

**NOTES:**

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING INFRASTRUCTURE AND SERVICING REPORT.
2. REFER TO DRAWING 431-433 FOR CULVERT DETAILS.
3. REFER TO DRAWING 435 FOR OUTLET PROTECTION DETAILS.
4. REFER TO DRAWING 450-457 FOR OVERLAND FLOW DETAILS.

**LEGEND:**

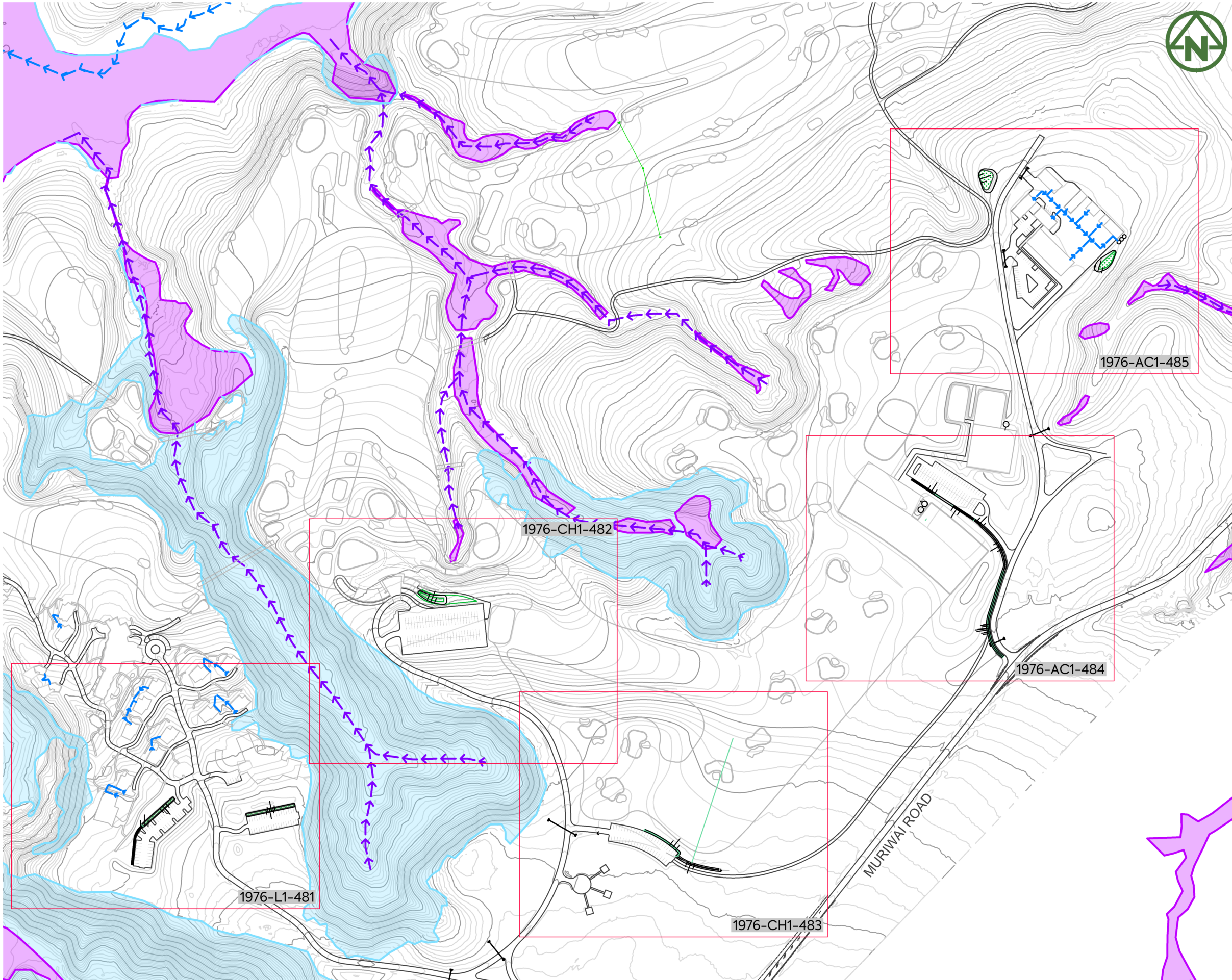
CATCHMENT BOUNDARY	
PROPOSED CULVERT	
OVERLAND FLOW PATH	
FINISHED (5m) MAJOR CONTOUR	
FINISHED (1m) MINOR CONTOUR	
PERMANENT STREAM	
INTERMITTENT STREAM	
EXISTING WETLANDS	

CLIENT:	PROJECT:	TITLE:	PURPOSE OF ISSUE:
THE BEARS HOME PROJECT MANAGEMENT LTD	MURIWAI DOWNS GOLF PROJECT 610 & 697 MURIWAI ROAD MURIWAI VALLEY	PROPOSED DRAINAGE Q100 POST DEVELOPMENT CULVERT CATCHMENT OVERALL PLAN	FOR CONSENT
SCALE: 1:7500 DO NOT SCALE			REV:
DRAWING NO: 1976-1-460			C

C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21
B	SECOND ISSUE	MO	CIM	JSD	05/11/21
A	FIRST ISSUE	MO	CIM	JSD	24/08/21
REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE







**NOTES:**

1. REFER TO 400 SERIES DRAWINGS FOR STORMWATER DRAINAGE DETAILS.
2. FOR PLANTING DETAILS, REFER LANDSCAPE ARCHITECTS DRAWINGS.

**LEGEND:**

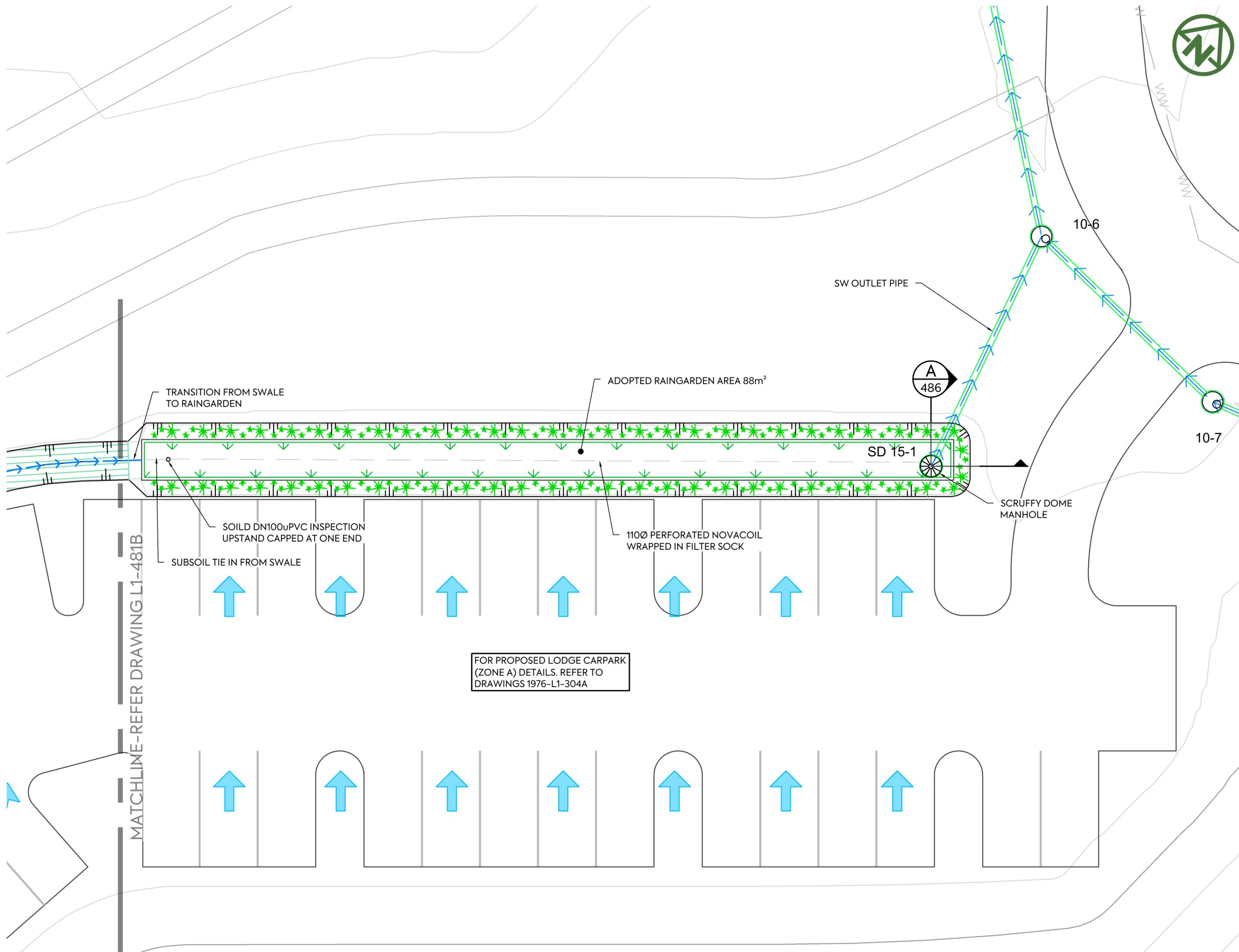
- DIRECTION OF WATER FLOW
- PROPOSED TOP OF BANK
- PROPOSED BOTTOM OF BANK
- PROPOSED LANDSCAPING
- STORMWATER OVERLAND FLOW PATH
- PROPOSED ROCK LINED OUTLET SWALE
- PROPOSED GRASSED SWALE CHANNEL FOR FLOW CONVEYANCE
- FINISHED (5m) MAJOR CONTOUR 75.0
- FINISHED (1m) MINOR CONTOUR
- EXISTING WETLANDS
- MAPPED SEA/ONF (BY ECOLOGIST)

