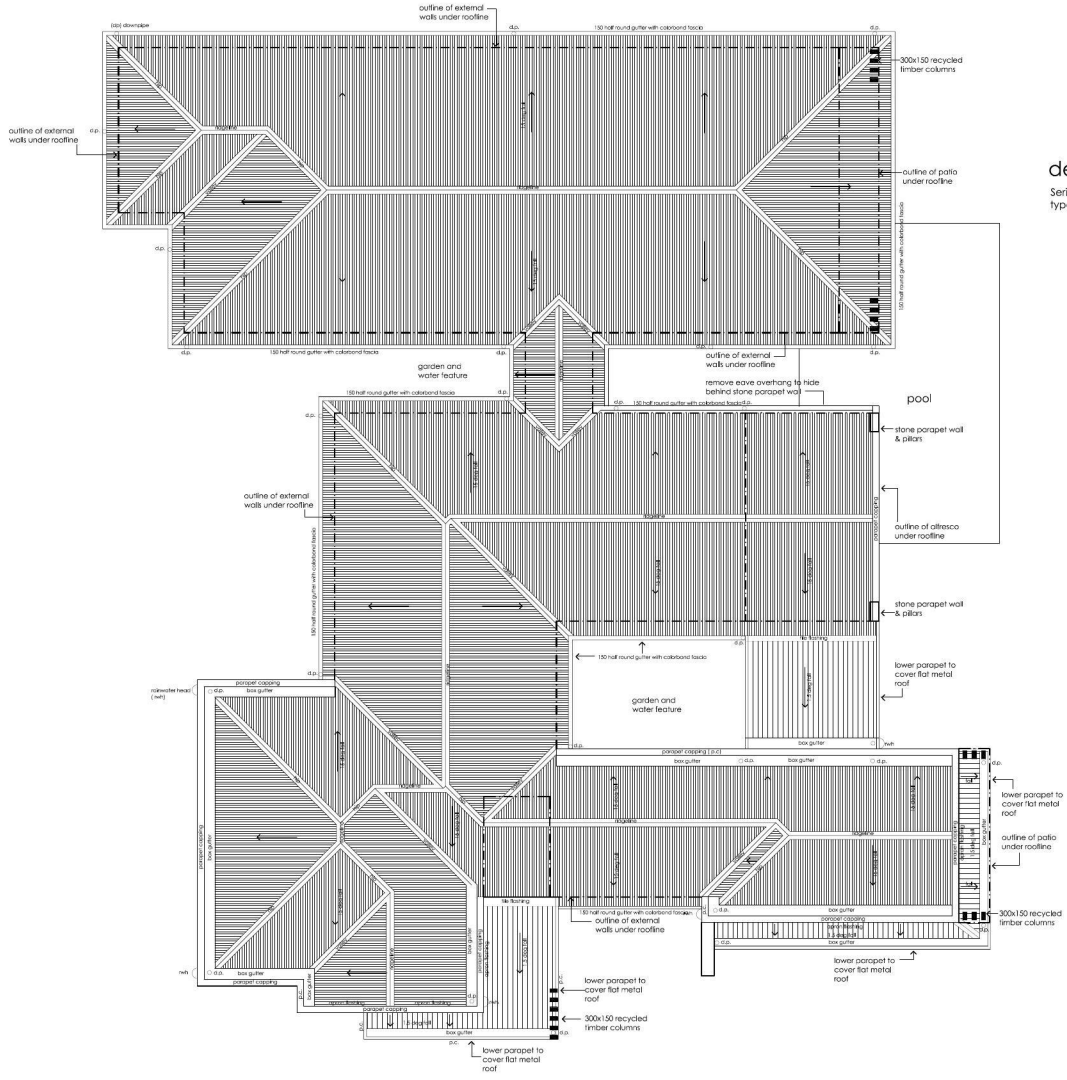
stone clad chimney
stone cladding by eco outdoor
compacted roofing 0.42met at 15 deg. pitch in colorbond finish
unites or masterwall cladding to fascia
skopfront slabs by AWS
cement render and painted finish
natural groundline
1000ish retaining wall
new groundline



