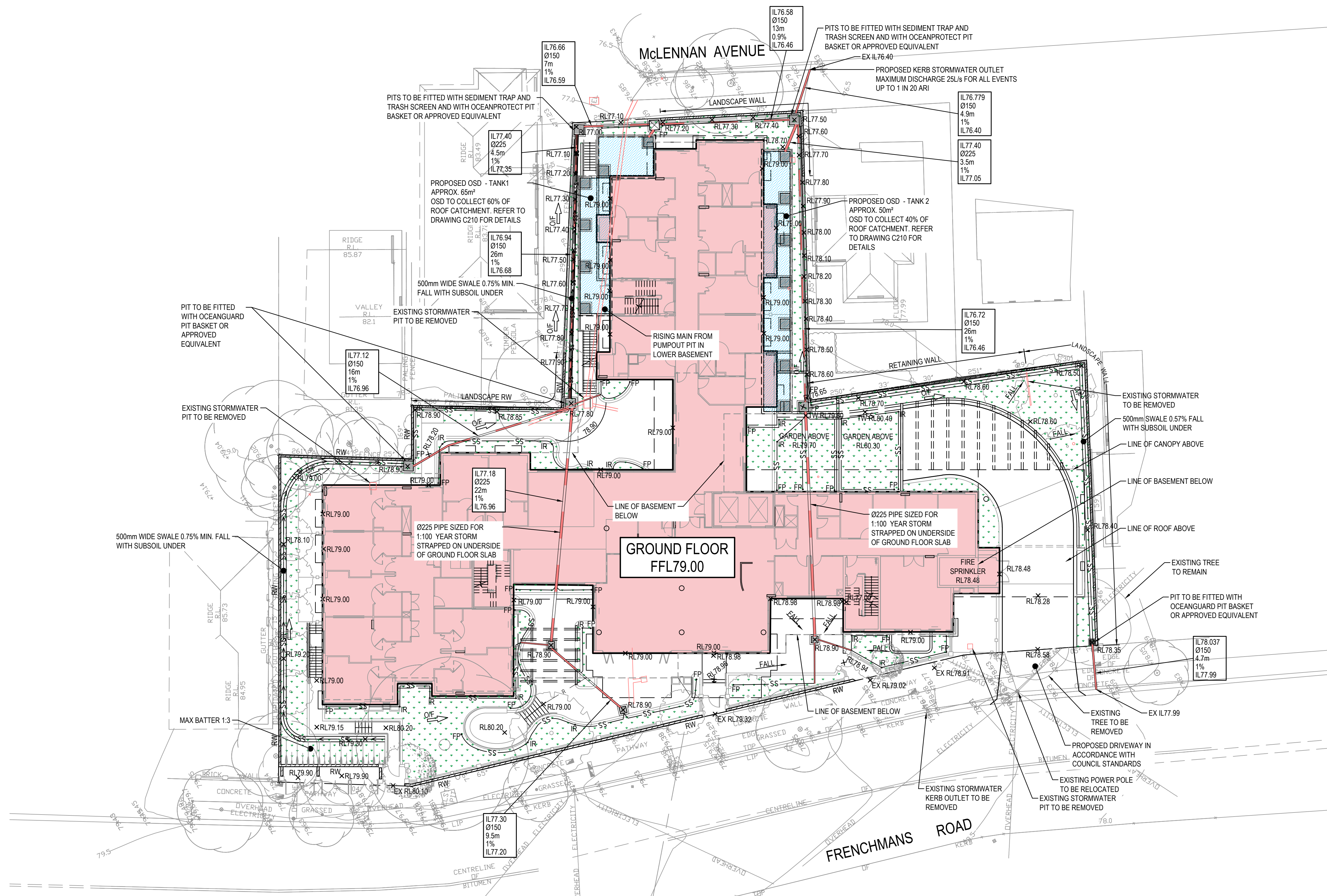
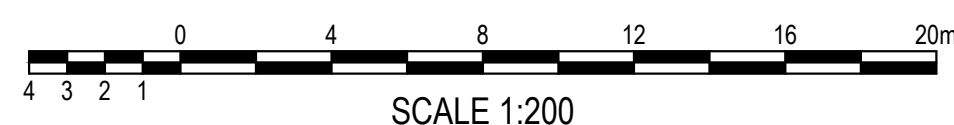
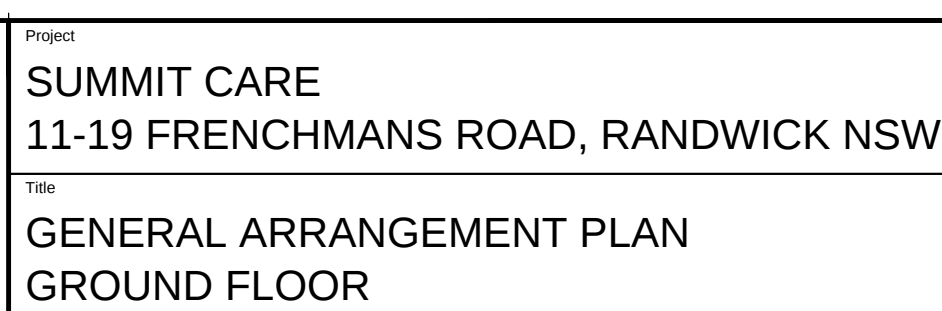




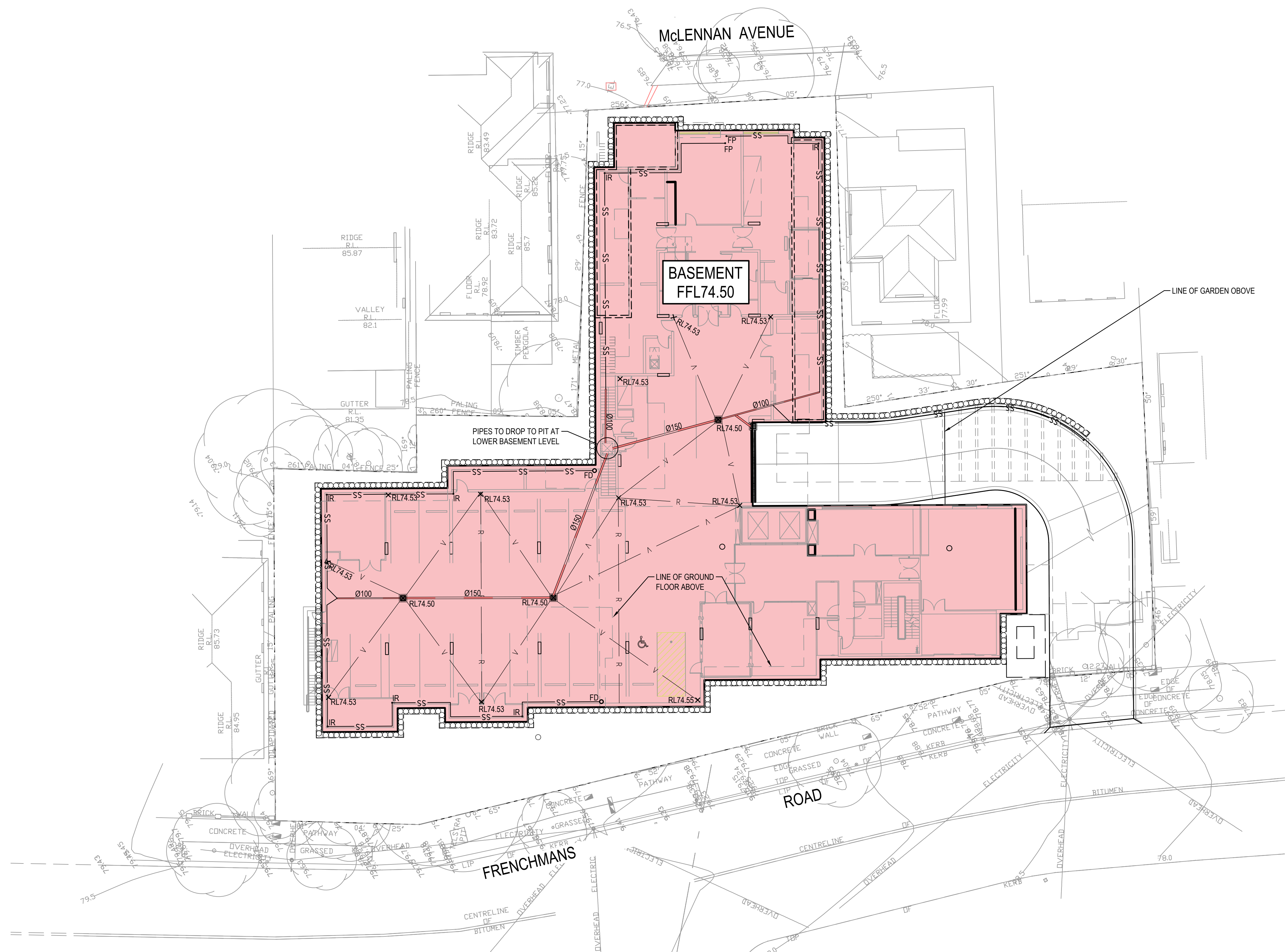
SCALE 1:200

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---	--



Drawn K.Rom	Designed L.Villa	Date SEP 2019
Checked T.Rozehnal	Approved A.Francis	Scale @A1 1:200
Drawing number 19826_DA_C100		Revision 04



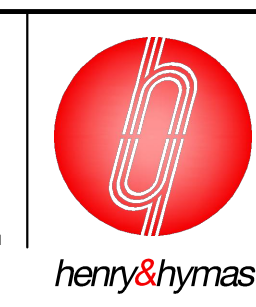
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SURVEY
INFORMATION
SURVEYED BY
CONSULTING SURVEYORS
DENNY LINKER & CO.
DATUM: A.H.D.