<p>CLIENT:</p> <p style="text-align: center;"><b>THE BEARS HOME PROJECT MANAGEMENT LTD</b></p>	<p>PROJECT:</p> <p style="text-align: center;"><b>MURIWAI DOWNS GOLF PROJECT 610 &amp; 697 MURIWAI ROAD MURIWAI VALLEY</b></p>	<p>TITLE:</p> <p style="text-align: center;"><b>PROPOSED STORMWATER STORMWATER TREATMENT OVERALL PLAN</b></p>	<p>PURPOSE OF ISSUE:</p> <p style="text-align: center;"><b>FOR CONSENT</b></p> <hr/> <p>SCALE: <b>1:4000 @ A3</b></p> <p>DO NOT SCALE</p> <hr/> <p>DRAWING NO. <span style="float: right;">REV:</span></p> <p style="text-align: center;"><b>1976-1-480</b> <span style="float: right;"><b>C</b></span></p>
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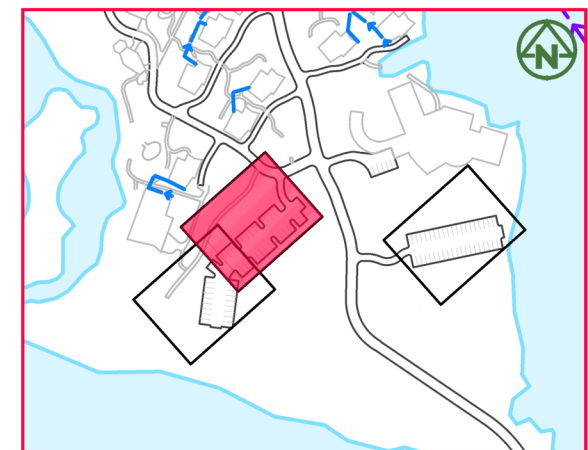
C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21
B	SECOND ISSUE	MO	CIM	JSD	05/11/21
A	FIRST ISSUE	MO	CIM	JSD	24/08/21
REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE



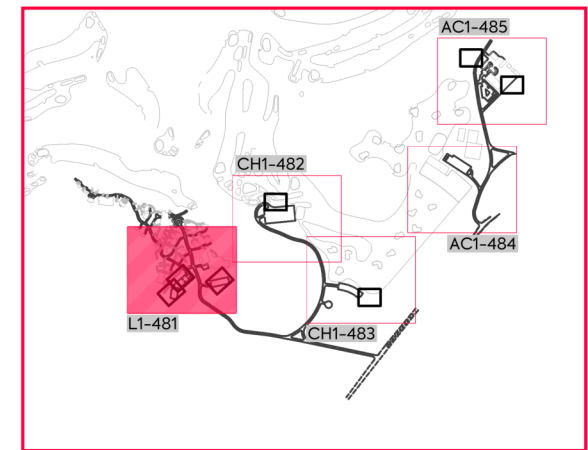




- NOTES:**
- REFER TO 400 SERIES DRAWINGS FOR STORMWATER DRAINAGE DETAILS.
  - FOR PLANTING DETAILS, REFER LANDSCAPE ARCHITECTS DRAWINGS.
- LEGEND:**
- DIRECTION OF WATER FLOW:
  - PROPOSED TOP OF BANK:
  - PROPOSED BOTTOM OF BANK:
  - PROPOSED LANDSCAPING:
  - STORMWATER OVERLAND FLOW PATH:
  - PROPOSED ROCK LINED OUTLET SWALE:
  - PROPOSED GRASSED SWALE CHANNEL FOR FLOW CONVEYANCE:
  - FINISHED (5m) MAJOR CONTOUR:
  - FINISHED (1m) MINOR CONTOUR:
  - EXISTING WETLANDS:
  - MAPPED SEA/ONF (BY ECOLOGIST):



TREATMENT IN SURROUNDING AREA



DRAWING LAYOUT PLAN

PLAN VIEW - LODGE CARPARK ZONE A TREATMENT (OFFLINE RAINGARDEN RG1)  
SCALE: 1:200 @ A3

		CLIENT: <b>THE BEARS HOME PROJECT MANAGEMENT LTD</b>	PROJECT: <b>MURIWAI DOWNS GOLF PROJECT</b> 610 & 697 MURIWAI ROAD MURIWAI VALLEY	TITLE: <b>PROPOSED STORMWATER STORMWATER TREATMENT RAINGARDEN (RG1)</b> <b>SHEET 1</b>	PURPOSE OF ISSUE: <b>FOR CONSENT</b>																		
<table border="0" style="width: 100%; font-size: small;"> <tr> <td style="width: 10%;">C</td> <td style="width: 60%;">ISSUED FOR CONSENT</td> <td style="width: 10%;">MO</td> <td style="width: 10%;">CIM</td> <td style="width: 10%;">JSD</td> <td style="width: 10%;">26/11/21</td> </tr> <tr> <td>B</td> <td>SECOND ISSUE</td> <td>MO</td> <td>CIM</td> <td>JSD</td> <td>05/11/21</td> </tr> <tr> <td>A</td> <td>FIRST ISSUE</td> <td>MO</td> <td>CIM</td> <td>JSD</td> <td>24/08/21</td> </tr> </table>	C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21	B	SECOND ISSUE	MO	CIM	JSD	05/11/21	A	FIRST ISSUE	MO	CIM	JSD	24/08/21					SCALE: <b>1:200 @ A3</b> DO NOT SCALE DRAWING NO.: <b>1976-L1-481A</b> REV: <b>C</b>
C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21																		
B	SECOND ISSUE	MO	CIM	JSD	05/11/21																		
A	FIRST ISSUE	MO	CIM	JSD	24/08/21																		

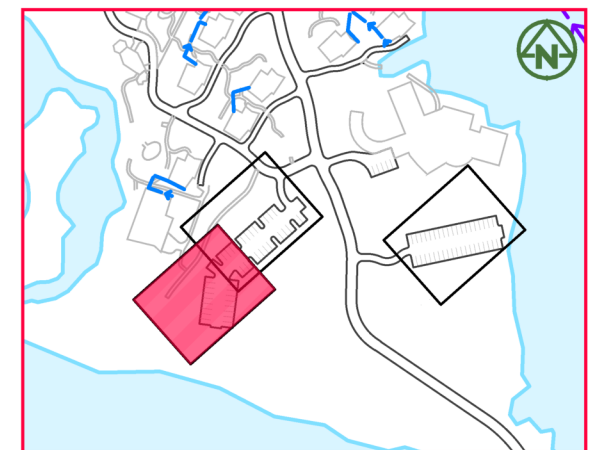
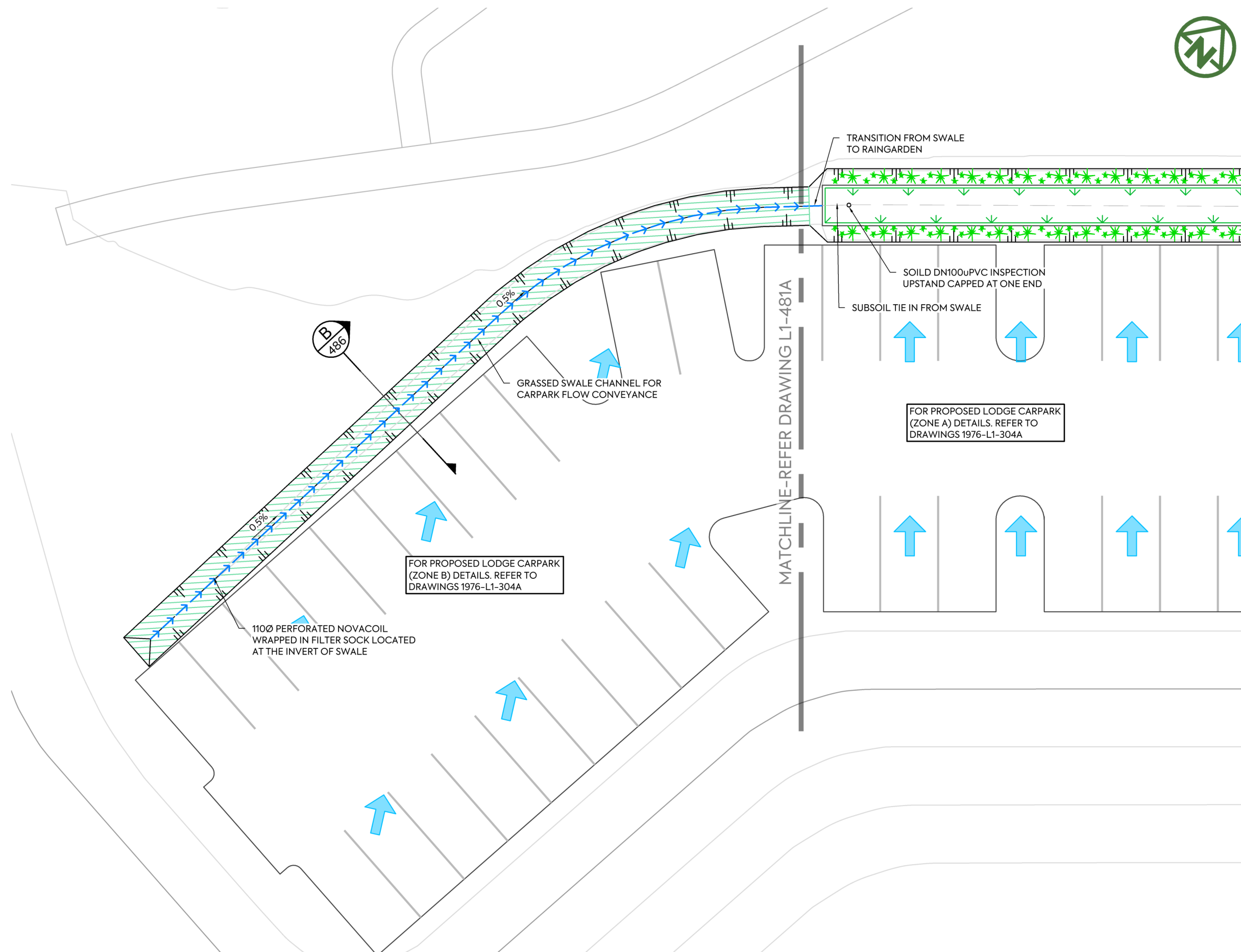