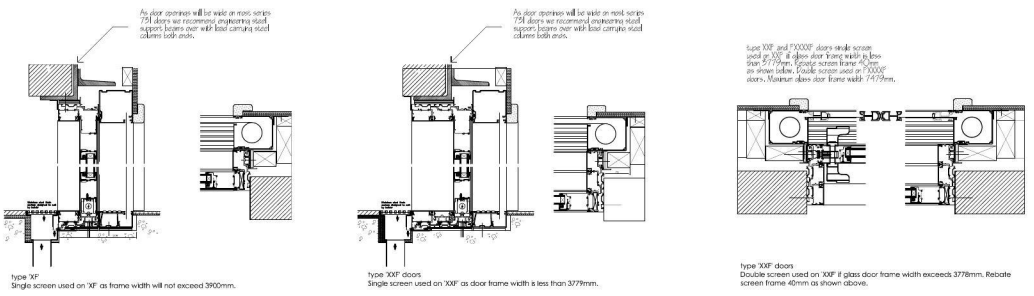
north elevation.

Certificate no.: 0004249330
 Assessor Name: Ian Fry
 Accreditation no.: VIC-BDAV12/1441
 Certificate date: 03 Oct 2019
 Dwelling Address:
 259 West Wilchard Road
 Castlereagh, NSW
 2749

flood affected site
bushfire prone site



roof plan. (scale 1:100)



detail one.
Series 731 Sliding Doors with
type S1E Retractable Screen

note:
all windows must be site measured prior to manufacture. All windows performance specifications must be as per the basic certificate. Any discrepancies must be related back to the designer prior to manufacture. Windows must meet the child safety standards of NCC 3.9.2.5

window schedule

no.	window size and type
1.	2700d x 900w fixed
2.	2700d x 2000w alum. double hung
3.	2700d x 600w alum. double hung
4.	2700d x 600w alum. double hung
5.	2700d x 600w alum. double hung
6.	2700d x 600w alum. double hung
7.	2700d x 6000w alum.slid.door
8.	2700d x 2400w fixed glass window
9.	2700d x 6800w (2400 fixed) & (300 louvres above)
10.	2700d x 4700w (2400 fixed) & (300 louvres above)
11.	2700d x 6800w (2400 fixed) & (300 louvres above)
12.	2700d x 6500w alum. sliding door
13.	2700d x 3000w (2400 fixed) & (300 louvres above)
14.	2700d x 3800w (2400 fixed) & (300 louvres above)
15.	2700d x 3300w alum. sliding door
16.	2700d x 3300w alum. sliding door
17.	1200d x 1200w awning
18.	2100d x 600w louvre
19.	1200d x 1800w alum. slid. window
20.	1200d x 2000w alum.slid.window
21.	1200d x 1800w alum. slid. window
22.	2100d x 600w louvre
23.	2100d x 600w louvre
24.	2100d x 1800w fixed & double hung
25.	2100d x 2400w fixed and double hung
26.	2100d x 600w louvre
27.	1200d x 1800w alum. slid. window
28.	1200d x 1800w alum.slid. window
29.	1200d x 1800w alum. slid. window
30.	2100d x 600w louvre
31.	2700d x 3000w alum. slid.door
32.	2700d x 900w alum. double hung
33.	2700d x 900w alum. double hung
34.	2700d x 900w alum. double hung
35.	500d x 4400w fixed
36.	500d x 2000w fixed
37.	600d x 1800w alum.slid.window
38.	2400d x 2400w alum.slid.door

Certificate no.: 0004249330
 Assessor Name: Ian Fry
 Accreditation no.: VIC/BD/AV/12/1441
 Certificate date: 03 Oct 2019
 Dwelling Address: 259 West Wilchard Road
 Castlereagh, NSW 2749
www.nathers.gov.au

flood affected site
bushfire prone site

window table.