03	ISSUED FOR DA	JK	LV	02.06.2021					
02	ISSUED FOR DA	JK	LV	16.07.2020					
01	PRELIMINARY ISSUE	KR	LV	05.12.2019					
REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE

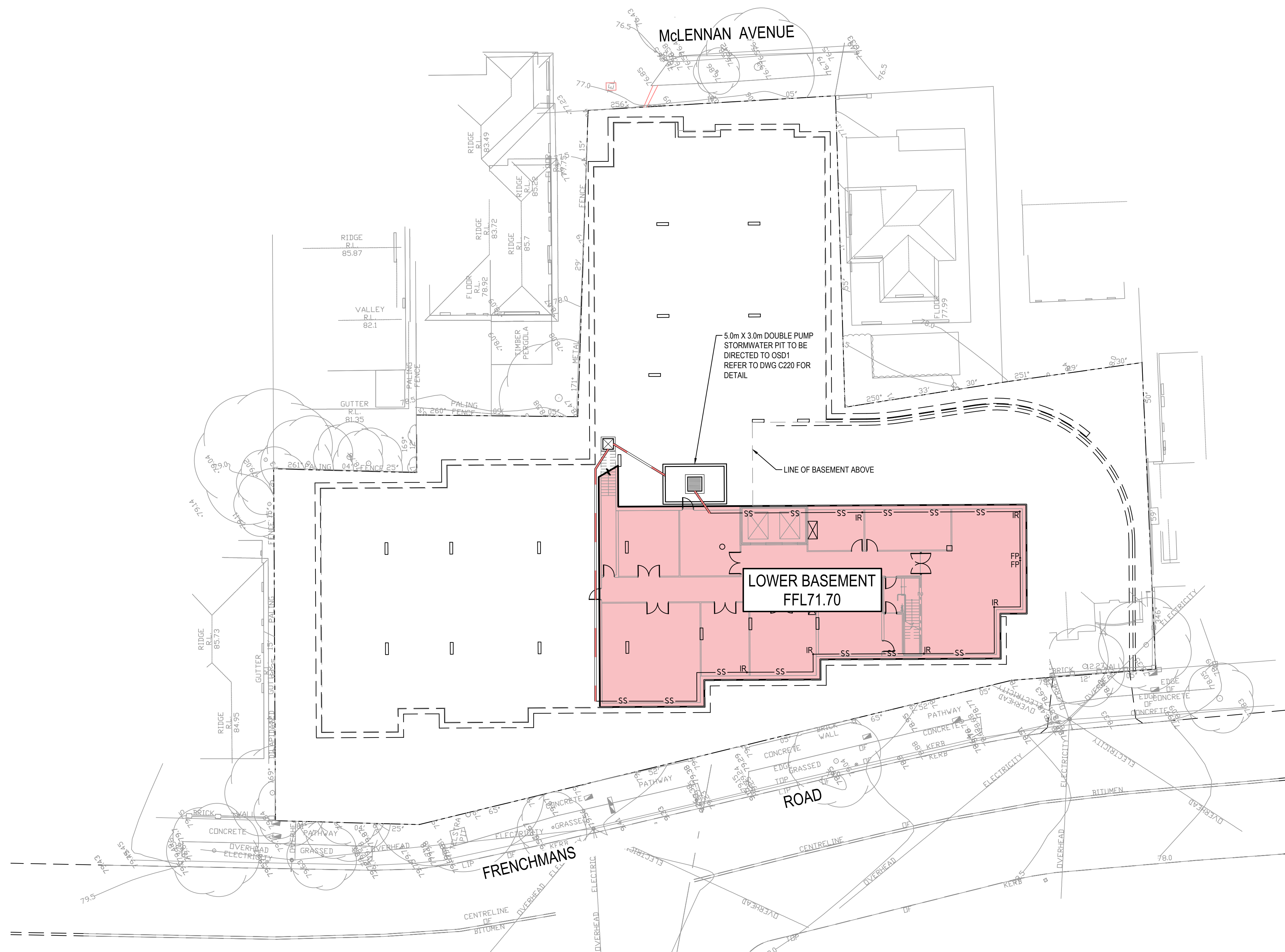
Client	FRENCHMANS LODGE PROPERTIES PTY LTD
Architect	BOFFA ROBERTSON GROUP
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Project	SUMMIT CARE 11-19 FRENCHMANS ROAD, RANDWICK NSW
Title	GENERAL ARRANGEMENT PLAN BASEMENT

Drawn: K.Rom	Designed: L.Villa	Date: SEP 2019
Checked: T.Rozeňhal	Approved: A.Francis	Scale @A1: 1:200
Drawing number 19826_DA_C101		Revision 03



	EXISTING BOUNDARY
	BUILDING ABOVE
	GROUND FLOOR ABOVE
	PROPOSED SUBSOIL LINE
	PROPOSED JUNCTION PITS
	PROPOSED SURFACE INLET PITS
	PROPOSED STORMWATER PIPE
	PROPOSED FLUSHING POINT
	PROPOSED INTERMEDIATE RISER
	PROPOSED BATTER LINE

SCALE 1:200



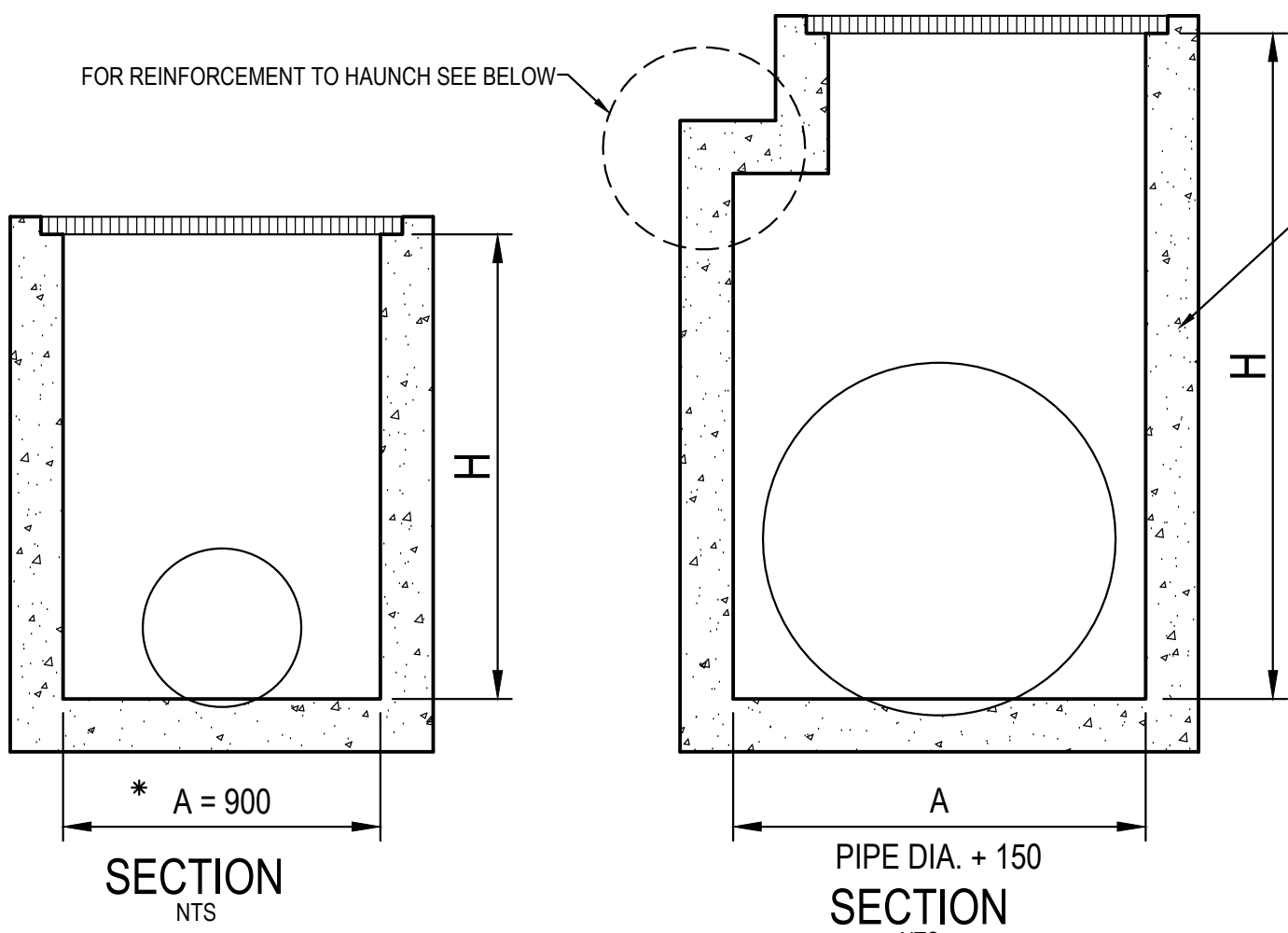
FOR DA ONLY

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TYPICAL PIT CHAMBER SIZES

IT IS THE CONTRACTORS RESPONSIBILITY TO SELECT PIT CHAMBER SIZE WITH REGARDS TO PIPE SIZE, DEPTH TO INVERT AND SKEW ANGLE. REFER SKETCHES BELOW.