**NOTES:**

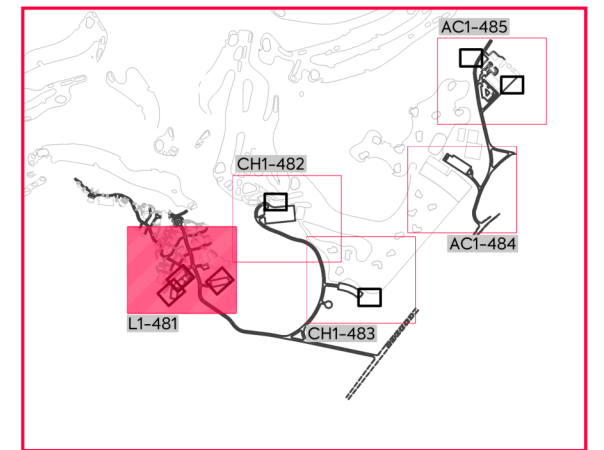
1. REFER TO 400 SERIES DRAWINGS FOR STORMWATER DRAINAGE DETAILS.
2. FOR PLANTING DETAILS, REFER LANDSCAPE ARCHITECTS DRAWINGS.

**LEGEND:**

DIRECTION OF WATER FLOW	
PROPOSED TOP OF BANK	
PROPOSED BOTTOM OF BANK	
PROPOSED LANDSCAPING	
STORMWATER OVERLAND FLOW PATH	
PROPOSED ROCK LINED OUTLET SWALE	
PROPOSED GRASSED SWALE CHANNEL FOR FLOW CONVEYANCE	
FINISHED (5m) MAJOR CONTOUR	
FINISHED (1m) MINOR CONTOUR	
EXISTING WETLANDS	
MAPPED SEA/ONF (BY ECOLOGIST)	



**TREATMENT IN SURROUNDING AREA**



**DRAWING LAYOUT PLAN**

**PLAN VIEW - LODGE CARPARK ZONE B (LINEAR TREATMENT SWALE)**  
SCALE: 1:200 @ A3

	<p>CLIENT: <b>THE BEARS HOME PROJECT MANAGEMENT LTD</b></p>	<p>PROJECT: <b>MURIWAI DOWNS GOLF PROJECT</b> 610 &amp; 697 MURIWAI ROAD MURIWAI VALLEY</p>	<p>TITLE: <b>PROPOSED STORMWATER STORMWATER TREATMENT LINEAR SWALE</b> <b>SHEET 2</b></p>	<p>PURPOSE OF ISSUE: <b>FOR CONSENT</b></p>																		
<table border="0" style="width: 100%; font-size: small;"> <tr> <td>C</td><td>ISSUED FOR CONSENT</td><td>MO</td><td>CIM</td><td>JSD</td><td>26/11/21</td></tr> <tr> <td>B</td><td>SECOND ISSUE</td><td>MO</td><td>CIM</td><td>JSD</td><td>05/11/21</td></tr> <tr> <td>A</td><td>FIRST ISSUE</td><td>MO</td><td>CIM</td><td>JSD</td><td>24/08/21</td></tr> </table>	C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21	B	SECOND ISSUE	MO	CIM	JSD	05/11/21	A	FIRST ISSUE	MO	CIM	JSD	24/08/21				
C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21																	
B	SECOND ISSUE	MO	CIM	JSD	05/11/21																	
A	FIRST ISSUE	MO	CIM	JSD	24/08/21																	
<table border="0" style="width: 100%;"> <tr> <td>REV</td><td>DESCRIPTION</td><td>DRN BY</td><td>CHK BY</td><td>APP BY</td><td>DATE</td></tr> </table>	REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE				<table border="0" style="width: 100%;"> <tr> <td>SCALE: <b>1:200 @ A3</b></td> <td>REV:</td> </tr> <tr> <td>DO NOT SCALE</td> <td></td> </tr> <tr> <td>DRAWING NO: <b>1976-L1-481B</b></td> <td><b>C</b></td> </tr> </table>	SCALE: <b>1:200 @ A3</b>	REV:	DO NOT SCALE		DRAWING NO: <b>1976-L1-481B</b>	<b>C</b>						
REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE																	
SCALE: <b>1:200 @ A3</b>	REV:																					
DO NOT SCALE																						
DRAWING NO: <b>1976-L1-481B</b>	<b>C</b>																					



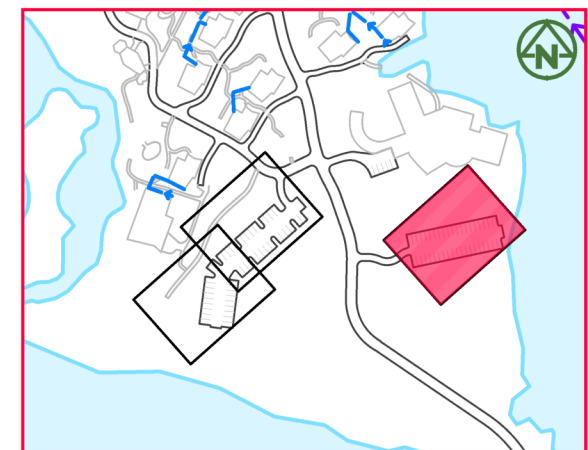


**NOTES:**

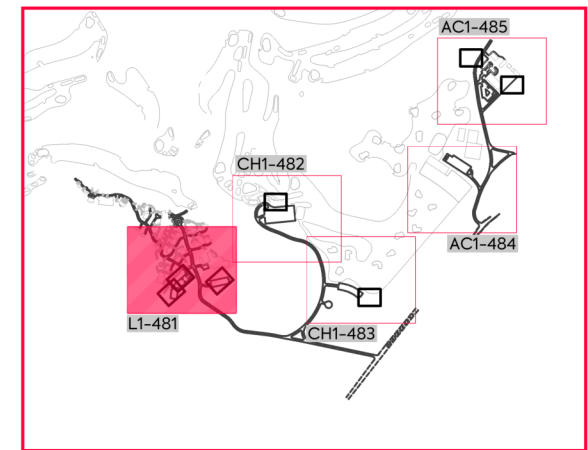
1. REFER TO 400 SERIES DRAWINGS FOR STORMWATER DRAINAGE DETAILS.
2. FOR PLANTING DETAILS, REFER LANDSCAPE ARCHITECTS DRAWINGS.