Botanic Name	Common Name	Qty	H/W	Pot size
1 Waterhousia floribunda	Weeping Lilly Pilly	14	10m / 5m	400mm
2 Acacia cognata 'Limelight'	Limelight Dawrf Wattle	27	1m	200mm
3 Dianella caerulea 'Little Jess'	Native flax	2	1.5m / 1m	200mm
4 Lomandra confertifolia rubiginosa	Lomandra Crackerjack	5	1.5m / 1m	200mm

Plant ratio around proposed shed
 48 plants
 4 Plant Species of all different heights
 100% Endemic species
 100% Low water needs

Castlereagh Road

Castlereagh Road

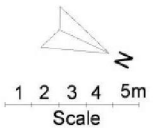
Proposed Contours
 Existing Contours
 Viburnum Odoratissimum to be planted on boundary line

Proposed shed
 FFL at R.L 21.4HD
 9m roller doors on every side
 Eve height 4.8m and top of roof 5.5

Farm building
 FFL 22.10



Site: 259 West Wilchard Rd, Castlereagh
 Client: Kelly Smith
 Scale: 1:100 @A1
 Date: 04-07-19
 Stephanie Jones
 Leafscape Designs
 Ph 0401465122
 leafscapedesigns@gmail.com
 Document Set ID: 8927500
 Version: 1, Version Date: 02/12/2019



STORMWATER CONCEPT PLAN

PROPOSED RESIDENCE

259 WEST WILCHARD RD, CASTLEREAGH NSW

GENERAL					
1. THIS PLAN IS TO BE USED IN CONJUNCTION WITH ARCHITECTURAL, STRUCTURAL, & LANDSCAPING PLANS. ANY DISCREPANCIES OR OMISSIONS ARE TO BE REFERRED TO THE ENGINEER FOR RESOLUTION PRIOR TO COMMENCING WORK.					
2. ALL MATERIALS AND WORKMANSHIP IS TO MEET AS 3500.3:2015 STORMWATER DRAINAGE, BCA AND LOCAL COUNCIL DEVELOPMENT POLICIES, CONSENTS AND REQUIREMENTS.					
3. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND DRAINAGE LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORKS. THIS INCLUDES EXISTING SERVICES AND/OR OTHER STRUCTURES THAT MAY AFFECT/BE AFFECTED BY THIS DESIGN PRIOR TO CONSTRUCTION.					
4. THIS DRAWING IS NOT TO BE USED FOR SET-OUT PURPOSES. ALL SURVEY INFORMATION, PROPOSED BUILDING LEVELS, FINISHED SURFACE LEVELS AND SITE DETAILS SHOWN IN THESE DRAWINGS ARE ESTABLISHED UPON LEVELS/DETAILS SUPPLIED BY OTHERS.					
5. FLOOR WASTE & DOWNPIPE LOCATIONS ARE INDICATIVE ONLY. ULTIMATE FLOOR WASTE & DOWNPIPE LOCATION, SIZE, & QUANTITY ARE TO BE DETERMINED BY BUILDER IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.					
6. IT IS THE BUILDERS RESPONSIBILITY TO LOCATE AND LEVEL ALL EXISTING SERVICES OR OTHER STRUCTURES WHICH MAY AFFECT/BE AFFECTED BY THIS DESIGN PRIOR TO COMMENCEMENT OF WORKS.					
7. ANY SUBSTITUTION OF MATERIALS SHALL BE APPROVED BY THE ENGINEER AND INCLUDED IN THE DEVELOPMENT APPLICATION.					
8. CONTRACTORS ARE TO INVESTIGATE ALL EXISTING SERVICES AND APPLY FOR "DIAL BEFORE YOU DIG" PRIOR TO COMMENCEMENT OF CONSTRUCTION.					

COMPLIANCE
1. THESE PLANS WERE PREPARED IN ACCORDANCE WITH COUNCIL'S POLICIES AND REQUIREMENTS, BASIX REQUIREMENTS, AS 3500:2013, ARR (2016), ARQ (2006), BCA (2015), RELEVANT LEGISLATION, AND NSW MUSIC MODELLING GUIDELINES.

SCOPE OF WORKS
1. DETAILED DESIGN AND DOCUMENTATION FOR THE FOLLOWING (WHERE APPLICABLE): ROOFED, IMPERVIOUS AND PERVIOUS AREAS; RAINWATER REUSE SYSTEM, OSD; AND STORMWATER DISPOSAL.