1. SELECT PIT CHAMBER USING THE STEPS BELOW:
2. SELECT PIT CHAMBER SIZE DEPENDING ON THE PIPE DIAMETERS.
3. CHECK PIT CHAMBER SIZE TO SATISFY DEPTH TO INVERT REQUIREMENTS.
4. CHECK PIT CHAMBER DIMENSIONS TO SATISFY THE SKEW ANGLE IN THE TABLE.

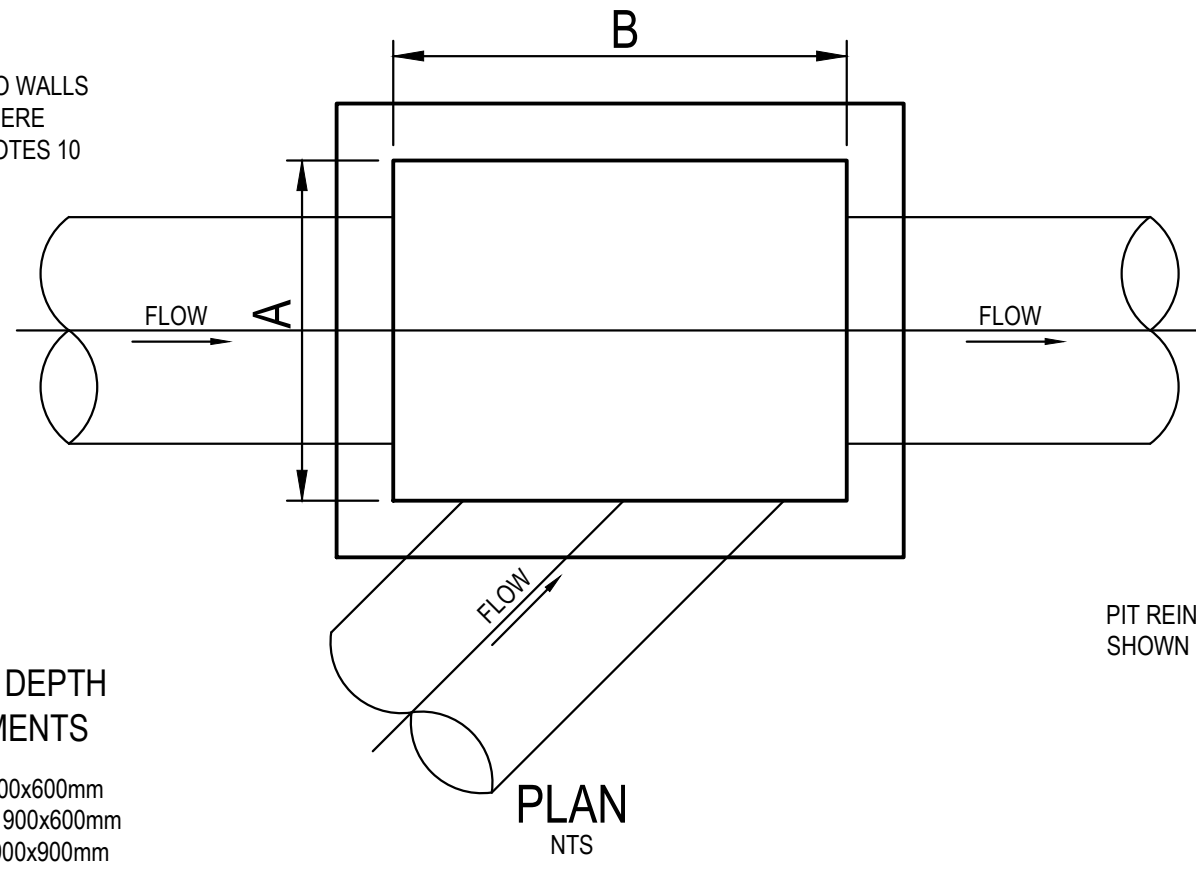


*A = 600 FOR PIPES UP TO 375 DIA.

1. PIT CHAMBER DIMENSIONS FOR PIPES UP TO 600 DIA.

1. PIT CHAMBER FOR PIPES GREATER THAN 600 DIA.

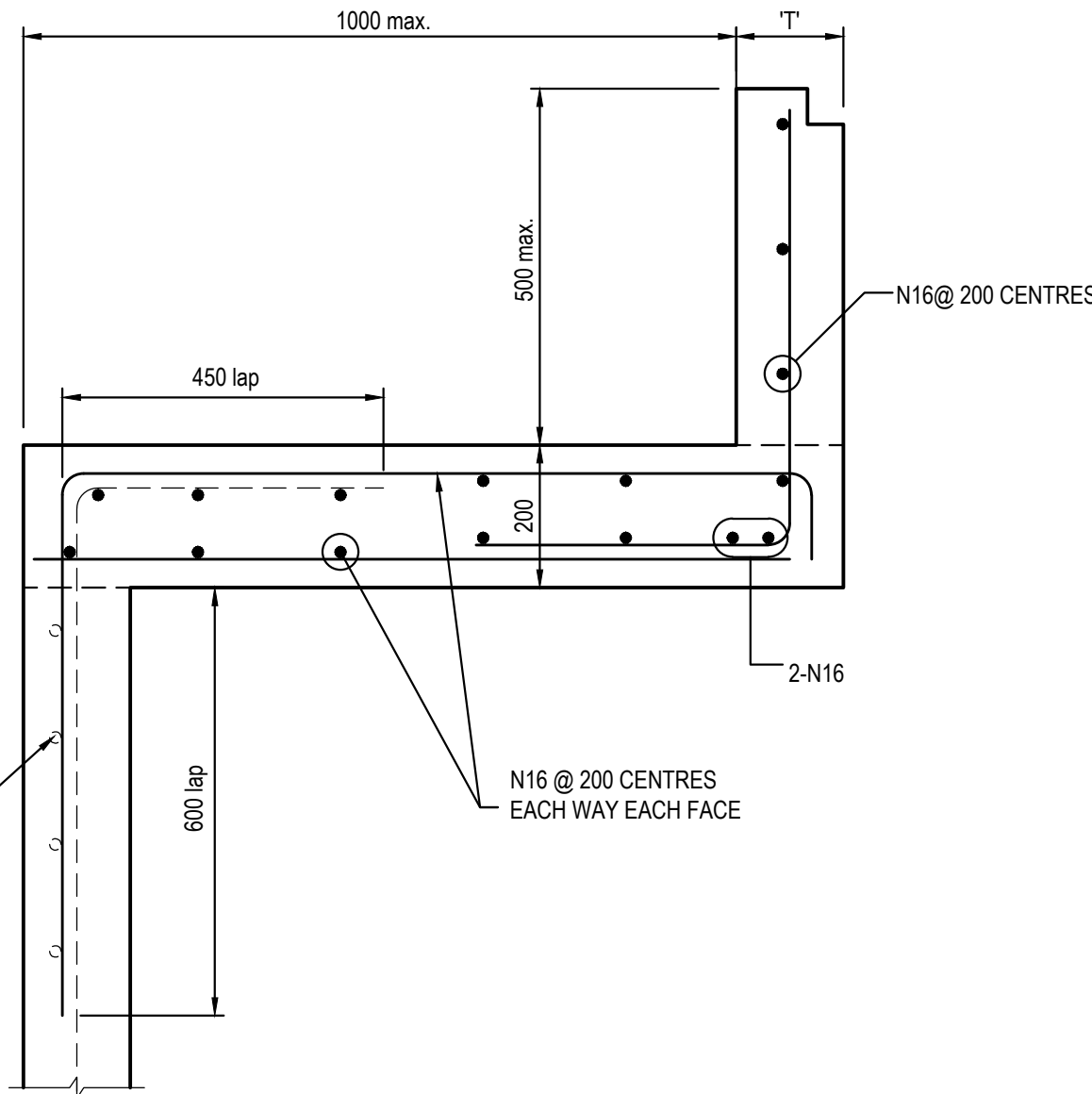
FOR B = 600mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 225mm
FOR B = 900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 375mm
FOR B = 1200mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 600mm
FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
FOR B = 1900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm



2. PIT SIZE & DEPTH REQUIREMENTS

H = 0-900mm - Ax B = 600x600mm
H = 900-1200mm - Ax B = 900x600mm
H = >1200mm - Ax B = 900x900mm