**LEGEND:**

- DIRECTION OF WATER FLOW
- PROPOSED TOP OF BANK
- PROPOSED BOTTOM OF BANK
- PROPOSED LANDSCAPING
- STORMWATER OVERLAND FLOW PATH
- PROPOSED ROCK LINED OUTLET SWALE
- PROPOSED GRASSED SWALE CHANNEL FOR FLOW CONVEYANCE
- FINISHED (5m) MAJOR CONTOUR
- FINISHED (1m) MINOR CONTOUR
- EXISTING WETLANDS
- MAPPED SEA/ONF (BY ECOLOGIST)



**TREATMENT IN SURROUNDING AREA**

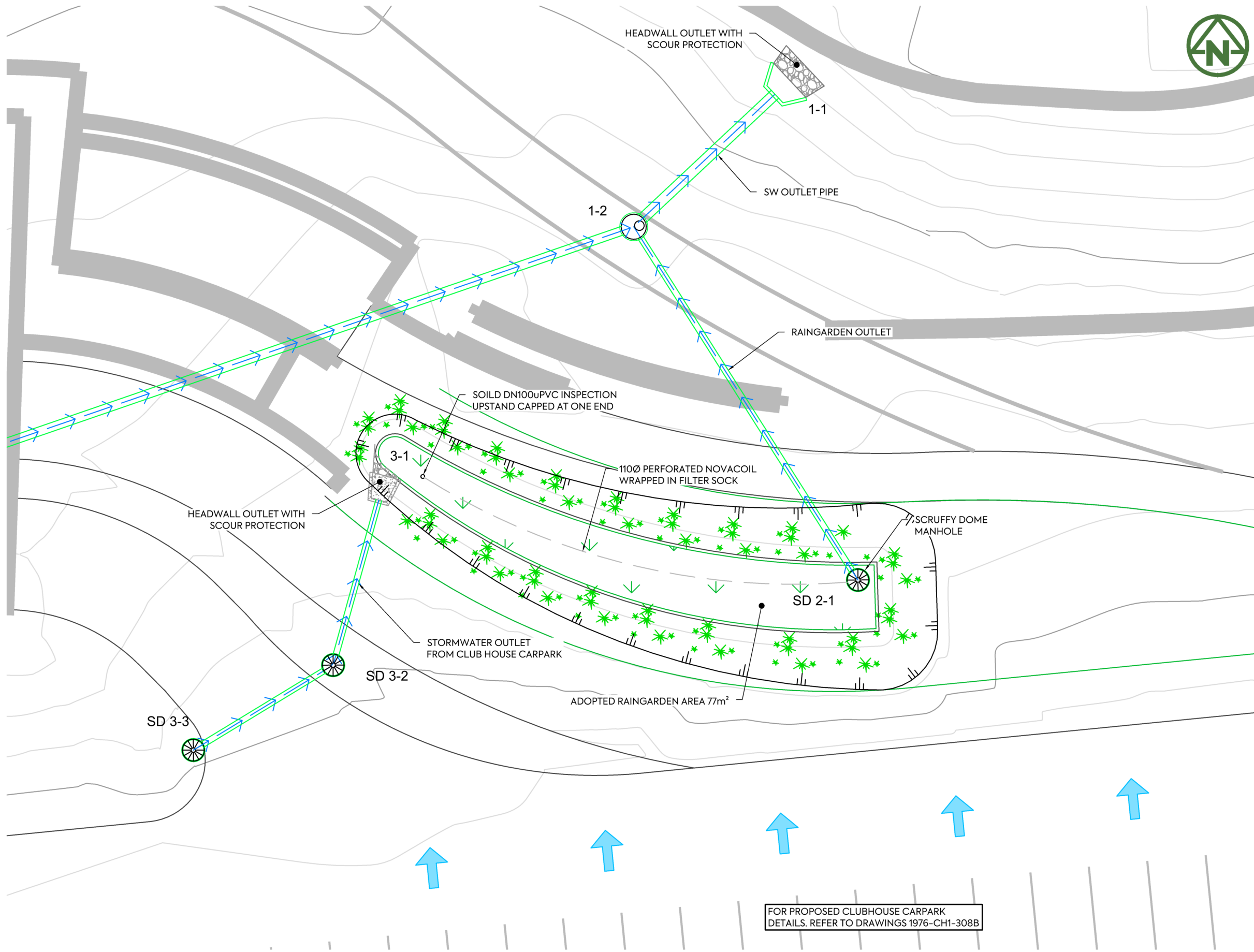


**DRAWING LAYOUT PLAN**

**PLAN VIEW - STAFF CARPARK TREATMENT (OFFLINE RAINGARDEN RG2)**  
SCALE: 1:200 @ A3

	<p>CLIENT: <b>THE BEARS HOME PROJECT MANAGEMENT LTD</b></p>	<p>PROJECT: <b>MURIWAI DOWNS GOLF PROJECT</b> 610 &amp; 697 MURIWAI ROAD MURIWAI VALLEY</p>	<p>TITLE: <b>PROPOSED STORMWATER STORMWATER TREATMENT RAINGARDEN (RG2)</b> <b>SHEET 3</b></p>	<p>PURPOSE OF ISSUE: <b>FOR CONSENT</b></p>																		
				<p>SCALE: <b>1:200 @ A3</b></p> <p>DO NOT SCALE</p> <p>DRAWING NO: <b>1976-L1-481C</b></p>																		
<table border="0" style="width: 100%; font-size: small;"> <tr> <td style="width: 10%;">C</td> <td style="width: 60%;">ISSUED FOR CONSENT</td> <td style="width: 10%;">MO</td> <td style="width: 10%;">CIM</td> <td style="width: 10%;">JSD</td> <td style="width: 10%;">26/11/21</td> </tr> <tr> <td>B</td> <td>SECOND ISSUE</td> <td>MO</td> <td>CIM</td> <td>JSD</td> <td>05/11/21</td> </tr> <tr> <td>A</td> <td>FIRST ISSUE</td> <td>MO</td> <td>CIM</td> <td>JSD</td> <td>24/08/21</td> </tr> </table>	C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21	B	SECOND ISSUE	MO	CIM	JSD	05/11/21	A	FIRST ISSUE	MO	CIM	JSD	24/08/21				<p>REV: <b>C</b></p>
C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21																	
B	SECOND ISSUE	MO	CIM	JSD	05/11/21																	
A	FIRST ISSUE	MO	CIM	JSD	24/08/21																	



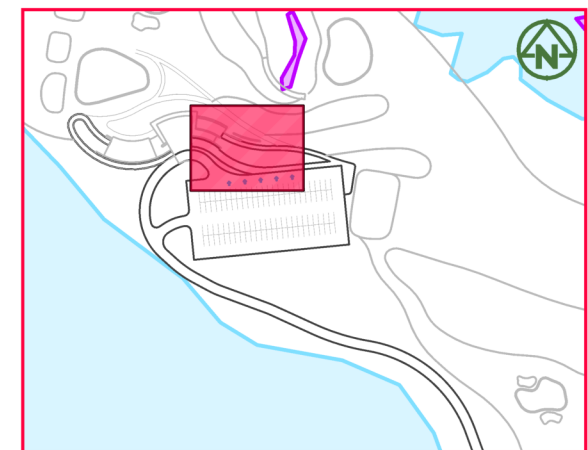


**NOTES:**

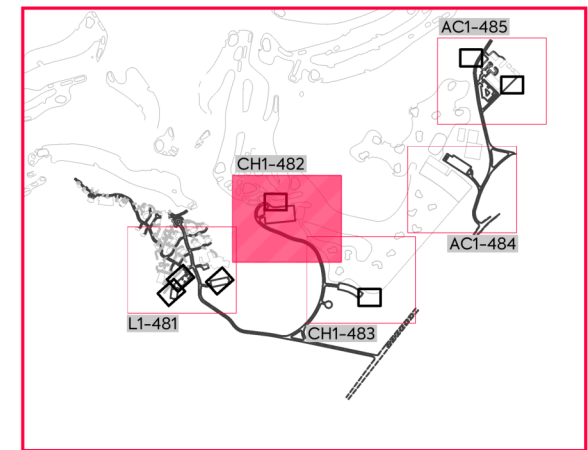
1. REFER TO 400 SERIES DRAWINGS FOR STORMWATER DRAINAGE DETAILS.
2. FOR PLANTING DETAILS, REFER LANDSCAPE ARCHITECTS DRAWINGS.

**LEGEND:**

- DIRECTION OF WATER FLOW
- PROPOSED TOP OF BANK
- PROPOSED BOTTOM OF BANK
- PROPOSED LANDSCAPING
- STORMWATER OVERLAND FLOW PATH
- PROPOSED ROCK LINED OUTLET SWALE
- PROPOSED GRASSED SWALE CHANNEL FOR FLOW CONVEYANCE
- FINISHED (5m) MAJOR CONTOUR
- FINISHED (1m) MINOR CONTOUR
- EXISTING WETLANDS
- MAPPED SEA/ONF (BY ECOLOGIST)