RAINWATER RE-USE SYSTEM
1. ALL GUTTERS TO BE FITTED WITH LEAF GUARDS AND SUBJECT TO REGULAR INSPECTION / CLEAN OUT.
2. MIN. TANK SIZE TO BE THAT SPECIFIED WITHIN DETAIL AND PLAN.
3. TANKS ARE TO BE INSTALLED BY A LICENSED PLUMBER IN ACCORDANCE WITH MANUFACTURES SPECIFICATIONS, AS3500 AND COUNCIL REQUIREMENTS.
4. RAINWATER RETENTION FOR RE-USE AS SPECIFIED BY BASIX CERTIFICATE.

MINIMUM PIPE COVER		
O.L. OF PIPE TO F.S.L.		
LOCATION	MIN. COVER (mm)	
	CAST IRON, DUCTILE IRON, GALV. STEEL	OTHER AUTHORISED PRODUCTS ⁽¹⁾
1. NOT SUBJECT TO VEHICULAR LOADING: a. WITHOUT PAVEMENT- i. FOR SINGLE DWELLINGS ii. FOR ITEMS OTHER THAN i. b. WITH PAVEMENT OF BRICK OR UNREINFORCED CONCRETE	0	100
	0	300
	0 ⁽²⁾	50 ⁽²⁾
	300	450
	0 ⁽²⁾⁽³⁾	100 ⁽²⁾⁽³⁾
	0 ⁽²⁾⁽³⁾	75 ⁽²⁾⁽³⁾
2. SUBJECT TO VEHICULAR LOADING: a. OTHER THAN ROADS- i. WITHOUT PAVEMENT ii. WITH PAVEMENT OF: - REINFORCED CONCRETE FOR HEAVY VEHICULAR LOADINGS - BRICK/UNREINFORCED CONCRETE FOR LIGHT VEHICULAR LOADING b. ROADS- i. SEALED ii. UNSEALED	300	500 ⁽³⁾
	300	500 ⁽³⁾
	300	500 ⁽³⁾
3. SUBJECT TO CONSTRUCTION EQUIPMENT OR IN EMBANKMENT CONDITIONS	300	500 ⁽³⁾

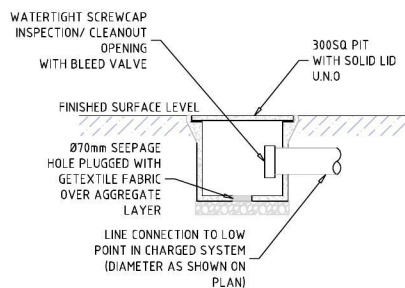
⁽¹⁾ INCLUDES OVERLAY ABOVE TOP OF THE PIPE NOT LESS THAN 50mm THICK
⁽²⁾ BELOW THE UNDERSIDE OF THE PAVEMENT
⁽³⁾ SUBJECT TO COMPLIANCE WITH AS 1762, AS 2033, AS 2566.1, AS 3725, AS 4060

DRAINAGE LINES	
1. MINIMUM PIPE GRADE AS SPECIFIED IN TABLE BELOW. MINIMUM DIAMETER IS TO BE (U.N.O): a. 210mm WHERE LINE RECEIVES ROOF WATER. b. 215mm WHERE LINE RECEIVES RUN-OFF FROM PAVED/UNPAVED EXTERNAL SURFACES	
2. PIPE EMBEDMENT IS TO BE IN ACCORDANCE WITH LOCAL AUTHORITY SPEC., AS 3500.3, AS 2032 FOR PVC, & AS 3725 FOR FCR/RCP PIPEWORK.	
3. SUBSOIL DRAINAGE SHALL BE PROVIDED TO ALL RETAINING WALLS AND EMBANKMENTS WITH THE LINES FEEDING INTO THE STORMWATER DRAINAGE SYSTEM.	