3. PIT CHAMBER FOR SIDE ENTRY ON SKEW

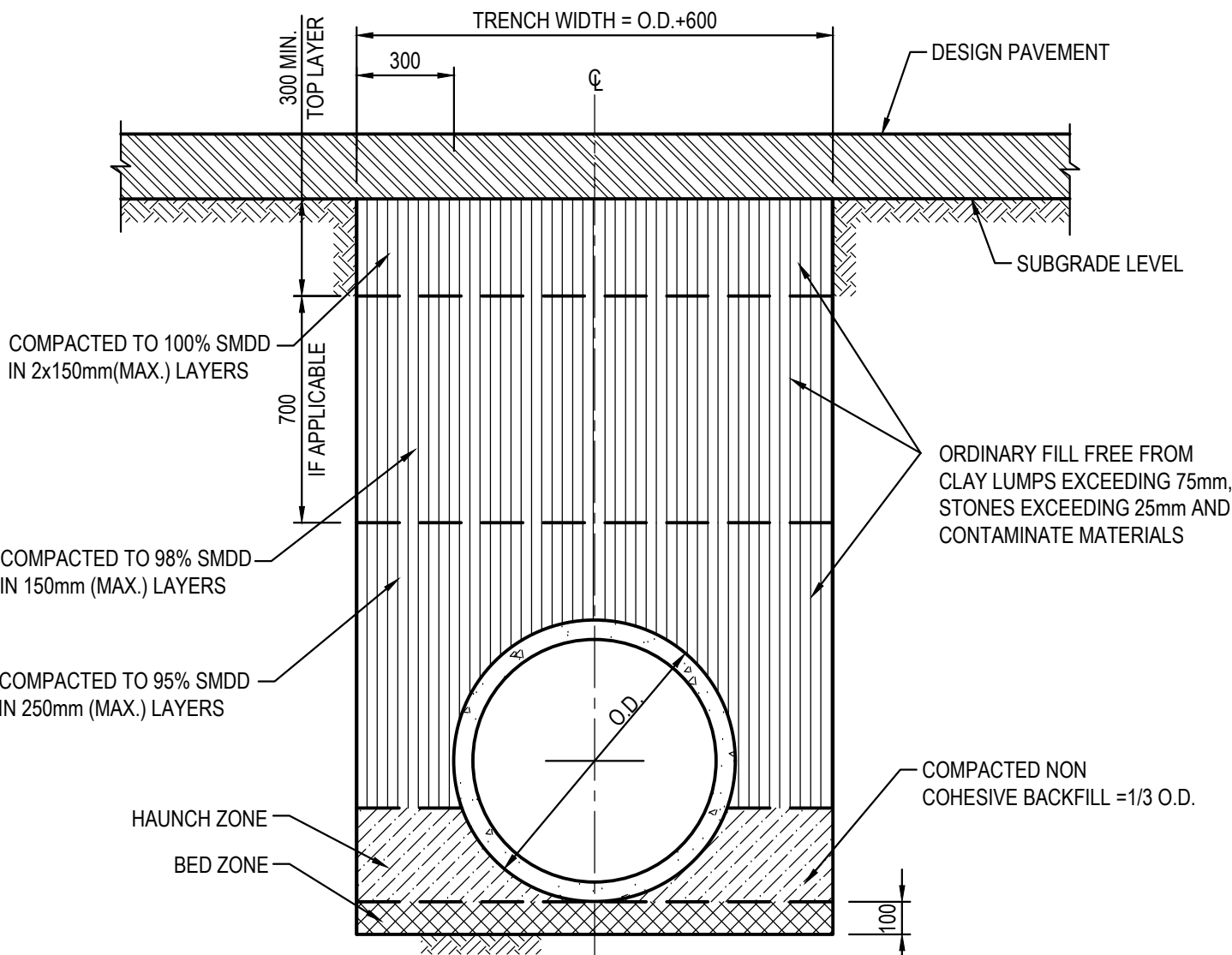


HAUNCH DETAIL -TYPICAL

SCALE 1:10

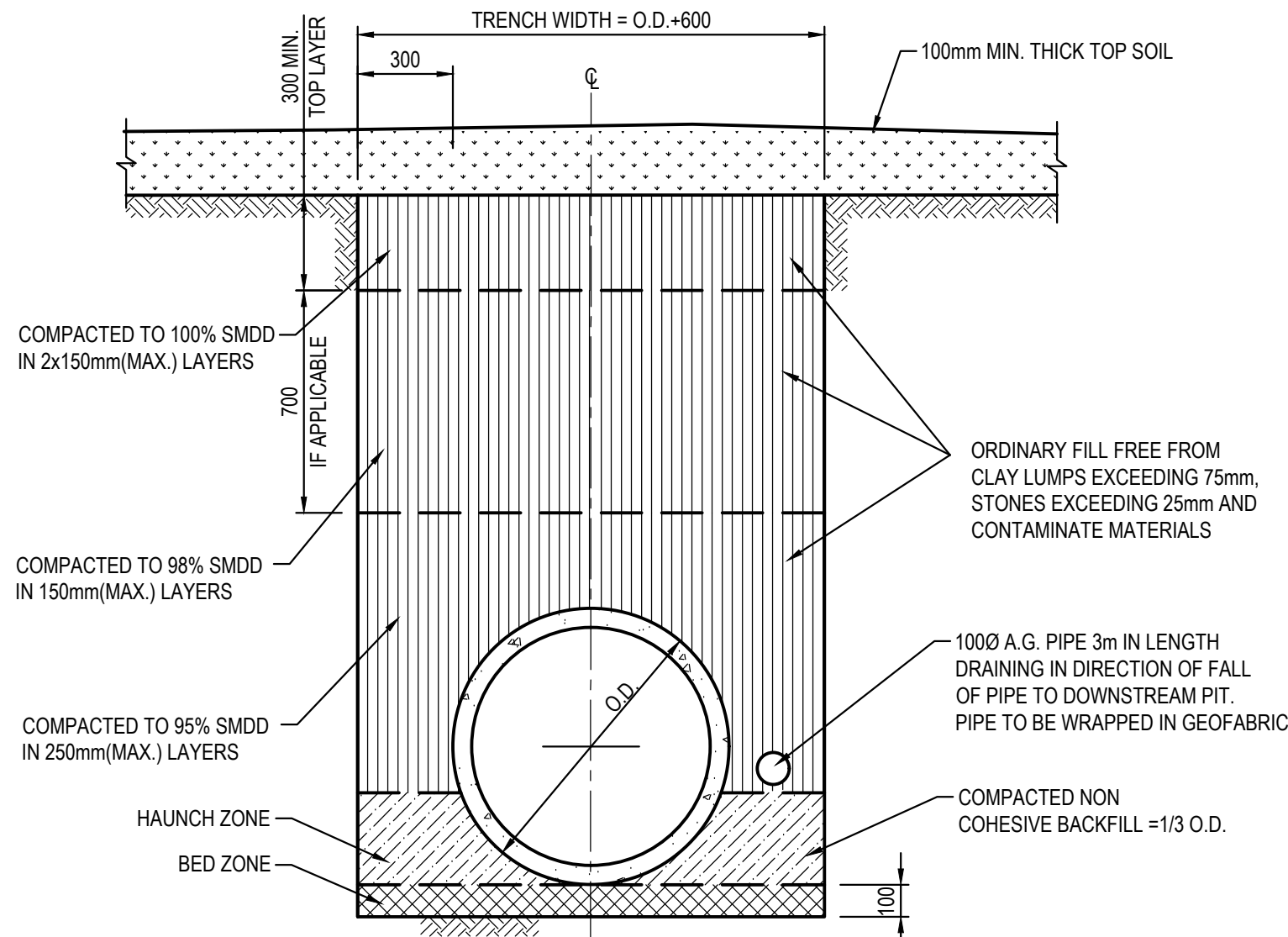
DRAINAGE NOTES:

1. ALL STORMWATER WORK TO COMPLY WITH AS 3500 PART 3.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE MINIMUM COVER OF 600mm ON ALL PIPES.
3. PROTECTION OF PIPES DUE TO LOADS EXCEEDING W7 WHEEL LOAD SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
4. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS. REFER TO THIS DRAWING FOR DETAILS.
5. MINIMUM COVER OVER EXISTING PIPES FOR PROTECTION DURING CONSTRUCTION SHALL BE 800mm.
6. NO CONSTRUCTION LOADS SHALL BE APPLIED TO PLASTIC PIPES.
7. FINISHED SURFACE LEVELS SHOWN ON LAYOUT PLAN DRGS TAKE PRECEDENCE OVER DESIGN DRAINAGE SURFACE LEVELS.
8. ALL PIPES UP TO AND INCLUDING 300 DIA. SHALL BE SOLVENT OR RUBBER RING JOINTED PVC CLASS SH PIPE TO AS1260. ALL OTHER PIPES TO BE RCP USING CLASS 2 RUBBER RING JOINTED PIPE. HARDIES FRC PIPE MAY BE USED IN LIEU OF RCP IF DESIRED IN GROUND. ALL AERIAL PIPES TO BE PVC CLASS SH.
9. ALL PITS IN NON TRAFFICABLE AREAS TO BE PREFABRICATED POLYESTER CONCRETE "POLYCRETE" WITH "LIGHT DUTY" CLASS B GALV. MILD STEEL GRATING AND FRAME. ALL PITS IN TRAFFICABLE AREAS (CLASS "D" LOADING MAX) TO HAVE 150mm THICK CONCRETE WALLS AND BASE CAST IN-SITU $f_c=32$ MPa, REINFORCED WITH N12-200 BOTH LOADING WAYS CENTRALLY PLACE U.N.O. ON SEPARATE DESIGN DRAWINGS IN THIS SET. GALV. MILD STEEL GRATING AND FRAME TO SUIT DESIGN LOADING. PRECAST PITS, RECTANGULAR OR CIRCULAR IN SHAPE, MAY BE USED IN LIEU AND SHALL COMPLY WITH RELEVANT AUSTRALIAN STANDARDS.
10. ALL PITS, GRATINGS AND FRAMES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND TO BE IN ACCORDANCE WITH AS3500.3 AND AS3996.
11. PIT CHAMBER DIMENSIONS ARE TO BE SELECTED TO SATISFY THE FOLLOWING:
 - PIPE SIZE
 - DEPTH TO INVERT
 - SKEW ANGLEREFER TYPICAL PIT CHAMBER DETAILS BELOW
IF PIT LID SIZE IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THE STEP IRONS DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED, IS TO BE THE SAME SIZE AS THE PIT CHAMBER.
12. FOR PIPE SIZES GREATER THAN Ø300mm, PIT FLOOR IS TO BE BENCH TO FACILITATE FLOW.
13. GALVANISED STEP IRONS SHALL BE PROVIDED AT 300 CTS FOR PITS HAVING A DEPTH EXCEEDING 1200mm. SUBSOIL DRAINAGE PIPE SHALL BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES. (MINIMUM LENGTH 3m).
14. ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED PVC IN A FILTER SOCK, UNO, WITH 3m INSTALLED UPSTREAM OF ALL PITS.
15. ALL PIPEWORK SHALL HAVE MINIMUM DIAMETER 100.
16. MINIMUM GRADE FOR ROOFWATER DRAINAGE LINES SHALL BE 1%.
17. ALL PIPE JUNCTIONS AND TAPER UP TO AND INCLUDING 300 DIA. SHALL BE VIA PURPOSE MADE FITTINGS.
18. ALL ROOF DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH AS3500, PART 3. TESTING TO BE UNDERTAKEN AND REPORTS PROVIDED TO THE SUPERINTENDENT.
19. LOCATION OF THE DIRECT DOWN PIPE CONNECTIONS MAY VARY ON SITE TO SUIT SITE CONDITIONS, WHERE CONNECTION SHOWN ON LONG SECTIONS CHAINAGES ARE INDICATIVE ONLY.
20. PITS IN EXCESS OF 1.5 m DEEP TO HAVE WALL AND FLOOR THICKNESS INCREASED TO 200mm. REINFORCED WITH N12@200 CTS CENTRALLY PLACED BOTH WAYS THROUGHOUT U.N.O. ON SEPARATE DESIGN DRAWINGS IN THIS SET. IF DEPTH EXCEEDS 5m CONTACT ENGINEER.
21. SUBSOIL DRAINAGE LINES FOR LANDSCAPE AREA NOT SHOWN ON THESE DRAWINGS. REFER TO LANDSCAPING PLANS FOR DETAILS.
22. ALL STORMWATER PITS TO HAVE Ø100 uPVC SLOTTED SUBSOIL PIPES CONNECTED TO THEM. THESE SUBSOILS TO EXTEND 3m UPSTREAM OF THE PIT AT A MINIMUM GRADE.



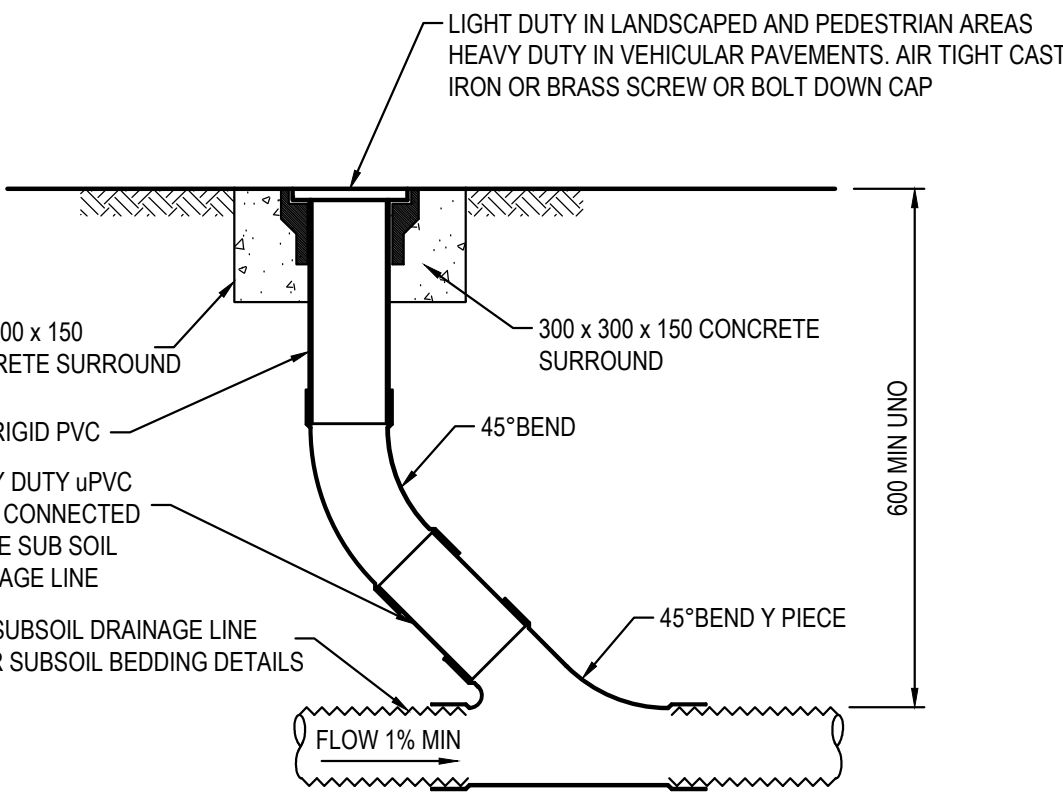
PIPE TRENCH INSTALLATION
BENEATH PAVEMENT

(H1 & H2 SUPPORT)
SCALE 1:20



PIPE TRENCH INSTALLATION
IN LANDSCAPE AREAS

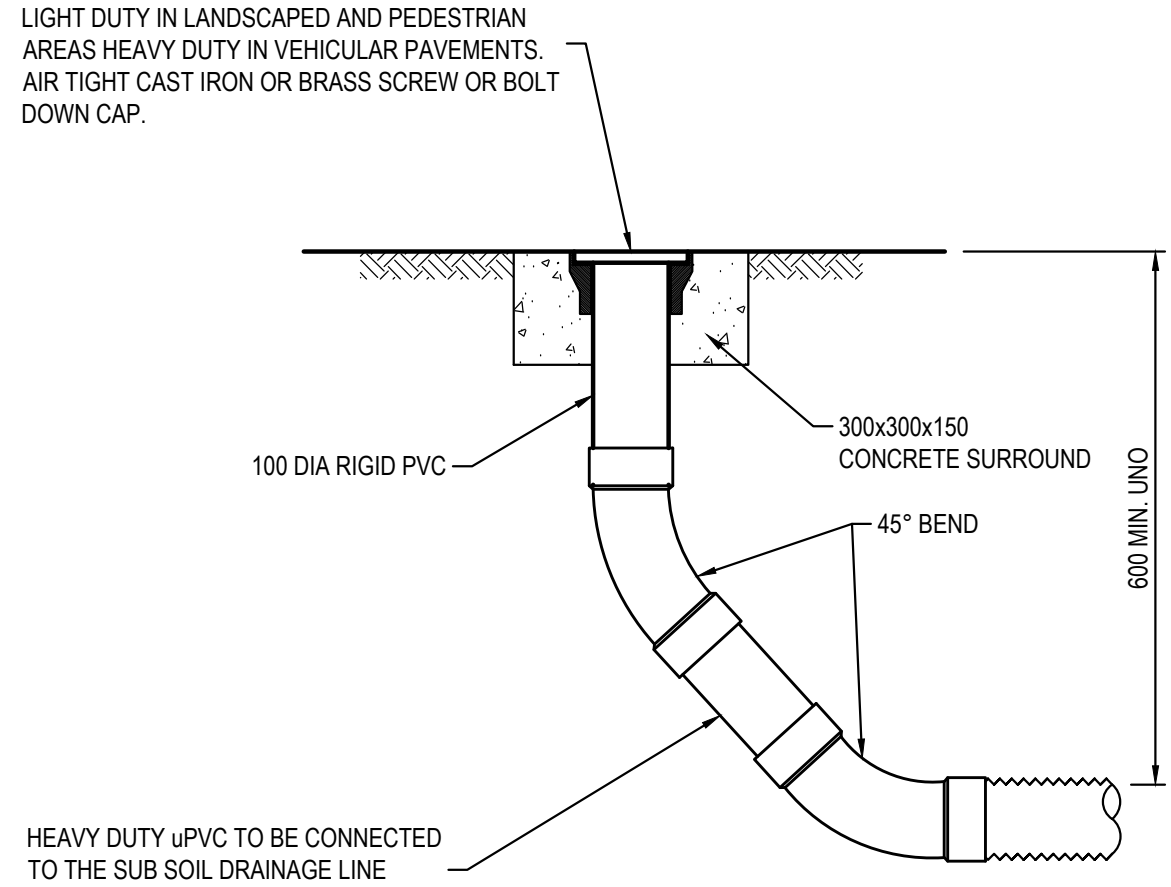
(H1 & H2 SUPPORT)
SCALE 1:20



INTERMEDIATE RISER (IR)