**TREATMENT IN SURROUNDING AREA**



**DRAWING LAYOUT PLAN**

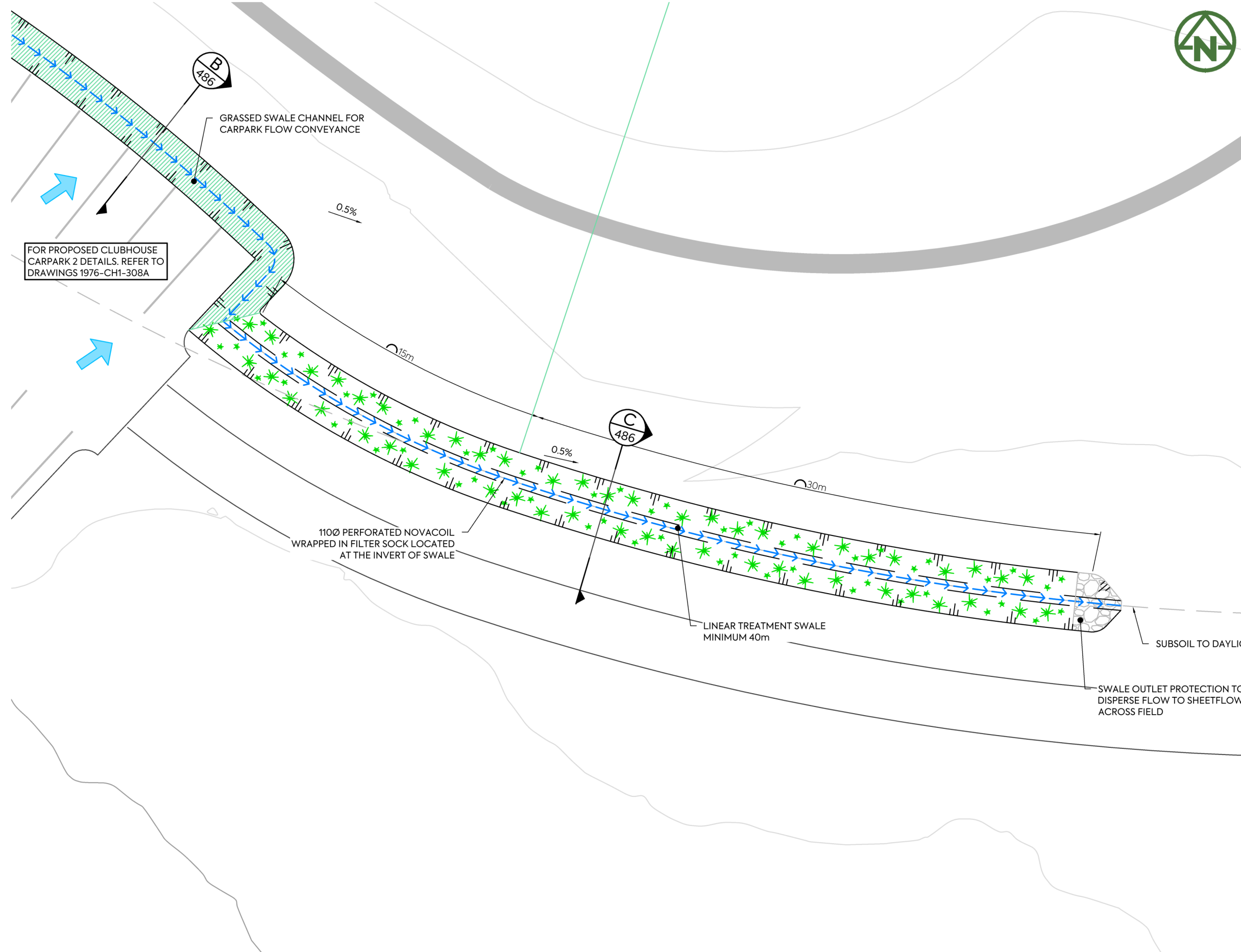
**PLAN VIEW - CLUBHOUSE CARPARK TREATMENT (OFFLINE RAINGARDEN RG3)**

SCALE: 1:200 @ A3

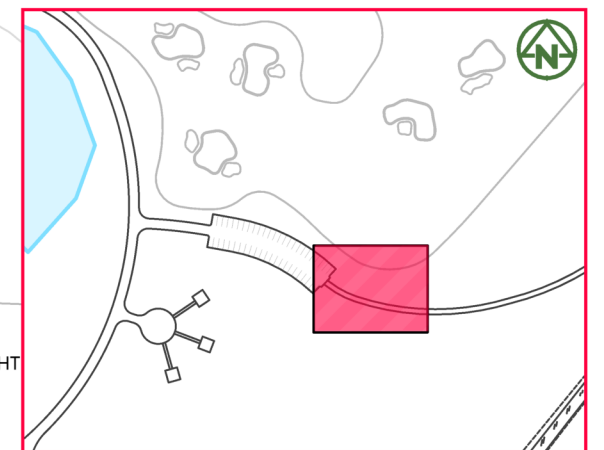
FOR PROPOSED CLUBHOUSE CARPARK DETAILS. REFER TO DRAWINGS 1976-CH1-308B

	<p>CLIENT: <b>THE BEARS HOME PROJECT MANAGEMENT LTD</b></p>	<p>PROJECT: <b>MURIWAI DOWNS GOLF PROJECT</b> 610 &amp; 697 MURIWAI ROAD MURIWAI VALLEY</p>	<p>TITLE: <b>PROPOSED STORMWATER STORMWATER TREATMENT RAINGARDEN (RG3)</b> SHEET 4</p>	<p>PURPOSE OF ISSUE: <b>FOR CONSENT</b></p>																		
<table border="0" style="width: 100%; font-size: small;"> <tr> <td>C</td><td>ISSUED FOR CONSENT</td><td>MO</td><td>CIM</td><td>JSD</td><td>26/11/21</td></tr> <tr> <td>B</td><td>SECOND ISSUE</td><td>MO</td><td>CIM</td><td>JSD</td><td>05/11/21</td></tr> <tr> <td>A</td><td>FIRST ISSUE</td><td>MO</td><td>CIM</td><td>JSD</td><td>24/08/21</td></tr> </table>	C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21	B	SECOND ISSUE	MO	CIM	JSD	05/11/21	A	FIRST ISSUE	MO	CIM	JSD	24/08/21				
C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21																	
B	SECOND ISSUE	MO	CIM	JSD	05/11/21																	
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REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE																	
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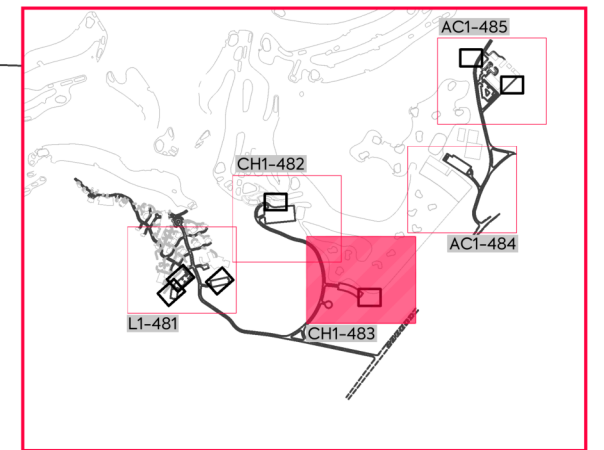




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  - FOR PLANTING DETAILS, REFER LANDSCAPE ARCHITECTS DRAWINGS.
- LEGEND:**
- DIRECTION OF WATER FLOW
  - PROPOSED TOP OF BANK
  - PROPOSED BOTTOM OF BANK
  - PROPOSED LANDSCAPING
  - STORMWATER OVERLAND FLOW PATH
  - PROPOSED ROCK LINED OUTLET SWALE
  - PROPOSED GRASSED SWALE CHANNEL FOR FLOW CONVEYANCE
  - FINISHED (5m) MAJOR CONTOUR
  - FINISHED (1m) MINOR CONTOUR
  - EXISTING WETLANDS
  - MAPPED SEA/ONF (BY ECOLOGIST)