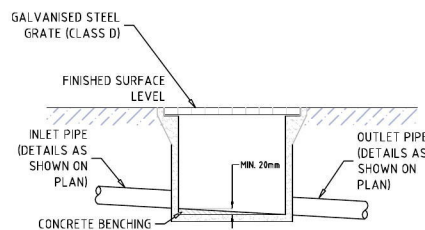
MINIMUM SITE PIPE GRADIENT (U.N.O)			MINIMUM INTERNAL DIMENSIONS FOR STORMWATER PITS		
DIAMETER Ø (mm)	MIN. GRADE	MIN. % SLOPE	DEPTH TO I.L. OF OUTLET (mm)	MIN. INTERNAL DIMENSIONS (mm)	
				WIDTH	LENGTH
≤ 225	1:100	1%	≤ 600	450	450
300	1:250	0.4%	> 600 TO ≤ 900	600	600
375	1:300	0.33%	> 900 TO ≤ 1200	900	900

PITS	
1. ALL PITS TO BE FITTED WITH APPROVED GALVANISED STEEL GRATES AND TO BE SUITABLE FOR THE FOLLOWING LOAD RATING (U.N.O): a. CLASS-B MIN. FOR LANDSCAPED AREAS b. CLASS-C WHERE SUBJECT TO VEHICULAR TRAFFIC	
2. ALL PITS FITTED WITH CHILDPROOF SPRING LOCKING J-BOLTS.	
3. GRATED COVERS OF PITS > 600SQ mm ARE TO BE HINGED & OFFSET FROM OBSTRUCTIONS TO ALLOW FOR FULL OPENING	
4. PROVIDE STEP IRONS TO STORMWATER PITS > 1200mm IN DEPTH.	
5. PIT BASES ARE TO BE BENCHED LEVEL TO THE I.L. OF THE OUTLET PIPE (NO SUMP U.N.O), WITH A MIN. FALL OF 20mm BETWEEN THE INLET AND OUTLET PIPE I.L.s. ALL PIPES SHOULD BE CUT FLUSH WITH THE WALL OF THE PITS.	
6. PRECAST PITS ARE TO BE SET ON A 75mm CONCRETE BASE AND BACKFILLED WITH CONCRETE TO HALF THE PIT'S HEIGHT.	
7. WATER SHOULD NOT BE PERMITTED TO POND WITHIN THE DRAINAGE SYSTEM.	

ABBREVIATIONS			
A.H.D	AUSTRALIAN HEIGHT DATUM	N.T.S	NOT TO SCALE
A.R.I	AVERAGE RECURRENCE INTERVAL	O.F	OVERFLOW
C.O	CLEAN-OUT PIT	O.L	OBVERT LEVEL
DP	DOWNPIPE	O.S.D	ON-SITE DETENTION
D/S	DOWNSTREAM	R.C.P	REINFORCED CONCRETE PIPE
FF	FIRST FLUSH DEVICE	R.H.S	RECTANGULAR HOLLOW SECTION
F.F.L	FINISHED FLOOR LEVEL	R.L	REDUCED LEVEL
F.G.L	FINISHED GARAGE LEVEL	R.W.T	RAIN-WATER TANK
F.W	FLOOR WASTE	S.L	SURFACE LEVEL
G.S.I.P	GRATED SURFACE INLET PIT	SQ	SQUARE
H.G.L	HYDRAULIC GRADE LINE	TYP.	TYPICAL
I.L	INVERT LEVEL	T.W.L	TOP WATER LEVEL
I.P	INSPECTION POINT	U/S	UPSTREAM
N.S.L.	NATURAL SURFACE LEVEL	U.N.O	UNLESS NOTED OTHERWISE



TYPICAL CHARGED LINE CLEAN-OUT PIT SECTION
SCALE 1:20



TYPICAL GRATED SURFACE INLET PIT SECTION
SCALE 1:30

ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.

REV	DATE	DES.	DRN.	APP.	REVISION DETAILS
A-01	22/10/2019	L.T.S	R.A.S	L.T.S	INITIAL RELEASE FOR D.A.