SCALE 1:10

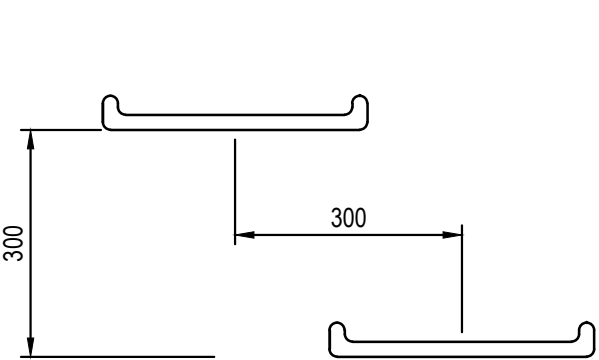
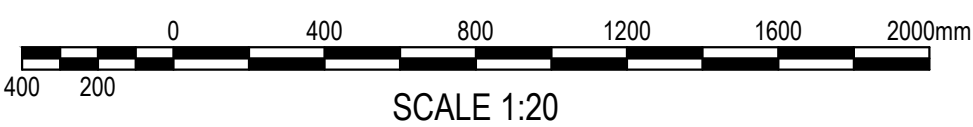
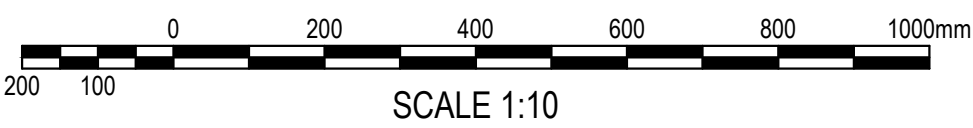
NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



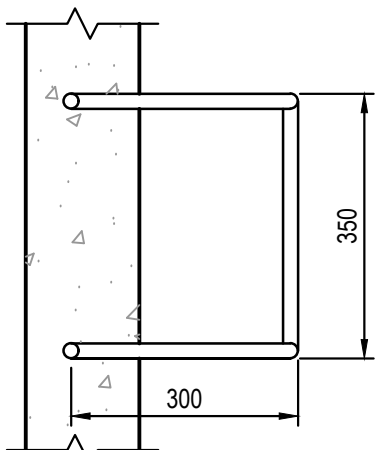
FLUSHING POINT (FP)

SCALE 1:10

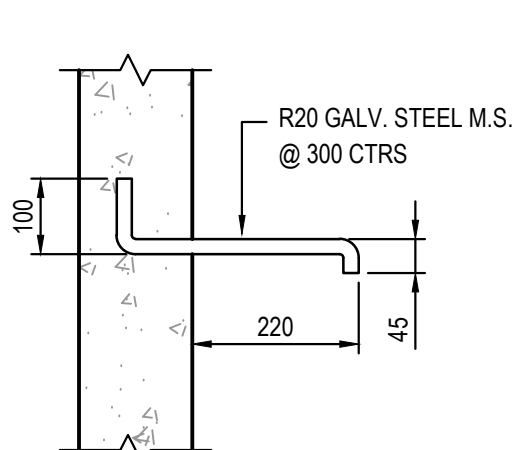
NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



ELEVATION



PLAN



SECTION

TYPICAL STEP IRON DETAIL

SCALE 1:10

FOR DA ONLY

**SURVEY
INFORMATION**
SURVEYED BY
CONSULTING SURVEYORS
DENNY LINKER & CO.
DATUM: A.H.D.

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
02	PRELIMINARY ISSUE	JK	LV	18.07.2020					
01	PRELIMINARY ISSUE	KR	LV	05.12.2019					

Client	FRENCHMANS LODGE PROPERTIES PTY LTD
Architect	BOFFA ROBERTSON GROUP
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Project	SUMMIT CARE 11-19 FRENCHMANS ROAD, RANDWICK NSW
Title	STORMWATER MISCELLANEOUS DETAILS

TOTAL SITE AREA: 2709 m²
SITE DISCHARGE DIRECTED VIA GRAVITY IN ACCORDANCE WITH
COUNCIL REQUIREMENTS.

A DRAINS MODEL HAS BEEN PREPARED TO DETERMINE THE PRE-DEVELOPMENT AND POST-DEVELOPMENT STORMWATER RUNOFF. THE DEVELOPED STORMWATER RUNOFF HAS BEEN LIMITED TO THE PERMISSIBLE KERB OUTLET SITE DISCHARGE OF 25LS FOR ALL STORM EVENTS UP TO AND INCLUDING 20YEAR ARI, IN ACCORDANCE WITH SECTION 3.1 OF RANDWICK CITY COUNCIL PRIVATE STORMWATER CODE.

PERMISSIBLE SITE DISCHARGE (PSD): 25L/S

YR	POST-DEVELOPMENT (L/S)
5	23
10	25
100	30

THE VOLUME OF ON SITE STORAGE HAS BEEN DETERMINED USING THE MASS CURVE TECHNIQUE AS PER COUNCIL'S GUIDELINES. REFER TO CALCULATION TABLES.