TREATMENT IN SURROUNDING AREA

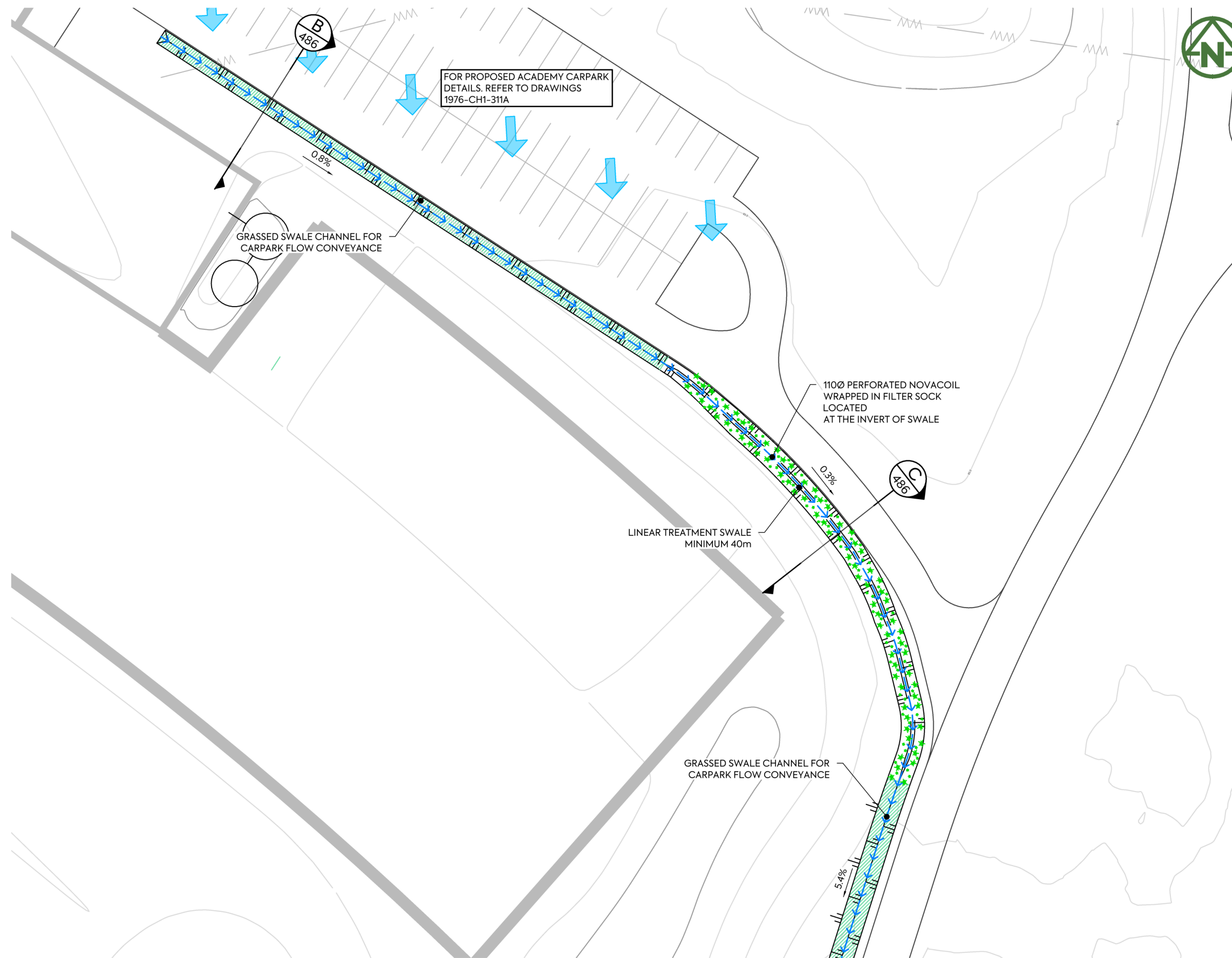


DRAWING LAYOUT PLAN

PLAN VIEW - CLUBHOUSE CARPARK 2 TREATMENT (LINEAR TREATMENT SWALE)  
SCALE: 1:200 @ A3

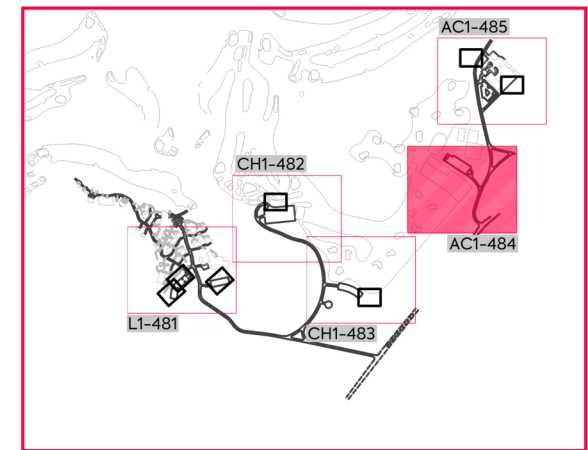
	<p>CLIENT: THE BEARS HOME PROJECT MANAGEMENT LTD</p>	<p>PROJECT: MURIWAI DOWNS GOLF PROJECT 610 &amp; 697 MURIWAI ROAD MURIWAI VALLEY</p>	<p>TITLE: PROPOSED STORMWATER STORMWATER TREATMENT LINEAR SWALE SHEET 5</p>	<p>PURPOSE OF ISSUE: FOR CONSENT</p>																		
<table border="0" style="width: 100%; font-size: small;"> <tr> <td>C</td><td>ISSUED FOR CONSENT</td><td>MO</td><td>CIM</td><td>JSD</td><td>26/11/21</td></tr> <tr> <td>B</td><td>SECOND ISSUE</td><td>MO</td><td>CIM</td><td>JSD</td><td>05/11/21</td></tr> <tr> <td>A</td><td>FIRST ISSUE</td><td>MO</td><td>CIM</td><td>JSD</td><td>24/08/21</td></tr> </table>	C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21	B	SECOND ISSUE	MO	CIM	JSD	05/11/21	A	FIRST ISSUE	MO	CIM	JSD	24/08/21				
C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21																	
B	SECOND ISSUE	MO	CIM	JSD	05/11/21																	
A	FIRST ISSUE	MO	CIM	JSD	24/08/21																	
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REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE																	
SCALE: 1:200 @ A3	REV:																					
DO NOT SCALE																						
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  - FOR PLANTING DETAILS, REFER LANDSCAPE ARCHITECTS DRAWINGS.
- LEGEND:**
- DIRECTION OF WATER FLOW:
  - PROPOSED TOP OF BANK:
  - PROPOSED BOTTOM OF BANK:
  - PROPOSED LANDSCAPING:
  - STORMWATER OVERLAND FLOW PATH:
  - PROPOSED ROCK LINED OUTLET SWALE:
  - PROPOSED GRASSED SWALE CHANNEL FOR FLOW CONVEYANCE:
  - FINISHED (5m) MAJOR CONTOUR:
  - FINISHED (1m) MINOR CONTOUR:
  - EXISTING WETLANDS:
  - MAPPED SEA/ONF (BY ECOLOGIST):

**PLAN VIEW - ACEDEMY CARPARK (LINEAR TREATMENT SWALE)**  
SCALE: 1:500 @ A3



**DRAWING LAYOUT PLAN**

		CLIENT: <b>THE BEARS HOME PROJECT MANAGEMENT LTD</b>	PROJECT: <b>MURIWAI DOWNS GOLF PROJECT 610 &amp; 697 MURIWAI ROAD MURIWAI VALLEY</b>	TITLE: <b>PROPOSED STORMWATER STORMWATER TREATMENT LINEAR SWALE SHEET 6</b>	PURPOSE OF ISSUE: <b>FOR CONSENT</b>																		
<table border="0" style="width: 100%; font-size: small;"> <tr> <td style="width: 10%;">C</td> <td style="width: 60%;">ISSUED FOR CONSENT</td> <td style="width: 10%;">MO</td> <td style="width: 10%;">CIM</td> <td style="width: 10%;">JSD</td> <td style="width: 10%;">26/11/21</td> </tr> <tr> <td>B</td> <td>SECOND ISSUE</td> <td>MO</td> <td>CIM</td> <td>JSD</td> <td>05/11/21</td> </tr> <tr> <td>A</td> <td>FIRST ISSUE</td> <td>MO</td> <td>CIM</td> <td>JSD</td> <td>24/08/21</td> </tr> </table>	C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21	B	SECOND ISSUE	MO	CIM	JSD	05/11/21	A	FIRST ISSUE	MO	CIM	JSD	24/08/21					SCALE: <b>1:500 @ A3</b> DO NOT SCALE DRAWING NO: <b>1976-AC1-484</b> REV: <b>C</b>
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B	SECOND ISSUE	MO	CIM	JSD	05/11/21																		
A	FIRST ISSUE	MO	CIM	JSD	24/08/21																		