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 ENGINEERING AND ENVIRONMENTAL CONSULTANTS
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 BROADCREST CONSULTING PTY LTD | ACN 622 548 187

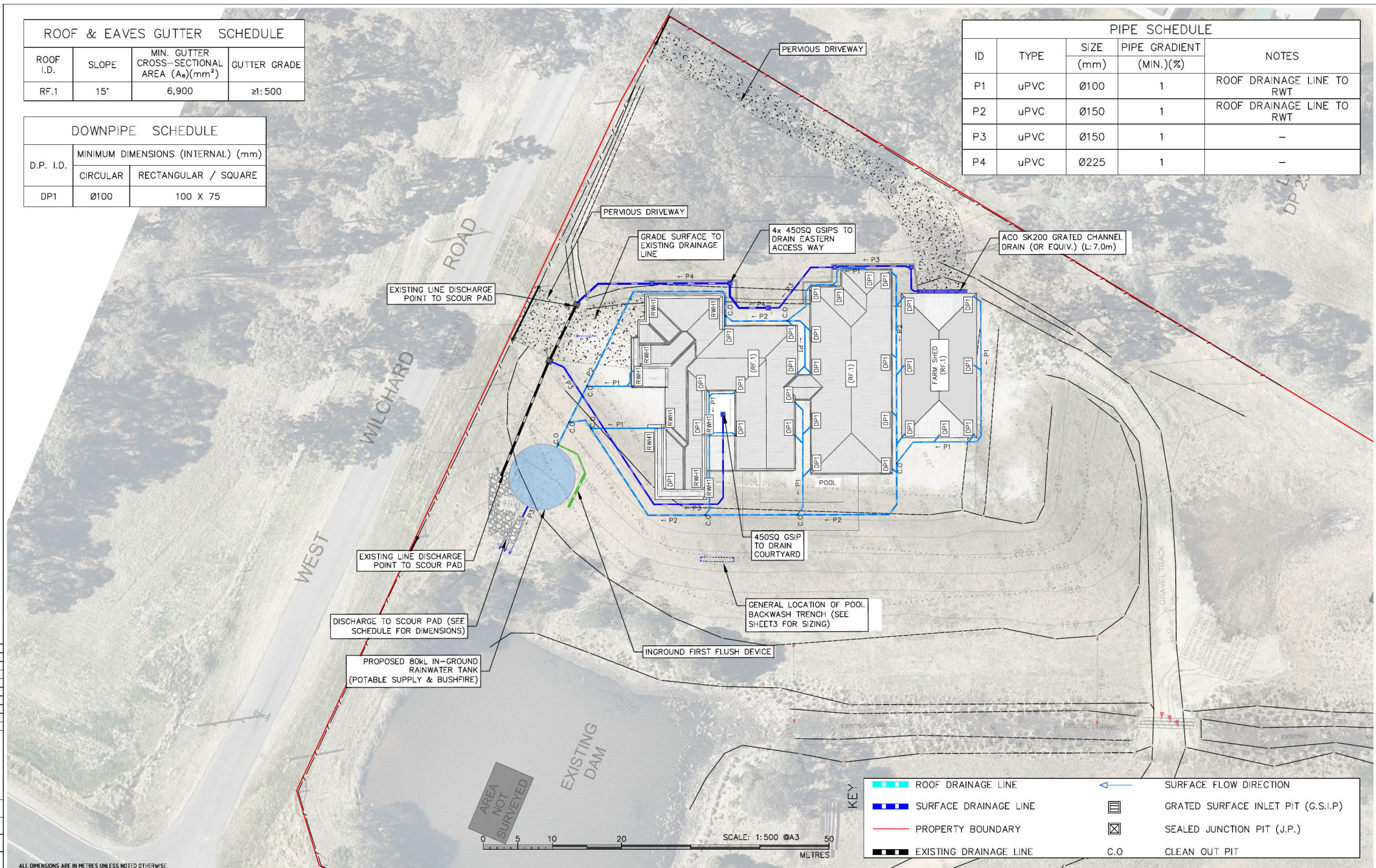
PROJECT DESCRIPTION	SHEET
PROPOSED RESIDENCE	TITLE & GENERAL NOTES
PROJECT SITE	PLAN
259 WEST WILCHARD RD, CASTLEREAGH	SCP - STORMWATER CONCEPT PLAN
CLIENT	
PENRITH CITY COUNCIL	MR. & MRS. SMITH