TOTAL ON -SITE DETENTION VOLUME PROVIDED: 110m³

OSD 1 VOLUME: 65 m³

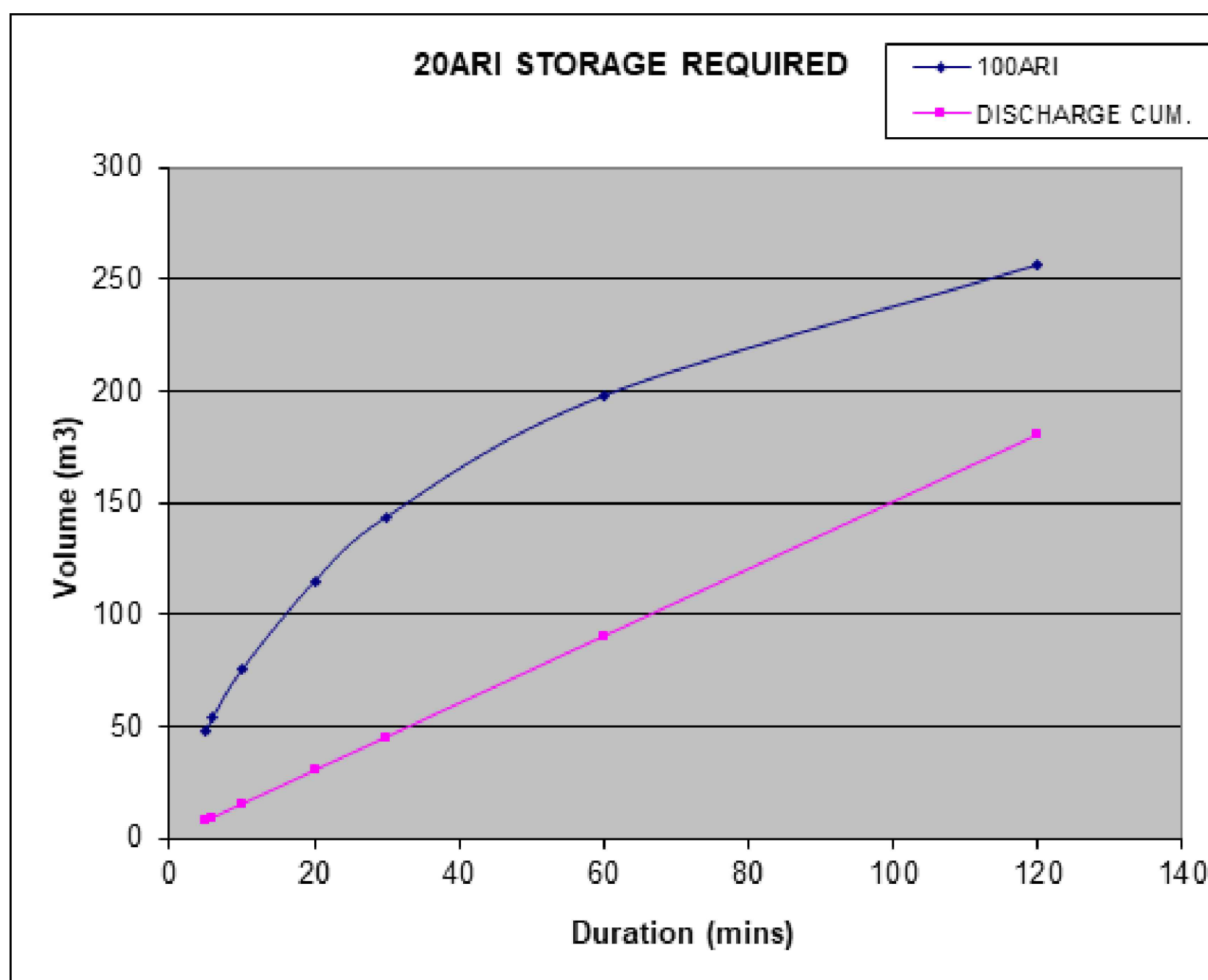
OSD 1 OUTLET CONTROL: Ø60mm ORIFICE

OSD 2 VOLUME: 50 m³

OSD 2 OUTLET CONTROL: Ø60mm ORIFICE

INTENSITY (mm/hr)							
ARI							
DURATION (min)	1	2	5	10	20	50	100
5	106.00	134.00	138.00	187.00	213.00	246.00	271.00
6	98.80	126.00	158.00	176.00	200.00	213.00	254.00
10	80.90	103.00	131.00	146.00	137.00	193.00	214.00
20	59.50	76.50	98.20	111.00	127.00	149.00	165.00
30	48.50	62.60	81.00	91.60	106.00	124.00	138.00
60	32.80	42.40	55.40	63.00	72.90	86.10	96.00
120	21.00	27.30	35.70	40.70	47.20	55.80	62.30
180	16.00	20.70	27.10	30.90	35.90	42.40	47.30
360	9.96	12.90	16.80	19.20	22.20	26.10	29.20
720	6.30	8.14	10.60	12.00	13.90	16.40	18.30
1440	4.09	5.29	6.87	7.79	9.00	10.60	11.80
2880	2.65	3.42	4.44	5.03	5.81	6.83	7.61
4320	1.98	2.55	3.31	3.74	4.31	5.06	5.64

VOLUME IN (m³)						
ARI						
1	2	5	10	20	50	100
23.99133	30.32867	31.23400	42.32433	48.20900	55.67800	61.33633
26.83408	34.22160	42.91280	47.80160	54.32000	57.85080	68.98640
36.62073	46.62467	59.29933	66.08933	75.59533	87.36467	96.87067
53.86733	69.25800	88.90373	100.49200	114.97730	134.89470	149.38000
65.86300	85.01080	109.99800	124.39280	143.94800	168.39200	187.40400
89.08480	115.15840	150.46640	171.10800	197.99640	233.84760	260.73600
114.07200	148.29360	193.92240	221.08240	256.39040	303.10560	338.41360
130.36800	168.66360	220.81080	251.77320	292.51320	345.47520	385.40040
162.30820	210.21840	273.77280	312.88320	361.77120	425.32560	475.84320
205.32960	265.29890	345.47520	391.10400	453.02880	534.50880	596.43360
266.60260	344.82340	447.81410	507.78340	586.65600	690.95040	769.17120
345.47520	445.85860	578.83390	655.75100	757.43810	890.41340	992.10050
387.19300	498.65760	647.27710	731.36450	842.82910	989.49310	1102.91300

[illegible]

STORAGE REQUIRED (m³)							
ARI							
DURATION (min)	1	2	5	10	20	50	100
5	16.49133	22.82867	23.73400	34.82433	40.70900	48.17800	53.83633
6	17.83408	25.22160	33.91280	38.80160	45.32000	48.85080	59.98640
10	21.62073	31.62467	44.29933	51.08933	60.59533	72.36467	81.87067
20	23.86733	39.25800	58.90373	70.49200	84.97733	104.89470	119.38000
30	20.86300	40.01080	64.99800	79.39280	98.94800	123.39200	142.40400
60	-0.91520	25.15840	60.46640	81.10800	107.99640	143.84760	170.73600
120	-65.92800	-31.70640	13.92240	41.08240	76.39040	123.10560	158.41360
180	-139.63200	-101.33640	-49.18920	-18.22680	22.51320	75.47520	115.40040
360	-377.69180	-329.78160	-266.22720	-227.11680	-178.22880	-114.67440	-64.15680
720	-874.67040	-814.70110	-734.52480	-688.89600	-626.97120	-545.49120	-483.56640
1440	-1893.39700	-1815.17700	-1712.18600	-1652.21700	-1573.34400	-1469.05000	-1390.82900
2880	-3874.52500	-3874.14100	-3741.16600	-3664.24900	-3562.56200	-3429.58700	-3327.90000
4320	-6092.80700	-5981.34200	-5832.72300	-5748.63600	-5637.17100	-5490.50700	-5377.08700
	23.86733	40.01080	64.99800	81.10800	107.99640	143.84760	170.73600
MIN. OSD VOLUME (m³)							107.99640

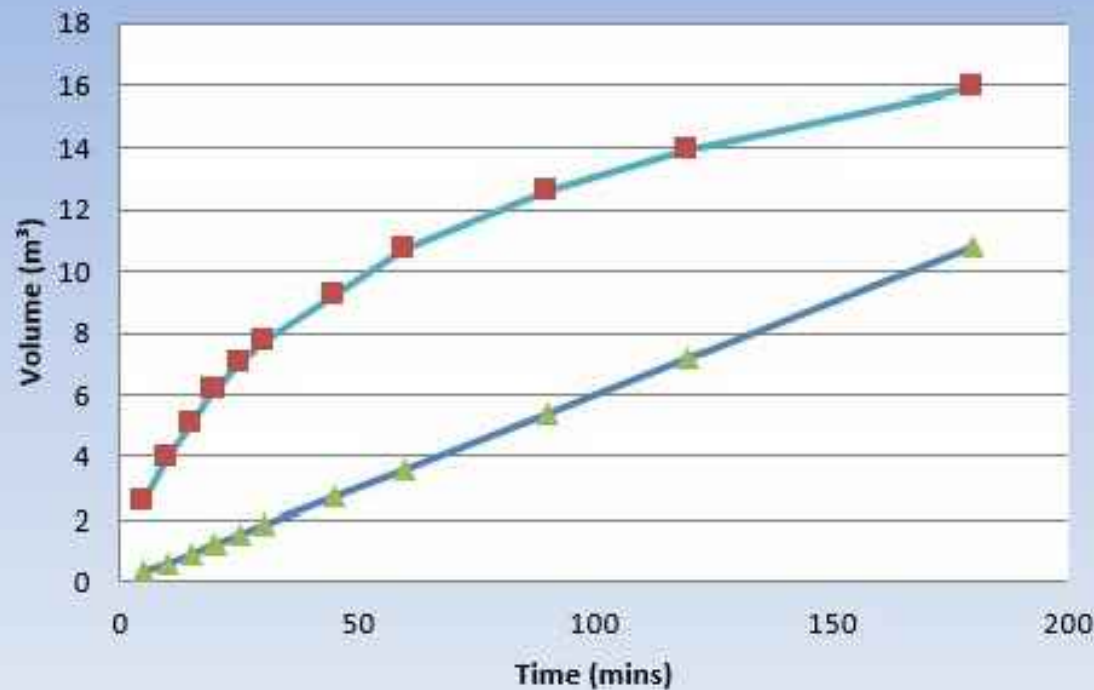
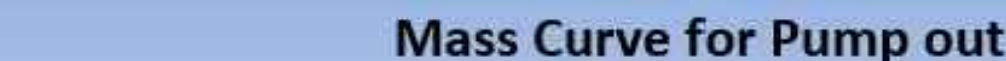
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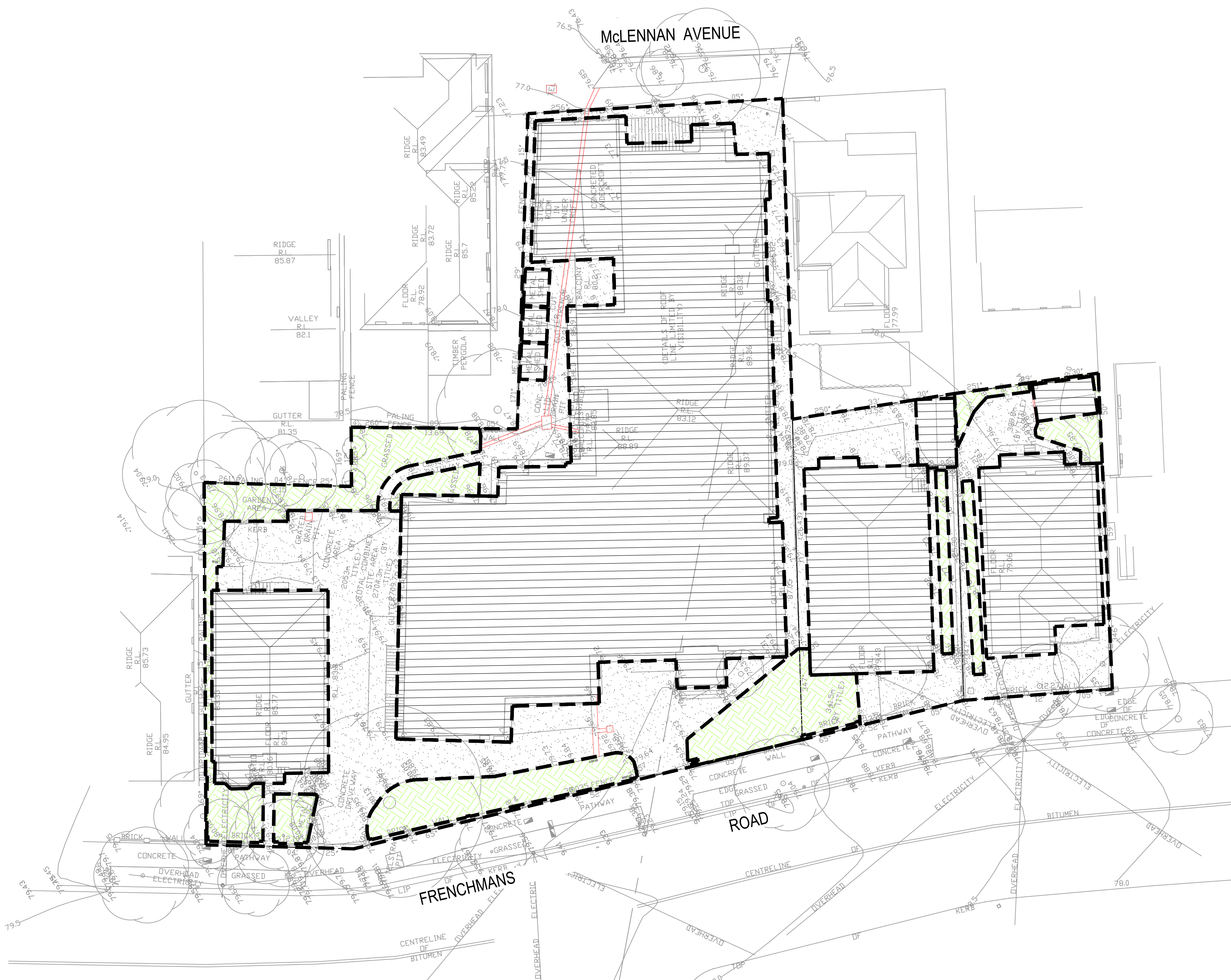
PUMP WET WELL DESIGN IN ACCORDANCE WITH RANDWICK CITY COUNCIL PRIVATE STORMWATER CODE
SECTION 3.3: "THE PUMP WET WELL SHALL BE SIZED FOR THE 1 IN 100 YEAR, 2 HOUR STORM ASSUMING BOTH
PUMPS ARE NOT WORKING".