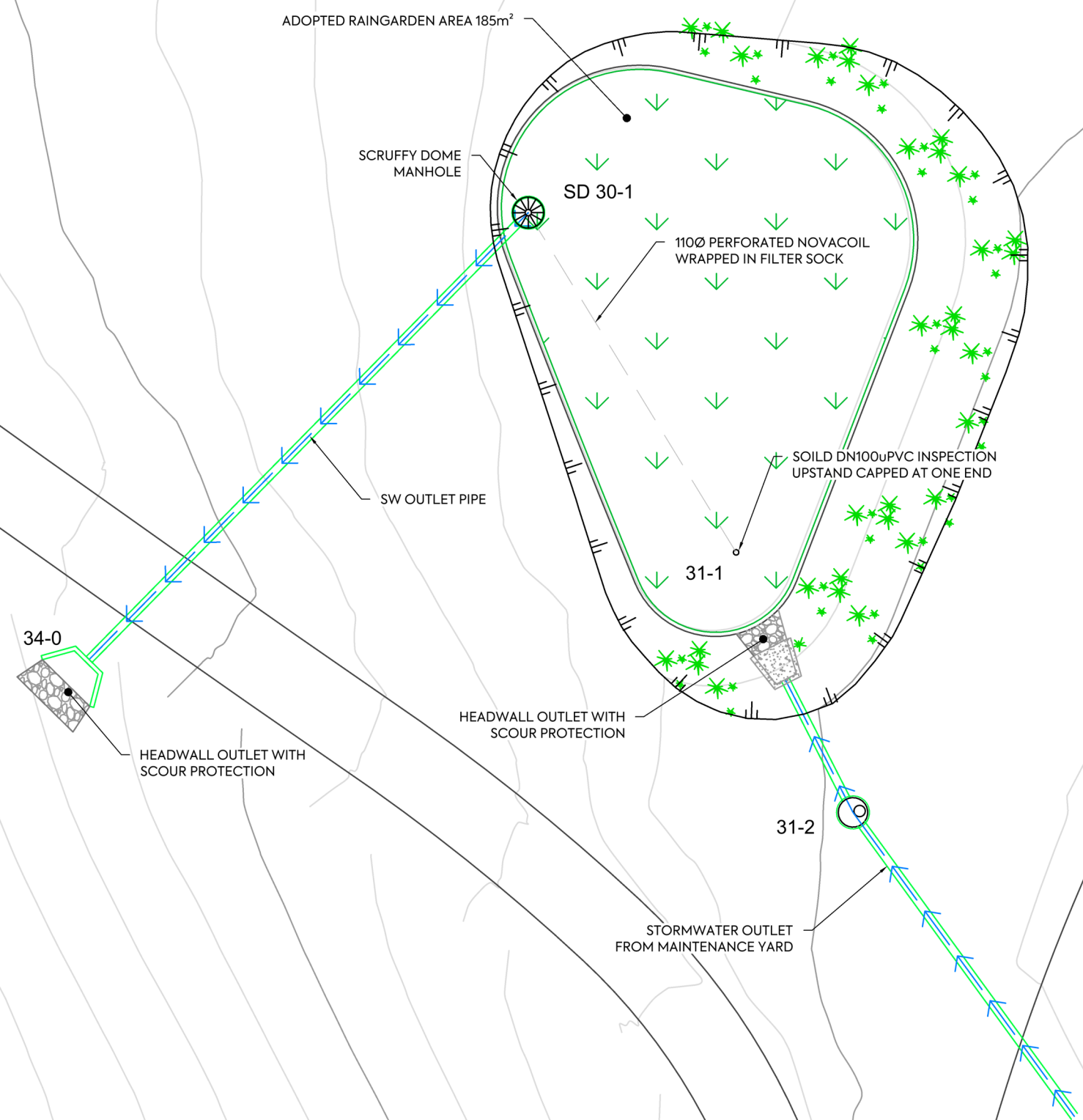


**NOTES:**

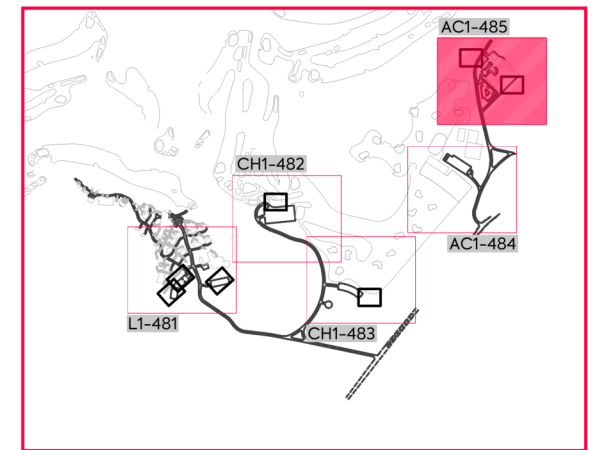
- 1. REFER TO 400 SERIES DRAWINGS FOR STORMWATER DRAINAGE DETAILS.
- 2. FOR PLANTING DETAILS, REFER LANDSCAPE ARCHITECTS DRAWINGS.

**LEGEND:**

DIRECTION OF WATER FLOW	
PROPOSED TOP OF BANK	
PROPOSED BOTTOM OF BANK	
PROPOSED LANDSCAPING	
STORMWATER OVERLAND FLOW PATH	
PROPOSED ROCK LINED OUTLET SWALE	
PROPOSED GRASSED SWALE CHANNEL FOR FLOW CONVEYANCE	
FINISHED (5m) MAJOR CONTOUR	
FINISHED (1m) MINOR CONTOUR	
EXISTING WETLANDS	
MAPPED SEA/ONF (BY ECOLOGIST)	



**TREATMENT IN SURROUNDING AREA**



**DRAWING LAYOUT PLAN**

**PLAN VIEW - MAINTENANCE YARD CARPARK TREATMENT (OFFLINE RAINGARDEN RG4)**

SCALE: 1:200 @ A3

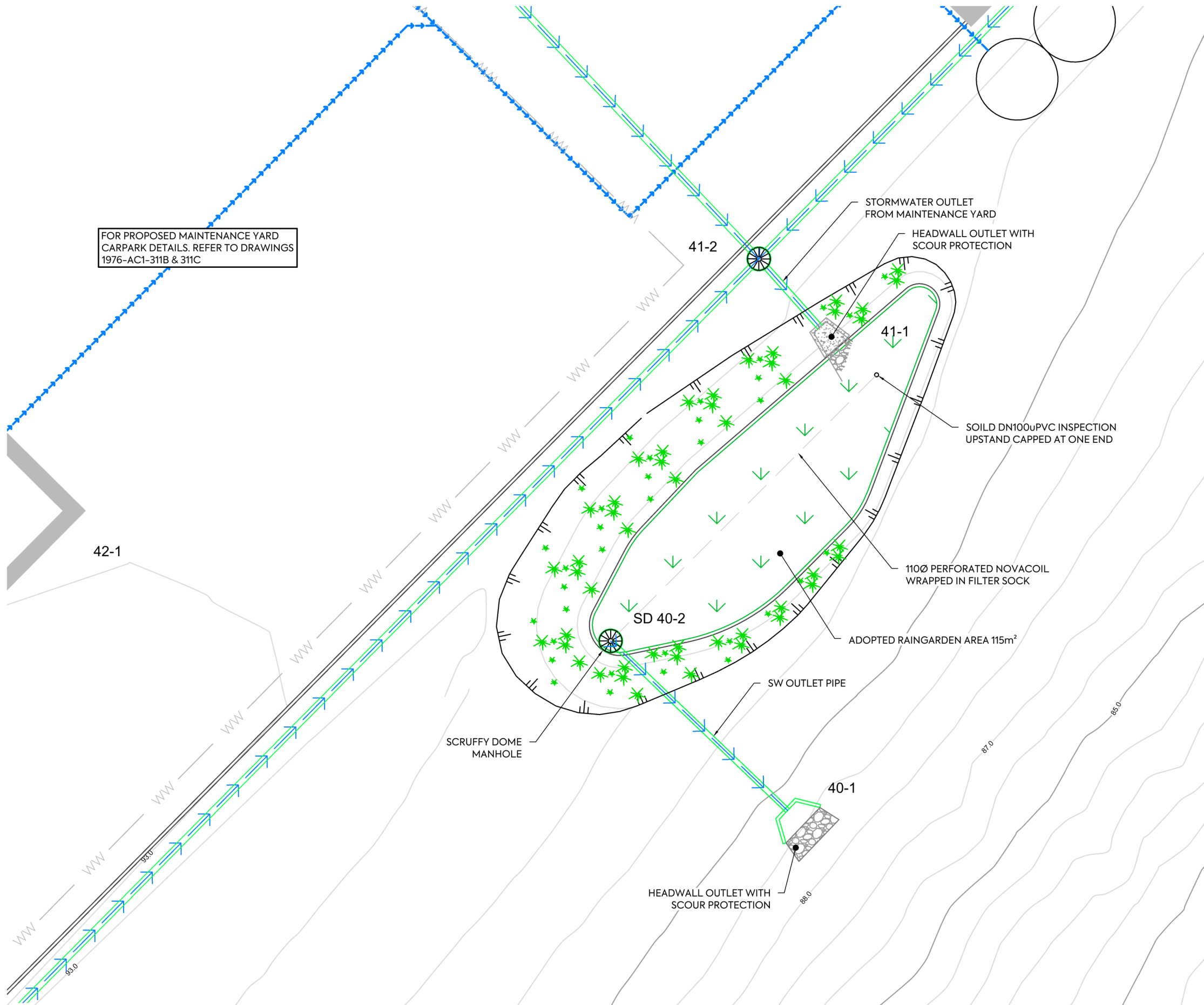
FOR PROPOSED MAINTENANCE YARD CARPARK DETAILS. REFER TO DRAWINGS 1976-AC1-311B & 311C

	CLIENT: <b>THE BEARS HOME PROJECT MANAGEMENT LTD</b>	PROJECT: <b>MURIWAI DOWNS GOLF PROJECT 610 &amp; 697 MURIWAI ROAD MURIWAI VALLEY</b>	TITLE: <b>PROPOSED STORMWATER STORMWATER TREATMENT RAINGARDEN (RG4) SHEET 7</b>	PURPOSE OF ISSUE: <b>FOR CONSENT</b>
				SCALE: <b>1:200 @ A3</b>
				DO NOT SCALE
				DRAWING NO.: <b>1976-AC1-485A</b>
				REV: <b>C</b>



C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21
B	SECOND ISSUE	MO	CIM	JSD	05/11/21
A	FIRST ISSUE	MO	CIM	JSD	24/08/21
REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE



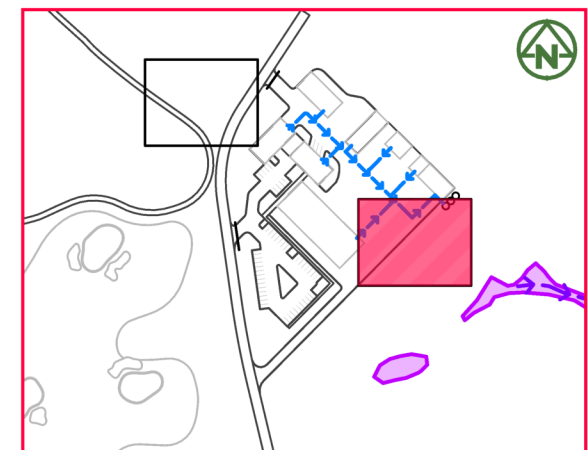


**NOTES:**

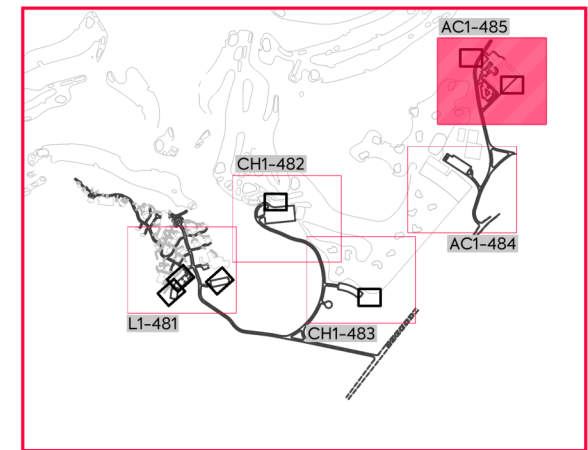
- REFER TO 400 SERIES DRAWINGS FOR STORMWATER DRAINAGE DETAILS.
- FOR PLANTING DETAILS, REFER LANDSCAPE ARCHITECTS DRAWINGS.