PROJECT ID: 0410-SW
 SCALE: NTS @ A3
 NTS @ A1
 SHEET NO: 1 of 3

ROOF & EAVES GUTTER SCHEDULE			
ROOF I.D.	SLOPE	MIN. GUTTER CROSS-SECTIONAL AREA (A _g)(mm ²)	GUTTER GRADE
RF.1	15°	6,900	±1:500

DOWNPIPE SCHEDULE		
D.P. I.D.	MINIMUM DIMENSIONS (INTERNAL) (mm)	
	CIRCULAR	RECTANGULAR / SQUARE
DP1	Ø100	100 X 75

PIPE SCHEDULE				
ID	TYPE	SIZE	PIPE GRADIENT	NOTES
		(mm)	(MIN.)(%)	
P1	uPVC	Ø100	1	ROOF DRAINAGE LINE TO RWT
P2	uPVC	Ø150	1	ROOF DRAINAGE LINE TO RWT
P3	uPVC	Ø150	1	-
P4	uPVC	Ø225	1	-



THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE MADE INCOMPLETE IF COPIED

ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.

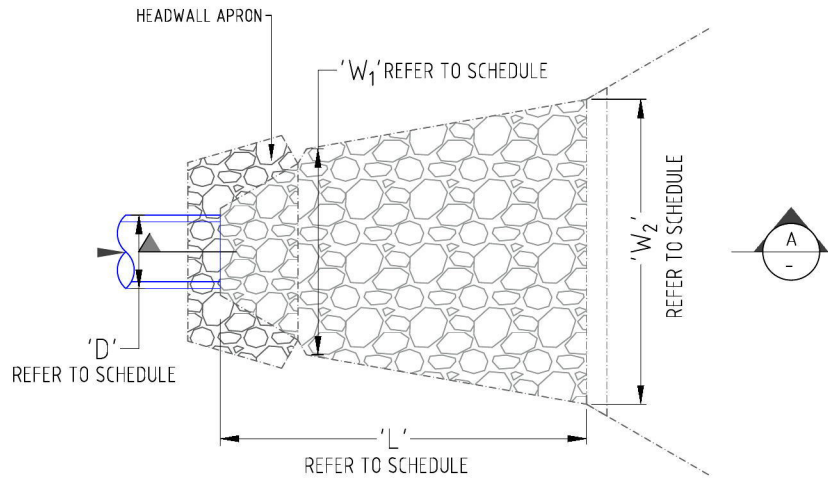
REV	DATE	DES.	DRN.	APP.	REVISION DETAILS
A-01	22/10/2019	L.T.S.	R.A.S.	L.T.S.	INITIAL RELEASE FOR D.A.

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PROJECT DESCRIPTION PROPOSED RESIDENCE	SHEET DRAINAGE PLAN
PROJECT SITE 259 WEST WILCHARD RD, CASTLEREAGH	PLAN SCP - STORMWATER CONCEPT PLAN
LGAs PENRITH CITY COUNCIL	CLIENT MR. & MRS. SMITH

PROJECT ID 0410-SW	
SCALE 1:500 @ A3	
SCALE 1:250 @ A1	
SHEET NO. 2 of 3	

ROOF DRAINAGE LINE	SURFACE FLOW DIRECTION
SURFACE DRAINAGE LINE	GRATED SURFACE INLET PIT (G.S.I.P)
PROPERTY BOUNDARY	SEALED JUNCTION PIT (J.P.)
EXISTING DRAINAGE LINE	CLEAN OUT PIT

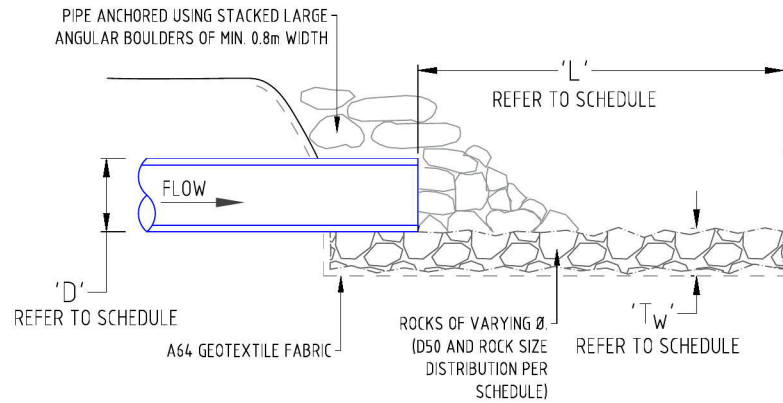


TYPICAL OUTLET TO ROCK SCOUR PAD LAYOUT

NTS

NOTES:

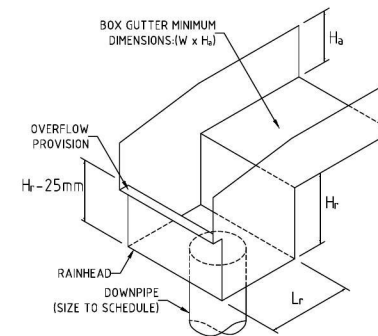
1. HEADWALL APRON MAY BE OF CONCRETE-PRECAST OR STACKED ROCK CONSTRUCTION (AS SHOWN). WHERE STACKED ROCK, MINIMUM 0.8m WIDTH ROCKS ARE TO BE USED.
2. ROCK IS TO BE GRADED IN ACCORDANCE WITH ROCK SIZES NOMINATED IN SCHEDULE.
3. SIZING PER 5% AEP 5min STORM EVENT.



OUTLET TO ROCK SCOUR PAD SECTION A-A

NTS

OUTLET SCOUR PAD SCHEDULE											
ID	DESIGN DISCHARGE 'Q ₀ ' [m ³ /s]	DESIGN MAX VELOCITY 'V ₀ ' [m/s]	OUTLET 'D' [mm]	ROCK PROPERTIES			PAD DIMENSIONS				
				ROCK FINISH	MEAN ROCK SIZE 'D ₅₀ ' [mm]	SIZE DISTRIBUTION 'D50/D90'	D90 [mm]	MIN. PAD THICKNESS 'T _{MIN} ' [mm]	PAD LENGTH 'L' [m]	WIDTH 'W1' [m]	WIDTH 'W2' [m]
RT OUTLET	0.076	1.02	150	ANGULAR	200	1.00	200	280	3.0	0.75	1.2



BOX GUTTER RAINHEAD DETAIL - RH.1
N.T.S

NOTE:

1. SEE RAINHEAD SCHEDULE FOR DIMENSIONS.
2. RAINHEAD WIDTH = BOX GUTTER WIDTH 'W'
3. THE RAINHEAD IS TO BE FULLY SEALED TO THE BOX GUTTER AND THE FRONT OF THE RAINHEAD LEFT OPEN ABOVE THE OVERFLOW WEIR.

RAINHEAD SCHEDULE	
DIMENSION I.D.	MINIMUM DIMENSIONS (INTERNAL) (mm)
DP	CIRCULAR: Ø100
W	300
H _a	101 (MIN.)
L _r	120
H _r	125

POOL BACKWASH ABSORPTION TRENCH SIZING:

1. SAND FILTER SYSTEM @ 300LPM BACKWASH FOR RECOMMENDED 2MIN DURATION = 600 L TOTAL DISCHARGE.
2. GRAVEL ONLY TRENCH AT 0.35 VOID RATIO, TOTAL TRENCH VOLUME REQUIRED = 1.714m³.
3. TRENCH DIMENSIONS:
L: 4.8m, D: 0.6m, W: 0.6m

ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.

REV	DATE	DES.	DRN.	APP.	REVISION DETAILS
A-01	22/10/2019	L.T.S.	R.A.S.	L.T.S.	INITIAL RELEASE FOR D.A.

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PROJECT DESCRIPTION PROPOSED RESIDENCE	SHEET OUTLET AND RAINHEAD DETAIL
PROJECT SITE 259 WEST WILCHARD RD, CASTLEREAGH	PLAN SCP - STORMWATER CONCEPT PLAN
LOA PENRITH CITY COUNCIL	CLIENT MR. & MRS. SMITH

PROJECT ID: 0410-SW
SCALE: NTS @ A3
SHEET NO: 3 of 3