100 ARI		VOLUME (m ³)	PUMP/OUT VOLUME (m ³)	PIT VOLUME REQUIRED (m ³)
TIME (min)	INTENSITY (mm/hr)			
5	271	2.53	0.3	2.23
10	214	3.99	0.6	3.39
15	180	5.04	0.9	4.14
20	165	6.16	1.2	4.96
25	150	7.00	1.5	5.50
30	138	7.73	1.8	5.93
45	110	9.24	2.7	6.54
60	96	10.75	3.6	7.15
90	75	12.6	5.4	7.20
120	62.3	13.96	7.2	6.76
180	47.3	15.89	10.8	5.09
			TOTAL VOLUME REQ (m ³)	13.96
			VOL PUMPED IN 30 min (m ³)	1.80
			WET WELL STORAGE (m ³)	12.20



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<u>SURVEY INFORMATION</u> SURVEYED BY CONSULTING SURVEYORS DENNY LINKER & CO. DATUM: A.H.I.D.										<u>CLIENT</u> FRENCHMANS LODGE PROPERTIES PTY LTD <u>ARCHITECT</u> BOFFA ROBERTSON GROUP This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.										<u>PROJECT</u> SUMMIT CARE 11-19 FRENCHMANS ROAD, RANDWICK NSW <u>TITLE</u> PUMP OUT SECTION & DETAILS										Level 5, 79 Victoria Avenue Chatswood NSW 2067 Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hthconsult.com.au Web www.henryandhymas.com.au  H&H CONSULTING Civil Mark.com.au										 henry&hymas										Drawn K.Rom Designed L.Villa Date SEP 2019 Checked T.Rozehmal Approved A.Francis Scale @A1 AS NOTED										Drawing number 19826_DA_C220 Revision 03									
03 ISSUED FOR DA JK LV 02.06.2021 02 ISSUED FOR DA JK LV 16.07.2020 01 PRELIMINARY ISSUE KR LV 05.12.2019										REVISION AMENDMENT DRAWN DESIGNED DATE REVISION AMENDMENT DRAWN DESIGNED DATE										Client										Project										Drawn										Designed										Date									



SCALE 1:200

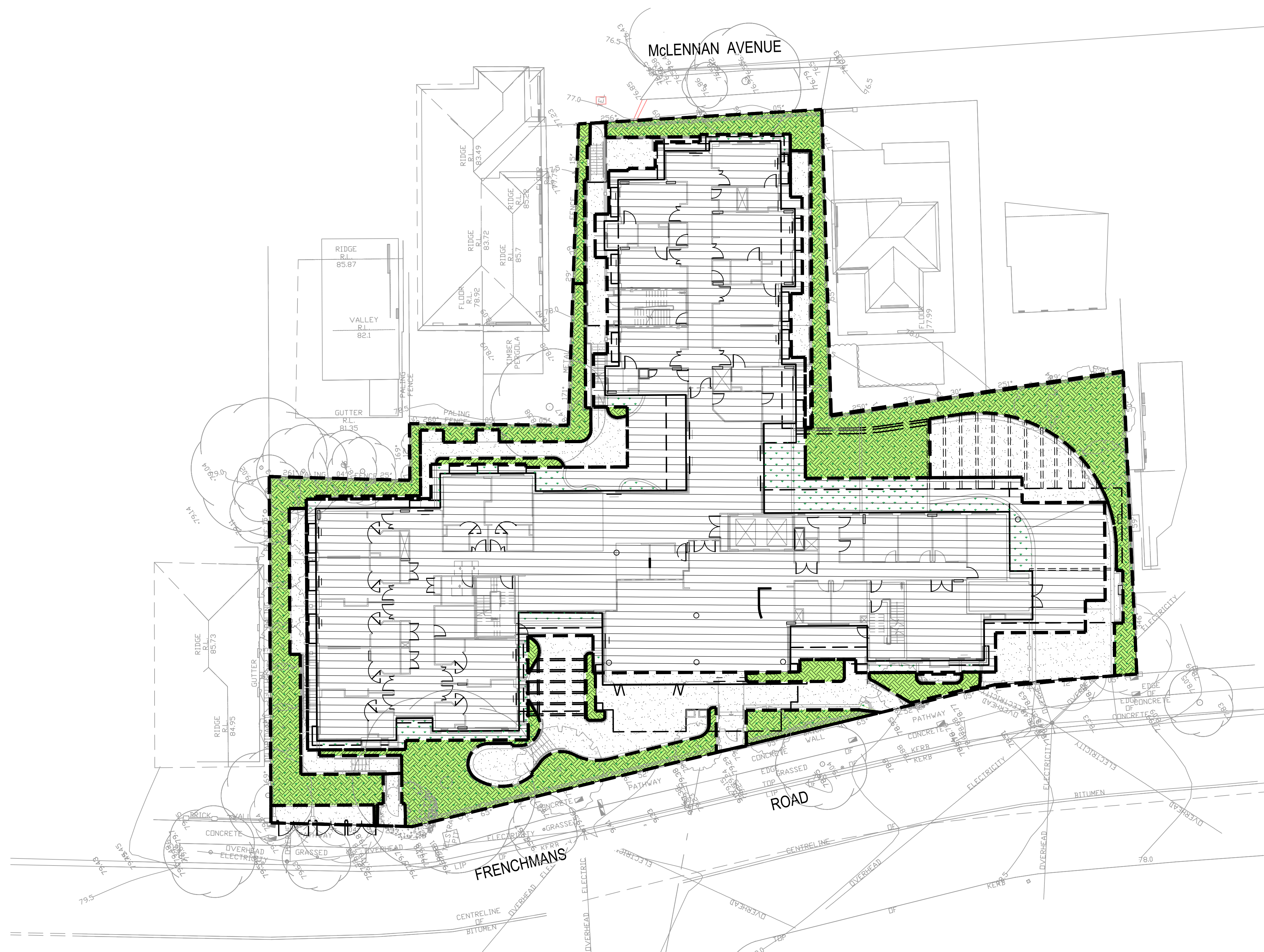
The figure displays three rectangular diagrams, each representing a different roof drainage pattern. Each diagram is enclosed in a dashed black border. The first diagram, labeled 'LANDSCAPE', shows a green field with a black herringbone pattern. The second diagram, labeled 'HARDSTAND', shows a grey field with a black grid pattern. The third diagram, labeled 'ROOF DRAINAGE', shows a white field with a black grid pattern.

Pattern	Area (m²)	Percentage (%)
Landscape	326.2	12.0%
Hardstand	797.9	29.5%
Roof Drainage	1585.6	58.5%



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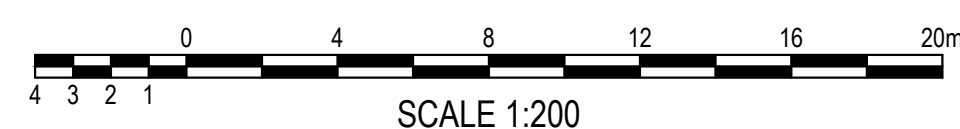


SCALE 1:200

LANDSCAPE
AREA: 528.7m² (19%)

HARDSTAND & ROOF
AREA: 510m² (19%)

ROOF DRAINAGE
AREA: 1671m² (62%)



FOR DA ONLY

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