**LEGEND:**

- DIRECTION OF WATER FLOW
- PROPOSED TOP OF BANK
- PROPOSED BOTTOM OF BANK
- PROPOSED LANDSCAPING
- STORMWATER OVERLAND FLOW PATH
- PROPOSED ROCK LINED OUTLET SWALE
- PROPOSED GRASSED SWALE CHANNEL FOR FLOW CONVEYANCE
- FINISHED (5m) MAJOR CONTOUR
- FINISHED (1m) MINOR CONTOUR
- EXISTING WETLANDS
- MAPPED SEA/ONF (BY ECOLOGIST)



**TREATMENT IN SURROUNDING AREA**



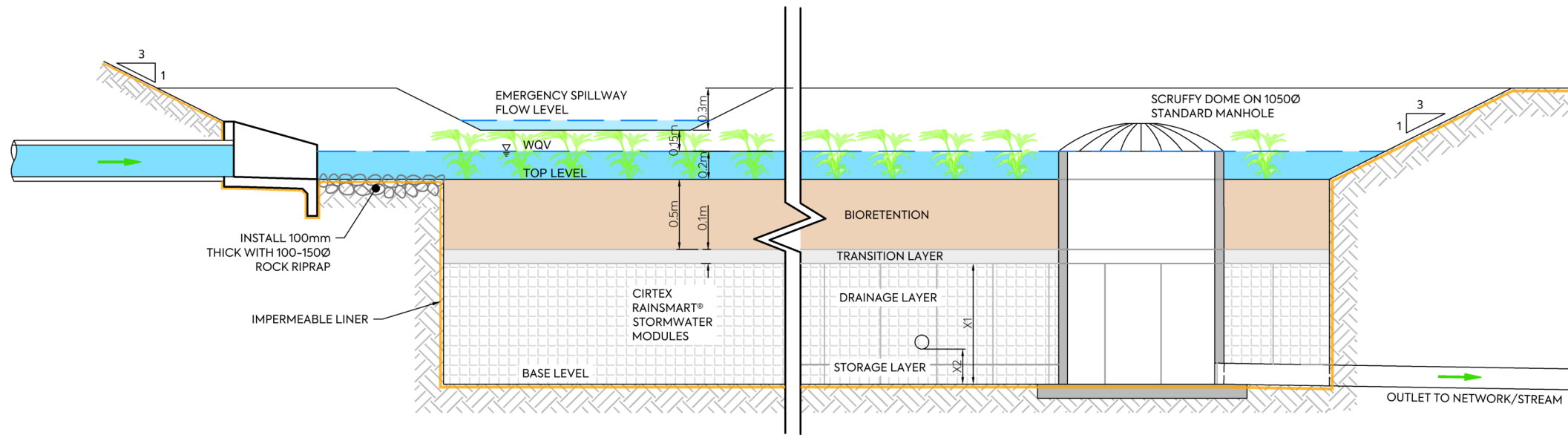
**DRAWING LAYOUT PLAN**

**PLAN VIEW - MAINTENANCE YARD CARPARK TREATMENT (OFFLINE RAINGARDEN RG5)**

SCALE: 1:200 @ A3

				CLIENT: <b>THE BEARS HOME PROJECT MANAGEMENT LTD</b>	PROJECT: <b>MURIWAI DOWNS GOLF PROJECT          610 &amp; 697 MURIWAI ROAD          MURIWAI VALLEY</b>	TITLE: <b>PROPOSED STORMWATER          STORMWATER TREATMENT          RAINGARDEN (RG5)          SHEET 8</b>	PURPOSE OF ISSUE: <b>FOR CONSENT</b>
C ISSUED FOR CONSENT B SECOND ISSUE A FIRST ISSUE	MO CIM JSD 26/11/21 MO CIM JSD 05/11/21 MO CIM JSD 24/08/21	DRN BY CHK BY APP BY DATE	MO CIM JSD 26/11/21 MO CIM JSD 05/11/21 MO CIM JSD 24/08/21	SCALE: 1:200 @ A3 DO NOT SCALE DRAWING NO: 1976-AC1-485B REV: C			



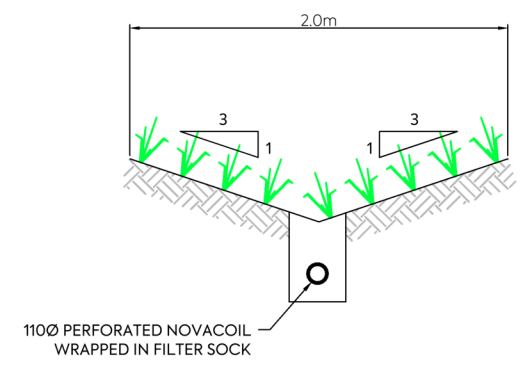


PONDING LAYER: 200 mm  
 MULCH LAYER: 50-75 mm MEDIA AS PER TABLE 51 (GD01)  
 BIORETENTION MEDIA: 500 mm  
 TRANSITION LAYER: 100 mm CLEAN 2 - 7 mm GRAVEL  
 DRAINAGE LAYER: CIRTEX RAINSMART® STORMWATER MODULES  
 STORAGE LAYER: CIRTEX RAINSMART® STORMWATER MODULES

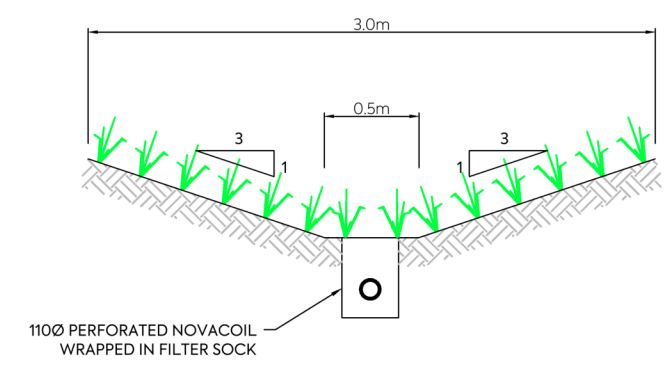
RAINGARDEN NAME	Cirtex RAINSMART® stormwater			Minimum pipe depth (X2)
	Width	Length	Height (X1)	
RG 1	0.400	0.715	0.44	0.09
RG 2	0.400	0.715	0.44	0.05
RG 3	0.400	0.715	0.44	0.16
RG 4	0.400	0.715	0.44	0.17
RG 5	0.400	0.715	0.44	0.14

**A** TYPICAL SECTION - RAINGARDEN PROFILE  
 SCALE: 1:20 @ A1  
 1:40 @ A3

RAINGARDEN NAME	Cirtex RAINSMART® stormwater modules		RAINGARDEN DESIGN				
	W	L	Area	RG Top	WQV Level	RG Base	
	m	m	m <sup>2</sup>	RL	RL	RL	
RG 1	width: 0.400 length: 0.715	1.80	41.70	88.00	87.75	87.95	86.71
RG 2	width: 0.400 length: 0.715	1.80	43.60	78.00	95.77	95.97	94.73
RG 3	width: 0.400 length: 0.715	IRREGULAR SHAPE		77.00	77.88	78.08	76.84
RG 4	width: 0.400 length: 0.715	IRREGULAR SHAPE		185.00	88.00	88.20	86.96
RG 5	width: 0.400 length: 0.715	IRREGULAR SHAPE		126.00	90.70	90.90	89.66



**B** TYPICAL SECTION - LINEAR CONVEYANCE SWALE  
 SCALE: 1:20 @ A1  
 1:40 @ A3



**C** TYPICAL SECTION - LINEAR TREATMENT SWALE  
 SCALE: 1:20 @ A1  
 1:40 @ A3

REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE
C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21
B	SECOND ISSUE	MO	CIM	JSD	05/11/21
A	FIRST ISSUE	MO	CIM	JSD	24/08/21



CLIENT: THE BEARS HOME PROJECT MANAGEMENT LTD

PROJECT: MURIWAI DOWNS GOLF PROJECT  
 610 & 697 MURIWAI ROAD  
 MURIWAI VALLEY

TITLE: PROPOSED STORMWATER STORMWATER TREATMENT TYPICAL DETAILS

PURPOSE OF ISSUE: FOR CONSENT  
 SCALE: 1:200 @ A3  
 DO NOT SCALE  
 DRAWING NO: 1976-1-486  
 REV: C



